

Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: Elijah's Landing Apartments

Project Location: 3200 Bridges Street, Morehead City, Carteret County, NC 28557

Federal Agency: U.S. Department of Housing & Urban Development (HUD)

Responsible Entity: North Carolina Office of Recovery and Resiliency (NCORR)

Project Administrator: North Carolina Housing Finance Agency (NCHFA)

Grant Recipient: Elijah's Landing, LLC

State/Local Identifier: B-19-DV-37-0001 and B-19-DV-37-0002

Preparer: Andrea Gievers, Environmental SME, NCORR

Certifying Officer Name and Title: Laura H. Hogshead, Director, NCORR

Consultant: Atlantic Shores Environmental Services Ltd.

Direct Comments to:

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Project Location:

The proposed project site is located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 (Subject Property). The approximately 11.64-acre site is identified as Carteret County Parcel ID number 637615648235000 owned by Elijah's Landing of MHC LLC. The Subject Property has frontage along Bridges Road to the south. (See **Attachment 1: Proposed Project Location Maps.**)

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Elijah's Landing Apartments ("proposed project") involves new construction of a 168-unit multifamily affordable housing complex with seven 24-unit, three-story residential buildings, a clubhouse, gazebo, covered picnic area, boardwalk, playground, tot lot, dog park, green open spaces, paved parking areas, landscaped areas, three stormwater retention ponds, and associated infrastructure. The affordable apartment complex will consist of a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. (See **Attachment 1: Site Plans.**)

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

The Elijah's Landing Apartments project will provide affordable housing options to the residents of Morehead City, North Carolina. More affordable housing options are needed to address the shortage in inventory exacerbated by the effects of the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). The availability of affordable housing to lower income families was reduced by these storm events which disproportionately affected older, more affordable housing stock, leaving it uninhabitable. The proposed project will provide an opportunity to create much needed affordable housing in the Morehead City community.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The Subject Property is currently vacant land, with a dilapidated storage building constructed in 1982 (See **Attachment 1A: Site Visit Photographs**). The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. Commercial and residential properties surround the Subject Property. The Subject Property and a portion of the eastern adjoining and western adjoining properties appear to have been initially developed as agricultural property some time prior to 1938. A single-wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. The southern part of the Subject Property has been vacant since that time. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The northern portion of the Subject Property was historically used as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in

other areas.

The surrounding properties were primarily agricultural in 1960s. However, the area transitioned to residential and commercial development in the early 1980s. Currently, properties located west of the Subject Property are multifamily residential and commercial office buildings including the Commerce Plaza. Properties located east of the Subject Property are a mix of commercial uses (boutique, restaurant, and construction contractor, and single-family residential (Willis Mobile Home Park). Properties located north of the Subject Property includes Calico Creek, undeveloped land then single-family residential. Properties located south of the Subject Property consist of Bridges Street and a mix of residential, light industrial (welding), and commercial properties (jewelry, car dealership, etc.).

Funding Information

Grant Number	HUD Program	Funding Amount
B-19-DV-37-0001 and B-19-DV-37-0002	CDBG-DR	\$8,300,000.00

Estimated Total HUD Funded Amount: \$8,300,000.00

Non-HUD Funding Source: FHA Mortgage

Non-HUD Funding Amount: \$14,671,000.00

Non-HUD Funding Source: Federal LIHTC

Non-HUD Funding Amount: \$13,550,130.00

Non-HUD Funding Source: Deferred Developer Fee

Non-HUD Funding Amount: \$68.00

Estimated Total Non-HUD Funded Amount: \$28,221,198.00

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$36,521,198.00

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>Based on guidance provided by HUD Fact Sheet #D1, the National Plan of Integrated Airport Systems (NPIAS) was reviewed for airports located near the Subject Property. The Subject Property is not located within 2,500 feet of a civilian, commercial service airport or 15,000 feet of a military airfield. The closest civilian airport is the Michael J. Smith Field, located approximately 23,232 feet (4.44 miles) to the east of the Subject Property. Based on the distance, this facility is not considered an airport hazard for the Subject Property. The proposed project is in compliance with this section.</p> <p>Attachment 2: NEPAAssist Map with 2,500-foot and 15,000-foot Buffers Showing Airports.</p>
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	<p>Based on the U.S. Fish and Wildlife Service (USFWS) Coastal Barrier Resources System (CBRS) Map, the Subject Property is not located in or immediately adjacent (within 150 feet) to a CBRS Unit or Otherwise Protected Area (OPA). The closest CBRS unit is the Fort Macon Unit NC-04P located approximately 3.35 miles southeast of the site. Therefore, this proposed project is in compliance with the Coastal Barrier Resources Act.</p> <p>Attachment 3: USFWS CBRS Maps and Certification.</p>

<p>Flood Insurance</p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel Number 3720637600J dated 07/16/2003, the majority of the Subject Property and surrounding area are located in Zone X, outside of the Special Flood Hazard Area (SFHA). However, a small central eastern portion of the Subject Property is located in 100-year floodplain (Zone AE, SFHA). A Preliminary FIRM (PFIRM) dated 06/30/2016 shows this approximate central eastern 100-year floodplain portion and northern edges of the Subject Property as 500-year floodplain. The Subject Property does not include any areas of regulatory floodway. Permanent impacts to 0.310 acre of 100-year floodplain include fill material needed for Building #500's foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, retaining wall (wetland only), landscaping, lighting, and stormwater pond #2, and does not include any National Flood Insurance Program (NFIP) insurable structures. Morehead City (370048) is a participating community in good standing in the regular program of the NFIP.</p> <p>Flood insurance will not be required for the proposed project because all insurable structures, according to the NFIP Flood Insurance Manual effective October 1, 2022, will be located in Zone X. While flood insurance may not be mandatory in this instance, HUD recommends that all insurable structures maintain flood insurance under the NFIP. The proposed project is in compliance with flood insurance requirements.</p> <p>Since there is modification of the floodplain, compliance with 24 CFR 55 and Executive Order (EO) 11988 is required. The EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination for the proposed project documents the 8-step process under 24 CFR 55.20 in Attachment 11.</p> <p>Attachment 4: FEMA FIRMs and PFIRM with Parcel Boundary and NFIP Community Status Book. <i>See also Attachment 1:</i> Site Plans.</p>
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STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5**Clean Air**

Clean Air Act, as amended,
particularly section 176(c) & (d);
40 CFR Parts 6, 51, 93

Yes No

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According to the North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants (EPA Greenbook), the Subject Property is not located in a county in nonattainment or maintenance status for any criteria pollutants. The construction and operation of the facility is exempted from NC State air quality permit requirements under 15A NCAC 02Q.0102(d) since emissions will be below the established thresholds. Thus, the proposed project's emissions are automatically considered de minimis (40 CFR § 93.153(c)(2)) and the proposed project is considered compliant with the State Implementation Plan. The proposed project would not exceed de minimis emissions levels for federal general conformity purposes (40 CFR § 93.153(c)(2)).

The proposed project constructs a multifamily residential complex with amenities. The proposed project will not generate significant levels of vehicular traffic. Construction-related activities (land clearing, grading) can cause short-term exposures to sensitive receptors from particulate matter (PM 10) such as fugitive dust and emissions from construction equipment. The proposed project will conform to NC Air Quality Management regulations during and following construction. Mitigation measures for dust control will be implemented to reduce potential impacts to air quality during construction. The contractor will use Best Management Practices (BMPs) to reduce fugitive dust generation and diesel emissions. BMPs can include wetting the grading site during dry conditions; maintaining vegetative cover as much as possible around cleared areas; a water truck to stabilize potential dust during high traffic times or high wind days on heavily-travelled access roads and storage areas; and operating construction vehicles and machinery at reduced speeds to reduce soil disturbance and fugitive dust potential. BMPs to mitigate the generation of emissions during construction include limiting the use of vehicles and other machinery to construction hours only and removal once construction is completed.

		<p>Therefore, there will be no significant impact to air quality from the proposed project. The operation of the proposed project following the completion of construction activities will not increase emissions. Any air quality impacts would be short-term and localized during construction, and no significant adverse impacts to air quality are anticipated. Thus, the proposed project is in compliance with this section.</p> <p>Attachment 5: North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. <i>See also</i>, Recent Updates: Federal Register Notices Published or Effective After July 31, 2023, at https://www3.epa.gov/airquality/greenbook/adden.html</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project involves new construction and is located in a coastal zone, but it has been determined to be consistent with the State coastal management program according to the NC Division of Coastal Management (NC DCM).</p> <p>On March 1, 2023, NC DCM reviewed the proposed project information submitted pursuant to the management objectives and enforceable policies of Subchapters 7H and 7M of Chapter 7 in Title 15A of the North Carolina Administrative Code and concurred that the proposed activity is consistent with North Carolina's approved coastal zone management program as long as no coastal wetlands are impacted. On August 4, 2023, Ms. Andrea Gievers, NCORR, contacted Mr. Dan Govoni, NC DCM Federal Consistency Coordinator, who stated that as long as there is a CWA Section 404 or 401 permit the project will not be considered an impact on the wetlands. The proposed project has been issued U.S. Army Corps of Engineers CWA Section 404 Nationwide Permits 18 and 29 Verification and NC Department of Environmental Quality Division of Water Resources CWA Section 401 Water Quality General Certification. The proposed project is in compliance with the Coastal Zone Management Act.</p> <p>Attachment 6: NC DCM's Counties Map, Correspondence with Daniel Govoni, NC DCM Federal Consistency Coordinator, dated March 1,</p>

		2023, and NCORR Telephone Conversation Record.
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes No <input checked="" type="checkbox"/> <input type="checkbox"/>	<p>The Subject Property is not on a list of Superfund National Priorities or Comprehensive Environmental Response Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list compiled by the US EPA. There are no federal Superfund sites, federal Brownfield sites or Toxic Release Inventory sites located within a one-mile radius of the Subject Property. According to the NC Department of Environmental Quality (NC DEQ) Division of Waste Management (DWM) Underground Storage Tank (UST) Section, there are no reported petroleum releases known to exist at this location, nor are there any records of registered USTs at the Subject Property (Attachment 28). A comprehensive review of the NC DEQ DWM UST Section Documentation, NEPA Assist EPA Facilities Reports with 1-mile Buffer, NC DEQ DWM Site Locator Reports with 1-mile, 0.5-mile and 3,000-foot Buffers, Facilities Reports, Phase I ESA, Revised Phase II Subsurface Investigation Report, and the EPA NC Radon Zone Map is included in the attached Elijah's Landing Apartments HUD Environmental Standards Review in Attachment 7.</p> <p>Based upon the site inspection, Phase I ESA, and review of available environmental and historical records and reports for the Subject Property and surrounding area, there is one REC identified that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property without proper mitigation. <i>Mitigation is necessary for the identified REC to not be considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.</i></p> <p>The REC is the release of oil observed at the eastern entrance of the onsite garage from an open top five-gallon bucket exposed to the elements. The majority of the oil staining is contained to the concrete. However, soil staining is present along the concrete. The following hazards were also identified: an approximate 500 cubic feet of corrugated transite (asbestos) roofing material</p>

	<p>observed stored along the western property boundary, a derelict onsite garage structure, and historical use of the northern portion of the Subject Property as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in other areas. However, test pits of these areas did not identify co-disposal of oil or hazardous materials. With proper removal and disposal of identified and encountered hazards, the Subject Property is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.</p> <p>All five-gallon buckets, their contents including petroleum products, asbestos-containing roofing material (see below), debris, and any other materials or soils removed shall be properly disposed of by the Grant Recipient and its contractors. All wastes shall be characterized and properly disposed of according to the type of waste in an appropriate, legally compliant NC DEQ DWM permitted receiving facility in accordance with federal, state and local and regulations (e.g., RCRA Subtitles C and D, NESHAP 40 CFR 61.150, and NC Solid Laws NCGS 130A, and NC Hazardous Waste Rules 15A NCAC 13A). NC DEQ DWM strongly recommends that the Grant Recipient require all contractors to provide proof of proper disposal for all waste to permitted facilities.</p> <p>In the event that unexpected, contaminated or potentially hazardous materials, soils or debris are encountered during demolition or construction, work in the area shall cease immediately, and the work area shall be secured. The appropriate NC DEQ Regional Office will be contacted and the contamination assessed with an environmental consultant. Appropriate measures will be taken to address the hazard(s) (i.e., contaminated soils, hazardous debris, USTs, lead-based paint, etc.), and, if removed, will be properly disposed of in the appropriate NC DEQ DWM approved facility in accordance with federal, state and local laws and regulations (e.g., RCRA Subtitles C and D, NESHAP 40 CFR 61.150, and NC Solid Laws</p>
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		<p>NCGS 130A, and NC Hazardous Waste Rules 15A NCAC 13A). If suspect asbestos-containing material (ACM) is found during demolition of the garage and redevelopment activities, it should be assumed to contain asbestos until laboratory analysis can confirm or deny their asbestos content. The NC Department of Health and Human Services (DHHS) and Asbestos Hazard Management Program handles asbestos control and NC asbestos abatement procedure. Asbestos inspection and the removal of regulated ACM must be done by NC-accredited asbestos professionals in accordance with all applicable federal, state and local laws, regulations and procedures. The activities must conform to Article 19, N.C. Gen. Stat. § 130A-444-451, the National Emission Standard for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61, Subpart M) pertaining to demolition and renovation in 40 CFR 61.145, NESHAP pertaining to waste disposal in 40 CFR 61.150, Occupational Safety and Health Act of 1970, Pub. L. 91-596, 84 Stat. 1590, 29 U.S.C. § 651, et seq., as amended (OSHA), Asbestos Standard for Construction 29 CFR 1926.1101, OSHA 29 CFR 1910, NC OSHA 13 N.C.A.C. 7C .0101, Transportation under 49 CFR 173.1090, NC Hazardous Waste Rules, and NC Solid Waste Laws. An Asbestos Permit Application and Demolition Notification (DHHS 3768) must be submitted to the Health Hazards Control Unit (HHCU) of the NC DHHS Division of Public Health, prior to demolition in compliance with 15 A NCAC 20.1110 (a)(1). If the ACM removal is greater than 3,000 square feet, 1,500 linear feet, or 656 cubic feet in a public area, then a design, project monitoring plan, and (transmission electron microscopy) TEM clearance might be required under 10A NCAC 41C .0607. All ACM debris will be properly disposed of in a NC DEQ DWM approved landfill facility in accordance with applicable regulations. Any Asbestos Surveys/ Clearance Reports and applicable permits will be appended to this Environmental Review Record (ERR).</p> <p>If any USTs are discovered, then NC DEQ DWM's UST Section Wilmington Regional Office will be notified. If any abandoned wells are discovered, then NC DEQ will be notified and abandoned in accordance with Title 15A. Subchapter 2C.0100. "Any open burning</p>
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		<p>associated with the subject proposal must be in compliance with 15 A NCAC 2D.1900” (See Attachment 28).</p> <p>Based on the EPA’s Radon Zone Map, the Subject Property is located within Zone 3 with predicted average indoor radon screening levels less than 2 pCi/L (Low Potential) (see Attachment 7). Due to the low potential for elevated indoor radon levels, no additional steps are required for radon mitigation. However, testing for radon is the only way to determine radon levels in buildings. Preventing the entry of radon into a building is the most effective way of protecting building residents. This can be done in new buildings by incorporating radon-resistant construction protocols and in existing buildings by using underground collection systems that vent the gas into the atmosphere through an exterior pipe. Radon levels within buildings can also be reduced by increasing ventilation rates.</p> <p>With the proper mitigation measures and protocols discussed above, the Subject Property will be unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property. The proposed project is in compliance with contamination and toxic substances requirements.</p> <p>Attachment 7: Elijah’s Landing Apartments HUD Environmental Standards Review, NC DEQ DWM UST Section Documentation, NEPA Assist EPA Facilities Reports with 1-mile Buffer, NC DEQ DWM Site Locator Reports with 1-mile, 0.5-mile and 3,000-foot Buffers, Facility Reports, Phase I ESA, Revised Phase II Subsurface Investigation Report, and the EPA NC Radon Zone Map. See Attachment 28: State Environmental Clearinghouse NC DEQ Comments.</p>
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<p>Endangered Species</p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Subject Property is currently vacant land, with a dilapidated storage building constructed in 1982. The Subject Property appears to have been initially developed as agricultural property some time prior to 1938. A single wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. (<i>See Attachment 7: Phase I ESA</i>).</p> <p>According to the USFWS Information for Planning and Consultation (IPaC) Official Species List prepared for the Subject Property, there are a total of fourteen threatened, endangered, or candidate species identified. However, based on the USFWS IPaC and Critical Habitat Mapper results, there are no critical habitats identified within the proposed project area.</p> <p>Carteret County is identified as a Northern Long-eared Bat known presence county. However, the proposed project was reviewed using the new USFWS Determination Key for the Northern Long-eared Bat which resulted in a “No Effect” determination. In addition, the NC Natural Heritage Program (NC NHP) stated that mist-net capture of the NLEB has occurred approximately 12 miles northwest of the Subject Property, and mist-net capture of Tricolored Bat has occurred approximately 10 miles northwest of the Subject Property. The proposed project will likely remove all trees prior to the Tricolored Bat listing, and Atlantic Shores Environmental Services, Ltd. (ASE) did not find suitable habitat present at the Subject Property.</p> <p>A query of the NC NHP database resulted in no records for element occurrences (species), important natural communities, natural areas, and/ or conservation areas within the proposed project boundary. The NC NHP database query documented eighteen element occurrences within a one-mile radius of the Subject Property. ASE did not observe any of the above-listed species during the site visit. In addition, the Subject</p>
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		<p>Property does not contain suitable habitat for these species (with the exception of Rough-Leaved Loosestrife and Monarch Butterfly) and is located near a densely developed area. Therefore, ASE has determined that the project will have No Effect on proposed/ listed species and/ or proposed/ designated critical habitat, except for the Monarch Butterfly and Rough-leaved Loosestrife which are “May Affect, Not Likely to Adversely Affect,” and a “no Eagle Act permit required” determination for eagles.</p> <p>A Self-certification Letter and 10-step Project Review Package were prepared and submitted to the USFWS Raleigh Ecological Services Field Office on April 28, 2023. According to the Self-certification Letter, Mr. Pete Benjamin, Field Supervisor of the U.S. Fish and Wildlife Service Raleigh Field Office, indicated the following:</p> <p>“Therefore, we concur with the ‘no effect’ or ‘not likely to adversely affect’ determinations for proposed and listed species and proposed and designated critical habitat; the ‘may affect’ determination for Northern long-eared bat; and/or the ‘no Eagle Act permit required’ determinations for eagles. Additional coordination with this office is not needed.” USFWS has not contacted NCORR for additional information. The Grant Recipient is required to update this determination annually for multi-year activities.</p> <p>Attachment 8: USFWS Raleigh FO 10-step Package and USFWS, NCNHP and NCORR Correspondence.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The Phase I ESA site reconnaissance conducted at the Subject Property did not identify explosive or flammable hazards at the Subject Property or the surrounding area. Additionally, a review of an aerial map did not identify such hazards within one mile of the Subject Property. The Morehead City Fire Marshal was consulted regarding planned and existing ASTs located within one mile of the Subject Property. The Morehead City Fire Marshal identified three AST sites and the data was used to make Acceptable Separation Distance calculations. A Thermal and Explosive Hazards Worksheet was completed documenting</p>

		<p>these ASTs are located well outside of the Acceptable Separation Distance for the Subject Property. The proposed project is in compliance with explosive and flammable hazard requirements.</p> <p>Attachment 9: Signed HUD Thermal and Explosive Hazards Worksheet, Topographic and Aerial Map with 1-mile Buffer, Fire Marshal Correspondence on Planned and Existing ASTs, AST Data, and ASD Calculations.</p>
<p>Farmlands Protection</p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the Subject Property consists of 12.6% Altavista loamy fine sand, 0 to 2 percent slopes (All areas are prime farmland); 32.2% Deloss fine sandy loam (Prime farmland if drained); 26.2% Leon sand (Farmland of unique importance); 11.7% Mandarin-Urban land complex (Not prime farmland); and 17.4% State loamy fine sand, 0 to 2 percent slopes (All areas are prime farmland).</p> <p>The proposed project includes activities that could potentially convert agricultural land to a non-agricultural use, but an exemption applies. According to 7 CFR Part 658.2(a) “[f]armland does not include land already in or committed to urban development.” Further, the regulation defines “[f]armland already in urban development” as lands “identified as ‘urbanized area’ (UA) on the Census Bureau Map.” According to the U.S. Census Bureau TIGERweb application, the Subject Property is located in an urban area. The proposed project is located on lands not subject to provisions of the Farmland Protection Policy Act and is in compliance with this section.</p> <p>Attachment 10: TIGERweb Urban Areas Map and USDA NRCS Soil Survey.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>Based on the FEMA FIRM Panel Number 3720637600J dated 07/16/2003, the majority of the Subject Property and surrounding area are located in Zone X, outside of the SFHA. However, a small central eastern portion of the Subject Property is located in 100-year floodplain (Zone AE, SFHA). A PFIRM dated 06/30/2016 shows this approximate central eastern 100-year</p>

		<p>floodplain portion and northern edges of the Subject Property as 500-year floodplain. The Subject Property does not include any areas of regulatory floodway.</p> <p>The proposed project was redesigned to remove a portion of Building #500 and only have a portion of the parking lot and stormwater pond #2 located in 100-year floodplain (Zone AE, SFHA). Proposed permanent impacts to 0.310 acre of 100-year floodplain include fill material needed for Building #500's foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, landscaping, lighting, and stormwater pond #2 per NC DEQ. Since there is modification of the floodplain, compliance with 24 CFR 55 and EO 11988 is required. The EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination documents the 8-step process under 24 CFR 55.20 in Attachment 11.</p> <p>BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. The proposed project activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, U.S. Army Corps of Engineers (USACE) Clean Water Act (CWA) Section 404 Nationwide Permits 18 and 29, NC DEQ Division of Water Resources' (NC DWR) CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the environmental review record when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and Stormwater Pollution Prevention Plan (SWPPP). Thus, measures will be implemented to ensure the proposed project</p>
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		<p>will have no further impacts to 100-year floodplain during construction and operation.</p> <p>Attachment 11: EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination.</p>
<p>Historic Preservation</p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>A review of the Subject Property in the National Register of Historic Places, North Carolina State Historic Preservation Office's HPOWEB, and site review performed by ASE, identified no publicly recorded historic properties which are locally designated or listed in or eligible for inclusion in the State or National Register of Historic Places are located on or adjacent to the Subject Property or within the APE. The Willis House (CR1260) is the closest historical property (SO) identified 0.10-mile to the east of the Subject Property.</p> <p>On April 25, 2023, NCORR submitted the proposed project to the NC SHPO via the State Environmental Clearinghouse for review and concurrence of a preliminary finding of "No Historic Properties Affected" pursuant to 36 CFR 800.4(d)(1). On July 3, 2023, Ms. Renee Gledhill-Earley, NC SHPO Environmental Review Coordinator, responded "[w]e have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed."</p> <p>According to the HUD Tribal Directory Assessment Tool (TDAT), the Catawba Indian Nation is the only federally-recognized tribe with interests in Carteret County, North Carolina. On April 25, 2023, NCORR consulted with the Catawba Indian Nation for discussion of historic properties in the proposed project area that may have religious and cultural significance. On May 24, 2023, the Catawba Indian Nation's Tribal Historic Preservation Office (THPO) responded that "[t]he Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project." The</p>

		<p>proposed project is in compliance with Section 106.</p> <p>Attachment 12: SHPO Response, NCORR SHPO Submission Package, TDAT Results, Catawba Indian Nation Response, and NCORR Catawba Indian Nation Submission Packages.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The proposed project does not involve siting a noise generating facility. Partner conducted a Noise Assessment Study dated February 22, 2023 that included 10-year and 11-year traffic projections, airport, and railroad noise levels for the Subject Property. In accordance with HUD guidelines, a 10-year Projected Combined DNLs including airport for the ten noise assessment locations (NALs) were calculated combining roadways with available traffic data within 1,000 feet; railways within 3,000-feet; and airports/military airfields within a 15-mile radius of the Subject Property (<i>see Attachment 13</i>). In addition, NCORR completed a HUD DNL assessment for the ten NALs using Average Annual Daily Traffic (AADT) data received from NC DOT for Current DNL calculations (based on 2021 AADT) and 2035 projected DNL calculations.</p> <p>NCORR and Partner both reached Combined DNLs for <i>NALs #1b</i> through <i>#8d</i> within the HUD Acceptable noise level range (65 dB or less) for current, 2035 and 10-year traffic projections. No further action is required at <i>NALs #1b</i> through <i>#8d</i>. NCORR and Partner both reached a Combined DNL of 68dB and 69 dB, respectively, for <i>NAL #1a</i> (front of Buildings 100 and 200 on southern side) within the HUD Normally Unacceptable noise level range (above 65 dB but not exceeding 75 dB) for current, 2035 and 10-year traffic projections. For new construction projects in Normally Unacceptable noise areas (in accordance with 24 CFR 51.101(a)(3)), <i>bedrooms and studio apartments may have direct access to balconies if: 1) the interior noise levels have been mitigated to not exceed a day-night average noise level of 45 decibels as documented by STraCAT of the dwelling unit's exterior walls factoring in fenestration; 2) appropriate ventilation is provided by a mechanical ventilation system and not by opening doors or</i></p>

		<p>windows; <u>and</u> 3) an <i>Operations and Maintenance plan</i> is in place that <i>requires periodically inspecting seals and repairing or replacing building components when their performance diminishes</i>. These three requirements for noise attenuation will be met. According to the Project Architect, “[o]ur proposed exterior wall system consists of 3-1/2” wood studs at 16” o.c. with R-15 batt insulation and 7/16” exterior wood structural panels with brick on the lower portion of wall and vinyl siding above the brick, and 1/2” gypsum wall board on the interior face. Per the STraCAT analysis for Buildings #100 & #200, our wall system provides a total attenuation of 30.0dB, which meets the required amount of attenuation.</p> <p>Thus, the new construction will meet HUD’s building interior requirements of a 45 dB DNL maximum. In addition, mechanical ventilation systems must be provided, and the design of those systems must be such that they do not transmit exterior noise to the interior of the units. Periodic inspection of door and window seals will be made an explicit requirement in Operation and Maintenance plans with the provision for repair or replacement as needed. With these three requirements met, bedrooms and studio apartments may have direct access to balconies.</p> <p>Short-term construction work will adhere to local noise control standards and regulations. Construction noise will be limited to daytime hours, Monday through Friday, except in emergency situations. Construction equipment will be required to meet local sound control requirements. The proposed project is in compliance with HUD's noise regulations in 24 CFR 51 Subpart B.</p> <p>Attachment 13: Project Architect's Noise Mitigation Letter, HUD Noise Assessment dated February 22, 2023 by Partner, and NCORR Noise Assessment with NC DOT AADT Trend Analysis, FAA 5010 Master Record, National Transportation Noise Map, HUD Airport Noise Worksheet, and DNL Calculations Current 2021 and Future 2035 Projections.</p>
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<p>Sole Source Aquifers</p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>There are no Sole Source Aquifers located in the state of North Carolina, according to the U.S. EPA. The proposed project is in compliance with Sole Source Aquifer requirements.</p> <p>Attachment 14: EPA Sole Source Aquifer Map.</p>
<p>Wetlands Protection</p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>According to the USFWS National Wetlands Inventory (NWI) Mapper and USACE jurisdictional determination (JD), wetlands (PSS1A – Freshwater Palustrine Forested/Scrub-Shrub) are located on the central portion of the Subject Property. The wetlands meet the HUD definition of wetlands under 24 CFR 55.2(b)(11) which can include non-jurisdictional and jurisdictional wetlands. The issued USACE General Permit (Regional and Nationwide) Verification, “authorizes the use of a Nationwide Permit 29 & 18 to impact 0.037 acres of wetland for road crossing & parking site 1, impact 0.139 acres of wetland for road crossing & Grading site 2, impact 0.035 acres of wetland for road & parking site 3, impact 0.055 acres of wetland for road, building & parking site 4 and impact 0.083 acres of wetland for road, parking & grading site 5, total impacts 0.349.” The total identified wetland impacts are 0.349 acres (15,202 square feet). Since there is new construction in wetlands, compliance with 24 CFR 55 and EO 11990 is required. The EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination documents the 8-step process under 24 CFR 55.20 in Attachment 11.</p> <p>BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. According to the USACE General Permit (CWA Section 404 Nationwide Permits 18 and 29) Verification’s Special Conditions, “[t]he permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and</p>

		<p>the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).”</p> <p>According to the issued NC DWR CWA Section 401 Water Quality General Certification No. 4139’s Additional Conditions, “1. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils (15A NCAC 02H .0506[b][3] and [c][3] and 15A NCAC 02B .0211 [12]). 2. The Permittee shall adhere specifically to 15A NCAC 02B .0221 Tidal Salt Water Quality for Class SA Waters (3)(g) pH: shall be normal for waters in the area, which generally shall range between 6.8 and 8.5 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions; (l) Turbidity: the turbidity in the receiving water shall not exceed 25 NTU; if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased. (15A NCAC 02B .0221).”</p> <p>The proposed project activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the environmental review record when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project</p>
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		<p>will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, measures will be implemented to ensure the proposed project will have no further impacts to wetlands during construction and operation. The proposed project is in compliance with this section.</p> <p>Attachment 11: EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination.</p>
<p>Wild and Scenic Rivers</p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project will not affect a listed or study Wild and Scenic River in the DOI NPS Nationwide Rivers Inventory (NRI) or National Wild and Scenic Rivers (WSR) System. According to the NEPAAssist maps, there are no listed river segments located in within one mile of the Subject Property. The proposed project is in compliance with this section.</p> <p>Attachment 15: NEPAAssist Maps of DOI NPS Nationwide Rivers Inventory and National Wild and Scenic Rivers System Showing 1-mile Buffer from the Subject Property.</p> <p><i>See also, Eligible and Suitable Rivers Map, at https://nps.maps.arcgis.com/apps/webappviewer/index.html?id=df0f4455dc5f41bb919a3a1a49c60174.</i></p>
ENVIRONMENTAL JUSTICE		
<p>Environmental Justice</p> <p>Executive Order 12898</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>According to the EPA Environmental Justice Screening and Mapping Tool (EJScreen) for one-mile radius of the Subject Property, there is an approximately 19% minority population and approximately 29% low-income population, both of which are lower than the State and national averages. According to the American Community Survey (ACS) for the census block group for the Subject Property, there is an approximately 32.82% minority population and approximately 58.29% low-income population, with only low-income population higher than the State and national averages. According to the NC DEQ Community Mapping System, the Subject Property is not located within NC DEQ's Potentially Underserved Block Groups 2019.</p> <p>The proposed project does not facilitate development which would result in</p>

		<p>disproportionate adverse environmental impacts on low-income or minority populations. Rather, the proposed project will develop the site with affordable housing for low- and middle-income families. No adverse environmental impacts were identified in the proposed project's environmental review. Thus, the proposed project does not contribute to or promote environmental injustice. The proposed project is in compliance with EO 12898.</p> <p>Attachment 16: EJScreen Standard Report, ACS Summary Report, Census 2010 Summary Report, EJScreen Community Report, NC DEQ Community Mapping and CDC Report for Carteret County.</p>
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Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]:

Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	<p>On March 1, 2023, Jeannie Drake, Zoning Enforcement Officer for the Town of Morehead City, noted that the Subject Property is zoned as Residential Multifamily District (RMF) and the developer has received site plan approval for the proposed project. According to the Morehead City Code of Ordinances, Article 9-11.10, “[t]he purpose of this district shall be to provide and protect areas deemed necessary or desirable for multifamily use and uses customarily related to multifamily residences. A residential multifamily district shall be composed of not less than three (3) contiguous acres.”</p> <p>According to the Morehead City Plan 2023 (Plan), the Subject Property is located in the <i>Midtown</i> Neighborhood Planning Area with Future Land Use Classifications for the northern portion of the Subject Property as <i>Compact Residential</i> and the southern portion as <i>Mixed-Use Center</i>. The Plan states that <i>Midtown</i> will preserve “[e]xisting neighborhoods and residential character” and a “[m]ixture of housing types.” Also, a <i>Midtown</i> objective is to promote “[n]ew life for abandoned properties” such as the Subject Property which has been vacant for 15 years. According to the Plan, “<i>Compact Residential</i> features higher-density housing primarily located in areas with existing multifamily units and some single-family residences. This classification encourages a variety of housing that differs in design, size, and prices. <i>Compact Residential</i> areas should be pedestrian-friendly, well-connected and integrated with community amenities to act as a transition between the Downtown area and lower-density residential areas.” One stated Intent for <i>Compact Residential</i> is to “[a]llow for diversification of housing, including affordable housing and multifamily units.” The <i>Mixed-Use Center</i> areas “blend residential, commercial, office, and retail spaces to create vibrant, livable areas along the Town’s primary transportation corridors. These activity centers should continue to be a place to acquire basic needs including food, goods, services, and healthcare. Existing commercial centers should be retrofitted as mixed-use activity hubs over time with higher density residential uses and walkable designs.” A challenge identified at the March 10, 2022 Steering Committee Meeting in the Plan was the “[l]ack of affordable housing or multifamily housing options for young residents.” The Stakeholder Focus Group Statements in the Plan noted we should “[i]dentify options for more affordable housing.”</p>

		<p>The proposed project is a suitable land use for the site and surrounding area which is compatible with the local zoning ordinances and land use plan. The proposed multifamily buildings will fit in with the surrounding areas without dominating the landscape. Surrounding properties are currently developed with residential, commercial, and light industrial facilities. The proposed project will develop an underutilized, vacant property in the Midtown area of Morehead City and provide much needed affordable housing options.</p> <p>Attachment 17: Zoning Certification, Map and Correspondence. See Morehead City Code of Ordinances, at ARTICLE 9. - ZONING DISTRICTS AND ZONING MAP Code of Ordinances Morehead City, NC Municode Library and Morehead City Plan 2032, at https://www.moreheadcitync.org/412/The-Morehead-City-Plan-2032.</p>
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	<p>According to the USDA NRCS Soil Survey, the Subject Property consists of 12.6% Altavista loamy fine sand, 0 to 2 percent slopes; 32.2% Deloss fine sandy loam; 26.2% Leon sand; 11.7% Mandarin-Urban land complex; and 17.4% State loamy fine sand, 0 to 2 percent slopes (Attachment 10). According to the United States Geological Survey (USGS) Topographic map, Beaufort, North Carolina 2019 quadrangle (Attachment 1), the Subject Property lies at approximately 12 feet above the National Geodetic Vertical Datum (NGVD). The Subject Property generally slopes very gently towards the north. A natural channel, reported to be a Freshwater Palustrine Forested/Scrub-Shrub Wetland, transects the Subject Property from northeast to southwest. (See Attachment 7: Phase I ESA, pg.7). The Subject Property is not situated within an area of potential landslides, and the Subject Property is not on expansive soils (USDA NRCS Soil Survey). No anomalies are depicted on the 2019 USGS Topographic map.</p> <p>A Geotechnical Engineering Report was completed for the Subject Property and includes recommendations for the proposed project's redevelopment activities (Attachment 18). The proposed project will be designed in a way to balance the grading and minimize any off-site material, if possible. <i>Soil removed from the Subject Property will be quantified and only exported to an approved site per State requirements. Any externally-sourced fill material will come from an approved source, and applicable NC regulations on erosion control will be complied with. The soils will be confirmed to be "clean" fill and that it meets project requirements prior to importing the material.</i></p> <p>The proposed project will have a stormwater permit and SWPPP. According to NC DEQ, "[t]he Sedimentation</p>

		<p>Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres are to be disturbed. Plan must be filed with and approved by applicable Regional Office (Land Quality Section) at least 30 days before beginning activity. A NPDES Construction Stormwater permit (NCG010000) is also usually issued should design features meet minimum requirements.” Further, the proposed project must comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. According to NC DEQ, areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the State. BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. Thus, measures will be implemented to minimize impacts on soil suitability, slope, erosion, drainage, and stormwater runoff from the proposed project. Therefore, the proposed project is not expected to adversely impact soil suitability, slope, erosion, drainage, and stormwater runoff at the Subject Property or surrounding area.</p> <p>Attachment 18: Geotechnical Engineering Report. <i>See Attachment 10:</i> USDA NRCS Soil Survey, Attachment 7: Phase I ESA, and Attachment 28: State Environmental Clearinghouse Comments.</p>
Hazards and Nuisances including Site Safety and Noise	2	<p>With the proper mitigation measures and protocols discussed above, the Subject Property will be unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property (<i>see</i> Contamination and Toxic Substances section and Attachment 7 for full details).</p> <p>Construction-related activities (land clearing, grading) can cause short-term exposures to sensitive receptors from particulate matter (PM 10) such as fugitive dust and emissions from construction equipment. Mitigation measures for dust control will be implemented to reduce potential impacts to air quality during construction. The proposed project will conform to NC Air Quality Management regulations during and following construction. The contractor will use BMPs to reduce fugitive dust generation and diesel emissions. BMPs can include wetting the grading site during dry conditions; maintaining vegetative cover as much as possible around cleared areas; a water truck to stabilize potential dust during high traffic times or high wind days on heavily-travelled access roads and storage areas; and construction vehicles and machinery operating at reduced speeds to reduce soil</p>

disturbance and fugitive dust potential. BMPs to mitigate the generation of emissions during construction include limiting use of vehicles and other machinery to construction hours only and removal once construction is completed. (See Clean Air Act section.)

NCORR and Partner both reached a Combined DNL of 68dB and 69 dB, respectively, for *NAL #1a* (front of Buildings 100 and 200 on southern side) within the HUD **Normally Unacceptable** noise level range (above 65 dB but not exceeding 75 dB) for current, 2035 and 10-year traffic projections. For new construction projects in **Normally Unacceptable** noise areas (in accordance with 24 CFR 51.101(a)(3)), *bedrooms and studio apartments may have direct access to balconies if:* 1) *the interior noise levels have been mitigated to not exceed a day-night average noise level of 45 decibels as documented by STraCAT of the dwelling unit's exterior walls factoring in fenestration;* 2) *appropriate ventilation is provided by a mechanical ventilation system and not by opening doors or windows; and* 3) *an Operations and Maintenance plan is in place that requires periodically inspecting seals and repairing or replacing building components when their performance diminishes.* These three requirements for noise attenuation will be met. Short-term construction work will adhere to local noise control standards and regulations. Construction noise will be limited to daytime hours, Monday through Friday, except in emergency situations. Construction equipment will be required to meet local sound control requirements. The proposed project is in compliance with HUD's noise regulations in 24 CFR 51 Subpart B (see Noise and Abatement Control section and **Attachment 13** for full details).

Site development will increase man-made hazards during construction. In order to mitigate hazards during construction, fencing will be erected around the site to secure the area and keep the general public from the physical hazards. Additionally, designated entrance and exit points will be used in order to control traffic and enter public roads at safe areas.

Therefore, the proposed project is not expected to adversely impact the Subject Property or surrounding area through hazards and nuisances including site safety and noise during construction or operation with the implementation of the identified mitigation measures.

See **Attachment 7:** Contamination and Toxic Substances documentation; **Attachment 13:** Noise Abatement and Control documentation; and **Attachment 28:** State Environmental Clearinghouse Comments.

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	The proposed project will provide affordable housing to low- and middle-income families in a densely-populated residential community. New jobs will be created during temporary construction and operations as a result of this development. New residents will help to support nearby existing and planned commercial development, which may generate additional job opportunities for these residents. The residents will provide an employee and customer base to local businesses. The proposed project will not adversely impact traffic during construction or operation. Employment options including retail, service, and light industrial businesses are located near the Subject Property. Therefore, the proposed project is not expected to adversely impact the employment and income patterns for the area.
Demographic Character Changes, Displacement	2	The proposed project will not deny any population within the local community potential for growth. The proposed project will not act as an isolation feature within the local area or community. The proposed project will not significantly impact the demographics of the local community. Local institutions (churches, community centers, elderly centers, etc.) will not be adversely impacted by the development. The site contains vacant land. Thus, the proposed project is not expected to cause the displacement of individuals or families, destroy jobs, local businesses or public community facilities, or disproportionately affect particular populations.
Environmental Justice	2	<p>According to the EPA Environmental Justice Screening and Mapping Tool (EJScreen) for one-mile radius of the Subject Property, there is an approximately 19% minority population and approximately 29% low-income population, both of which are lower than the State and national averages. According to the ACS for the census block group for the Subject Property, there is an approximately 32.82% minority population and approximately 58.29% low-income population, with only low-income population higher than the State and national averages. According to the NC DEQ Community Mapping System, the Subject Property is not located within NC DEQ's Potentially Underserved Block Groups 2019.</p> <p>The EJScreen indicators for a one-mile radius of the Subject Property are lower than the State and national averages including Particulate Matter 2.5, Ozone, Diesel Particulate Matter, Air Toxic Cancer Risk, Air Toxic Respiratory Hazard Index, Superfund Proximity, Hazardous Waste Proximity, Underground Storage Tanks, and Wastewater Discharge. Traffic Proximity, Lead Paint, and Risk Management Plan (RMP) Facility Proximity are higher than the State average but lower than the national average. According to the EPA Green Book, Carteret County is an attainment status county for all criteria pollutants</p>

		<p>(Attachment 5). With the proper mitigation measures and protocols discussed above, the Subject Property will be unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property (<i>see</i> Contamination and Toxic Substances section and Attachment 7 for full details). No adverse environmental impacts were identified during the proposed project's 24 CFR 58 environmental review. The proposed project does not site a nuisance or hazard in a potential environmental justice area, but rather provides affordable housing to families who need it.</p> <p>The proposed project will not subject the community to environmental conditions that may have disproportional effects on low-income or minority populations. Rather, this proposed project will provide much needed safe, affordable housing options within the community following a decrease in affordable housing inventory after Hurricanes Matthew and Florence. Thus, the proposed project does not contribute to or promote environmental injustice.</p> <p>Attachment 16: EJScreen Standard Report, ACS Summary Report, Census 2010 Summary Report, EJScreen Community Report, NC DEQ Community Mapping and CDC Report for Carteret County. <i>See also</i>, Attachment 5 and Attachment 7.</p>
Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	<p>The schools that will serve the proposed development include Morehead City Primary School, Morehead City Elementary School, Morehead City Middle School, and West Carteret High School. According to a Public Education Certification dated March 7, 2023 by Richard Paylor, Superintendent of Carteret County Public Schools, the proposed project is located in the Carteret County Public School District and will not adversely affect the schools serving the proposed development. Furthermore, schools located in this district are not considered high risk or poor performing schools per state or federal performance standards. Since many of the proposed project's residents are expected to come from within the community, a significant increase in school enrollment is not expected. In addition, the increased tax base from the proposed development should provide extra funding for the community. Therefore, the proposed project is not anticipated to have adverse effects on educational facilities in the area.</p> <p>There are many cultural facilities located near the Subject Property including several art galleries, museums, and churches. Art galleries include the Carolina Artist Gallery, SALT Studio</p>

		<p>and Gallery and Carteret Contemporary Art Gallery. Local museums include the History Museum of Carteret County, Core Sound Museum and the Veterans Memorial Museum. Churches in the area include the Church of Christ, St. Andrews Episcopal Church, First Apostolic of Morehead City, and the Church of Jesus Christ of Latter-day Saints. The proposed project is not anticipated to have adverse effects on local cultural facilities.</p> <p>Attachment 19: Public Education Certification and Educational and Cultural Facilities Google Maps Search Results.</p>
Commercial Facilities	2	<p>The Subject Property is centrally located in Morehead City and has pedestrian access to shops, grocery stores, the hospital, and the post office. Numerous commercial facilities are located near the proposed project area. Community Pharmacy is located just around the corner from the Subject Property's entrance on Bridges Street at the Commerce Plaza. Lowes Foods, The Banks Grill, Loretta's Pizza, Williams True Value Hardware, and Dollar General is located 1/2 mile or less east of the Subject Property on Bridges Street. First Citizens Bank is located just under 1/2 mile west of the Subject Property on Bridges Street, and BB&T is just over 1/2 mile east of the Subject Property on Arendell Street. Moreover, Downtown Morehead City is located approximately one mile east of the Subject Property. The development will increase the customer base for these local businesses that might still be suffering losses experienced during the Covid-19 pandemic. Additionally, the development should increase the employee availability to the area. Thus, the proposed project will not have an adverse effect on local commercial facilities.</p> <p>Attachment 20: Commercial Facilities Google Maps Search Results.</p>
Health Care and Social Services	2	<p>The proposed project is located in an area with close proximity to local health care and social services providers. Nearby health care and social services include the Carteret Health Care, Coastal Carolina Health Care doctor's office (adjacent on Commerce Avenue), Carteret County Health Care Medical Center (1/2 mile west of the site on Bridges Street), and Brady Birthing Center. The development should increase employee availability to the local area. An increase in tax base will support this and other services in the area.</p> <p>According to the attached Health Care and Social Services Certifications dated March 7, 2023 by Dr. Randall Williams, Director of the Carteret County Health and Human Services Department, adequate and appropriate health care and social services are available for the proposed project and will not be adversely affected by this proposed project. Additionally, it is anticipated that many residents of the proposed project will come from within the community and are potentially already served by</p>

		<p>these health care and social services. Therefore, there should only be a negligible increase in demand for services. The proposed project is not likely to have an adverse effect on the local health care and social services in the area.</p> <p>Attachment 21: Health Care and Social Services Certifications and Google Maps Search Results.</p>
Solid Waste Disposal / Recycling	2	<p>Solid waste is not currently generated at the Subject Property.. According to a Solid Waste Removal Certification dated March 22, 2023 by Daniel K. Williams, Director of Public Services for Morehead City, solid waste disposal for the proposed project can be adequately handled by private collectors without adversely affecting landfill capacity. In addition, a Solid Waste Removal Certification dated March 21, 2023 was issued by Lisa Zundel, Office Administrator with Waste Removal, LLC confirming this information. Solid wastes generated during operations of the completed project will consist of mixed municipal waste materials and be disposed of by Waste Removal, LLC or another local, licensed waste collector. An appropriate quantity of dumpsters will be provided to meet the proposed project's demands.</p> <p>During the construction phase of the proposed project, wastes generated are expected to consist of primarily packaging from construction materials, and mixed municipal wastes generated daily by site workers. These materials will be disposed of in designated receptacles and transported to permitted landfills accepting these types of wastes by a licensed waste hauler. This project will follow construction waste management requirements of the 2015 Enterprise Green Communities Green Criteria, which requires recycling of specific building materials to reduce solid waste disposal in local landfills. According to the NC DEQ DWM, Solid Waste Section (Section), any waste generated by and of the project that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility permitted by DWM. The Section strongly recommends that the Grant Recipient require all contractors to provide proof of proper disposal for all generated waste to permitted facilities (Attachment 28). The proper disposal of hazardous materials during demolition and redevelopment activities is discussed further in the Contamination and Toxic Substances section and Attachment 7. Therefore, the proposed project is not anticipated to have an adverse impact on solid waste disposal and recycling in the area.</p> <p>Attachment 22: Solid Waste Removal Certification. <i>See also, Attachment 7:</i> Contamination and Toxic Substances documentation; and Attachment 28: State Environmental Clearinghouse Comments.</p>

Waste Water / Sanitary Sewers	2	<p>The proposed project will connect to the municipal sewer. Public sewer is available and adequate to serve the Subject Property according to the Public Sewer Certification dated March 17, 2023 by Daniel K. Williams, Director of Public Services for Morehead City. In addition, an 8-inch sewer main is located onsite for connection to the proposed development.</p> <p>A permit to construct and operate wastewater treatment facilities, non-standard sewer system extensions and sewer systems that do not discharge into state surface waters and a permit to construct and operate, sewer extensions involving gravity sewers, pump stations and force mains discharging into a sewer collection system might be required. Also, a NPDES permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters might be required.</p> <p>All applicable federal, State and local permits will be obtained for the proposed project prior to construction and activities will comply with their requirements and conditions. Therefore, the proposed project is not anticipated to have an adverse impact on waste water/ sanitary sewers and capacity onsite and in the surrounding area.</p> <p>Attachment 23: Public Sewer and Water Certifications. <i>See also, Attachment 28:</i> State Environmental Clearinghouse Comments.</p>
Water Supply	2	<p>The proposed project will connect to the municipal water supply. Public water is available and adequate according to the Public Water Certification dated March 17, 2023 by Daniel K. Williams, Director of Public Services for Morehead City. In addition, an 8-inch water main is located at Bridges Street for connection to the proposed development. According to available information, a public water system operated by the Morehead City Public Utilities Department (MCPUD) serves the vicinity. According to a representative of the MCPUD, shallow groundwater directly beneath the Subject Property is not utilized for domestic purposes. The sources of public water for the Town of Morehead City is groundwater from five to six wells located throughout Morehead City which draw from the Castle Hayne Aquifer. The project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. There are no sole source aquifers in the State of North Carolina (<i>See SSA section</i>). The proposed project will use lead-free pipes, fittings, fixtures and/ or solder.</p> <p>According to the NC DEQ comment, plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the NC DWR/ Public Water Supply Section prior to the award of a contract or the initiation of construction as per 15A NCAC 18C .0300 et. seq. In addition, all</p>

		<p>public water supply systems must comply with State and federal drinking water monitoring requirements. If any wells are discovered on the proposed project site, then abandonment of wells must be in accordance with Title 15A. Subchapter 2C .0100. Further, NC DEQ notes that any relocation of existing water lines requires plans to be submitted to the NC DWR/ Public Water Supply Section prior to construction (<i>see Attachment 28</i>). All applicable federal, State and local permits will be obtained for the proposed project prior to construction and activities will comply with their requirements and conditions. Therefore, the proposed project is not anticipated to have an adverse impact on water supply onsite and in the surrounding area.</p> <p>Attachment 23: Public Sewer and Water Certifications. <i>See also, Attachment 28:</i> State Environmental Clearinghouse Comments.</p>
Public Safety - Police, Fire and Emergency Medical	2	<p>The Morehead City Police Department and Morehead City Fire/EMS meets the needs of the proposed development and local area. According to the Law Enforcement Certification dated December 30, 2022, police service is available and adequate for the proposed project with an average response time of 1.5 to 3 minutes which is the average community response time. Police Chief Bryan Dixon noted the proposed project will not adversely affect police services in the area. According to the Fire Protection Certification dated December 28, 2022 by Jon C. Wade, Morehead City Fire/EMS Chief, fire protection services are available and adequate for the proposed development as the average response time of 5.30 minutes falls within the average community response time of 6.41 minutes. Fire/EMS Chief Wade also noted that the proposed project will not adversely affect fire protection services in the area. According to an Emergency Medical Service Certification dated December 28, 2022 by Jon C. Wade, Morehead City Fire/EMS Chief, emergency services are available and adequate for the proposed development as the average response time of 5.30 minutes falls within the average community response time of 6.41 minutes. Additionally, it is anticipated that many residents of the proposed project will come from within the community and there will be a negligible increased demand for services. Thus, the proposed project is not anticipated to have an adverse impact on local public safety services.</p> <p>Attachment 24: Law Enforcement, Fire Protection, and Emergency Medical Service Certifications.</p>

Parks, Open Space and Recreation	2	<p>The proposed project will include a clubhouse, gazebo, covered picnic area, boardwalk, playground, tot lot, dog park, and various open spaces for residents on the Subject Property. Parks, open spaces and recreation areas are situated within the surrounding area. The following recreational facilities are located within close proximity to the Subject Property: Rotary Park, Morehead City Park, Shevans Park, Piney Park, Swinson Park, and others. According to the Recreational Services Certification dated March 22, 2023, by Daniel K. Williams, Director of Public Services for Morehead City, adequate and appropriate recreational services and facilities are available for this proposed development, and available recreational services and facilities will not be adversely affected by the proposed project. The Certification also notes there is an onsite recreational area and greenspace. Additionally, it is anticipated that many residents of the proposed project will come from within the community and there will be a negligible increased demand for resources. Thus, the proposed project is not anticipated to have an adverse impact on parks, open spaces, and recreation areas.</p> <p>Attachment 25: Recreational Services Certification and Google Maps Search Results.</p>
Transportation and Accessibility	2	<p>The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. The Subject Property is located on Bridges Street, a main road in Morehead City. Access to US Highway 70 is about 1/4 mile to the south. Carteret County Area Transportation System (CCATS) provides deviated fixed route bus service to all residents and guests of Carteret County. The Subject Property is between stops 2 and 3 on the Downtown and Around route.</p> <p>According to the Public Transportation Certification dated March 16, 2023 by Patrick Flanagan, the Transportation Services Director of CCATS, public bus transportation is available to serve the proposed development and is open to members of the public. According to the CCATS Brochure, bus services are available for employment, shopping, recreation, and non-emergency medical transportation among other purposes, and provides service to and from all areas of Carteret County. In addition, limited out-of-county service is available for non-emergency medical appointments. Further, the proposed project is not anticipated to adversely impact traffic during temporary construction or operation. Thus, the proposed project is not anticipated to have an adverse impact on transportation and accessibility.</p> <p>Attachment 26: Public Transportation Certification and Carteret County Area Transportation System (CCATS) Brochure.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	<p>A query of the NC NHP database resulted in no records for element occurrences (species), important natural communities, natural areas, and/ or conservation areas within the proposed project boundary. The Mountains-to-Sea Trail managed area is identified within the proposed project area. However, according to the Friends of the Mountains-to-Sea Trail website, the trail is not located on the Subject Property. There is one natural area (Newport River and Black Creek Wetlands), and six managed areas (an NCDOT Mitigation Site, the Town's Morehead City Sports Complex, Piney Park, Town Open Space, Mountains-to-Sea Trail, and a NC Land and Water Fund Conservation Agreement area) located within one mile of the Subject Property. However, due to the distance from the Subject Property and the proposed project's activities, there are no adverse impacts anticipated on these areas from the proposed project.</p> <p>According to the USFWS National Wetlands Inventory (NWI) Mapper and USACE JD, wetlands (PSS1A – Freshwater Palustrine Forested/Scrub-Shrub) are located on the central portion of the Subject Property. The proposed project will result in permanent wetland impacts to 0.349 acres (15,202 square feet). The Subject Property contains approximately 1.47 acres of wetland with Calico Creek located north of the Subject Property. The proposed project activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the ERR when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, measures will be implemented to ensure the proposed project will have no further impacts to onsite or offsite water resources during construction or operation.</p> <p>Since there is new construction in wetlands, compliance with 24 CFR 55 and EO 11990 is required. The EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination documents the 8-step process under 24 CFR 55.20 in Attachment 11. See the</p>

		<p>Wetlands Protection section and Attachment 11 for further details.</p> <p><i>See Attachment 8:</i> NC NHP Database Query Report and Attachment 11: EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination.</p>
Vegetation, Wildlife	2	<p>The USFWS Raleigh Ecological Services' online 10-step project review process was completed and the proposed project was determined to have "no effect" on proposed, threatened, endangered, or candidate species and proposed or designated critical habitat under USFWS jurisdiction, except for the Monarch Butterfly and Rough-leaved Loosestrife which are "May Affect, Not Likely to Adversely Affect," and a "no Eagle Act permit required" determination for the Bald Eagle. A Self-certification Letter and 10-step Project Review Package were prepared and submitted to the USFWS Raleigh Ecological Services Field Office (FO) on April 28, 2023.</p> <p>BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. The proposed project activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the ERR when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, the proposed project is not anticipated to have an adverse impact on vegetation and wildlife.</p> <p><i>See Attachment 8:</i> USFWS official species list. Verification Letter, Self-certification Letter and 10-step Project Review Package.</p>
Other Factors		NA

Environmental Assessment Factor	Impact Code	Impact Evaluation
CLIMATE AND ENERGY		
Climate Change Impacts EO 14008	2	<p>According to NOAA, climate change is likely increasing the intensity of tropical cyclones. The majority of the Subject Property and surrounding area are located in Zone X, outside of the SFHA. A small central eastern portion of the Subject Property is located in 100-year floodplain (Zone AE, SFHA). A PFIRM dated 06/30/2016 shows the approximate central eastern 100-year floodplain portion and northern edges of the Subject Property as 500-year floodplain. The proposed project was redesigned to only have a portion of the parking lot and retention pond #2 located in Zone AE (SFHA).</p> <p>According to the EJScreen's Climate Change Data, the Subject Property has a 0.75 average change in drought (5-year SPEI), no projected coastal flood hazards, no projected 100-year floodplain, and no projected sea level rise. The census block group for the Subject Property contains 93% properties at wildfire risk in 2023 and 91% properties at wildfire risk in 2053, and 47% properties at flood risk in 2023 and 54% properties at flood risk in 2053. The data from the EJScreen is representative for the area, and lower risk percentiles than some portions of the surrounding area. According to the Climate Mapping For Resilience and Adaptation Tool (CMRAT) data for the Subject Property's census tract, there is a relatively high risk (National Risk Index Ratings) of Extreme Heat, relatively moderate risk of Wildfire, relatively low risk of Flooding and Coastal Inundation; and very low risk for Drought (Attachment 27). Thus, the reviewed data does not present any additional significant site concerns.</p> <p>The proposed development will provide much needed affordable housing options within the community. Due to the increased frequency of high intensity storms and the resultant housing inventory shortage, the Subject Property was determined most suitable and necessary for providing the community with new, safe, affordable housing.</p> <p>Attachment 27: Climate Change documentation, at https://www.climate.gov/news-features/understandingclimate/climate-change-probably-increasing-intensitytropical-cyclones, https://ejscreen.epa.gov/mapper/, and https://livingatlas.arcgis.com/assessment-tool/home</p>
Energy Efficiency	2	<p>The proposed project will cause an increase in energy use as compared to its current use. However, the proposed project will be connected into an existing grid and will not require additional infrastructure. The existing power infrastructure can support the proposed project.</p>

		Energy-efficient building materials are to be utilized during construction, and upon completion, the complex will be equipped with high efficiency lighting and appliances. The proposed project will be constructed to meet Energy Star Version 3 for Multi-family. The proposed project will require minimum energy consumption. Therefore, the proposed project will have minimal impact which will be offset by energy efficient building materials and appliances.
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Additional Studies Performed:

- *Phase I Environmental Site Assessment, Proposed Elijah's Landing Apartments, 3200 Bridges Street, Morehead City, North Carolina*, dated January 10, 2023 and prepared by Atlantic Shores Environmental Services Ltd.
- *Phase I Environmental Site Assessment, Elijah's Landing, 3200 Bridges Street, Morehead City, North Carolina*, dated December 28, 2020 and prepared by Partner.
- *Revised Phase II Subsurface Investigation Report, Elijah's Landing, 1300 (3200) Bridges Street, Morehead City, North Carolina*, dated June 15, 2018 and prepared by Partner.
- *HUD Noise Assessment, Elijah's Landing, 3200 Bridges Street, Morehead City, North Carolina 28557*, dated February 22, 2023 and prepared by Partner.
- *Geotechnical Engineering Report, Elijah's Landing, Bridges Street and Sylvia Land, Morehead City, North Carolina*, dated July 13, 2018 and prepared by East Carolina Community Development, Inc.

Field Inspection (Date and completed by):

December 14, 2022, by Cheryl Moody, Owner of ASE.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

Sources:

- Carteret County On-line Tax Information, at <https://www.carteretcountync.gov/154/Tax-Office>
- Carteret County Registry of Deeds, at <https://www.carteretcountync.gov/162/Register-of-Deeds>
- Fact Sheet #D1: Siting HUD-Assisted Projects in Accident Potential Zones
- US EPA NEPAassist Tool, at <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>
- Airport Data and Information Portal (ADIP), at <https://adip.faa.gov/agis/public/#/public>
- USFWS CBRS Mapper, at <https://www.fws.gov/CBRA/Maps/Mapper.html>
- FEMA Map Service Center, at <https://msc.fema.gov/portal/home> and <https://hazards.fema.gov/femaportal/prelimdownload/searchResult.action>

- US EPA, North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, at https://www3.epa.gov/airquality/greenbook/anayo_nc.html
- US EPA, Recent Updates: Federal Register Notices Published or Effective After July 31, 2023, at <https://www3.epa.gov/airquality/greenbook/adden.html>
- NC DEQ CAMA Counties, <https://deq.nc.gov/about/divisions/coastal-management/about-coastal-management/cama-counties>
- CZMA, Daniel Govoni, NC DCM Federal Consistency Coordinator, Daniel.govoni@ncdenr.gov
- USFWS NWI Mapper, at <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>
- NC DEQ DWM Site Locator, at <https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebf49fc383f688>
- Google Maps and Google Earth
- USFWS Raleigh Field Office
- USFWS Information for Planning and Consultation (IPaC), at <https://ipac.ecosphere.fws.gov/>
- NC NHP
- NC NHP Data Explorer Tool, at <https://ncnhde.natureserve.org/>
- HUD Acceptable Separation Distance Electronic Assessment Tool, at <https://www.hudexchange.info/programs/environmental-review/asd-calculator/>
- HUD Day/Night Noise Level Calculator, at <https://www.hudexchange.info/programs/environmental-review/dnl-calculator/>
- NC DOT Annual Average Daily Traffic Mapping Application, at <https://www.arcgis.com/apps/webappviewer/index.html?id=5f6fe58c1d90482ab9107ccc03026280>
- NC DEQ Division of Water Resources Map Locator, at <https://experience.arcgis.com/experience/689283d17bf342c2a96364fbab09a5d8>
- USDA NRCS Soil Survey, at <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
- ASTM Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process
- NC DEQ DWM, UST Section, Michael Haseltine, L.G., Regional Supervisor Fayetteville/Wilmington Offices, Mike.haseltine@deq.nc.gov
- NC DEQ Records Review: multiple sites and Subject Property
- The EDR Aerial Photo Decade Package (years 1938, 1942, 1957, 1964, 1970, 1982, 1993, 1998, 2006, 2009, 2012, 2016) prepared by Environmental Data Resources, Inc., dated November 30, 2022
- EDR Historical Topo Map Report (Morehead City, North Carolina Quadrangle dated 1949/1951, 1971, 1983, 1993, 1987, 1994, 2013, 2016 & 2019 prepared by Environmental Data Resources, Inc. dated November 30, 2022
- The EDR Radius Map Report with Geocheck, prepared by Environmental Data Resources, Inc. dated November 30, 2022
- HUD Exchange, at <https://www.hudexchange.info/programs/radon/>
- EPA website, at (<https://www.epa.gov/radon/epa-map-radon-zones-and-supplemental-information#region4>)
- ANSI/AARST website, at (<https://standards.aarst.org/>)

- Temple University's, Beasley School of Law, Center for Public Health Law Research on state radon laws, at <https://lawatlas.org/datasets/state-radon-laws>
- National Register of Historic Places, at <https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466>
- North Carolina Department of Natural and Cultural Resources HPOWEB2.0 website, at <https://www.arcgis.com/apps/webappviewer/index.html?id=79ea671ebdcc45639f0860257d5f5ed7¢er=-8805200,4311130,102100&scale=18056514>
- North Carolina State Historic Preservation Office Online GIS service, at <https://www.ncdcr.gov/about/history/division-historical-resources/gis-maps-and-data>
- HUD Tribal Directory Assessment Tool (TDAT), at <https://egis.hud.gov/tdat/>
- State Historic Preservation Office
- Catawba Indian Nation
- US EPA Map of Sole Source Aquifer Locations, at <https://www.epa.gov/dwssa/map-sole-source-aquifer-locations>
- TopoZone Free USGS Maps Website, at <https://www.topozone.com/>
- U.S. Census Bureau, at <https://www.census.gov/quickfacts>
- U.S. Census Bureau TIGERweb website, at https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_main.html
- U.S. Department of Agriculture Natural Resource Conservation Service, Web Soil Survey, at <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- U.S. Geological Survey website, at <https://www.usgs.gov/>
- North Carolina State Parks and Recreation, State Parks and Trails Map, at <https://www.ncparks.gov/find-a-park>
- Nationwide Rivers Inventory Map, at <https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm>
- North Carolina, National and Wild Scenic Rivers System, at <https://www.rivers.gov/north-carolina.php>
- Eligible and Suitable Rivers Map, at <https://nps.maps.arcgis.com/apps/webappviewer/index.html?id=df0f4455dc5f41bb919a3a1a49c60174>
- EJScreen, at <https://ejscreen.epa.gov/mapper/>
- NC DEQ Community Mapping, at <https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=1eb0fbe2bcfb4cccb3cc212af8a0b8c8>
- CMRAT, at <https://resilience.climate.gov/>
- CDC, National Environmental Public Health Tracking Network, at <https://ephtracking.cdc.gov/InfoByLocation/?FIPS=37065&topics=1,10,2,3,4,5,6,7,8>
- Friends of the Mountains-to-Sea Trail website, at <https://mountainstoseatrail.org/the-trail/map/>
- Solid Waste – Morehead City
 - Daniel K. Williams – Public Services Director, publicserviceadmins@moreheadcitync.org
- Solid Waste – Waste Removal, LLC

- Lisa M. Zundel – Office Administrator with Waste Removal, LLC
- Town of Morehead City Parks and Rec
 - Daniel K. Williams – Public Services Director, publicserviceadmins@moreheadcitync.org
- Morehead City – Sewer and Water
 - Daniel K. Williams – Public Services Director publicserviceadmins@moreheadcitync.org
- Carteret County Schools
 - Richard Paylor – Superintendent of Schools, Richard.Paylor@carteretk12.org
- Morehead City Transit - Transportation Services of Carteret County Area
 - Patrick Flanagan, Director of the Transportation System (CCATS)
- Carteret County Dept. of Health and Human Services
 - Randal Williams, randall.williams@carteretcountync.gov
- Morehead City Police Department
 - Bryan Dixon – Chief of Police, Bryan.Dixon@moreheadcitync.org
- Morehead City Emergency Services (Fire and EMS Dept.)
 - John C. Wade – Fire and EMS Chief for Morehead City Fire and EMS, Courtney.Wade@moreheadcitync.org
- Morehead City Code of Ordinances, Article 9-11.10, at https://library.municode.com/nc/morehead_city/codes/code_of_ordinances?nodeId=PTIVUNDEOR_ART9ZODIZOMA
- Morehead City Plan 2032, at <https://www.moreheadcitync.org/412/The-Morehead-City-Plan-2032>
- City Zoning
 - Sandi Watkins – Director of Planning and Inspections, sandi.Watkins@moreheadcity.org
 - Jeannie Drake, CZO – Zoning Enforcement Officer

Attachments:

- **Attachment 1:** Proposed Project Location Maps and Site Plans;
- **Attachment 1A:** Site Visit Photographs;
- **Attachment 2:** NEPA Assist Map with 2,500-foot and 15,000-foot Buffers Showing Airports;
- **Attachment 3:** USFWS CBRS Maps and Certification;
- **Attachment 4:** FEMA FIRMs and PFIRM with Parcel Boundary and NFIP Community Status Book;
- **Attachment 5:** North Carolina Nonattainment/ Maintenance Status for Each County by Year for All Criteria Pollutants;
- **Attachment 6:** NC DCM's Counties Map, Correspondence with Daniel Govoni, NC DCM Federal Consistency Coordinator, dated March 1, 2023, and NCORR Telephone Conversation Record;
- **Attachment 7:** Elijah's Landing Apartments HUD Environmental Standards Review, NC DEQ DWM UST Section Documentation, NEPA Assist EPA Facilities Reports with 1-mile

Buffer, NC DEQ DWM Site Locator Reports with 1-mile, 0.5-mile and 3,000-foot Buffers, Facility Reports, Phase I ESA, Revised Phase II Subsurface Investigation Report, and the EPA NC Radon Zone Map;

- **Attachment 8:** USFWS Raleigh FO 10-step Package and USFWS, NCNHP and NCORR Correspondence;
- **Attachment 9:** Signed HUD Thermal and Explosive Hazards Worksheet, Topographic and Aerial Map with 1-mile Buffer, Fire Marshal Correspondence on Planned and Existing ASTs, AST Data, and ASD Calculations;
- **Attachment 10:** TIGERweb Urban Areas Map and USDA NRCS Soil Survey
- **Attachment 11:** EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination;
- **Attachment 12:** SHPO Response, NCORR SHPO Submission Package, TDAT Results, Catawba Indian Nation Response, and NCORR Catawba Indian Nation Submission Packages;
- **Attachment 13:** Project Architect's Noise Mitigation Letter, HUD Noise Assessment dated February 22, 2023 by Partner, and NCORR Noise Assessment with NC DOT AADT Trend Analysis, FAA 5010 Master Record, National Transportation Noise Map, HUD Airport Noise Worksheet, and DNL Calculations Current 2021 and Future 2035 Projections;
- **Attachment 14:** EPA Sole Source Aquifer Map;
- **Attachment 15:** NEPA Assist Maps of DOI NPS Nationwide Rivers Inventory and National Wild and Scenic Rivers System Showing 1-mile Buffer from the Subject Property;
- **Attachment 16:** EJScreen Standard Report, ACS Summary Report, Census 2010 Summary Report, EJScreen Community Report, NC DEQ Community Mapping and CDC Report for Carteret County;
- **Attachment 17:** Zoning Certification, Map and Correspondence;
- **Attachment 18:** Geotechnical Engineering Report;
- **Attachment 19:** Public Education Certification and Educational and Cultural Facilities Google Maps Search Results;
- **Attachment 20:** Commercial Facilities Google Maps Search Results;
- **Attachment 21:** Health Care and Social Services Certifications and Google Maps Search Results;
- **Attachment 22:** Solid Waste Removal Certification;
- **Attachment 23:** Public Sewer and Water Certifications;
- **Attachment 24:** Law Enforcement, Fire Protection, and Emergency Medical Service Certifications;
- **Attachment 25:** Recreational Services Certification and Google Maps Search Results;
- **Attachment 26:** Public Transportation Certification and Carteret County Area Transportation System (CCATS) Brochure;
- **Attachment 27:** Climate Change documentation; and
- **Attachment 28:** State Environmental Clearinghouse Comments.

List of Permits To Be Obtained (later identified permits will be added to the ERR):

All applicable federal, State and local permits will be identified and obtained prior to starting construction. Permits that might be required include, but are not limited, to:

- USACE CWA Section 404 NWP 18 Minor Discharges
- USACE CWA Section 404 NWP 29 Residential Development
- NC DEQ DWR CWA Section 401 (15 NCAC 02H .500) - Water Quality General Certification Number 4139
- NC DEQ NPDES Construction Stormwater Permit (NCG010000) and 15A NCAC 02H .1000 - State Stormwater Permitting Programs
- NC DWR/ Public Water Supply Section - Water Extension Permit
- NC DEQ Sewer Extension Permit
- Morehead City Erosion and Sediment Control Permit
- Floodplain Development Permit
- NCDOT Driveway Permit
- Site Plan Approval
- Building Permit

Public Outreach [24 CFR 50.23 & 58.43]:

The Early Notice was published in The Carteret News Times newspaper on June 28, 2023 and the FONSI/NOI-RROF/Final Notice was published in The Carteret News Times on August 16, 2023 and sent via Federal Express and email to Interested Agencies, Groups and Individuals. (*See Attachment 10* and attached Early Notice and FONSI/NOI-RROF, affidavit, and distribution list in HEROS.) The Final EA posted to the NCORR website is attached in HEROS.

The proposed project's NEPA Scoping Package was submitted to the NC State Environmental Clearinghouse (SCH) for agency review on April 25, 2023, attached in HEROS. The Early Notice and FONSI/NOI-RROF/Final Notice were also submitted to the NC State Environmental Clearinghouse for agency review and comment. (All comments received are uploaded with this review under the HEROS EA Factors section.)

Cumulative Impact Analysis [24 CFR 58.32]:

The proposed project will be an affordable multifamily housing complex that will provide new, safe housing that is needed in the area. The Subject Property was found to be a very suitable site for the development with no onsite or nearby environmental conditions that would adversely affect the proposed project use or its occupants. This analysis has revealed the proposed project would not have significant adverse impacts associated with cumulative effects. Cumulative effects are caused by the aggregate of past, present, and reasonably foreseeable future actions. This site was found to be ideal for much needed multifamily affordable housing with minimal adverse environmental impacts and close proximity to community services. The benefits of this proposed project to the local economy and low- and middle-income community cannot be understated.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]:

There were three main alternative sites considered for the proposed project. The first site was located on Highway 70 in Newport, North Carolina near the Food Lion area. However, this site did not move forward because it did not meet the requirements for award by North Carolina Housing Finance Agency tax credits. Moreover, the cost for 20 acres was well over \$3 million. Although this site was positioned next to a multifamily housing development, it would not have been able to sustain itself financially due to the affordable rents. The second site was located in Morehead City off Highway 70 East, Arendell Street 1300 block, Third Street, and Sixth Street. Ultimately, this site was not chosen because of the price and location in an urbanized area with a building that required removal from the site. The third site was located off Highway 70 East near the Walmart Plaza. Although this site was approximately 20 acres and would have scored well, there was a high trance quotation/ radio tower located on the site, which because of this potential fall zone, would not qualify for the affordable housing tax code for the State of North Carolina.

There are a very limited number of sites within Morehead City that both meet the scoring criteria of the NCHFA QAP for being competitive for a tax-credit funding award and is properly zoned for multifamily development. This site was chosen as most preferable for multifamily development. A similar affordable housing development was funded and completed on the adjacent tract which was the first LIHTC affordable housing development in the southwestern area of Morehead City and the developer wanted to add additional affordable housing on this side of Town. Ultimately, the Subject Property was the best location for a new development due to market demand and its close proximity to a variety of community amenities and services including public schools, public transportation, shopping, grocery stores and employment opportunities. Therefore, the Subject Property was determined to be the most suitable location for the proposed project. Further, the proposed project itself was redesigned to remove Building #500 outside of 100-year floodplain and minimize impacts to floodplain and wetlands.

No Action Alternative [24 CFR 58.40(e)]:

With the “No Action” Alternative, affordable housing would not be provided for low- and middle-income families in the local community. The Town of Morehead City would need to find other options to address the shortage in affordable housing inventory exacerbated by the effects of hurricanes that recently damaged or destroyed hundreds of homes in North Carolina. In the absence of the proposed project, the site would not generate additional tax revenue or create affordable housing for residents, which are both of greater benefit to the community than leaving the property vacant. Thus, the “No Action” Alternative is not feasible in relation to the desired objective of creating affordable housing options in Morehead City.

Summary of Findings and Conclusions:

The preceding Statutory Checklist and Environmental Assessment Checklist, and the discussion below, document that the proposed project work will comply with regulations in 24 CFR part 58 and that there are no direct or cumulative adverse environmental impacts anticipated as a result of the proposed action.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]:

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Any change to the approved scope of work will require re-evaluation by the Certifying Officer for compliance with NEPA and other laws and Executive Orders.

This review does not address all federal, state, and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state, and local environmental permits and clearances may jeopardize federal funding. Guidelines, recommendations, and requirements identified during agency and the State Environmental Clearinghouse inter-agency review shall be considered and required, where applicable.

Law, Authority, or Factor	Mitigation Measure
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Construction-related activities (land clearing, grading) can cause short-term exposures to sensitive receptors from particulate matter (PM 10) such as fugitive dust and emissions from construction equipment. The proposed project will conform to NC Air Quality Management regulations during and following construction. Mitigation measures for dust control will be implemented to reduce potential impacts to air quality during construction. The contractor will use BMPs to reduce fugitive dust generation and diesel emissions. BMPs can include wetting the grading site during dry conditions; maintaining vegetative cover as much as possible around cleared areas; a water truck to stabilize potential dust during high traffic times or high wind days on heavily-travelled access roads and storage areas; and operating construction vehicles and machinery at reduced speeds to reduce soil disturbance and fugitive dust potential. BMPs to mitigate the generation of emissions during construction include limiting

	the use of vehicles and other machinery to construction hours only and removal once construction is completed.
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	<p>Based upon the site inspection, Phase I ESA, and review of available environmental and historical records and reports for the Subject Property and surrounding area, there is one REC identified that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property without proper mitigation. <i>Mitigation is necessary for the identified REC to not be considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.</i></p> <p>The REC is the release of oil observed at the eastern entrance of the onsite garage from an open top five-gallon bucket exposed to the elements. The majority of the oil staining is contained to the concrete. However, soil staining is present along the concrete. The following hazards were also identified: an approximate 500 cubic feet of corrugated transite (asbestos) roofing material observed stored along the western property boundary, a derelict onsite garage structure, and historical use of the northern portion of the Subject Property as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in other areas. However, test pits of these areas did not identify co-disposal of oil or hazardous materials. With proper removal and disposal of identified and encountered hazards, the Subject Property is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.</p> <p>All five-gallon buckets, their contents including petroleum products, asbestos roofing material (see below), debris, and any other materials or soils removed shall be properly disposed of by the Grant Recipient and its contractors. All wastes shall be characterized and properly disposed of according to the type of waste in an appropriate, legally compliant NC DEQ DWM permitted receiving facility in accordance with and federal, state and local regulations (e.g., RCRA Subtitles C and D, NESHAP 40 CFR 61.150, and NC Solid Laws NCGS 130A, and NC Hazardous Waste Rules 15A NCAC 13A). NC DEQ DWM strongly recommends that the Grant Recipient require all contractors to provide proof of proper disposal for all waste to permitted facilities.</p> <p>In the event that unexpected, contaminated or potentially hazardous materials, soils or debris are encountered during demolition or construction, work in the area shall cease</p>

immediately, and the work area shall be secured. The appropriate NC DEQ Regional Office will be contacted and the contamination assessed with an environmental consultant. Appropriate measures will be taken to address the hazard(s) (i.e., contaminated soils, hazardous debris, USTs, lead-based paint, etc.), and, if removed, will be properly disposed of in the appropriate NC DEQ DWM approved facility in accordance with federal, state and local laws and regulations (e.g., RCRA Subtitles C and D, NESHAP 40 CFR 61.150, and NC Solid Waste Laws NCGS 130A, and NC Hazardous Waste Rules 15A NCAC 13A). If suspect ACM is found during demolition of the garage and redevelopment activities, it should be assumed to contain asbestos until laboratory analysis can confirm or deny their asbestos content. The NC DHHS and Asbestos Hazard Management Program handles asbestos control and NC asbestos abatement procedure. Asbestos inspection and the removal of regulated ACM must be done by NC-accredited asbestos professionals in accordance with all applicable federal, state and local laws, regulations and procedures. The activities must conform to Article 19, N.C. Gen. Stat. § 130A-444-451, the National Emission Standard for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61, Subpart M) pertaining to demolition and renovation in 40 CFR 61.145, NESHAP pertaining to waste disposal in 40 CFR 61.150, Occupational Safety and Health Act of 1970, Pub. L. 91-596, 84 Stat. 1590, 29 U.S.C. § 651, et seq., as amended (OSHA), Asbestos Standard for Construction 29 CFR 1926.1101, OSHA 29 CFR 1910, NC OSHA 13 N.C.A.C. 7C .0101, Transportation under 49 CFR 173.1090, NC Hazardous Waste Rules, and NC Solid Waste Laws. An Asbestos Permit Application and Demolition Notification (DHHS 3768) must be submitted to the Health Hazards Control Unit (HHCU) of the NC DHHS Division of Public Health, prior to demolition in compliance with 15 A NCAC 20.1110 (a)(1). If the ACM removal is greater than 3,000 square feet, 1,500 linear feet, or 656 cubic feet in a public area, then a design, project monitoring plan, and (transmission electron microscopy) TEM clearance might be required under 10A NCAC 41C .0607. All ACM debris will be properly disposed of in a NC DEQ DWM approved landfill facility in accordance with applicable regulations. Any Asbestos Surveys/ Clearance Reports and applicable permits will be appended to this ERR.

If any USTs are discovered, then DWM's UST Section Wilmington Regional Office will be notified. If any abandoned wells are discovered, then NC DEQ will be notified and abandoned in accordance with Title 15A. Subchapter 2C.0100. "Any open burning associated with the subject proposal must be in compliance with 15 A NCAC 2D.1900" (See **Attachment 28**).

	<p>Based on the EPA's Radon Zone Map, the Subject Property is located within Zone 3 with predicted average indoor radon screening levels less than 2 pCi/L (Low Potential) (see Attachment 7). Due to the low potential for elevated indoor radon levels, no additional steps are required for radon mitigation. However, testing for radon is the only way to determine radon levels in buildings. Preventing the entry of radon into a building is the most effective way of protecting building residents. This can be done in new buildings by incorporating radon-resistant construction protocols and in existing buildings by using underground collection systems that vent the gas into the atmosphere through an exterior pipe. Radon levels within buildings can also be reduced by increasing ventilation rates.</p>
<p>Floodplain Management</p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Since there is modification of the floodplain, compliance with 24 CFR 55 and EO 11988 is required. BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. The proposed project activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the environmental review record when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, measures will be implemented to ensure the proposed project will have no further impacts to 100-year floodplain during construction and operation.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>NCORR and Partner both reached a Combined DNL of 68dB and 69 dB, respectively, for NAL #1a (front of Buildings 100 and 200 on southern side) within the HUD Normally Unacceptable noise level range (above 65 dB but not exceeding 75 dB) for current, 2035 and 10-year traffic projections. For new construction projects in Normally Unacceptable noise areas (in accordance with 24 CFR 51.101(a)(3)), <i>bedrooms and studio apartments may have direct access to balconies if: 1) the interior noise levels have been mitigated to not exceed a day-night average noise level of 45 decibels as documented by STraCAT of the dwelling unit's exterior walls factoring in fenestration; 2) appropriate</i></p>

	<p>ventilation is provided by a <i>mechanical ventilation system</i> and not by opening doors or windows; <u>and</u> 3) an <i>Operations and Maintenance plan</i> is in place that <i>requires periodically inspecting seals and repairing or replacing building components when their performance diminishes</i>. These three requirements for noise attenuation will be met. According to the Project Architect, “[o]ur proposed exterior wall system consists of 3-1/2” wood studs at 16” o.c. with R-15 batt insulation and 7/16” exterior wood structural panels with brick on the lower portion of wall and vinyl siding above the brick, and 1/2” gypsum wall board on the interior face. Per the STraCAT analysis for Buildings #100 & #200, our wall system provides a total attenuation of 30.0dB, which meets the required amount of attenuation. Thus, the new construction will meet HUD’s building interior requirements of a 45 dB DNL maximum. In addition, mechanical ventilation systems must be provided, and the design of those systems must be such that they do not transmit exterior noise to the interior of the units. Periodic inspection of door and window seals will be made an explicit requirement in Operation and Maintenance plans with the provision for repair or replacement as needed. With these three requirements met, bedrooms and studio apartments may have direct access to balconies.</p> <p>Short-term construction work will adhere to local noise control standards and regulations. Construction noise will be limited to daytime hours, Monday through Friday, except in emergency situations. Construction equipment will be required to meet local sound control requirements.</p>
<p>Wetlands Protection</p> <p>Executive Order 11990, particularly sections 2 and 5</p> <p>Unique Natural Features, Water Resources</p>	<p>Since there is new construction in wetlands, compliance with 24 CFR 55 and EO 11990 is required. BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. According to the USACE General Permit (CWA Section 404 Nationwide Permits 18 and 29) Verification’s Special Conditions, “[t]he permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).” According to the issued NC DWR’s CWA Section 401 Water Quality General Certification No. 4139’s Additional Conditions, “1. All</p>

	<p>mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils (15A NCAC 02H .0506[b][3] and [c][3] and 15A NCAC 02B .0211 [12]). 2. The Permittee shall adhere specifically to 15A NCAC 02B .0221 Tidal Salt Water Quality for Class SA Waters (3)(g) pH: shall be normal for waters in the area, which generally shall range between 6.8 and 8.5 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions; (l) Turbidity: the turbidity in the receiving water shall not exceed 25 NTU; if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased. (15A NCAC 02B .0221).”</p> <p>The proposed project activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the environmental review record when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, measures will be implemented to ensure the proposed project will have no further impacts to wetlands during construction and operation.</p>
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	<p>A Geotechnical Engineering Report was completed for the Subject Property and includes recommendations for the proposed project’s redevelopment activities (Attachment 18). The proposed project will be designed in a way to balance the grading and minimize any off-site material, if possible. Soil removed from the Subject Property will be quantified and only exported to an approved site per State requirements. Any externally-sourced fill material will come from an approved source, and applicable State regulations on erosion control will be complied with. The soils will be confirmed to be “clean” fill and that it meets project requirements prior to importing the material.</p>

	<p>The proposed project will have a stormwater permit and SWPPP. According to NC DEQ, “[t]he Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres are to be disturbed. Plan must be filed with and approved by applicable Regional Office (Land Quality Section) at least 30 days before beginning activity. A NPDES Construction Stormwater permit (NCG010000) is also usually issued should design features meet minimum requirements.” Further, the proposed project must comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. According to NC DEQ, areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the State. BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. Thus, measures will be implemented to minimize impacts on soil suitability, slope, erosion, drainage, and stormwater runoff from the proposed project.</p>
<p>Hazards and Nuisances including Site Safety and Noise</p>	<p>With the proper mitigation measures and protocols discussed above, the Subject Property will be unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property (<i>see</i> Contamination and Toxic Substances section and Attachment 7 for full details).</p> <p>Construction-related activities (land clearing, grading) can cause short-term exposures to sensitive receptors from particulate matter (PM 10) such as fugitive dust and emissions from construction equipment. Mitigation measures for dust control will be implemented to reduce potential impacts to air quality during construction. The proposed project will conform to NC Air Quality Management regulations during and following construction. The contractor will use BMPs to reduce fugitive dust generation and diesel emissions. BMPs can include wetting the grading site during dry conditions; maintaining vegetative cover as much as possible around cleared areas; a water truck to stabilize potential dust during high traffic times or high wind days on heavily-travelled access roads and storage areas; and construction vehicles and machinery operating at reduced speeds to reduce soil disturbance and fugitive dust potential. BMPs to mitigate the generation of emissions during construction include limiting use of vehicles and other machinery to construction hours only and removal once construction is completed. (<i>See</i> Clean Air</p>

	<p>Act section.)</p> <p>NCORR and Partner both reached a Combined DNL of 68dB and 69 dB, respectively, for <i>NAL #1a</i> (front of Buildings 100 and 200 on southern side) within the HUD Normally Unacceptable noise level range (above 65 dB but not exceeding 75 dB) for current, 2035 and 10-year traffic projections. For new construction projects in Normally Unacceptable noise areas (in accordance with 24 CFR 51.101(a)(3)), <i>bedrooms and studio apartments may have direct access to balconies if: 1) the interior noise levels have been mitigated to not exceed a day-night average noise level of 45 decibels as documented by STraCAT of the dwelling unit's exterior walls factoring in fenestration; 2) appropriate ventilation is provided by a mechanical ventilation system and not by opening doors or windows; and 3) an Operations and Maintenance plan is in place that requires periodically inspecting seals and repairing or replacing building components when their performance diminishes.</i> These three requirements for noise attenuation will be met. Short-term construction work will adhere to local noise control standards and regulations. Construction noise will be limited to daytime hours, Monday through Friday, except in emergency situations. Construction equipment will be required to meet local sound control requirements. The proposed project is in compliance with HUD's noise regulations in 24 CFR 51 Subpart B (<i>see Noise and Abatement Control section and Attachment 13 for full details</i>).</p> <p>Site development will increase man-made hazards during construction. In order to mitigate hazards during construction, fencing will be erected around the site to secure the area and keep the general public from the physical hazards. Additionally, designated entrance and exit points will be used in order to control traffic and enter public roads at safe areas.</p> <p>Therefore, the proposed project is not expected to adversely impact the Subject Property or surrounding area through hazards and nuisances including site safety and noise during construction or operation with the implementation of the identified mitigation measures.</p>
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Solid Waste Disposal / Recycling	<p>Solid wastes generated during operations of the completed project will consist of mixed municipal waste materials and be disposed of by Waste Removal, LLC or another local, licensed waste collector. An appropriate quantity of dumpsters will be provided to meet the proposed project's demands.</p> <p>During the construction phase of the proposed project, wastes generated are expected to consist of primarily packaging from construction materials, and mixed municipal wastes generated daily by site workers. These materials will be disposed of in designated receptacles and transported to permitted landfills accepting these types of wastes by a licensed waste hauler. This project will follow construction waste management requirements of the 2015 Enterprise Green Communities Green Criteria, which requires recycling of specific building materials to reduce solid waste disposal in local landfills. According to the NC DEQ DWM, Solid Waste Section (Section), any waste generated by and of the project that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility permitted by DWM. The Section strongly recommends that the Grant Recipient require all contractors to provide proof of proper disposal for all generated waste to permitted facilities (Attachment 28). The proper disposal of hazardous materials during demolition and redevelopment activities is discussed further in the Contamination and Toxic Substances section and Attachment 7.</p>
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Determination

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]

The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Preparer Signature: Andrea Sievers Date: 8/15/23

Name/Title/Organization: Andrea Gievers, Environmental SME, NCORR

Certifying Officer Signature: Laura H. Hogshead Date: 8/15/2023

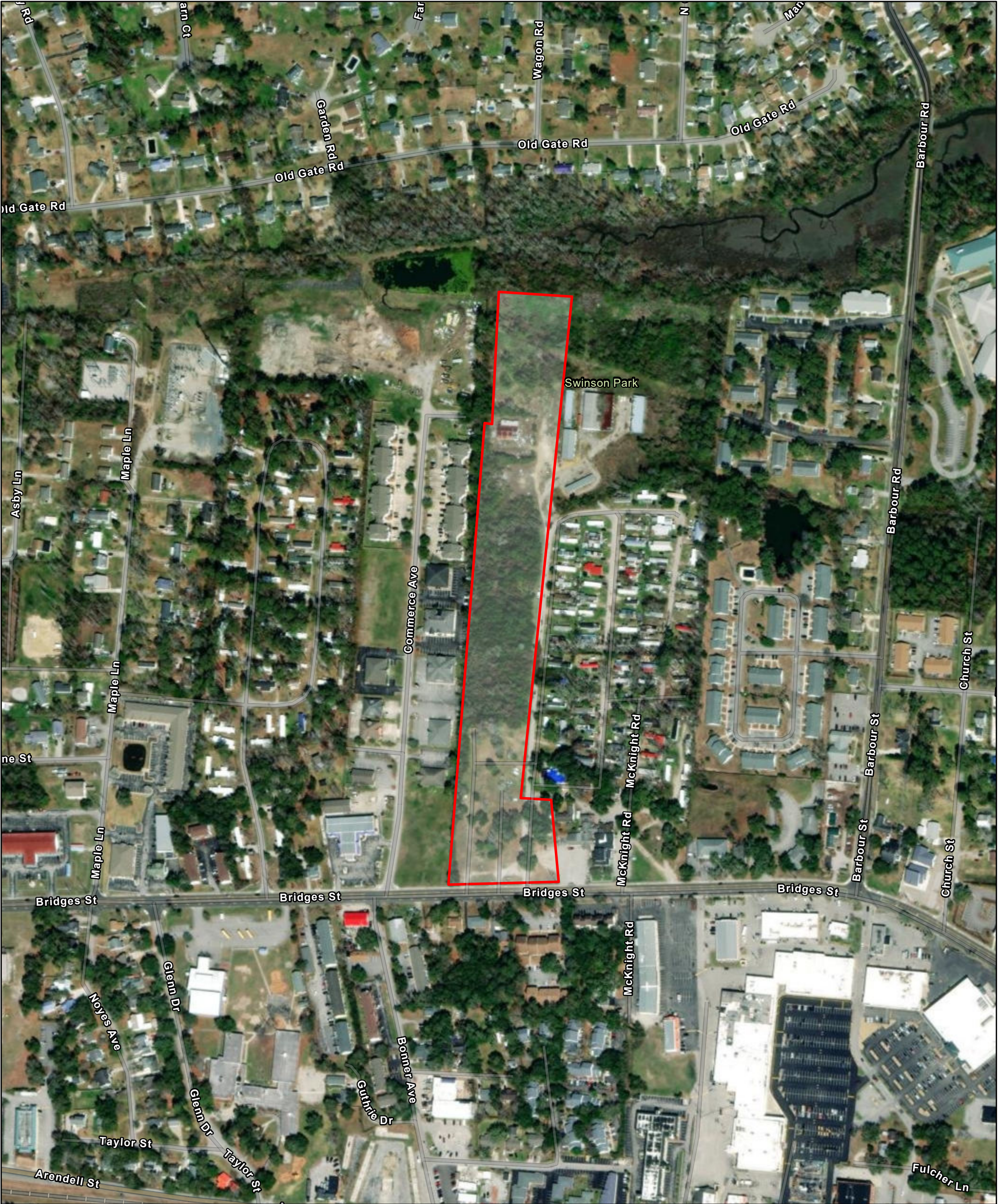
Name/Title: Laura H. Hogshead, Director, NCORR

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

ATTACHMENT 1:

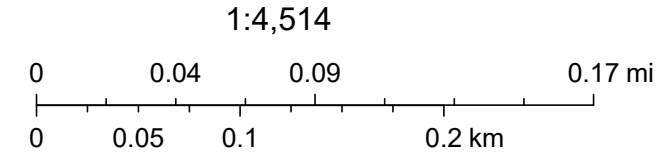
Proposed Project Location Maps and Site Plans

Elijah's Landing Apartments - Aerial Map



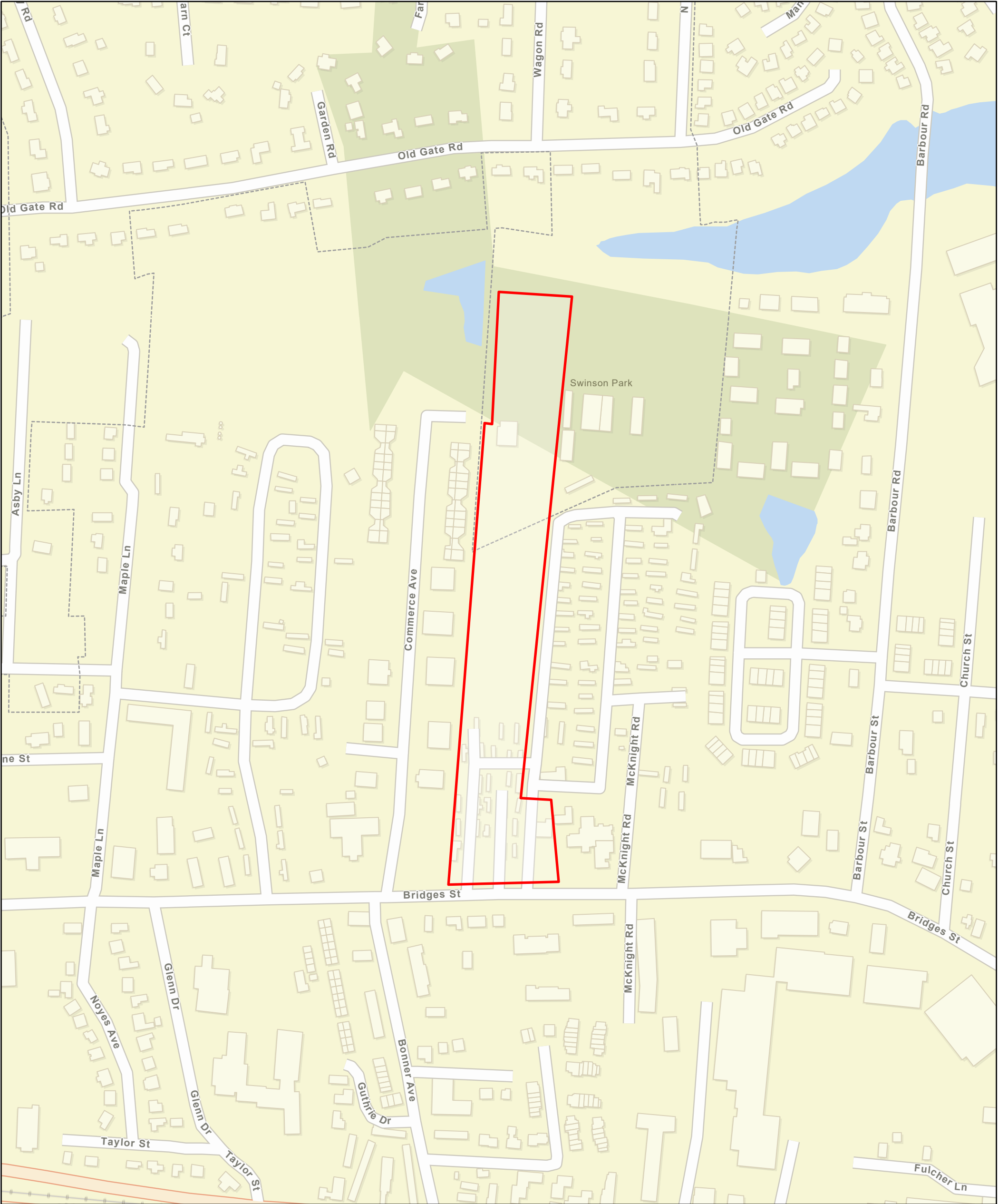
June 21, 2023

 Elijah's Landing Apartments



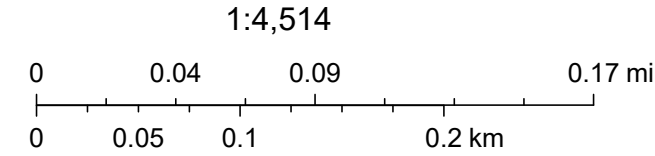
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Elijah's Landing Apartments - Street Map



June 21, 2023

 Elijah's Landing Apartments



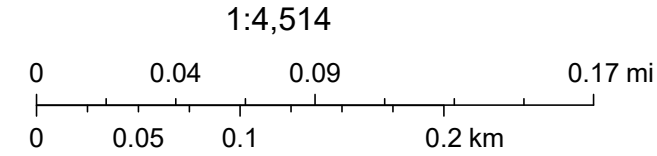
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Elijah's Landing Apartments - Topo Map



June 21, 2023

 Elijah's Landing Apartments



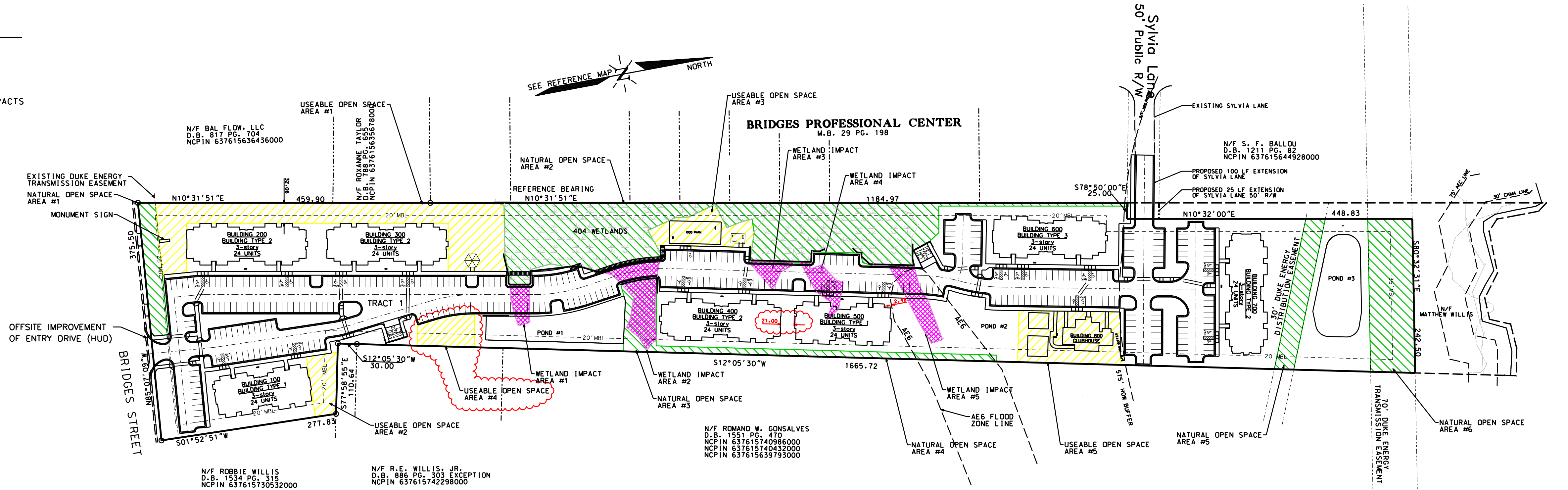
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VICINITY MAP N.T.S.

LEGEND

- EXISTING WETLANDS
- PROPOSED WETLAND IMPACTS
- USEABLE OPEN SPACE
- NATURAL OPEN SPACE
- REVISIONS REQUESTED FOR REVIEW



AREA TABULATIONS

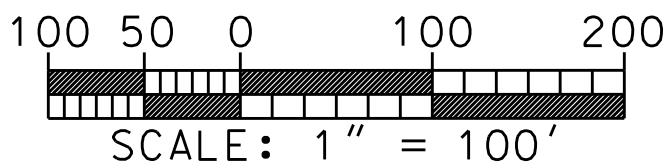
USEABLE OPEN SPACE AREAS		NATURAL OPEN SPACE AREAS		WETLAND IMPACT AREAS	
AREA #	AREA (SF)	AREA #	AREA (SF)	AREA #	AREA (AC)
1	27,686.83	1	5,561.79	1	0.037
2	3,933.28	2	54,784.37	2	0.139
3	7,045.84	3	1,711.15	3	0.055
4	4,020.67	4	3,110.77	4	0.055
5	55,858.03	5	16,913.42	5	0.083
TOTAL AREA = 55,858.03 SF		TOTAL AREA = 95,341.48 SF		TOTAL AREA = 0.349 AC	

SITE DATA

TRACT AREA = 11.74 AC = 506,966.36 SF
MAXIMUM BUILDING COVERAGE ALLOWED IS 40% OF TRACT AREA = 202,786.54 SF
PROPOSED BUILDING COVERAGE (BUILDINGS 100 THRU 700, CLUBHOUSE, GAZEBO & COVERED PICNIC AREA) = 64,755.28 SF
MINIMUM LOT SIZE PER UNITS = 5,000 SF FOR FIRST UNIT, EACH 2+ BEDROOM UNIT REQUIRES 3,000 SF PER UNIT AND EACH 1 BEDROOM UNIT REQUIRES 2,500 SF PER UNIT.
PROPOSED (30) 1 BEDROOM UNITS, (78) 2 BEDROOM UNITS AND (60) 3 BEDROOM UNITS
REQUIRED AREA = 5,000 SF + [138 UNITS X 3,000 SF] + [29 X 2,500 SF] = 491,500 SF = 11.28 AC
TRACT AREA IS GREATER THAN MINIMUM LOT AREA REQUIRED
OPEN SPACE REQUIREMENTS = 18% OF TRACT MUST BE NATURAL OPEN SPACE AND 10% USEABLE OPEN SPACE
NATURAL OPEN SPACE REQUIRES (18% OF TRACT) = 91,253.94 SF
USEABLE OPEN SPACE REQUIRED (10% OF TRACT) = 50,696.64 SF
NATURAL OPEN SPACE PROVIDED = 94,261.85 SF
USEABLE OPEN SPACE PROVIDED = 55,858.03 SF
MINIMUM SETBACK REQUIREMENTS
FRONT = 25'; 25' PROVIDED
REAR = 25' + 5' PER ADDITIONAL STORY = 35'; 35' PROVIDED
SIDE = 20' AGGREGATE = 5' PER ADDITIONAL STORY = 40' AGGREGATE
SIDE SETBACKS ARE 20' FOR ENTIRE PROPERTY
MAXIMUM BUILDING HEIGHT ALLOWED = 50' ABOVE AVERAGE GRADE
MAXIMUM BUILDING HEIGHT PROPOSED = 34' 3"

PARKING DATA

PARKING SPACES REQ'D = 1.75 PARKING SPACES PER RESIDENTIAL UNIT (NCHFA 2020 OAP)
PARKING SPACES REQ'D = 168 UNITS X 1.75 SPACES PER UNIT = 294 SPACES TOTAL
PARKING REQ'D (MOREHEAD CITY) = 2 SPACES PER UNIT PLUS 1 ADDITIONAL SPACE PER 6 UNITS
PARKING SPACES REQ'D = 336 SPACES + 28 SPACES = 364 TOTAL SPACES
PARKING SPACES PROVIDED = 348 SPACES - PLEASE SEE REQUEST FOR 4.4% PARKING REDUCTION PER ORDINANCE SECTION 20-1.4.
HANDICAP(H/C) PARKING REQ'D (NORTH CAROLINA) = 2% OF 364 = 8 SPACES REQ'D
HANDICAP(H/C) PARKING REQ'D (NCHFA) = 1 PER TYPE 'A' UNITS, 2% OF TYPE 'B' UNITS,
1 PER LOCATIONS OF AMENITIES, VAN ACCESSIBLE SPACES REQ'D AT EACH AMENITIES LOCATION
AND THE 1ST HANDICAP SPACE PER TYPE 'A' UNIT
TYPE 'A' UNITS = 18, 18 HANDICAP SPACES REQ'D
TYPE 'B' UNITS = 38, 1 HANDICAP SPACES REQ'D
AMENITIES LOCATION = 3, 3 HANDICAP SPACES REQ'D
HANDICAP(H/C) PARKING REQ'D = 21 VAN SPACES + 1 SPACES = 22 HANDICAP SPACES TOTAL
HANDICAP PARKING SPACES PROVIDED = 33 SPACES

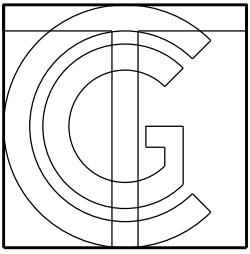


SCALE: 1" = 100'

SHEET INDEX	
SHEET NO.	DESCRIPTION
C1.0	OVERALL SITE PLAN
C2.0	EXISTING CONDITIONS SURVEY
C3.0	ENLARGED SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING & DRAINAGE PLAN
C6.0	UTILITY PLAN
C6.1-6.3	UTILITY PLAN & PROFILES
C7.0	LANDSCAPE PLAN
C8.0	STORMWATER POND #1 DETAILS
C8.1	STORMWATER POND #2 DETAILS
C8.2	STORMWATER POND #3 DETAILS
C8.3	STORMWATER PONDS PLANTING PLAN
C9.0	SITE DETAILS
C10.0	SITE DETAILS
C11.0	EROSION CONTROL DETAILS
C12.0	UTILITY DETAILS
C13.0	BMP DELINEATION PLAN
C14.0	GROUND STABILIZATION
C15.0	SELF INSPECTION

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing
Overall
Site Plan



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
C-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080



100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	CMC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

OVERALL
SITE PLAN

C1.0

SURVEYOR'S COMMENTS - SCHEDULE B, PART II
RELATIVE TO CHICAGO TITLE INSURANCE COMPANY
COMMITMENT NUMBER: 21-20231NB
COMMITMENT DATE: 9/16/21; REVISED 11/23/21

- [illegible]

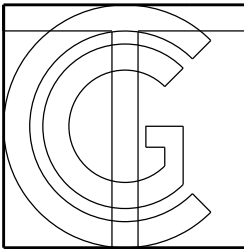
ENCROACHMENT/SIGNIFICANT OBSERVATION

THE FOLLOWING ITEMS CONSTITUTE ENCROACHMENTS:

1. THE ASPHALT DRIVE THAT LIES ACROSS THE EASTERN BOUNDARY.
2. THE MOBILE HOME THAT LIES ACROSS BOUNDARY LINE RUNNING FROM THE END OF THE ASPHALT DRIVE TO THE TAIL OF THE
3. THE BRICK WALKWAY, ASPHALT DRIVE AND FENCE THAT LIES ACROSS BOUNDARY LINE RUNNING 277.83', S01°52'51"W AND IS ENLARGED WITHIN DETAIL MAP.
4. THE CHAIN LINK FENCE AROUND THE WOOD FRAME BUILDING NEAR THE SYLVIA LANE RIGHT-OF-WAY.

A vicinity map showing the location of the site. The map includes Sylvia Lane, Bonner Ave., Commercial Avenue, and Bridges Street. The site is indicated by a hatched rectangular area. A north arrow is present in the upper left corner. The map is labeled "VICINITY MAP" and "N.T.S." (Not To Scale).

Elijah's Landing



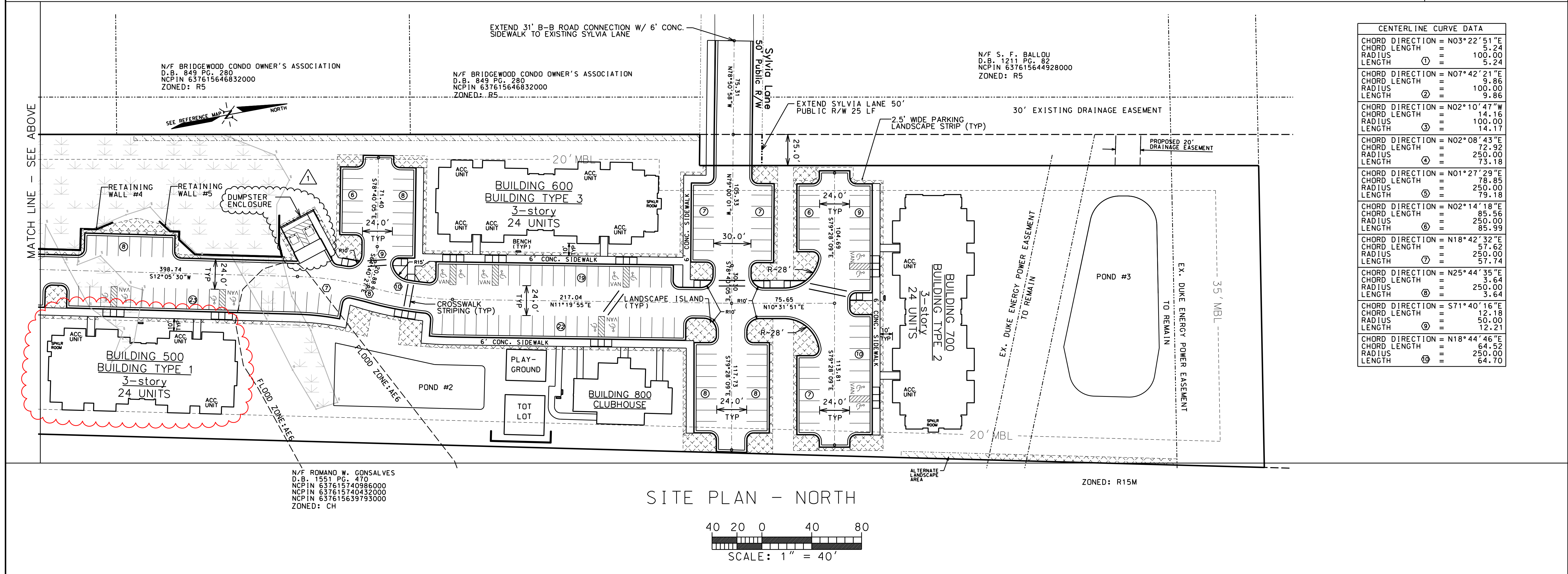
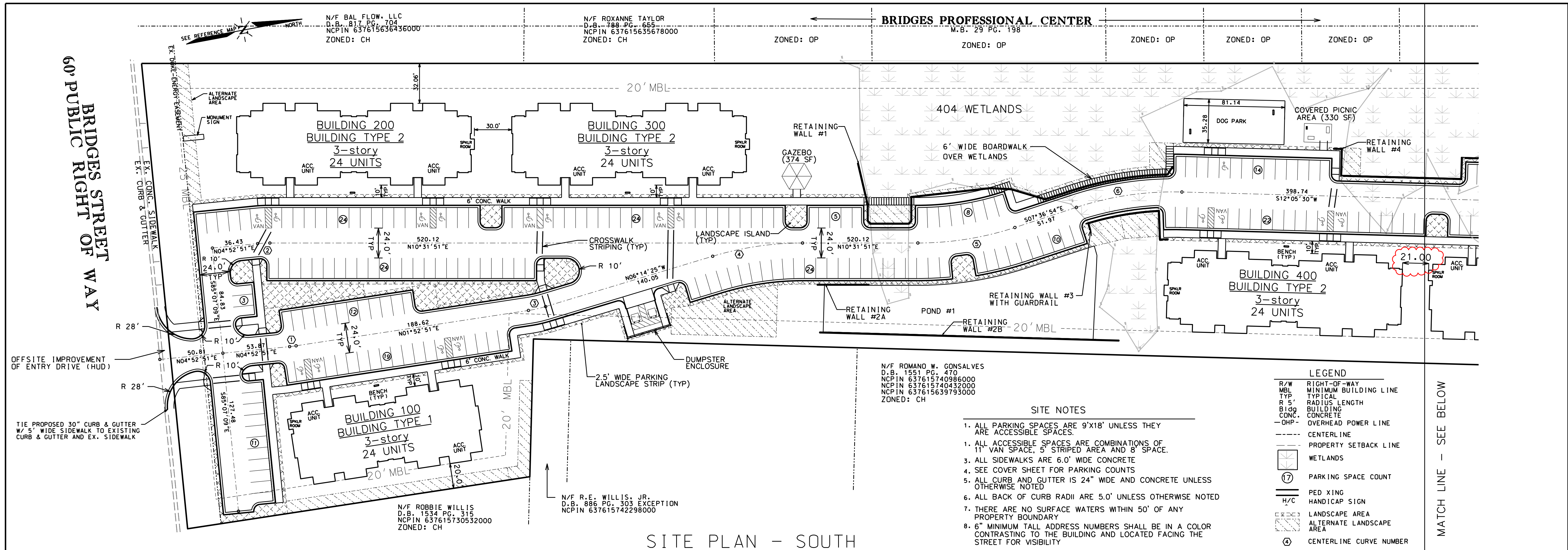
PRELIMINARY PLAT
NOT FOR RECORDATION
CONVEYANCE OR SALE.
FOR REVIEW ONLY!

100%
CONSTRUCTION
DRAWINGS

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checked by	EGC
proj. no.	PM858-29
revisions	
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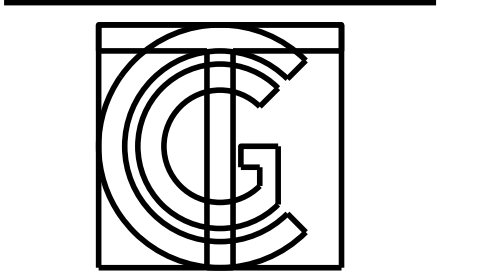
ALTA / NSPS
LAND TITLE
SURVEY

C2.0



Elijah's Landing
 3140 & 3200 Bridges St.
 Morehead City, Careteret
 County, NC 28557
 FHA Project #:053-36291

**Elijah's
 Landing**



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 ENGINEERING & SURVEYING SERVICES
 101-A NC HIGHWAY 24
 MOREHEAD CITY, N.C. 28557
 (252) 773-0080



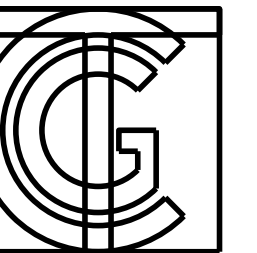
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 CONSTRUCTION
 DRAWINGS**

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drafter	CMC
checked by	CMC
proj. no.	PM858-29
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4	PER NCDPS

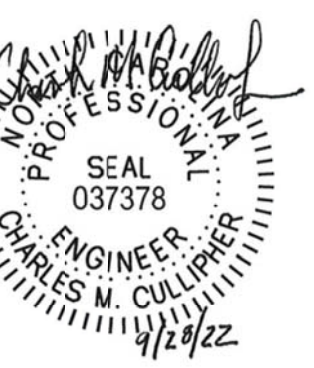
**SITE
 PLAN**

C3.0

Elijah's Landing



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ENGINEERING & SURVEYING SERVICES
15-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080

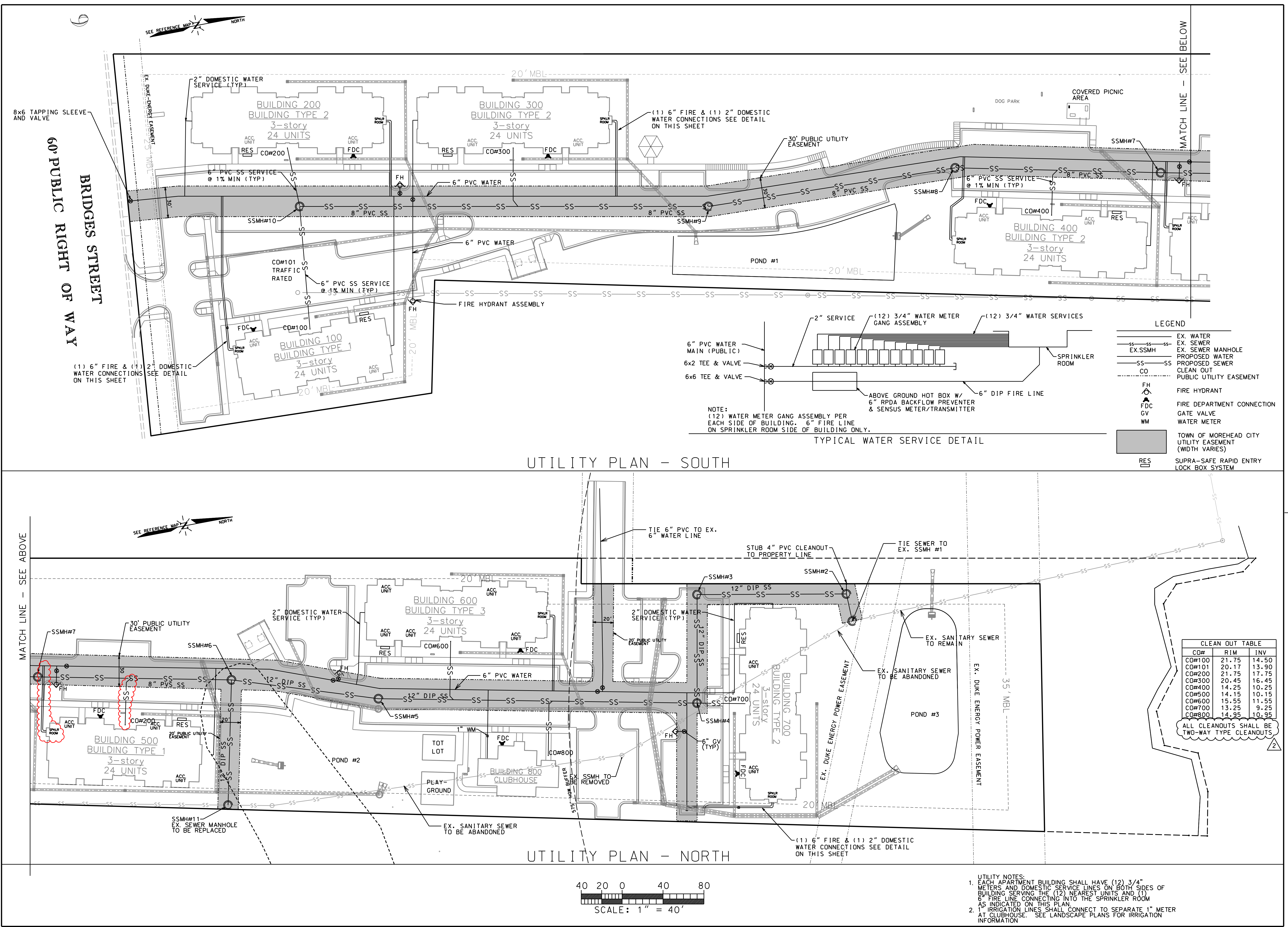


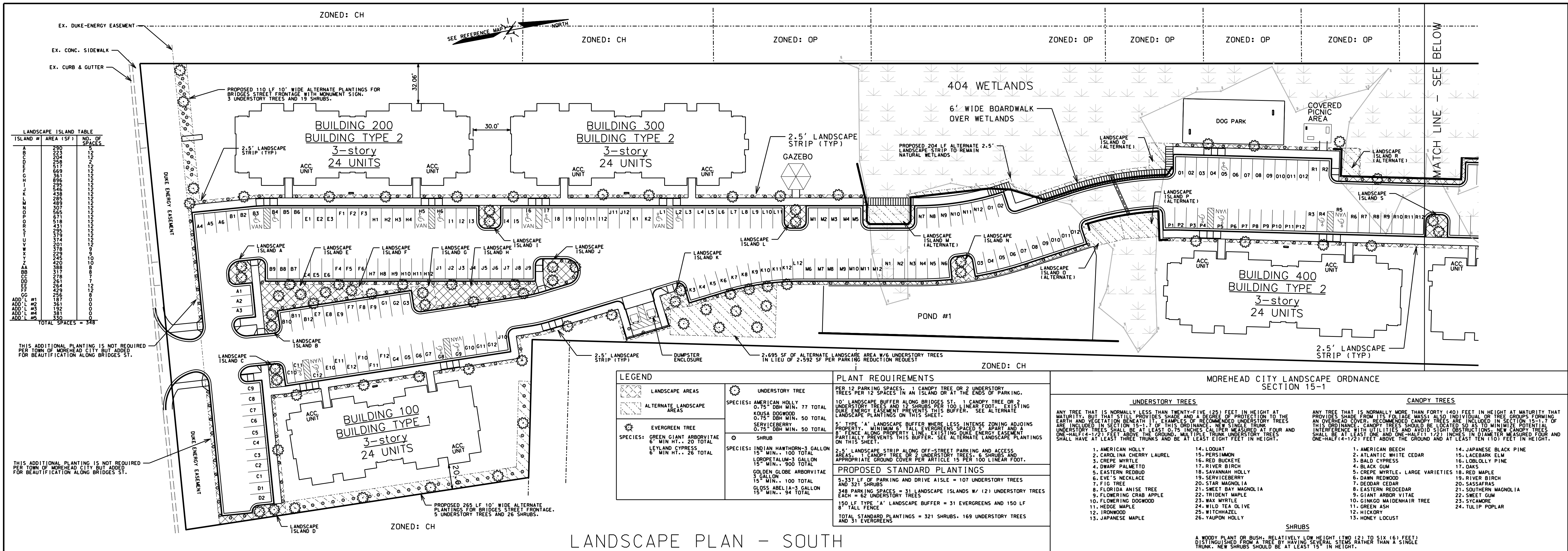
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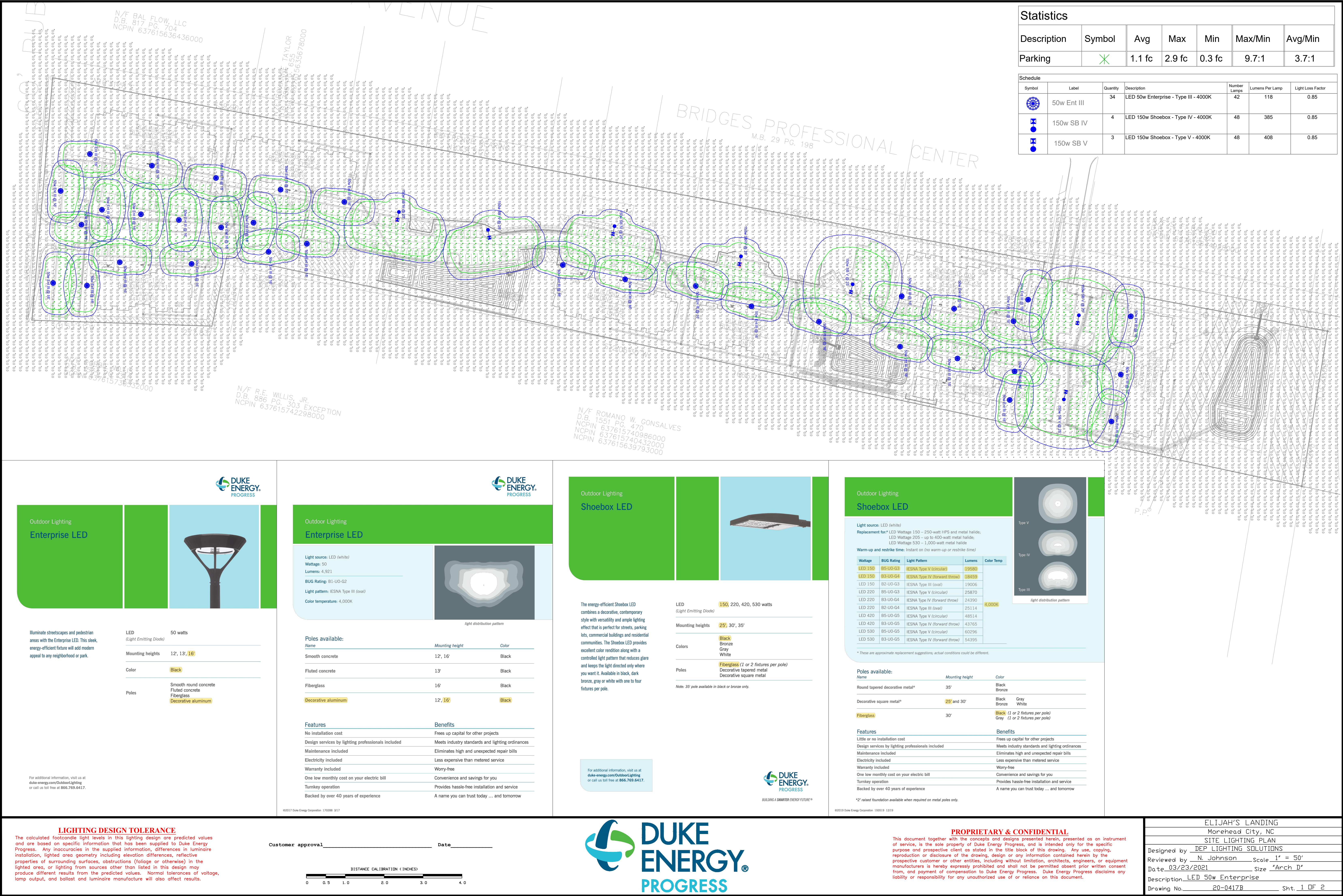
date 9/28/22
drafter CMC
checked by CMC
proj. no. PM858-29
revisions
1 PER NCFHA
2 PER TOWN
3 PER TITLE/LENDER
4 PER NCDPS

UTILITY PLAN

C6.0








Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking		1.1 fc	2.9 fc	0.3 fc	9.7:1	3.7:1

Schedule						
Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
	50w Ent III	34	LED 50w Enterprise - Type III - 4000K	42	118	0.85
	150w SB IV	4	LED 150w Shoebox - Type IV - 4000K	48	385	0.85
	150w SB V	3	LED 150w Shoebox - Type V - 4000K	48	408	0.85



Outdoor Lighting


Enterprise LED

Illuminate streetscapes and pedestrian areas with the Enterprise LED. This sleek, energy-efficient fixture will add modern appeal to any neighborhood or park.

LED	50 watts
Light source: LED (white)	
Wattage: 50	
Lumens: 4,921	
BUG Rating: B1-UO-G2	
Light pattern: IESNA Type III (oval)	
Color temperature: 4,000K	

Mounting heights	12', 13', 16'
Color	Black
Poles	Smooth round concrete Fluted concrete Fiberglass Decorative aluminum

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.



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Outdoor Lighting

Enterprise LED

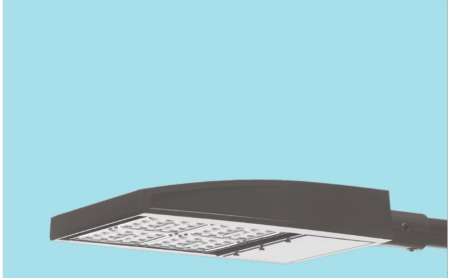
Poles available:

Name	Mounting height	Color
Smooth concrete	12', 16'	Black
Fluted concrete	13'	Black
Fiberglass	16'	Black
Decorative aluminum	12', 16'	Black

Features

Features	Benefits
No installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

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Outdoor Lighting

Shoebox LED

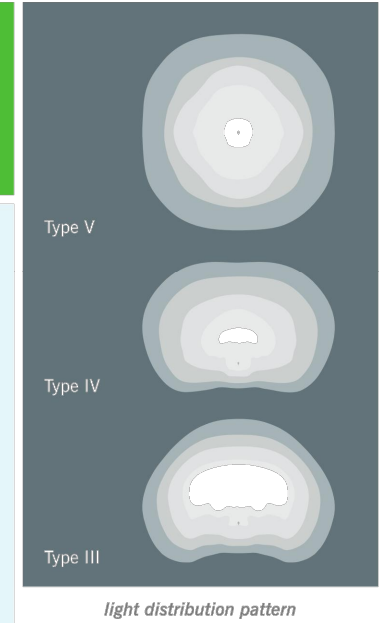
The energy-efficient Shoebox LED combines a decorative, contemporary style with versatility and ample lighting effect that is perfect for streets, parking lots, commercial buildings and residential communities. The Shoebox LED provides excellent color rendition along with a controlled light pattern that reduces glare and keeps the light directed only where you want it. Available in black, dark bronze, gray or white with one to four fixtures per pole.

LED	150, 220, 420, 530 watts
Light (Light Emitting Diode)	
Mounting heights	25', 30', 35'
Colors	Black Bronze Gray White
Poles	Fiberglass (1 or 2 fixtures per pole) Decorative tapered metal Decorative square metal

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.



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Outdoor Lighting

Shoebox LED

Light source: LED (white)

Replacement for: LED Wattage 150 – 250-watt HPS and metal halide; LED Wattage 205 – up to 400-watt metal halide; LED Wattage 530 – 1,000-watt metal halide

Warm-up and restrike time: Instant on (no warm-up or restrike time)

Wattage	BUG Rating	Light Pattern	Lumens	Color Temp
LED 150	B5-UO-G3	IESNA Type V (circular)	19580	
LED 150	B3-UO-G4	IESNA Type IV (forward throw)	18459	
LED 150	B2-UO-G3	IESNA Type III (oval)	19006	
LED 220	B5-UO-G3	IESNA Type V (circular)	25870	
LED 220	B3-UO-G4	IESNA Type IV (forward throw)	24390	4,000K
LED 220	B2-UO-G4	IESNA Type III (oval)	25114	
LED 420	B5-UO-G5	IESNA Type V (circular)	48514	
LED 420	B3-UO-G5	IESNA Type IV (forward throw)	43765	
LED 530	B5-UO-G5	IESNA Type V (circular)	60296	
LED 530	B3-UO-G5	IESNA Type IV (forward throw)	54395	

* These are approximate replacement suggestions; actual conditions could be different.

Poles available:

Name	Mounting height	Color
Round tapered decorative metal*	35'	Black Bronze
Decorative square metal*	25' and 30'	Black Bronze Gray White
Fiberglass	30'	Black (1 or 2 fixtures per pole) Gray (1 or 2 fixtures per pole)

Features

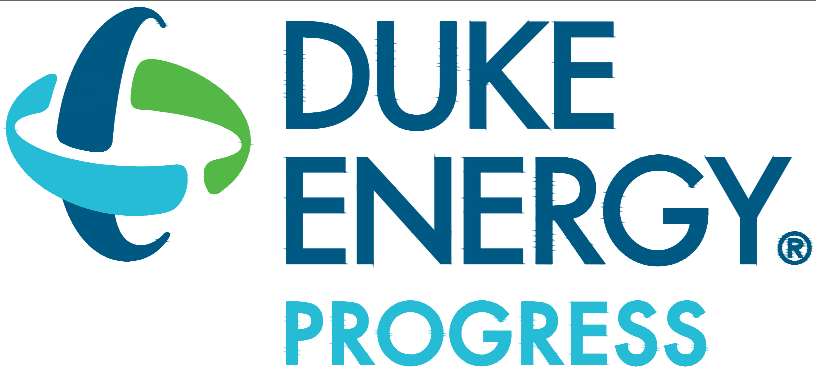
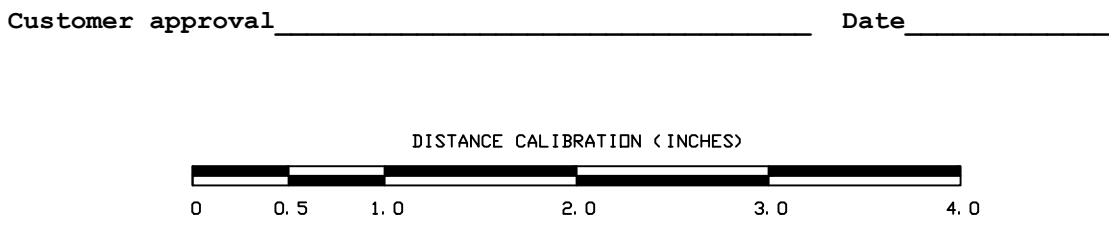
Features	Benefits
Little or no installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

*2" raised foundation available when required on metal poles only.

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LIGHTING DESIGN TOLERANCE

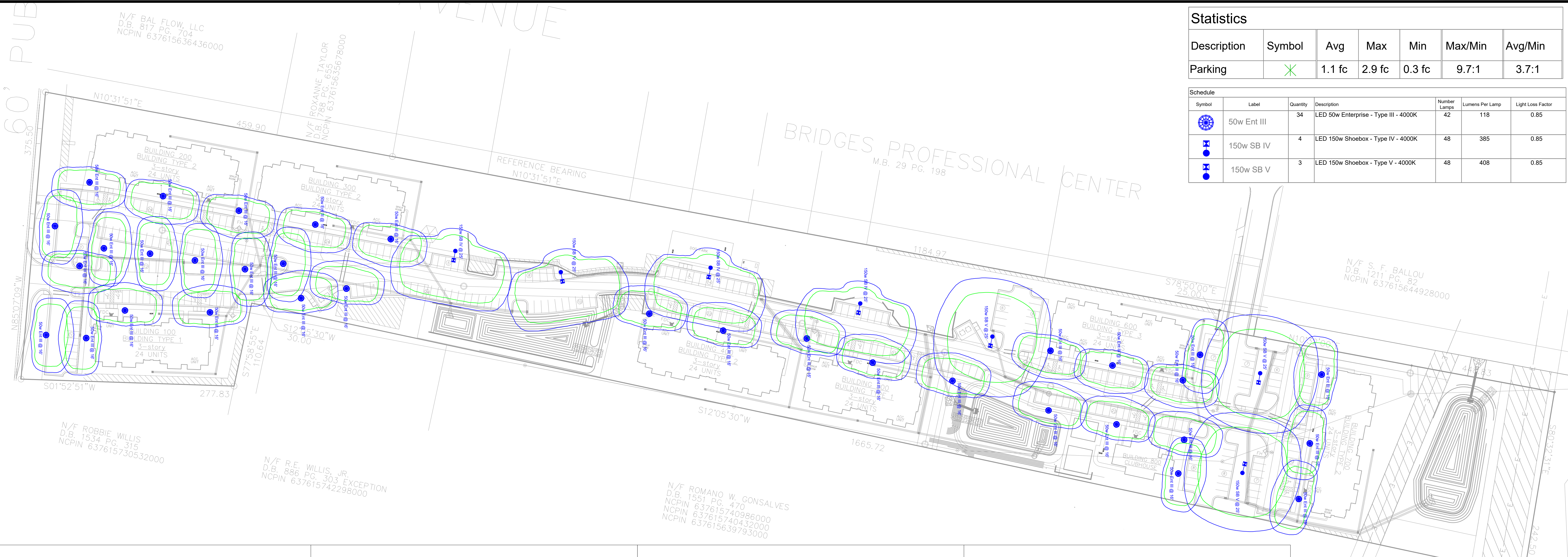
The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy Progress. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.



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ELIJAH'S LANDING	
Morehead City, NC	
SITE LIGHTING PLAN	
Designed by DEP LIGHTING SOLUTIONS	
Reviewed by N. Johnson	Scale 1" = 50'
Date 03/23/2021	Size Arch D
Description LED 50w Enterprise	
Drawing No. 20-0417B	Sht. 1 OF 2



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	✕	1.1 fc	2.9 fc	0.3 fc	9.7:1	3.7:1
Schedule						
Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
	50w Ent III	34	LED 50w Enterprise - Type III - 4000K	42	118	0.85
	150w SB IV	4	LED 150w Shoebox - Type IV - 4000K	48	385	0.85
	150w SB V	3	LED 150w Shoebox - Type V - 4000K	48	408	0.85

Outdoor Lighting

Enterprise LED

Illuminate streetscapes and pedestrian areas with the Enterprise LED. This sleek, energy-efficient fixture will add modern appeal to any neighborhood or park.

LED	50 watts
(Light Emitting Diode)	
Mounting heights	12', 13', 16'
Color	Black
Poles	Smooth round concrete Fluted concrete Fiberglass Decorative aluminum

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866-769-6417.

Outdoor Lighting

Enterprise LED

Light source: LED (white)
Wattage: 50
Lumens: 4,921
BUG Rating: B1-U0-G2
Light pattern: IESNA Type III (oval)
Color temperature: 4,000K

Poles available:		
Name	Mounting height	Color
Smooth concrete	12', 16'	Black
Fluted concrete	13'	Black
Fiberglass	16'	Black
Decorative aluminum	12', 16'	Black

Features	Benefits
No installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

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Shoebox LED

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LED	150, 220, 420, 530 watts
(Light Emitting Diode)	
Mounting heights	25', 30', 35'
Colors	Black Bronze Gray White
Poles	Fiberglass (1 or 2 fixtures per pole) Decorative tapered metal Decorative square metal

Note: 35' pole available in black or bronze only.

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866-769-6417.

Outdoor Lighting

Shoebox LED

Light source: LED (white)
Replacement for:* LED Wattage 150 – 250-watt HPS and metal halide;
LED Wattage 205 – up to 400-watt metal halide;
LED Wattage 530 – 1,000-watt metal halide
Warm-up and restrike time: Instant on (no warm-up or restrike time)

Wattage	BUG Rating	Light Pattern	Lumens	Color Temp
LED 150	B5-U0-G3	IESNA Type V (circular)	19580	4,000K
LED 150	B3-U0-G4	IESNA Type IV (forward throw)	18459	
LED 150	B2-U0-G3	IESNA Type III (oval)	19006	
LED 220	B5-U0-G3	IESNA Type V (circular)	25870	
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LED 220	B2-U0-G4	IESNA Type III (oval)	25114	
LED 420	B5-U0-G5	IESNA Type V (circular)	48514	4,000K
LED 420	B3-U0-G5	IESNA Type IV (forward throw)	43765	
LED 530	B5-U0-G5	IESNA Type V (circular)	60296	
LED 530	B3-U0-G5	IESNA Type IV (forward throw)	54395	

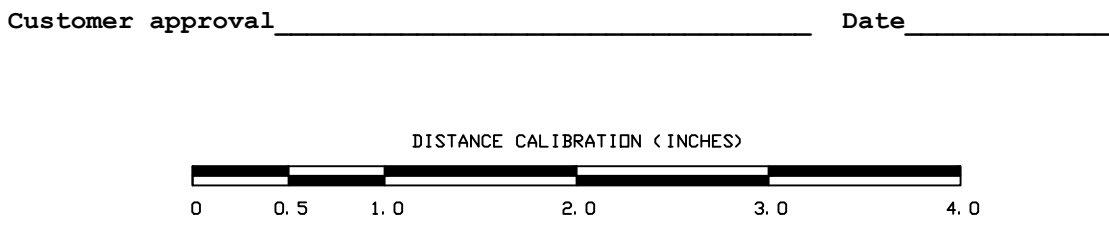
* These are approximate replacement suggestions; actual conditions could be different.

Poles available:		
Name	Mounting height	Color
Round tapered decorative metal*	35'	Black Bronze
Decorative square metal*	25' and 30'	Black Bronze Gray White
Fiberglass	30'	Black (1 or 2 fixtures per pole) Gray (1 or 2 fixtures per pole)

Features	Benefits
Little or no installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
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*2" raised foundation available when required on metal poles only.

LIGHTING DESIGN TOLERANCE
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ELIJAH'S LANDING	
Morehead City, NC	
SITE LIGHTING PLAN	
Designed by	DEP LIGHTING SOLUTIONS
Reviewed by	N. Johnson Scale 1" = 50'
Date	03/23/2021 Size Arch D
Description	LED 50w Enterprise
Drawing No.	20-0417B Sht. 2 OF 2

ATTACHMENT 1A:

Site Visit Photographs



Photograph 1 – View of the site looking northeast from Bridges Street



Photograph 2 – View of typical vegetation centrally on the site



Photograph 3 – Typical vegetation on the northern portion of the site



Photograph 4 – View of the site looking northeast toward on-site derelict structure



Photograph 5 – View of debris south of the on-site structure



Photograph 6 – View of debris south of the on-site structure



Photograph 7 – On-site pole mounted transformer north of the site structure



Photograph 8 – View of on-site structure



Photograph 9 – View of the interior of the structure



Photograph 10 – Concrete sub grade maintenance pit



Photograph 11 – Five-gallon bucket of oil within the on-site structure



Photograph 12 – Five-gallon bucket of oil within the on-site structure



Photograph 13 – Five-gallon bucket of oil just outside the on-site structure



Photograph 14 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 15 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 16 – Soil pile north of the on-site structure



Photograph 17 – Debris north of the on-site structure



Photograph 18 – Debris and dirt piles north of the on-site structure
and view of eastern adjoining property



Photograph 19 – View of eastern adjoining property (The Wood Yard)



Photograph 20 – View of eastern adjoining property (residential)



Photograph 21 – View of eastern adjoining property (food pantry)

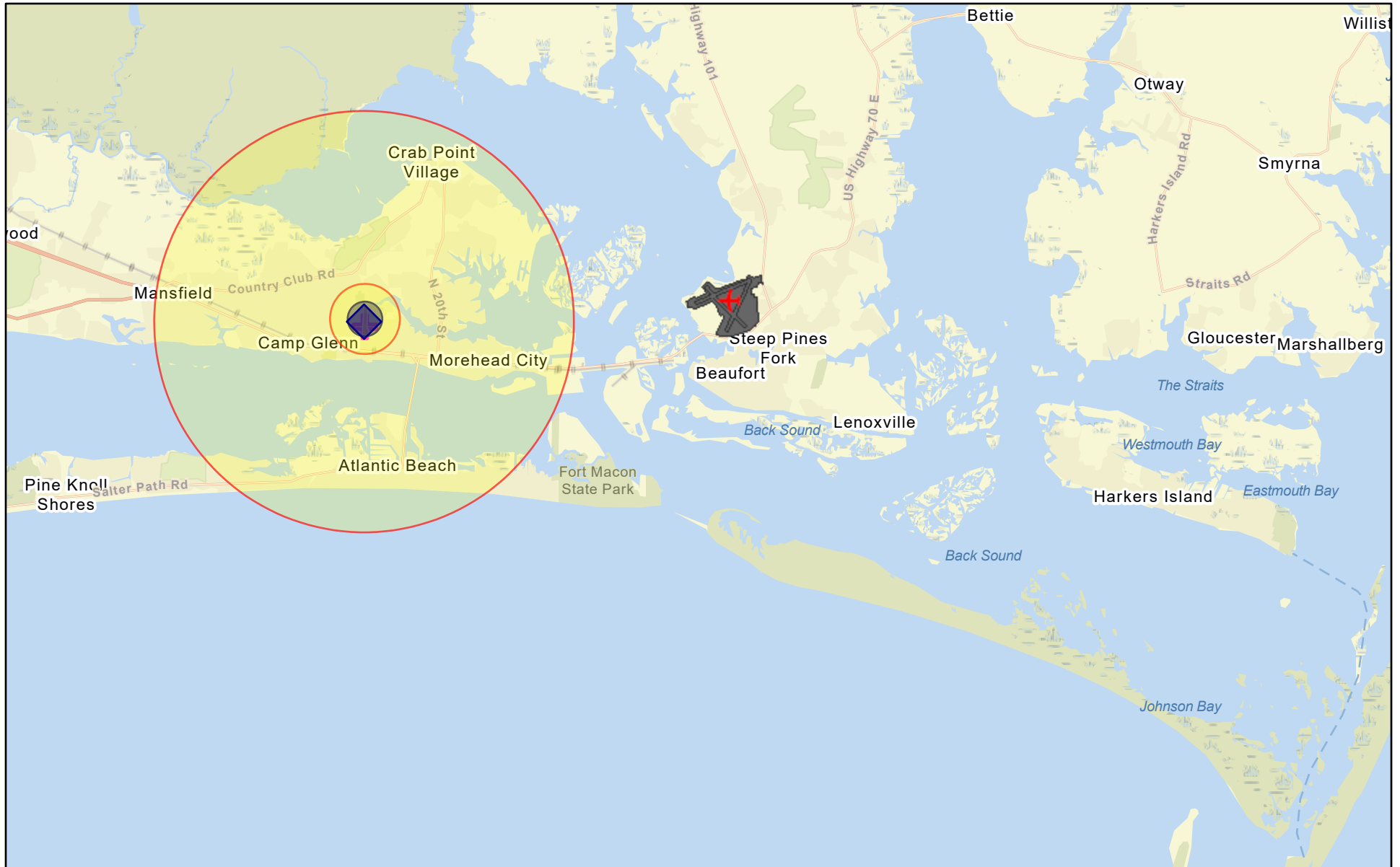


Photograph 22 – View of southern adjoining property (residential)

ATTACHMENT 2:

**NEPAssist Map with
2,500-foot and 15,000-foot
Buffers Showing Airports**

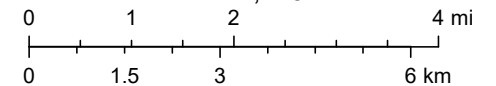
Airport Map - 2,500- and 15,000-foot Buffer



January 8, 2023

- Project 2
- Project 1
- Project Buffer
- elijahs's landing
- Search Result (point)
- Airport Points
- Airport Polygons

1:144,448

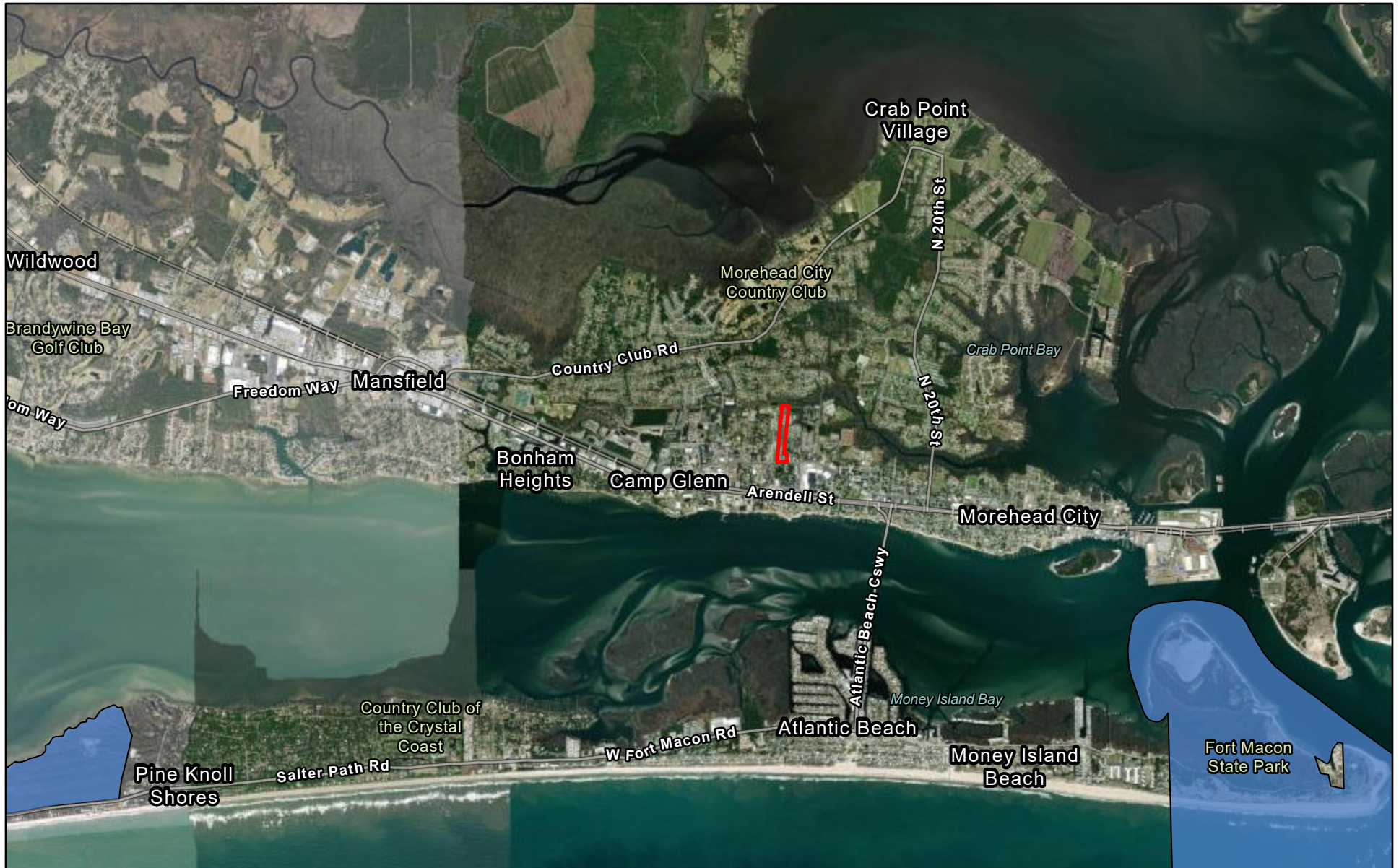


State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, EPA OEI

ATTACHMENT 3:

USFWS CBRS Maps and Certification

Elijah's Landing Apartments - CBRS Map

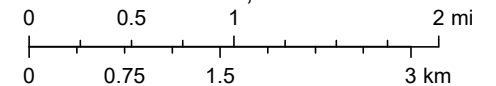


June 21, 2023

 Coastal Barrier Zone

 Elijah's Landing Apartments

1:72,224

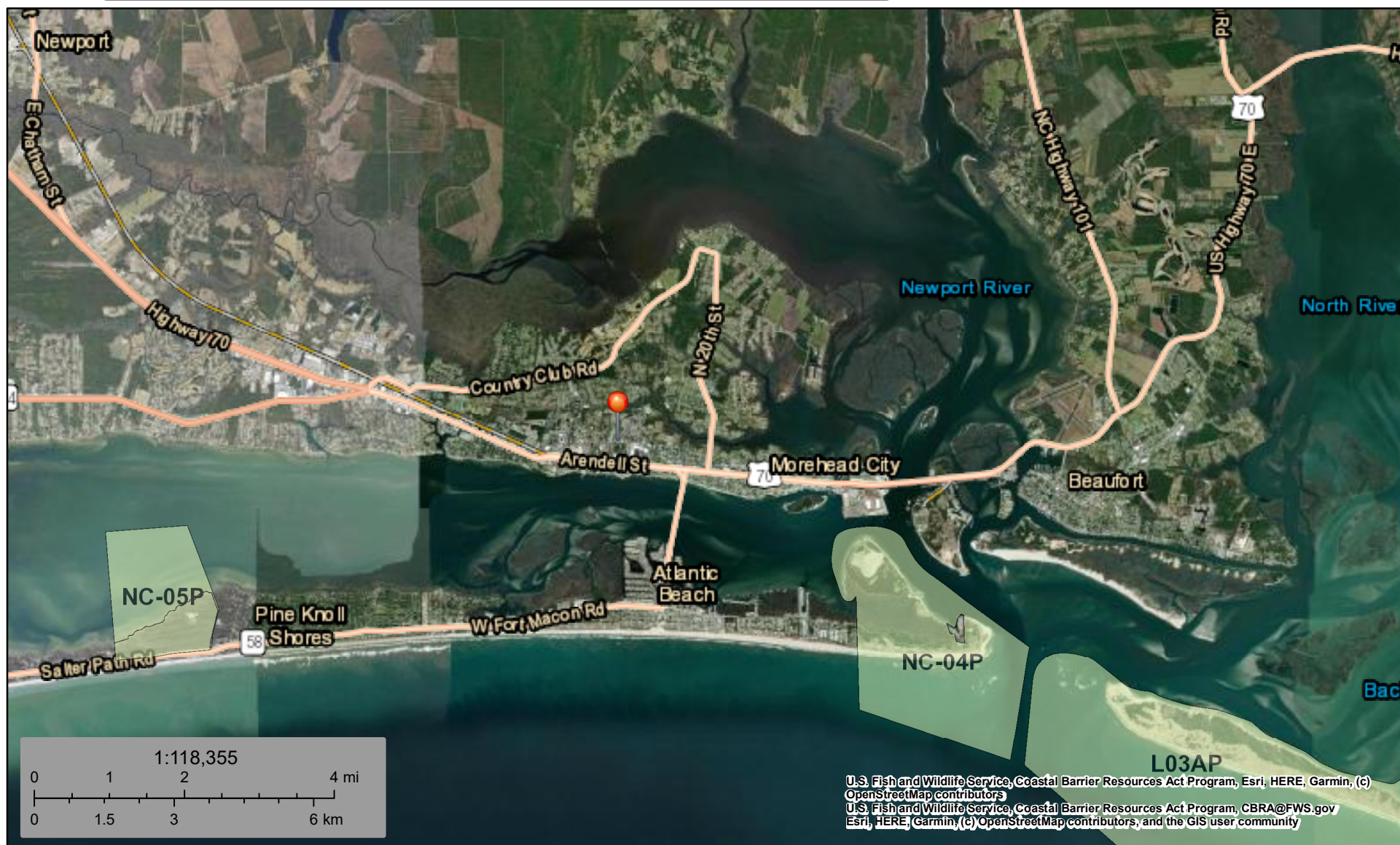


State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, NC CGIA,



U.S. Fish and Wildlife Service Coastal Barrier Resources System


Elijah's Landing Apts



April 21, 2023

 CBRS Buffer Zone  System Unit

CBRS Units

 Otherwise Protected Area

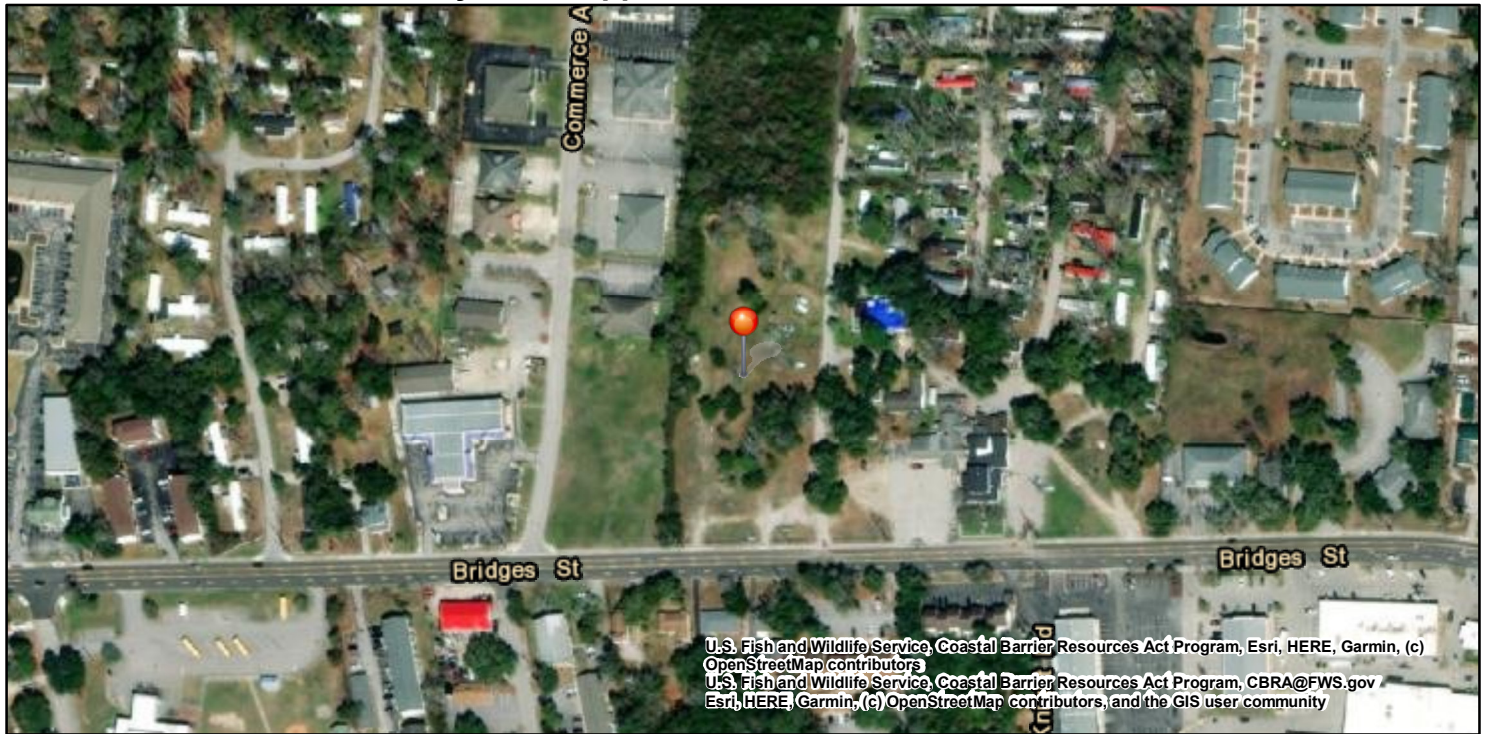
This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward

This page was produced by the CBRS Mapper

Coastal Barrier Resources System Mapper Documentation



CBRS Units

- Otherwise Protected Area
- System Unit
- CBRS Buffer Zone

-76.747108, 34.728093

0 65 130 260 390 ft

1:4,514

The pin location displayed on the map is a point selected by the user. Failure of the user to ensure that the pin location displayed on this map correctly corresponds with the user supplied address/location description below may result in an invalid federal flood insurance policy. **The U.S. Fish and Wildlife Service (Service) has not validated the pin location with respect to the user supplied address/location description below. The Service recommends that all pin locations be verified by federal agencies prior to use of this map for the provision or denial of federal funding or financial assistance.** Please note that a structure bisected by the Coastal Barrier Resources System (CBRS) boundary (i.e., both "partially in" and "partially out") is within the CBRS and therefore affected by CBRA's restrictions on federal flood insurance. A pin placed on a bisected structure must be placed on the portion of the structure within the unit (including any attached features such as a deck or stairs).

User Name: Andrea Gievers

User Organization: NCORR

User Supplied Address/Location Description: Elijah's Landing Apartments

Pin Location: Outside CBRS

Pin Flood Insurance Prohibition Date: N/A

Pin System Unit Establishment Date: N/A

The user placed pin location is not within the CBRS. The official CBRS maps are accessible at <https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps>.

The CBRS information is derived directly from the CBRS web service provided by the Service. This map was exported on 4/21/2023 and does not reflect changes or amendments subsequent to this date. The CBRS boundaries on this map may become superseded by new boundaries over time.

This map image may be void if one or more of the following map elements do not appear: basemap imagery, CBRS unit labels, prohibition date labels, legend, scale bar, map creation date. For additional information about flood insurance and the CBRS, visit: <https://www.fws.gov/node/263838>.



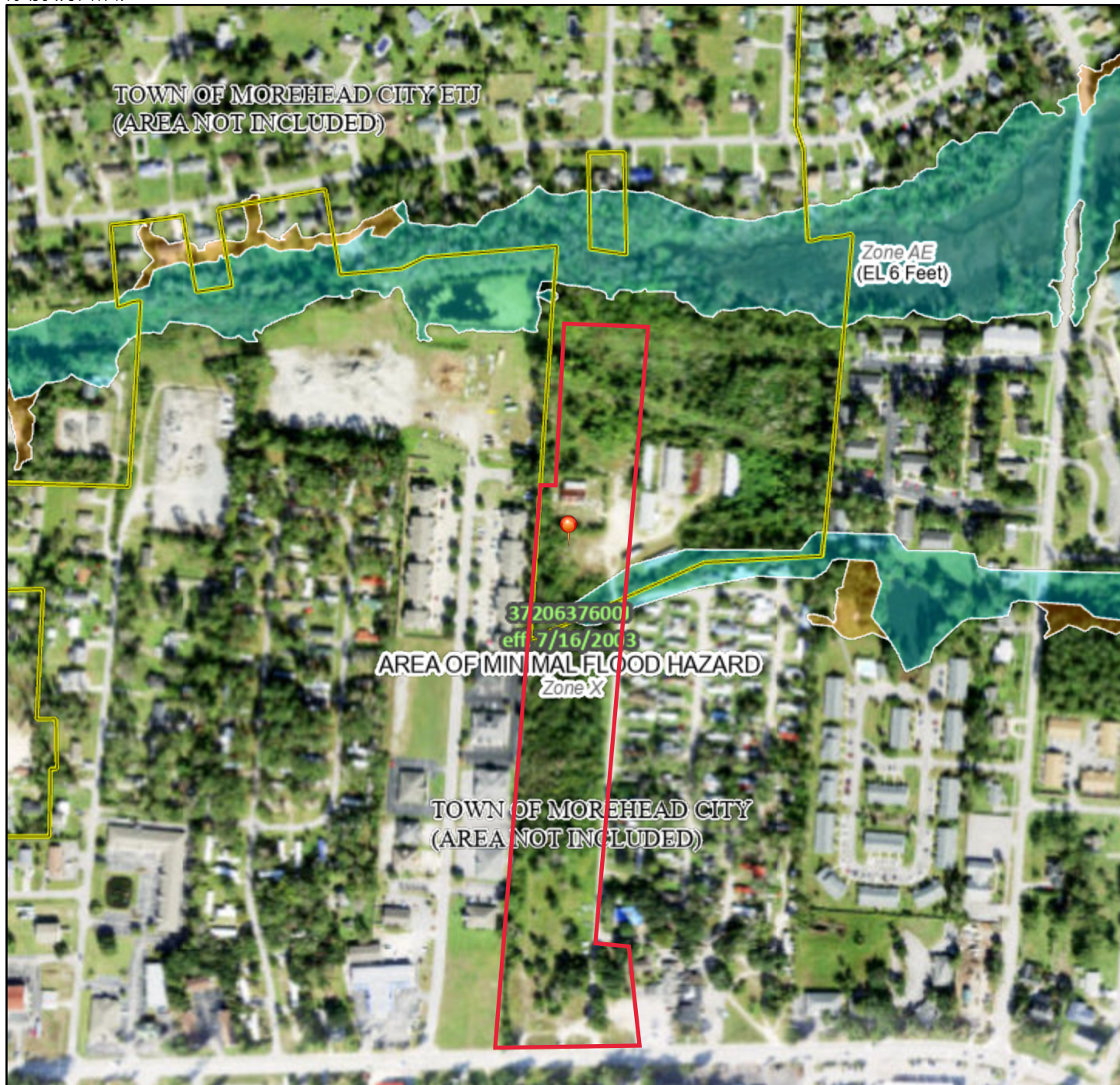
ATTACHMENT 4:

FEMA FIRMs and PFIRM with Parcel Boundary and NFIP Community Status Book

National Flood Hazard Layer FIRMette



76°45'8"W 34°44'7"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

76°44'30"W 34°43'37"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/21/2023 at 10:40 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

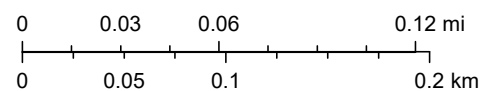
Elijah's Landing Apartments - FEMA FIRM



June 21, 2023

1:4,514

- Elijah's Landing Apartments
- Area of Undetermined Flood Hazard
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway



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Community Status Book Report

Communities Participating in the National Flood Program



NORTH CAROLINA

CID	Community Name	County	Init FHBM Identified	Init FIRM Identified	Curr Eff Map Date	Reg-Emer Date	Tribal	CRS Entry Date	Curr Eff Date	Curr Class	% Disc SFHA	% Disc Non SFHA
370323#	LOWELL, CITY OF	GASTON COUNTY	08/15/75	03/05/90	11/04/09	03/05/90	No					
370537#	LUCAMA, TOWN OF	WILSON COUNTY		11/03/04	04/16/13	11/03/04	No					
370203K	LUMBERTON, CITY OF	ROBESON COUNTY	06/28/74	11/05/80	12/06/19	11/05/80	No					
370090K	MACCLESFIELD, TOWN OF	EDGEcombe COUNTY	12/28/73	03/18/80	06/02/15	03/25/80	No					
370150#	MACON COUNTY *	MACON COUNTY	06/30/78	06/01/01	04/19/10	06/01/01	No					
370152#	MADISON COUNTY *	MADISON COUNTY	07/22/77	09/02/82	01/06/10	09/02/82	No					
370207#	MADISON, TOWN OF	ROCKINGHAM COUNTY	11/22/74	11/16/77	01/02/09	11/16/77	No					
370389#	MAGGIE VALLEY, TOWN OF	HAYWOOD COUNTY	07/08/77	04/17/84	04/03/12	04/17/84	No					
370669#	MAGNOLIA, TOWN OF	DUPLIN COUNTY		02/16/06	02/16/07	07/23/10	No					
370056#	MAIDEN, TOWNSHIP OF	LINCOLN COUNTY/CATAWBA COUNTY	09/20/74	09/03/80	07/07/09	09/03/80	No					
375355K	MANTEO, TOWN OF	DARE COUNTY		01/12/73	06/19/20	01/05/73	No	10/01/91	10/01/21	5	25%	10%
370266#	MARION, CITY OF	MCDOWELL COUNTY	09/10/82	07/15/88	01/06/10	05/01/87	No					
370385#	MARS HILL, TOWN OF	MADISON COUNTY	07/02/76	08/19/87	01/06/10	08/19/87	No					
370154#	MARSHALL, TOWN OF	MADISON COUNTY	06/14/74	05/15/78	01/06/10	05/15/78	No					
370474#	MARSHVILLE, TOWN OF	UNION COUNTY		07/05/94	03/02/09	12/15/09	No					
370155K	MARTIN COUNTY *	MARTIN COUNTY	11/29/74	07/16/91	06/19/20	07/16/91	No					
370514#	MARVIN, VILLAGE OF	UNION COUNTY		01/17/97	02/19/14	12/28/98	No					
370310#	MATTHEWS, TOWN OF	MECKLENBURG COUNTY		02/04/04	02/19/14	02/04/04	No					
370587F	MAXTON, TOWN OF	SCOTLAND COUNTY/ROBESON COUNTY		01/19/05	12/06/19	05/26/20	No					
370208#	MAYODAN, TOWN OF	ROCKINGHAM COUNTY		07/18/77	01/02/09	07/18/77	No					
370330#	MAYSVILLE, TOWN OF	JONES COUNTY		07/02/04	02/16/06	08/19/86	No					
370101#	MCADENVILLE, TOWN OF	GASTON COUNTY	06/21/74	06/01/87	11/04/09	06/01/87	No					
370148#	MCDOWELL COUNTY*	MCDOWELL COUNTY	12/20/74	07/15/88	01/06/10	07/15/88	No					
370390J	MEBANE, CITY OF	ORANGE COUNTY/ALAMANCE COUNTY		11/05/80	11/17/17	11/05/80	No					
370158F	MECKLENBURG COUNTY *	MECKLENBURG COUNTY	10/22/76	06/01/81	11/16/18	06/01/81	No	10/01/91	04/01/21	5	25%	10%
370426L	MESIC, TOWN OF	PAMLICO COUNTY		07/02/04	06/19/20	09/04/85	No	05/01/19	04/01/21	8	10%	05%
370500J	MICRO, TOWN OF	JOHNSTON COUNTY		10/20/00	06/20/18	11/08/16	No					
370445#	MIDDLESEX, TOWN OF	NASH COUNTY		01/20/82	07/07/14	03/19/99	No					
370182L	MIDLAND, TOWN OF	CABARRUS COUNTY	12/27/74	05/05/81	11/16/18	06/01/09	No					
370393#	MIDWAY, TOWN OF	DAVIDSON COUNTY		03/16/09	06/16/09	02/05/19	No					
370529#	MINERAL SPRINGS, TOWN OF	UNION COUNTY		07/18/83	03/02/09	05/17/00	No					
370418K	MINNESOTT BEACH, TOWN OF	PAMLICO COUNTY	03/02/79	08/05/85	06/19/20	09/23/85	No	10/01/92	10/01/21	8	10%	05%
370539E	MINT HILL, TOWN OF	MECKLENBURG COUNTY		02/04/04	11/16/18	12/21/07	No					
370026#	MISENHEIMER, VILLAGE OF	STANLY COUNTY		09/03/08	06/16/09	02/17/10	No					
370161#	MITCHELL COUNTY *	MITCHELL COUNTY	06/30/78	09/04/86	06/02/09	09/04/86	No					
370309#	MOCKSVILLE, TOWN OF	DAVIE COUNTY	07/11/75	06/27/00	06/16/09	09/17/08	No					
370657#	MOMEYER, TOWN OF	NASH COUNTY		11/03/04	(NSFHA)	12/29/05	No					
370236#	MONROE, CITY OF	UNION COUNTY	09/20/74	01/19/83	03/02/09	01/19/83	No					
370336#	MONTGOMERY COUNTY*	MONTGOMERY COUNTY	10/13/78	06/01/81	06/16/09	02/20/97	No					
370476#	MONTREAT, TOWN OF	BUNCOMBE COUNTY		05/06/96	01/06/10	09/19/05	No					
370164H	MOORE COUNTY *	MOORE COUNTY	10/13/78	12/15/89	11/17/17	12/15/89	No					
370314#	MOORESVILLE, TOWN OF	IREDELL COUNTY	04/25/75	05/01/80	06/16/09	05/01/80	No					
370048#	MOREHEAD CITY, TOWN OF	CARTERET COUNTY	02/22/74	02/16/77	11/03/05	02/16/77	No	10/01/92	05/01/20	6	20%	10%
370035#	MORGANTON, CITY OF	BURKE COUNTY	03/22/74	02/19/87	07/07/09	02/19/87	No					
370242K	MORRISVILLE, TOWN OF	WAKE COUNTY	10/29/76	11/01/78	07/19/22	11/01/78	No					
370226B	MOUNT AIRY, CITY OF	SURRY COUNTY	06/28/74	12/01/81	11/18/16	12/01/81	No					
370102L	MOUNT HOLLY, CITY OF	GASTON COUNTY	01/09/74	09/28/79	09/02/15	09/28/79	No					
370369K	MOUNT OLIVE, TOWN OF	DUPLIN COUNTY/WAYNE COUNTY	06/17/77	02/17/82	06/20/18	02/17/82	No					
370470J	MOUNT PLEASANT, TOWN OF	CABARRUS COUNTY		11/02/94	11/16/18	02/24/12	No					
370419#	MURFREESBORO, TOWN OF	HERTFORD COUNTY	11/10/78	06/01/87	08/03/09	06/01/87	No					
370061#	MURPHY, TOWN OF	CHEROKEE COUNTY	03/08/74	07/03/86	04/19/10(M)	07/03/86	No					
375356K	NAGS HEAD, TOWN OF	DARE COUNTY		11/10/72	06/19/20	11/10/72	No	10/01/91	04/01/22	5	25%	10%

ATTACHMENT 5:

North Carolina Nonattainment/ Maintenance Status for Each County by Year for All Criteria Pollutants



You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information >North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of June 30, 2023

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 µg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:

NORTH CAROLINA

Carteret County is not listed below.

Important Notes

Download National Dataset: dbf | xls | Data dictionary (PDF)

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
NORTH CAROLINA								
Cabarrus County	8-Hour Ozone (1997)-NAAQS revoked	Charlotte-Gastonia-Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	178,011	37/025
Cabarrus County	8-Hour Ozone (2008)	Charlotte-Rock Hill, NC-SC	121314	08/27/2015	Marginal	Part	176,928	37/025
Catawba County	PM-2.5 (1997)-NAAQS revoked	Hickory-Morganton-Lenoir, NC	050607080910	12/19/2011 *	Former Subpart 1	Whole	154,358	37/035
Chatham County	8-Hour Ozone (1997)-NAAQS revoked	Raleigh-Durham-Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Part	32,372	37/037
Davidson County	1-Hour Ozone (1979)-NAAQS revoked	Greensboro-Winston-Salem-High Point, NC	92	11/08/1993	Moderate	Whole	162,878	37/057
Davidson County	PM-2.5 (1997)-NAAQS revoked	Greensboro-Winston-Salem-High Point, NC	050607080910	12/19/2011 *	Former Subpart 1	Whole	162,878	37/057

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Davie County	1-Hour Ozone (1979)-NAAQS revoked	Greensboro-Winston-Salem-High Point, NC	92	11/08/1993	Moderate	Part	1	37/059
Durham County	1-Hour Ozone (1979)-NAAQS revoked	Raleigh-Durham, NC	9293	06/17/1994	Moderate	Whole	267,587	37/063
Durham County	8-Hour Ozone (1997)-NAAQS revoked	Raleigh-Durham-Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	267,587	37/063
Durham County	Carbon Monoxide (1971)	Raleigh-Durham, NC	929394	09/18/1995	Moderate <= 12.7ppm	Whole	267,587	37/063
Edgecombe County	8-Hour Ozone (1997)-NAAQS revoked	Rocky Mount, NC	040506	01/05/2007	Former Subpart 1	Whole	56,552	37/065
Forsyth County	1-Hour Ozone (1979)-NAAQS revoked	Greensboro-Winston-Salem-High Point, NC	92	11/08/1993	Moderate	Whole	350,670	37/067
Forsyth County	Carbon Monoxide (1971)	Winston-Salem, NC	9293	11/07/1994	Moderate <= 12.7ppm	Whole	350,670	37/067
Franklin County	8-Hour Ozone (1997)-NAAQS revoked	Raleigh-Durham-Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	60,619	37/069
Gaston County	1-Hour Ozone (1979)-NAAQS revoked	Charlotte-Gastonia, NC	929394	07/05/1995	Moderate	Whole	206,086	37/071
Gaston County	8-Hour Ozone (1997)-NAAQS revoked	Charlotte-Gastonia-Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	206,086	37/071
Gaston County	8-Hour Ozone (2008)	Charlotte-Rock Hill, NC-SC	121314	08/27/2015	Marginal	Part	190,849	37/071

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Granville County	1-Hour Ozone (1979)-NAAQS revoked	Raleigh-Durham, NC	9293	06/17/1994	Moderate	Part	17,725	37/077
Granville County	8-Hour Ozone (1997)-NAAQS revoked	Raleigh-Durham-Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	59,916	37/077
Guilford County	1-Hour Ozone (1979)-NAAQS revoked	Greensboro-Winston-Salem-High Point, NC	92	11/08/1993	Moderate	Whole	488,406	37/081
Guilford County	PM-2.5 (1997)-NAAQS revoked	Greensboro-Winston-Salem-High Point, NC	050607080910	12/19/2011 *	Former Subpart 1	Whole	488,406	37/081
Haywood County	8-Hour Ozone (1997)-NAAQS revoked	Haywood and Swain Counties (Great Smoky NP), NC	040506070809	01/06/2010	Former Subpart 1	Part	985	37/087
Iredell County	8-Hour Ozone (1997)-NAAQS revoked	Charlotte-Gastonia-Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Part	68,089	37/097
Iredell County	8-Hour Ozone (2008)	Charlotte-Rock Hill, NC-SC	121314	08/27/2015	Marginal	Part	65,899	37/097
Johnston County	8-Hour Ozone (1997)-NAAQS revoked	Raleigh-Durham-Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	168,878	37/101
Lincoln County	8-Hour Ozone (1997)-NAAQS revoked	Charlotte-Gastonia-Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	78,265	37/109
Lincoln County	8-Hour Ozone (2008)	Charlotte-Rock Hill, NC-SC	121314	08/27/2015	Marginal	Part	64,189	37/109

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Mecklenburg County	1-Hour Ozone (1979)-NAAQS revoked	Charlotte-Gastonia, NC	929394	07/05/1995	Moderate	Whole	919,628	37/119
Mecklenburg County	8-Hour Ozone (1997)-NAAQS revoked	Charlotte-Gastonia-Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	919,628	37/119
Mecklenburg County	8-Hour Ozone (2008)	Charlotte-Rock Hill, NC-SC	121314	08/27/2015	Marginal	Whole	919,628	37/119
Mecklenburg County	Carbon Monoxide (1971)	Charlotte, NC	929394	09/18/1995	Not Classified	Whole	919,628	37/119
Nash County	8-Hour Ozone (1997)-NAAQS revoked	Rocky Mount, NC	040506	01/05/2007	Former Subpart 1	Whole	95,840	37/127
Orange County	8-Hour Ozone (1997)-NAAQS revoked	Raleigh-Durham-Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	133,801	37/135
Person County	8-Hour Ozone (1997)-NAAQS revoked	Raleigh-Durham-Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	39,464	37/145
Rowan County	8-Hour Ozone (1997)-NAAQS revoked	Charlotte-Gastonia-Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	138,428	37/159
Rowan County	8-Hour Ozone (2008)	Charlotte-Rock Hill, NC-SC	121314	08/27/2015	Marginal	Part	130,057	37/159
Swain County	8-Hour Ozone (1997)-NAAQS revoked	Haywood and Swain Counties (Great Smoky NP), NC	040506070809	01/06/2010	Former Subpart 1	Part	3,288	37/173
Union County	8-Hour Ozone (1997)-NAAQS revoked	Charlotte-Gastonia-Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	201,292	37/179

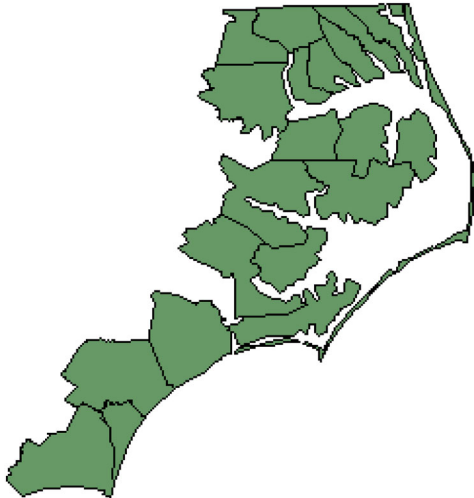
ATTACHMENT 6:

**NC DCM Counties Map,
Correspondence with Daniel
Govoni, NC DCM Federal
Consistency Coordinator, dated
March 1, 2023, and NCORR
Telephone Conversation Record**



CAMA Counties

The following counties are subject to the rules and policies of the Coastal Resources Commission, which administers the Coastal Area Management Act. If you are planning to develop in one of these counties, check to see whether your project is also in an Area of Environmental Concern (<https://deq.nc.gov/about/divisions/coastal-management/coastal-management-rules/coastal-development-rules>). If it is, you may need a CAMA permit.

CAMA Counties		
<ul style="list-style-type: none">• Beaufort• Bertie• Brunswick• Camden• Carteret• Chowan• Craven• Currituck• Dare• Gates	<ul style="list-style-type: none">• Hertford• Hyde• New Hanover• Onslow• Pamlico• Pasquotank• Pender• Perquimans• Tyrrell• Washington	

Showing 1 to 1 of 1 entries

About Coastal Management

From: Govoni, Daniel daniel.govoni@ncdenr.gov
Subject: RE: Re: [External] Consistency
Date: March 1, 2023 at 9:23 AM
To: Cheryl Moody cmoody@atlanticshoresenv.com

DG

Hello Cheryl,

North Carolina's coastal zone management program consists of, but is not limited to, the Coastal Area Management Act, the State's Dredge and Fill Law, Chapter 7 of Title 15A of North Carolina's Administrative Code, and the land use plan of the County and/or local municipality in which the proposed project is located. It is the objective of the Division of Coastal Management (DCM) to manage the State's coastal resources to ensure that proposed federal actions would be compatible with safeguarding and perpetuating the biological, social, economic, and aesthetic values of the State's coastal waters.

DCM has reviewed the submitted information pursuant to the management objectives and enforceable policies of Subchapters 7H and 7M of Chapter 7 in Title 15A of the North Carolina Administrative Code and concurs that the proposed activity is consistent with North Carolina's approved coastal management program as long as no coastal wetlands are impacted.

Prior to the initiation of the activities described, the applicant should obtain any other required State approvals or authorizations. Should the proposed action be modified further, a revised consistency determination could be necessary. This might take the form of either a supplemental consistency determination pursuant to 15 CFR 930.46, or a new consistency determination pursuant to 15 CFR 930.36. Likewise, if further project assessments reveal environmental effects not previously considered, a supplemental consistency certification may be required. If you have any questions, please contact me at (252) 808-2808. Thank you for your consideration of the North Carolina Coastal Management Program.

Daniel M. Govoni
Policy Analyst
Federal Consistency Coordinator
NC Division of Coastal Management
Department of Environmental Quality

252-515-5435
Daniel.Govoni@ncdenr.gov

400 Commerce Avenue
Morehead City, NC 28557

*Email correspondence to and from this address is subject to the
North Carolina Public Records Law and may be disclosed to third parties.*

From: Cheryl Moody <cmoody@atlanticshoresenv.com>
Sent: Tuesday, February 28, 2023 4:18 PM
To: Govoni, Daniel <daniel.govoni@ncdenr.gov>
Subject: [External] Re: Consistency

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as

an attachment to [Report Spam](#).

Daniel,

Have you had a chance to review our December 22, 2022 request? If not, when do you anticipate being able to respond to the request? Thank you.

Cheryl J. Moody, PE, REM, CIEC, CMRS
Principal Engineer
Owner
LEED Green Associate

Atlantic Shores Environmental Services, Ltd.
175-1 Venture Drive
Belville, North Carolina 28451
910-371-5980 (o)
910-512-5321 (c)
cmoody@atlanticshoresenv.com
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NC License No. C-4762

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On Dec 22, 2022, at 3:45 PM, Cheryl Moody <cmoody@atlanticshoresenv.com> wrote:

<CAMA Consistency Letter.pdf>

Daniel,

Please see the attached consistency Determination request. Thank you.

Cheryl J. Moody, PE, REM, CIEC, CMRS
Principal Engineer
Owner
LEED Green Associate

Atlantic Shores Environmental Services, Ltd.
175-1 Venture Drive
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Atlantic Shores Environmental Services, Ltd.

December 22, 2022

Mr. Daniel Govoni
Federal Consistency Coordinator
NC Division of Coastal Management
400 Commerce Avenue
Morehead City, North Carolina, 28557

Reference: Consistency Determination
Elijah's Landing
3140 and 3200 Bridges Street
Morehead City, North Carolina

Dear Mr. Govoni:

Atlantic Shores Environmental Services, Ltd. is currently conducting a HUD Environmental Review for a proposed multi-family residential project located in Morehead City, North Carolina. This letter is requesting that you concur that the project is consistent with the policies of the coastal program.

The subject property is located on the north side of Bridges Street, to the east of Commerce Avenue, within a mixed commercial and residential area of Carteret County. The subject property consists of one (1) parcel (Carteret County PIN 637615648235000) totaling 11.64 acres and currently contains a vacant building utilized as a personal storage area, a vacant lot, and leased parking for a local septic company. In addition to the current structure, the subject property is also improved with gravel parking, grassy/wooded areas and numerous areas of construction debris.

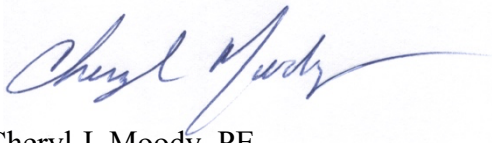
The proposed multi-family development will consist of seven (7), 3-story apartment buildings containing a total of 168 residential units. In addition to the apartment buildings, the project will contain one, single-story clubhouse comprised of 2,902-square feet. In addition to the proposed onsite buildings, the project will contain two dumpster areas, two gazebos, a dog park, playground, tot lot, asphalt-paved, surface parking areas and landscaped areas. The project will consist of new construction through HUD's 221(d)(4) program

For your reference maps of the location are attached. If you have any question, please contact me at cmoody@atlanticshoresenv.com or 910-512-5321 Thank you for your time.

*Consistency Determination
Elijah's Landing
3140 and 3200 Bridges Street
Morehead City, North Carolina*

December 22, 2022

Respectfully submitted,
ATLANTIC SHORES ENVIRONMENTAL SERVICES, LTD.

A handwritten signature in blue ink, appearing to read "Cheryl J. Moody", with a long, sweeping horizontal line extending to the right.

Cheryl J. Moody, PE
Principal Engineer

Attachments: Maps

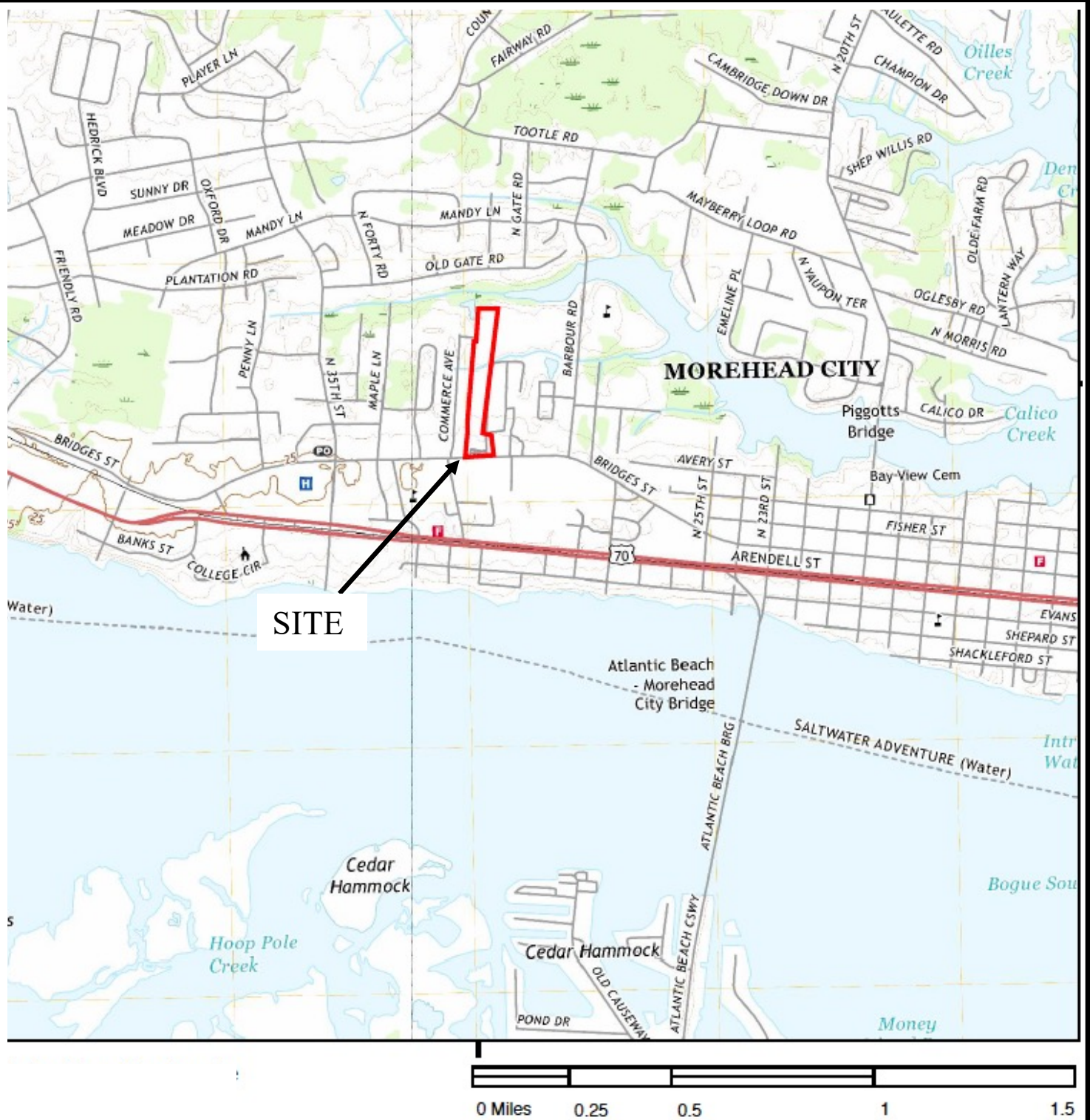


FIGURE 1: TOPOGRAPHIC MAP

Source: USGS Beaufort North Carolina 2019

Phase I Environmental Site Assessment
5 North 12th Street
Morehead City, North Carolina



ASE Project No. 1591
December 2022




Approximate Scale (Ft)
0  375

FIGURE 2: AERIAL MAP

Source: New Hanover County GIS 2021 Aerial



Phase I Environmental Site Assessment
3200 Bridges Street
Morehead City, North Carolina



ASE Project No. 1591
December 2022

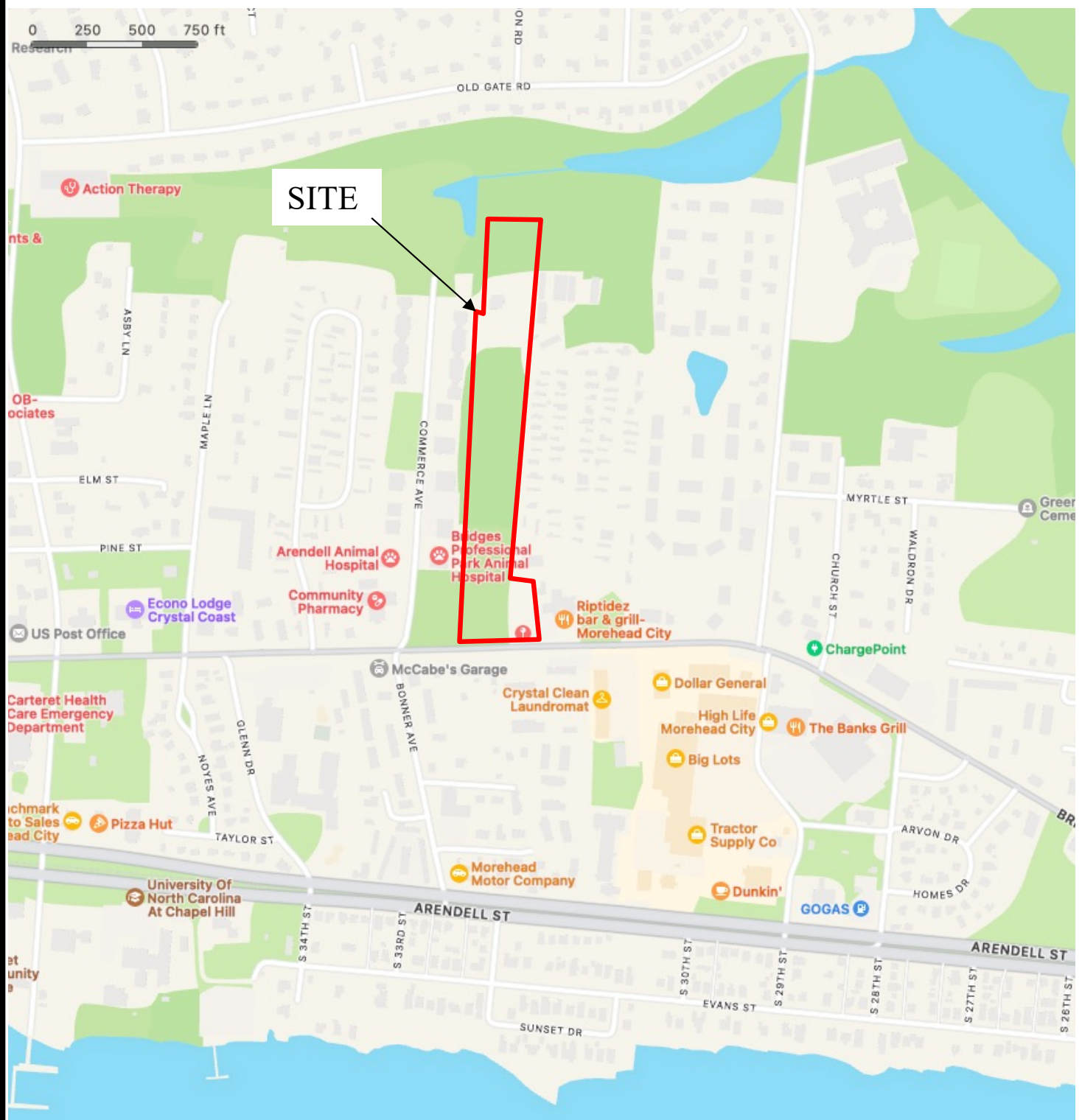


FIGURE 3: STREET MAP

Source: Maps



**Phase I Environmental Site Assessment
3200 Bridges Street
Morehead City, North Carolina**





**ASE Project No. 1591
December 2022**

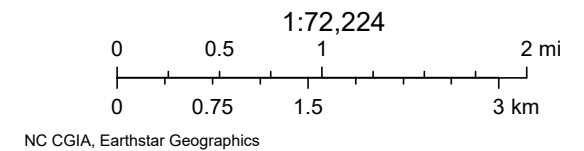
Coastal Barrier Map



January 13, 2023

 CBRS

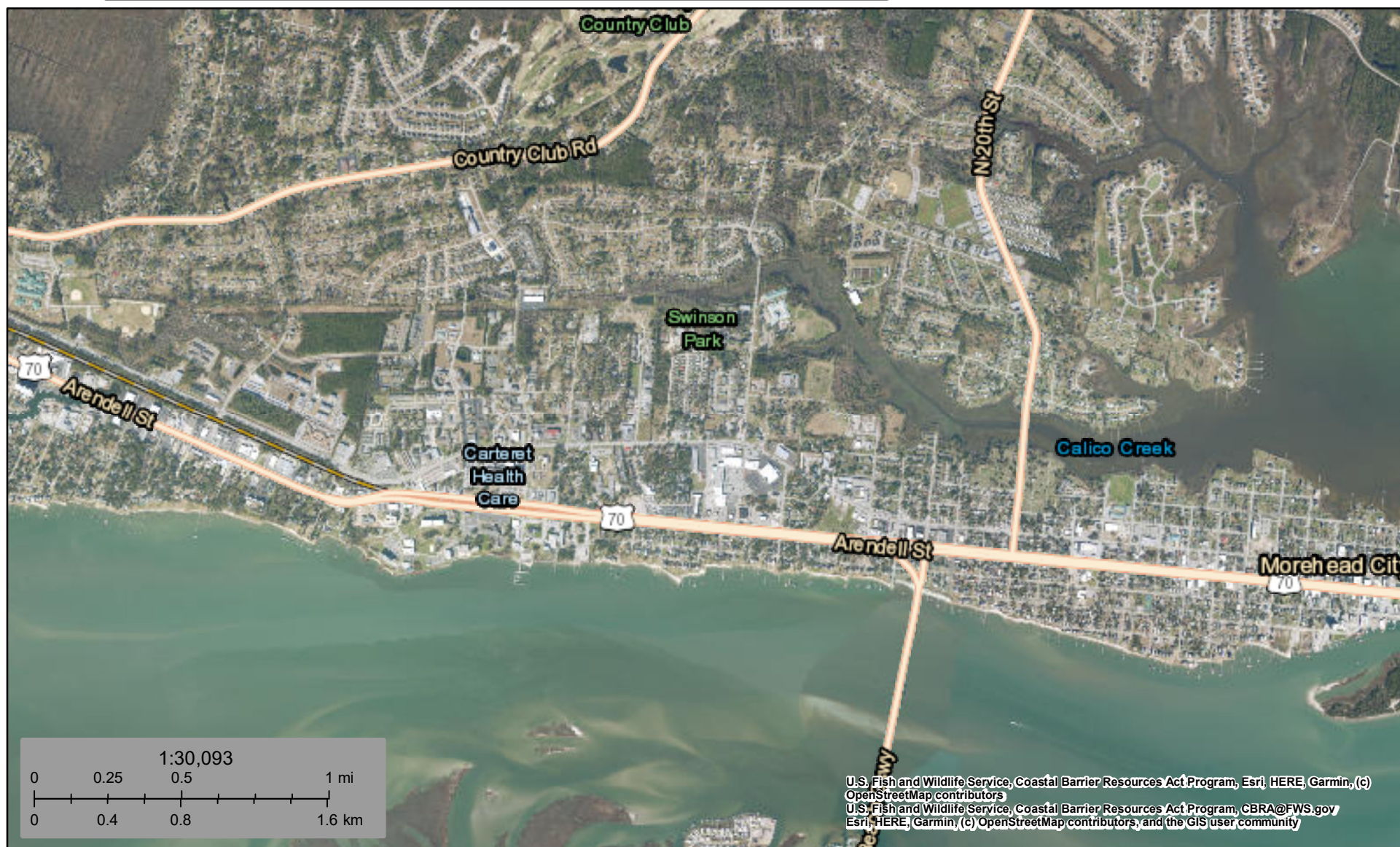
 elijahs's landing





U.S. Fish and Wildlife Service Coastal Barrier Resources System

Coastal Barrier Resources System



January 13, 2023



CBRS Buffer Zone



System Unit

CBRS Units



Otherwise Protected Area

This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at <https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps>. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward

This page was produced by the CBRS Mapper



North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Laura H. Hogshead, Director

TELEPHONE CONVERSATION RECORD

PROJECT: Elijah's Landing Apartments

DATE: August 4, 2023

TIME: 10:26 AM

PARTICIPANTS: Ms. Andrea Gievers, NCORR Environmental SME, and Mr. Dan Govoni, NC
DCM Federal Consistency Coordinator

CONTACT INFO: (252) 515-5435

RE: CZMA Compliance

Conversation Notes:

Ms. Gievers discussed the project with Mr. Govoni and his response on March 1, 2023, that the proposed project is consistent with North Carolina's approved coastal zone management program *as long as no coastal wetlands are impacted*. We discussed that there are Freshwater Palustrine Forested/Scrub-Shrub Wetlands that will be impacted with fill and development from the proposed project but USACE CWA Section 404 Nationwide Permits and NC DWR CWA Section 401 permit have been issued for the proposed project.

Mr. Dan Govoni, NC DCM Federal Consistency Coordinator, stated that as long as there is a CWA Section 404 or 401 permit the proposed project will not be considered an impact on wetlands. The proposed project is consistent with North Carolina's approved coastal zone management program.

ATTACHMENT 7:

Contamination and Toxic Substances

Elijah's Landing Apartments HUD
Environmental Standards Review, NC DEQ
DWM UST Section Documentation, NEPA Assist
EPA Facilities Reports with 1-mile Buffer, NC
DEQ DWM Site Locator Reports with 1-mile,
0.5-mile and 3,000-foot Buffers, Facility Reports,
Phase I ESA, Revised Phase II Subsurface
Investigation Report, and the EPA NC Radon
Zone Map

Elijah's Landing Apartments HUD Environmental Standards Review

Subject Property Address:

3200 Bridges Street, Morehead City, Carteret County, NC 28557

Introduction

The purpose of this review is to ensure that the project complies with U.S. Department of Housing and Urban Development (HUD) environmental standards in relation to 24 CFR Part 58.5. Properties that are proposed for use in HUD programs “must be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.”

A desktop review was performed to identify whether the Subject Property referenced in the title of this document complies with the following criteria:

- (i) is not Listed on an U.S. Environmental Protection Agency (EPA) Superfund National Priorities or Comprehensive Environmental Response Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list;
- (ii) is not located within 3,000 feet of a toxic or solid waste landfill site;
- (iii) does not have an underground storage tank; and
- (iv) is not known or suspected to be contaminated by toxic chemicals or radioactive materials.

Summary of Findings

Subject Property Records Review

Phase I Environmental Site Assessment (ESA): The Phase I ESA dated January 10, 2023 revealed one recognized environmental condition (REC) (five-gallon bucket of oil and staining), no controlled REC (CREC), and one historical REC (HREC) in connection with the Subject Property (*U.S. Army Reserve Center Site #2 Willis Property*). The REC is the release of oil observed at the eastern entrance of the onsite garage from an open top five-gallon bucket exposed to the elements. The majority of the oil staining is contained to the concrete. However, soil staining is present along the concrete. The following hazards were also identified during the site inspection: an approximate 500 cubic feet of corrugated transite (asbestos) roofing material was observed stored along the western property boundary, a derelict onsite garage structure, and historical use of the northern portion of the Subject Property as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in other areas. However, test pits of these areas did not identify co-disposal of oil or hazardous materials. The northern portion of the site was developed with the derelict approximate 4,944 square-foot garage in 1982. Thus, lead-based paint is not considered a concern for this post-1978 structure. *Mitigation is necessary for the identified REC to not be considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.* With proper removal and disposal of the identified and encountered hazards, the Subject Property is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

According to the NC DEQ DWM Underground Storage Tank (UST) Division and Phase I ESA, the Subject Property is identified as *U.S. Army Reserve Center Site #2 Willis Property* at Tootle Road, AST Incident #86668, UST Number: WI-86668. This incident was also listed on the Incident Management Database (IMD) list. This is considered an HREC of the Subject Property. The Subject Property is listed as a leaking above ground storage tank (LAST) due to the placement of petroleum impacted soil from an offsite source in 1995. According to records reviewed from the NCDEQ, a new U.S. Army Reserve Center was being constructed on “Fisher Street between 4th and 5th Streets” in 1995. Soil excavated from the new U.S. Army Reserve Center property was taken to the Willis property (Subject Property) to be used as fill. According to a March 2001 U.S. Army Corps of Engineers report, approximately 1,110 cubic yards of soil were disposed of onsite, which was later found to be contaminated with petroleum products. Initial screening in 1995 indicated one sample from the stockpiled soil was 161 ppm of diesel which exceeded the NC DEHNR action level (40 ppm); which prompted remediation in 2001. There were five samples taken at the Subject Property with three samples also tested for TCLP-Lead and TCLP-Chromium, and all were less than 0.500 ppm. In the summer of 2001, a contract to remove the soils was approved, with excavation of soils in September 2001. Approximately 200 tons of soil were removed from the fill/stockpiled area until native, undisturbed soil was reached on the Subject Property. The NC DEQ Division of Water Quality issued a No Further Action (NFA) on June 4, 2004. NCORR contacted Michael Haseltine, NC DEQ DWM UST Section Fayetteville/Wilmington Offices Regional Supervisor, for documentation on this incident. A copy of the NFA and supporting documentation received from the NC DEQ DWM UST Section is attached for reference. The NFA letter notes that as with the March 2001 (Stockpile Sampling Report at the Willis Property [Subject Property]) report, “there was no petroleum contamination in excess of state groundwater standards” and “no further action is required.” Further, there are no recorded Land Use Restrictions and/or Notices for the Subject Property. Thus, this HREC does not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

Site Inspection (Phase I ESA): A site inspection was performed at the Subject Property. The site consists of approximately 11.64 acres of primarily vacant land. A derelict garage built in 1982 is situated on the northern portion of the Subject Property. Several five-gallon buckets of petroleum products remain in the structure. One of these buckets has an open top and is exposed to the elements. Rainwater has forced oil out of the bucket onto the concrete. A small area of soil has potentially been impacted by this. The structure was formerly serviced by an estimated 500-gallon septic system. The southern portion of the site is an open grassy area. The remaining areas of the site are vegetated with thick vegetation. Indications of non-native piles were observed on the northern portion of the site. The visible piles appeared to contain, soil, rocks, construction debris, and miscellaneous garbage.

The following hazards were identified: 1) a five-gallon open bucket of oil with staining mostly on the concrete, 2) an approximate 500 cubic feet of corrugated transite (asbestos) roofing material observed stored along the western property boundary, 3) a derelict onsite garage structure, and 4) historical use of the northern portion of the Subject Property as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in other areas. However, test pits of these areas did not identify co-disposal of oil or hazardous materials.

Historic Aerials & Site History (Phase I ESA): The Subject Property appears to have been addressed as 3110, 3118, and 3200 Bridges Road during its documented history reviewed as part of the Phase I ESA. Sometime between 1957 and 1964, the southern portion of the Subject Property was developed into a mobile home park. The Subject Property’s use remained the same until sometime between 1970 and 1982 when the central and northern portions of the site ceased to be farmed and areas of the site were disturbed. The onsite structure was reportedly constructed in 1982 and was utilized by Willis Landscaping and Construction, then Willis Septic Tanks. Mr. Willis (former owner) was cited by Carteret County

Environmental Health Department for operating an unpermitted landfill on the Subject Property in July 1983. This dumping appears to have continued through at least 1998. Historical assessments of the Subject Property have identified waste consisting of construction debris to be buried as deep as 10 feet below grade in some areas of the site. The presence of this debris is considered a business environmental risk (BER). Sometime between 2006 and 2009, the mobile home park on the south side of the Subject Property was removed. The Subject Property has been vacant for at least 15 years. The Subject Property is reported to have an active NPDES State Stormwater permit (Permit number SW8201102) which was issued on February 3, 2021, and is scheduled to expire on February 3, 2029.

Previous historical assessments noted in Phase I ESA: The site structure was used for vehicle maintenance. The structure has a septic system. the septic system and associated leach field are located along the south side of the building structure. A sink in the onsite building structure drained directly to the ground surface. A suspect petroleum sheen and odor, and dead animals were observed in and around the tributary leading to a creek to the north of the Subject Property near debris piles identified on the northern portion of the site. An approximately 250-gallon waste oil AST and visible surface staining were observed along the west side of the onsite building.

Revised Phase II Subsurface Investigation Report: A 2018 Revised Phase II Subsurface Investigation Report evaluated the potential impact of VOCs and/or PAHs to soil and/or groundwater as a consequence of a release or releases from onsite dumping activities, septic system, AST, and improper sink discharge. No anomalies indicative of USTs, buried 55-gallon drums, or other subsurface features of concern were identified in or around the overturned debris piles in the central portion of the Subject Property. (The central and northern portions were utilized for construction debris dumping and/or storage associated with Carteret Septic and Construction, which occupied a portion of the Subject Property and east adjacent property.) Additionally, no subsurface utilities were identified in the proposed boring locations. There is a septic tank approximately 10 feet south of the onsite workshop beneath the metal canopy.

During the GPR survey and Phase I site reconnaissance on April 11, 2018, an excavating subcontractor overturned the debris piles in the central portion of the Subject Property. However, due to access limitations, the debris piles in the northern portion of the Subject Property could not be overturned for inspection. Based on visual observations, the piles in the central portion contained construction debris such as masonry brick, remnant concrete slab, PVC piping, and lumber. No apparent buried drums and/or other potentially hazardous contents were observed near the debris piles. However, a suspect petroleum sheen and odor were observed in the tributary leading to a creek to the north of the property near the northern debris piles. Dead animals were noted near the creek and debris piles on the Subject Property. As such, the original Phase II scope was modified to include the advancement of a boring near the northern debris piles and the collection of a surface water sample near the suspect sheen. A total of six test pits were completed at the Subject Property during excavation oversight activities on May 24, 2018. Based on visual observations, excavation test pits primarily contained remnant concrete slab, masonry brick, PVC piping, and lumber. No apparent potentially hazardous contents were observed within the test pits or the soil pile.

Laboratory analytical results performed on the soil, groundwater, and surface water samples collected on April 12, 2018 identified the VOCs p-isopropyltoluene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and the PAH pyrene above the laboratory method detection limit (MDL) in the soil sample analyzed from boring B-2. None of the reported VOC or PAH concentrations exceeded their respective Protection of Groundwater or Residential PSRGs, SG-MSCCs, or Residential Cleanup Standards. Laboratory analytical results performed on the soil and groundwater samples collected on May 24, 2018 identified the VOC chloroform in the groundwater sample analyzed from test pit TP-3. The

reported chloroform concentration did not exceed its 2L groundwater standard or GCL. No other VOCs or PAHs were identified above laboratory MDLs in the analyzed samples. Given its use as a laboratory reagent, chloroform in the collected groundwater sample likely a laboratory artifact and not indicative a significant release. As such, according to this report, no evidence exists that hazardous materials have been buried or dumped on the Subject Property nor has the subsurface soil and/or groundwater in the northern portion of the Subject Property been adversely impacted by buried construction debris in this area and no further investigation is necessary.

Based on the findings of this Subsurface Investigation, there is no evidence of a significant release of hazardous materials from the Subject Property and Partner recommends no further investigation with respect to the septic system, AST, improper sink discharge, and buried/dumped debris at this time. However, in the event suspect hazardous materials are encountered during redevelopment activities, the hazardous materials should be segregated and transported offsite for proper disposal in accordance with local and State regulations. (See Revised Phase II Subsurface Investigation Report attached.)

EPA Records: According to NEPAassist, the Subject Property is not identified on a list of Superfund National Priorities or Comprehensive Environmental Response Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list compiled by the U.S. EPA. A review of the U.S. EPA Facilities Database provides no indication of past uses of the Subject Property that could have contaminated the Subject Property or could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

North Carolina Department of Environmental Quality (NC DEQ) Records: According to the NC DEQ Division of Waste Management (DWM) UST Section, there are no reported petroleum releases known to exist at this location, nor are there any records of registered USTs at the Subject Property. Notification of the proper NC DEQ DWM regional office is required if "orphan" underground storage tanks (USTs) are discovered during any excavation operation. According to NC DEQ DWM Site Locator Tool, the Subject Property is identified as *U.S. Army Reserve Center Site #2 Willis Property* at Tootle Road, AST Incident #86668, UST Number: WI-86668. The Subject Property is listed as a Leaking Aboveground Storage Tank (LAST) property due to the placement of 1,110 cubic yards of petroleum impacted soil from the construction of the U.S. Army Reserve Center on "Fisher Street between 4th and 5th Streets" in 1995. Soil was removed in September 2001 from the fill/stockpiled areas until native, undisturbed soil was reached (approximately 200 tons) and a NFA letter was issued by the NC DEQ Division of Water Quality on June 4, 2004. NCORR contacted Michael Haseltine, NC DEQ DWM UST Section Fayetteville/Wilmington Offices Regional Supervisor, for documentation on this incident. A copy of the NFA and supporting documentation received from the NC DEQ DWM UST Section is attached for reference. The NFA notes that as with the March 2001 (Stockpile Sampling Report at the Willis Property [Subject Property]) report, "there was no petroleum contamination in excess of state groundwater standards" and "no further action is required." Further, there are no recorded Land Use Restrictions and/or Notices for the Subject Property. Thus, this HREC does not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

County/Region/Town Records: None.

Surrounding Properties Records Review

EPA Records: There are no federal Superfund sites, federal Brownfield sites or Toxic Release Inventory sites located within a one-mile radius of the Subject Property. According to NEPAAssist, there are twelve **RCRA** hazardous waste facilities within a one-mile radius of the Subject Property. These include the *Rite Aid #11537* (very small quantity generator [VSQG]), *Beachville (aka Beachview) Exxon Service* (VSQG), *Carteret General Hospital* (VSQG), *Carteret County Community College* (No info), *Coastal Dry Cleaners/ NC DSCA DC160001*, *Kelly's Exxon Station* (VSQG), *Tom Potter Oil Company* (VSQG), *Master Tech Inc.* (No info), *UNC-Chapel Hill Institute of Marine Sciences* (VSQG), *NCSU Center for Marine Science & Technology* (VSQG), and *CVS Pharmacy #11347*. A review of the available facility records shows that these facilities are mostly very small quantity generators, including three colleges, two gas stations, two auto repair garages, two retail pharmacies, a dry cleaner and a hospital. These facilities do not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property due to their status, distance from the Subject Property, and/or the use of a municipal water supply for the proposed project. Facilities with releases were evaluated in the Phase I ESA (*Carteret Health Care*). The *Carteret Health Care* site is located at 3500 Arendell Street, approximately 2,164 feet-southwest and upgradient of the Subject Property. RCRA violations have not been identified for this facility. This facility is also listed on the LAST database list and the IMD list. Releases from this property would not be expected to impact the Subject Property based on the distance and location relative to the Subject Property. Therefore, these facilities do not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

According to NEPAAssist, there are two **Air Emission** sites located within a one-mile radius. These include the *CP&L – Morehead City Plant* (Inactive) and *Carteret Health Care*. The *CP&L – Morehead City Plant* (Inactive) is permanently closed. *Carteret Health Care* is identified under General Medical & Surgical Hospitals with minor emissions. Therefore, these facilities do not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

According to NEPAAssist, there are five **NPDES** water discharger facilities within a one-mile radius of the Subject Property. These include the *Atlantic Beach Seafood Market*, *Morehead City WWTP* (Town of Morehead City/ Morehead City WWTP facility listed 3 times), and *UNC Institute of Marine Sciences*. *Atlantic Beach Seafood Market* does not have any records of violations or noncompliance. *Morehead City WWTP* has no reported violations or noncompliance recorded since November 2020. *UNC Institute of Marine Sciences* has no reported violations or noncompliance records. These facilities do not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property due to their status, lack of violations, distance from the Subject Property, and/or the use of a municipal water supply for the proposed project.

Based on the EPA's Radon Zone Map, the Subject Property is located within Zone 3 with predicted average indoor radon screening levels less than 2 pCi/L (Low Potential) (*see Attachment 7*). Due to the low potential for elevated indoor radon levels, no additional steps are required for radon mitigation. However, testing for radon is the only way to determine radon levels in buildings. Preventing the entry of radon into a building is the most effective way of protecting building residents. This can be done in new buildings by incorporating radon-resistant construction protocols and in existing buildings by using underground collection systems that vent the gas into the atmosphere through an exterior pipe. Radon levels within buildings can also be reduced by increasing ventilation rates.

Thus, no hazards are present in an EPA records review that would pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

NC DEQ DWM Records: According to the NC DEQ DWM comments in **Attachment 28**, three Superfund Section sites (*Coastal Dry Cleaners*, *Beachview Exxon*, and *Morehead City Refuse Dump*) and one Brownfields Program site (*Morehead City Main RN*) were identified within one mile of the Subject Property. These sites are discussed below.

According to the NC DEQ DWM Site Locator Tool, one **hazardous waste site**, *Coastal Dry Cleaners* (NC DSCA DC160001), and one **inactive site**, *Beachview Exxon*, are located within a one-mile radius of the Subject Property. Both *Coastal Dry Cleaners* and *Beachview Exxon* do not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property according to the Phase I ESA. According to the NC DEQ DWM Site Locator Tool, one **Brownfields site**, *Morehead City Main (RN) aka BB & T Morehead City*, is located within one-mile of the Subject Property. *Morehead City Main (RN) aka BB & T Morehead City* does not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property according to the Phase I ESA.

The NC DEQ DWM Site Locator Tool and DWM comments identified the **Pre-Regulatory Landfill**, *Morehead City Refuse Dump*, within 3,000 feet of the Subject Property. According to the NC DEQ DWM files and City website, the property across North 25th Street is the City's Public Works' Garage at 601 N. 25th Street since 2017. Residences are located to the south and southeast of the Dump site. Due to the distance and elevation, this facility would not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

According to NC DEQ DWM, are 10 **UST Incidents**, seven **Non-UST Incidents**, one **UST Active Facility**, and four **Land Use Restrictions and/or Notices** sites located within 0.5 mile of the Subject Property. The three sites associated with the U.S. Army Reserve Center Site and subsequent NFA are listed under Non-UST Incidents. Besides the *U.S. Army Reserve Center Site #2 Willis Property* at Tootle Road, AST Incident #86668, UST Number: WI-86668, none of these sites are located on or adjacent to the Subject Property (See Phase I ESA dated 01/10/23). These facilities do not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the subject property due to their status, distance from the Subject Property, nature of incident/contamination, and/or the use of a municipal water supply at the Subject Property.

Summary: Based upon the site inspection, Phase I ESA, and review of available environmental and historical records and reports for the Subject Property and surrounding area, there is one REC identified that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property without proper mitigation. Mitigation is necessary for the identified REC to not be considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

The REC is the release of oil observed at the eastern entrance of the onsite garage from an open top five-gallon bucket exposed to the elements. The majority of the oil staining is contained to the concrete. However, soil staining is present along the concrete. The following hazards were also identified: an approximate 500 cubic feet of corrugated transite (asbestos) roofing material observed stored along the western property boundary, a derelict onsite garage structure, and historical use of the northern portion of the Subject Property as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in other areas. However, test pits of these areas did not identify co-disposal of oil or hazardous materials. With proper removal and disposal of identified and encountered hazards, the Subject Property is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property.

All five-gallon buckets, their contents including petroleum products, asbestos-containing roofing material (see below), debris, and any other materials or soils removed shall be properly disposed of by the Grant Recipient and its contractors. All wastes shall be characterized and properly disposed of according to the type of waste in an appropriate, legally compliant NC DEQ DWM permitted receiving facility in accordance with federal, state and local regulations (e.g., RCRA Subtitles C and D, NESHAP 40 CFR 61.150, and NC Solid Laws NCGS 130A, and NC Hazardous Waste Rules 15A NCAC 13A). NC DEQ DWM strongly recommends that the Grant Recipient require all contractors to provide proof of proper disposal for all waste to permitted facilities.

In the event that unexpected contaminated or potentially hazardous materials, soils or debris are encountered during demolition or construction, work in the area shall cease immediately, and the work area shall be secured. The appropriate NC DEQ Regional Office will be contacted and the contamination assessed with an environmental consultant. Appropriate measures will be taken to address the hazard(s) (i.e., contaminated soils, hazardous debris, USTs, lead-based paint, etc.), and, if removed, will be properly disposed of in the appropriate NC DEQ DWM approved facility in accordance with federal, state and local laws and regulations (e.g., RCRA Subtitles C and D, NESHAP 40 CFR 61.150, and NC Solid Laws NCGS 130A, and NC Hazardous Waste Rules 15A NCAC 13A). If suspect asbestos-containing material (ACM) is found during demolition of the garage and redevelopment activities, it should be assumed to contain asbestos until laboratory analysis can confirm or deny their asbestos content. The NC Department of Health and Human Services (DHHS) and Asbestos Hazard Management Program handles asbestos control and NC asbestos abatement procedure. Asbestos inspection and the removal of regulated ACM must be done by NC-accredited asbestos professionals in accordance with all applicable federal, state and local laws, regulations and procedures. The activities must conform to Article 19, N.C. Gen. Stat. § 130A-444-451, the National Emission Standard for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61, Subpart M) pertaining to demolition and renovation in 40 CFR 61.145, NESHAP pertaining to waste disposal in 40 CFR 61.150, Occupational Safety and Health Act of 1970, Pub. L. 91-596, 84 Stat. 1590, 29 U.S.C. § 651, et seq., as amended (OSHA), Asbestos Standard for Construction 29 CFR 1926.1101, OSHA 29 CFR 1910, NC OSHA 13 N.C.A.C. 7C .0101, Transportation under 49 CFR 173.1090, and North Carolina Solid Waste Laws. An Asbestos Permit Application and Demolition Notification (DHHS 3768) must be submitted to the Health Hazards Control Unit (HHCU) of the NC DHHS Division of Public Health, prior to demolition in compliance with 15 A NCAC 20.1110 (a)(1). If the ACM removal is greater than 3,000 square feet, 1,500 linear feet, or 656 cubic feet in a public area, then a design, project monitoring plan, and (transmission electron microscopy) TEM clearance might be required under 10A NCAC 41C .0607. All ACM debris will be properly disposed of in a NC DEQ DWM approved landfill facility in accordance with applicable regulations. Any Asbestos Surveys/ Clearance Reports and applicable permits will be appended to the Environmental Review Record (ERR).

If any USTs are discovered, then DWM's UST Section Wilmington Regional Office will be notified. If any abandoned wells are discovered, then NC DEQ will be notified and abandoned in accordance with Title 15A. Subchapter 2C.0100. "Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900" (*See Attachment 28*).

Based on the EPA's Radon Zone Map, the Subject Property is located within Zone 3 with predicted average indoor radon screening levels less than 2 pCi/L (Low Potential) (see **Attachment 7**). Due to the low potential for elevated indoor radon levels, no additional steps are required for radon mitigation. However, testing for radon is the only way to determine radon levels in buildings. Preventing the entry of radon into a building is the most effective way of protecting building residents. This can be done in new buildings by incorporating radon-resistant construction protocols and in existing buildings by using underground collection systems that vent the gas into the atmosphere through an exterior pipe. Radon levels within buildings can also be reduced by increasing ventilation rates.

With the proper mitigation measures and protocols discussed above, the Subject Property will be unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property. The proposed project is in compliance with contamination and toxic substances requirements.

NC DEQ DWM UST Section Documentation, NEPA Assist EPA Facilities Reports with 1-mile Buffer, NC DEQ DWM Site Locator Reports with 1-mile, 0.5-mile and 3,000-foot Buffers, Facilities Reports, Phase I ESA, Revised Phase II Subsurface Investigation Report, and the EPA NC Radon Zone Map are provided in **Attachment 7**. NC State Environmental Clearinghouse comments are in **Attachment 28**.

Data Sources: NCORR has reviewed the following sources to make the above determinations: NEPA Assist's Hazardous Waste (RCRAInfo), Air Pollution (ICIS-AIR), Water Dischargers National Pollutant Discharge Elimination System (NPDES) permit program, and Brownfields Assessment, Cleanup and Redevelopment Exchange System (ACRES), EPA's Permit Compliance System (PCS) and Integrated Compliance Information System (ICIS) databases, EPA's Toxic Release Inventory Database (TRI), Superfund Enterprise Management System (SEMS) and National Priorities List (NPL), and EPA's Toxic Substances Control Act (TSCA). Information on radon can be found at HUD Exchange (<https://www.hudexchange.info/programs/radon/>), the EPA website, at (<https://www.epa.gov/radon/epa-map-radon-zones-and-supplemental-information#region4>), ANSI/AARST website, at (<https://standards.aarst.org/>), and Temple University's, Beasley School of Law, Center for Public Health Law Research on state radon laws, at <https://lawatlas.org/datasets/state-radon-laws>.

NCORR reviewed the NC DEQ Division of Waste Management (DWM) Site Locator Tool to assess whether the Subject Property is registered as a State Superfund site. The NC DEQ DWM Database includes records of sites that are part of the Land Clearing and Inert Debris (LICD) Notifications, Permitted Solid Waste Landfills, Other Permitted Solid Waste Facilities, Yard Waste Notification (YWN) Facilities, Coal Ash Structural Fills (Closed), Permitted Solid Waste Septage Facilities (SLAS or SDTF), Hazardous Waste Sites, Brownfields Program Sites, Federal Remediation Branch, Pre-Regulatory Landfill Sites, Inactive Hazardous Sites, Dry Cleaning Compliance, Dry Cleaning Remediation Program, Dry Cleaning Historical Boiler Inspections, Dry Cleaning City Directories, UST Incidents, Non-UST Incidents, UST Active Facilities, Petroleum Contaminated Soil Remediation Permits, and Land Use Restriction and/or Notices. NCORR requested and, if available, reviewed NC DEQ DWM records, retained by the UST Section Regional Office through the NC State Environmental Clearinghouse, to determine if the Subject Property has an underground storage tank (UST) (besides a residential fuel tank) or any other storage tank. Additionally, NCORR requested and, if available, reviewed NC DEQ DWM records, retained by the UST Section Regional Office through their staff, the NC State Environmental Clearinghouse, and/or the NC DEQ DWM Site Locator Tool to determine if the Subject Property potentially contains hazardous materials, contamination, toxic chemicals and gases, and radioactive substances.

File: 86668

June 4, 2004

Ms. Michell Hook
US Army Corps of Engineers
Attention AFRC-CAL-NS-EN
Building 1300 Jackson Blvd.
Fort Jackson, South Carolina 29207

Subject: Soil and Groundwater Remediation
Army Reserve Center
Morehead City, North Carolina
Carteret, County
Incident# 13066


Dear Ms. Hook:

The Division of Water Quality received the quarterly monitoring report for groundwater samples obtained from wells at the Morehead City, North Carolina Army Reserve Center Report dated May 25, 2004. Thank you very much for providing us with this report.

As with previous reports dated March 2001, November 24, 2003, and February 18, 2004 there was no petroleum contamination in excess of state groundwater standards found in groundwater taken from the six wells sampled. Thus, because groundwater conditions have been compliant with state standards for the last four sampling events, no further action is required at this site. Should you choose to do so, the monitoring well array can be abandoned at this time.

The Division appreciates the efforts which have been expended at the Morehead City property over the past several years to bring this facility into compliance. Should you have questions concerning the site please contact me at (910) 395-3900.

Yours very truly,

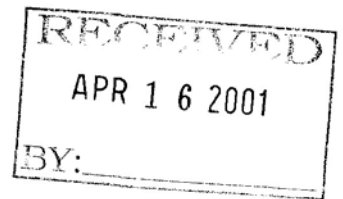

Charles F. Stehman, P.G., Ph. D.
Environmental Regional Supervisor

CFS/

cc: WiRO-GWS

s:\gws\cfs\Morehead Reserve Center.march04.wpd

**STOCKPILE SAMPLING REPORT
WILLIS PROPERTY
MOREHEAD CITY
CARTERET COUNTY
NORTH CAROLINA**



Prepared by
U.S. Army Corps of Engineers
Savannah District

March 2001

January 19, 1996

Programs and Project Management Division

SUBJECT: U.S. Army Reserve Center, Morehead City

Dr. Charlie Stehman, P.G.
Environmental Regional Supervisor I
State of North Carolina
Dept. of Environment, Health & Natural Resources
127 Cardinal Drive Extension
Wilmington, NC 28405-3845

Dear Dr. Stehman:

The intent of this letter is to keep your division informed of the ongoing efforts by the Corps of Engineers to address the soil removed from the U. S. Army Reserve Center, Morehead City and transported to three separate off-site locations.

The three off-site locations of the soil are 1) Courtyard Apartments' site, 2) Willis property site, and 3) Monroe Johnson property site. Sampling at all three sites was conducted in the June-July 1995 time period. The following is a synopsis of the current state of the sites.

a. Courtyard Apartments: Approximately 360 cy of soil was transported to this site and spread throughout the property in 2" lifts. Five samples (3 COE, 1 NCDEHNR, and 1 S&ME) were taken at this site and analyzed for Gasoline Range Organics, Diesel Range Organics, and Oil and Grease. Only one sample of 290 ppm of oil and grease exceeded the NCDEHNR action level of 250 ppm. The three COE samples were also tested for TCLP-Lead and TCLP-Chromium. All were less than 0.500 ppm.

b. Willis property site: Approximately 1110 cy of soil was transported to this site and stockpiled. Five samples (3 COE, 1 NCDEHNR, and 1 S&ME) were taken at this site and analyzed for Gasoline Range Organics, Diesel Range Organics, and Oil and Grease. Only one sample of 161 ppm of diesel exceeded the NCDEHNR action level of 40 ppm. The three COE samples were also tested for TCLP-Lead and TCLP-Chromium. All were less than 0.500 ppm. We have been granted right of entry to this property and will conduct additional testing within three weeks.

c. Monroe Johnson property site: Approximately 1760 cy of soil was transported to this site and stockpiled. Five samples (3 COE, 1 NCDEHNR, and 1 S&ME) were taken at this site and analyzed for Gasoline Range Organics, Diesel Range Organics, and Oil and Grease. Only one sample of 40.7 ppm of diesel exceeded the NCDEHNR action level of 40 ppm. The three COE samples were also tested for TCLP-Lead and TCLP-Chromium. All were less than 0.500 ppm. We have not been granted right of entry to this property and are currently unable to conduct additional testing. We are continuing efforts to secure access to this site.



State of North Carolina
Department of Environment, Health, and Natural Resources

James B. Hunt, Jr.
Governor

Wilmington Regional Office
Division of Environmental Management
Groundwater Section

Jonathan B. Howes
Secretary

August 11, 1995

Mr. W. F. Parker, President
W. F. Parker Construction Co.
565 Neptune Drive
Swansboro, NC 28584

Subject: Transmittal of Laboratory
Analytical Results
Parker Complaint
Morehead City
Carteret County

Dear Mr. Parker:

On August 10, 1995, the Wilmington Regional Office received the laboratory analytical results for the soil samples obtained by the Division on June 28, 1995. The results are attached. The results show one sample exceeded the Division action level (250 ppm) for oil and grease. The result of 290 ppm was for the sample obtained at the Courtyard Apartments site.

The Division has received communication from the Corps of Engineers concerning the soil that was transported off-site. As previously communicated to you, the Corps has informed us that the soil from the Willis Property and Tootle Road sites will be removed to a permitted soil remediation facility. Plans for the Courtyard Apartments site are not resolved to-date.

If you have any questions concerning this letter, please call Bruce Reed at (910) 395-3900.

Yours Very Truly,

A handwritten signature in dark ink, appearing to read "C. F. Stehman".

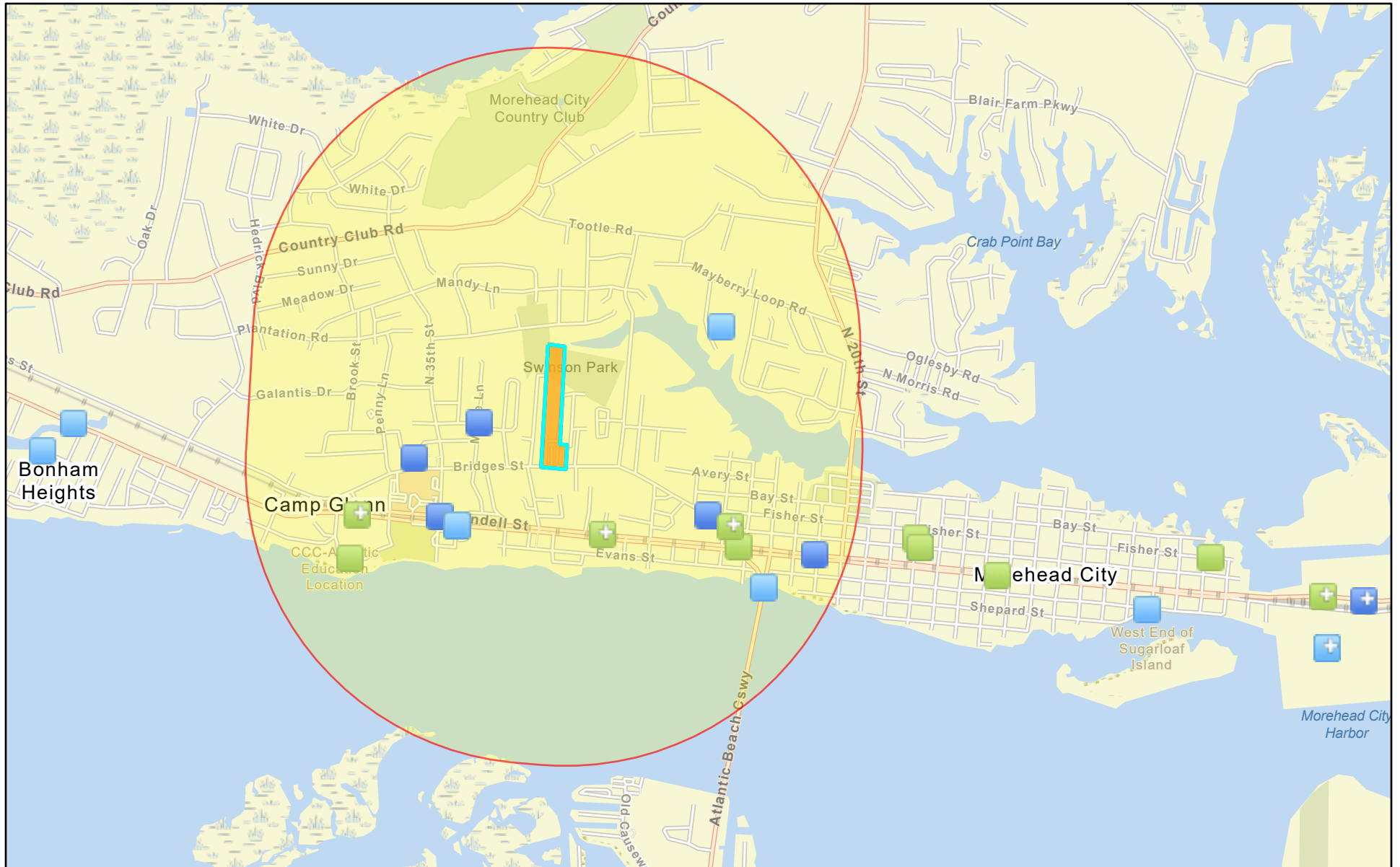
Charles F. Stehman, Ph.D., P.G.
Environmental Regional Supervisor I

Attachment

CFS/BAR

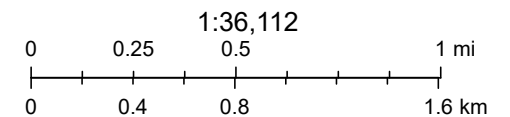
cc: Martin Fife (USACE-Savannah)
WiRO-GWS

Elijah's Landing - EPA Facilities



February 28, 2023

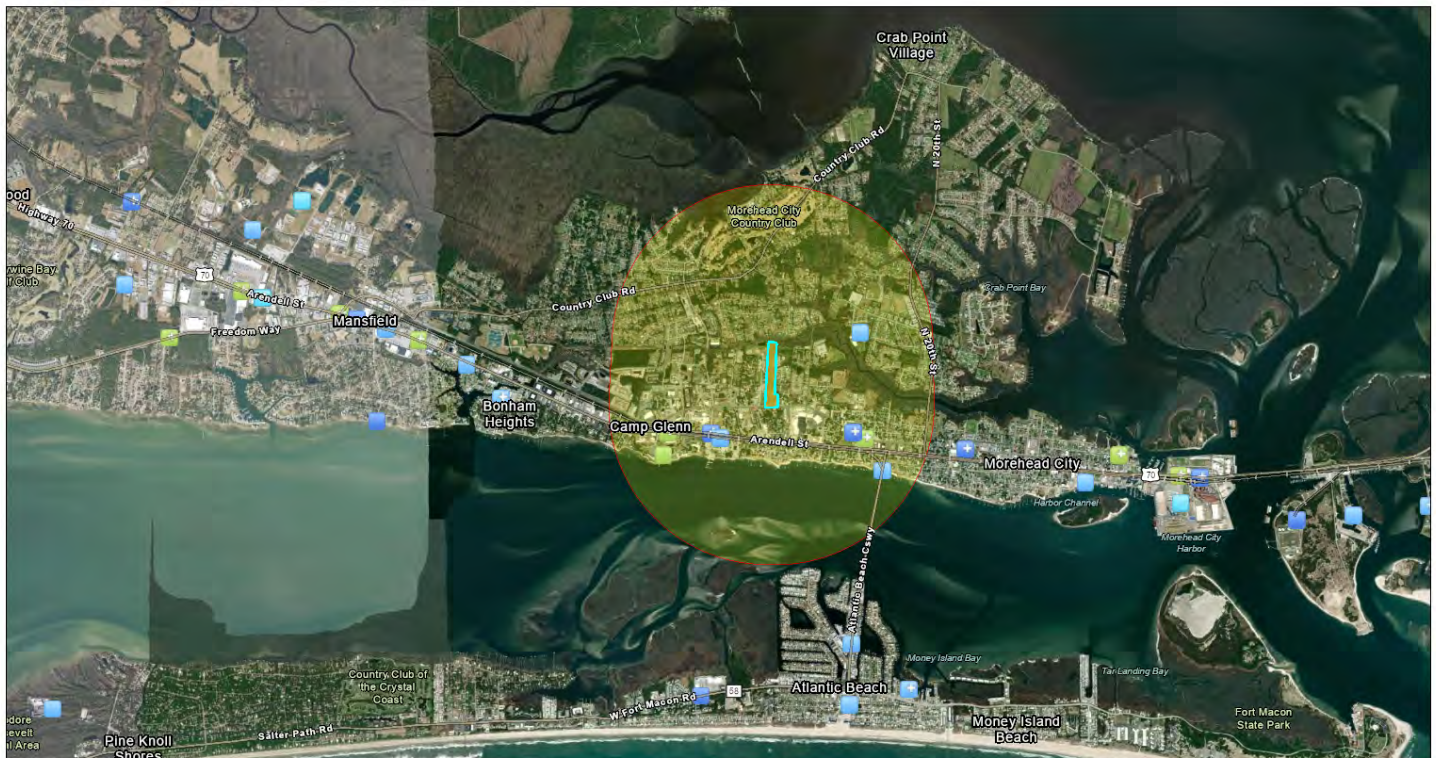
- Water Dischargers (NPDES)
- Hazardous Waste (RCRAInfo)
- Toxic Releases (TRI)
- elijahs's landing
- Water Dischargers (NPDES)
- Air Pollution (ICIS-AIR)
- Air Pollution (ICIS-AIR)
- Hazardous Waste (RCRAInfo)
- Air Pollution (ICIS-AIR)
- Project Buffer
- Elijah's Landing - EPA Facilities



State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

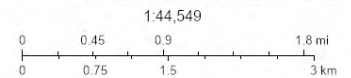
NEPAssist Report

Elijah's Landing - EPA Facilities with 1-mile Buffer



August 8, 2023

- Toxic Releases (TRI)
- Air Pollution (ICIS-AIR)
- Project Buffer
- Toxic Releases (TRI)
- Air Pollution (ICIS-AIR)
- Elijah's Landing - EPA Facilities with 1-mile Buffer
- Water Dischargers (NPDES)
- Hazardous Waste (RCRAInfo)
- elijah's landing



NC CGIA, Maxar, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, USDA

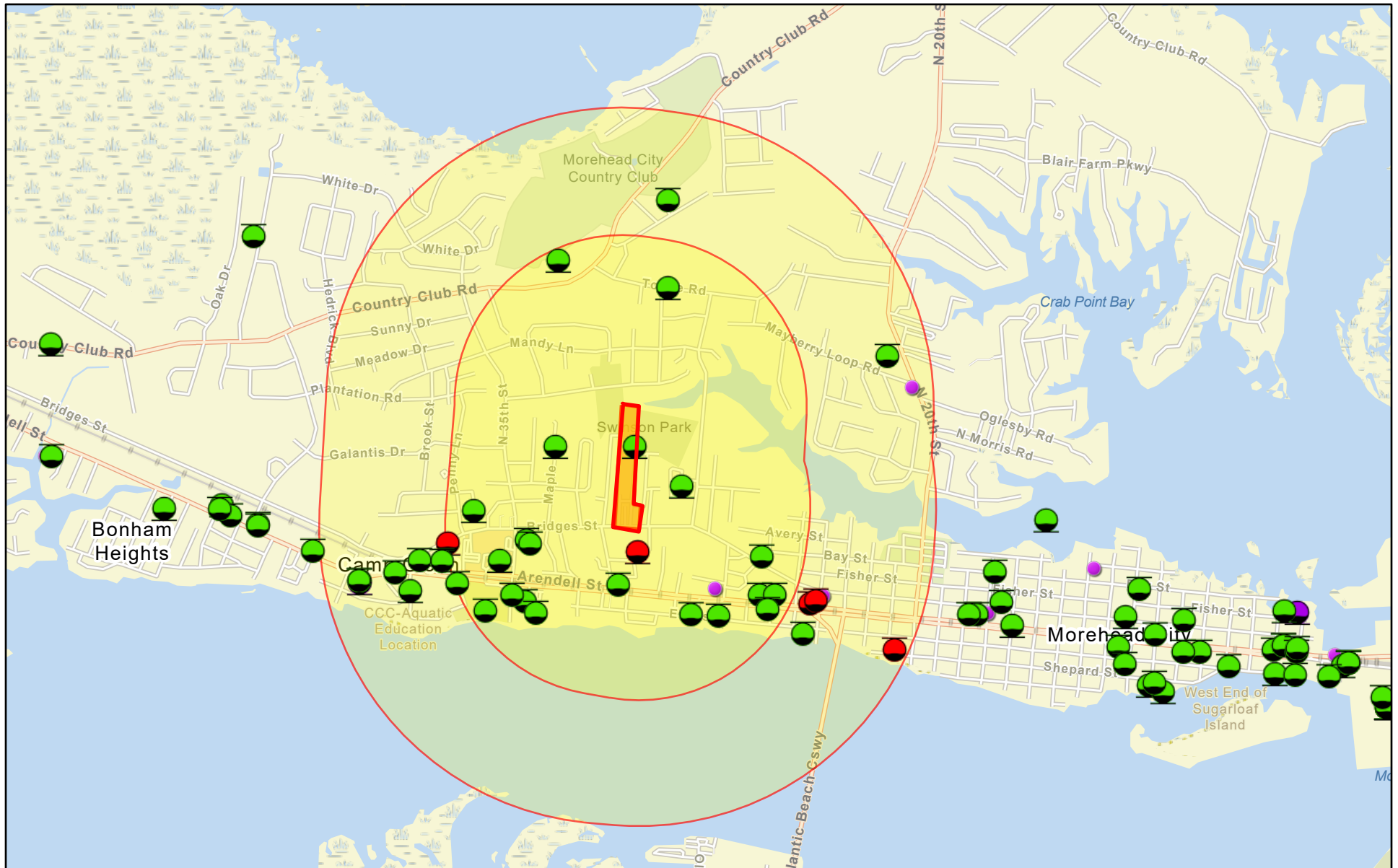
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Project Area	0.03 sq mi
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Federal Land?	no
Within 1 mile of an impaired stream?	yes
Within 1 mile of an impaired waterbody?	yes
Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	no
Within 1 mile of a Superfund site?	no

Within 1 mile of a Toxic Release Inventory (TRI) site?	no
Within 1 mile of a water discharger (NPDES)?	yes
Within 1 mile of a hazardous waste (RCRA) facility?	yes
Within 1 mile of an air emission facility?	yes
Within 1 mile of a school?	yes
Within 1 mile of an airport?	no
Within 1 mile of a hospital?	yes
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	no
Within 1 mile of a Toxic Substances Control Act (TSCA) site?	no
Within 1 mile of a Land Cession Boundary?	no
Within 1 mile of a tribal area (lower 48 states)?	no
Within 1 mile of the service area of a mitigation or conservation bank?	no
Within 1 mile of the service area of an In-Lieu-Fee Program?	yes
Within 1 mile of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 1 mile of a Munitions Response Site?	no
Within 1 mile of an Essential Fish Habitat (EFH)?	no
Within 1 mile of a Habitat Area of Particular Concern (HAPC)?	yes
Within 1 mile of an EFH Area Protected from Fishing (EFHA)?	yes
Within 1 mile of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 1 mile of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	no
Within 1 mile of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

Created on: 8/8/2023 12:59:33 PM

Elijah's Landing - DEQ DWM UST and Non UST Sites



February 28, 2023

3,000 Foot Buffer

UST Incidents

High Risk

Low Risk

Non-UST Incidents

High Risk

Low Risk

Unknown Risk

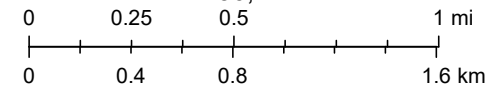
UST Active Facilities

Project Buffer

Elijah's Landing - EPA Facilities

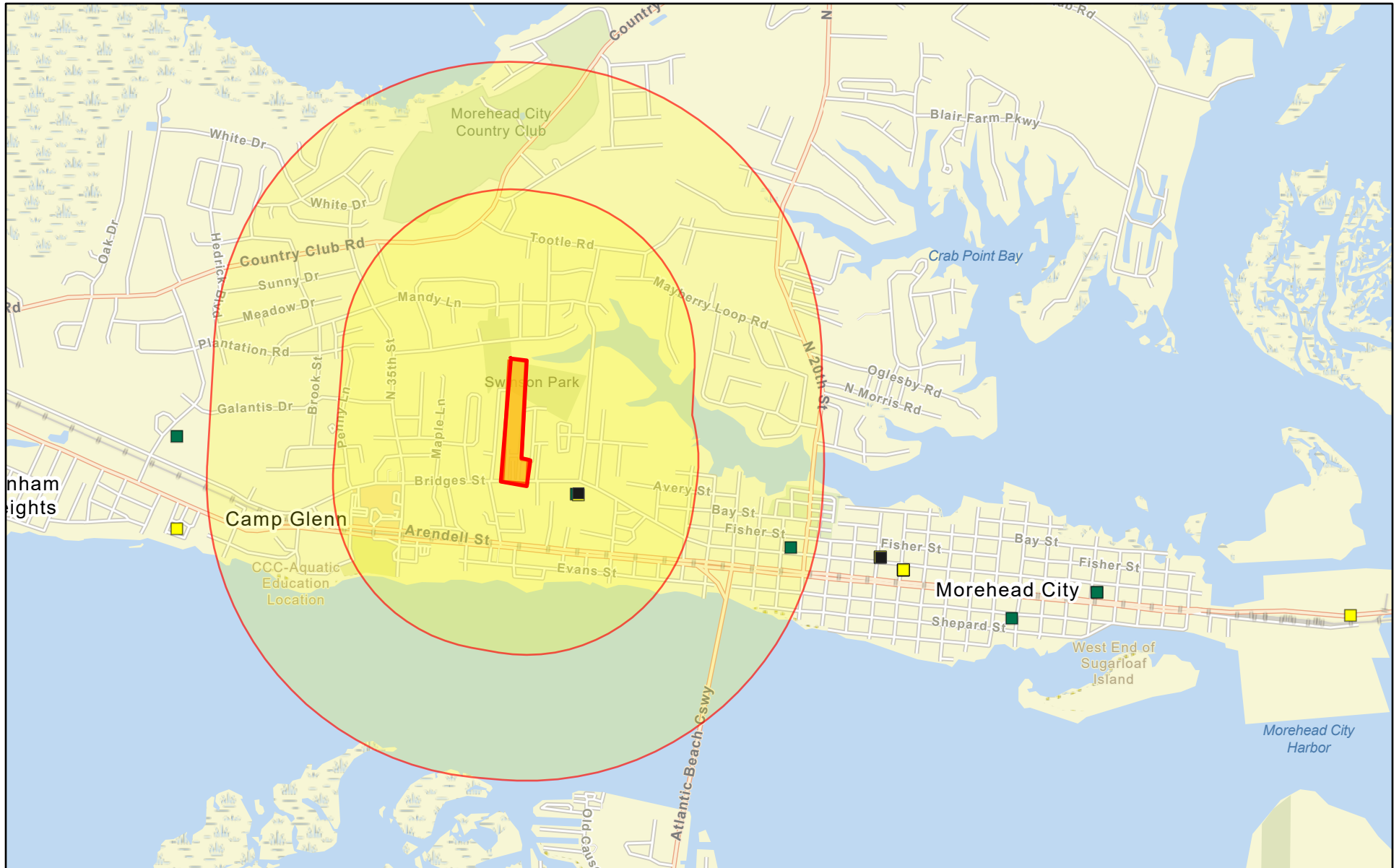
elijahs's landing

1:36,112



State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

Elijah's Landing - DEQ DWM Dry Cleaners



February 28, 2023

3,000 Foot Buffer

DryCleaning Remediation Program

Contaminated

DryCleaning Historical Boiler Inspections

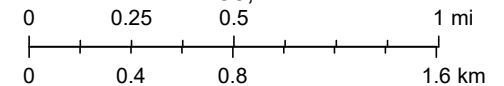
DryCleaning City Directories

Project Buffer

Elijah's Landing - EPA Facilities

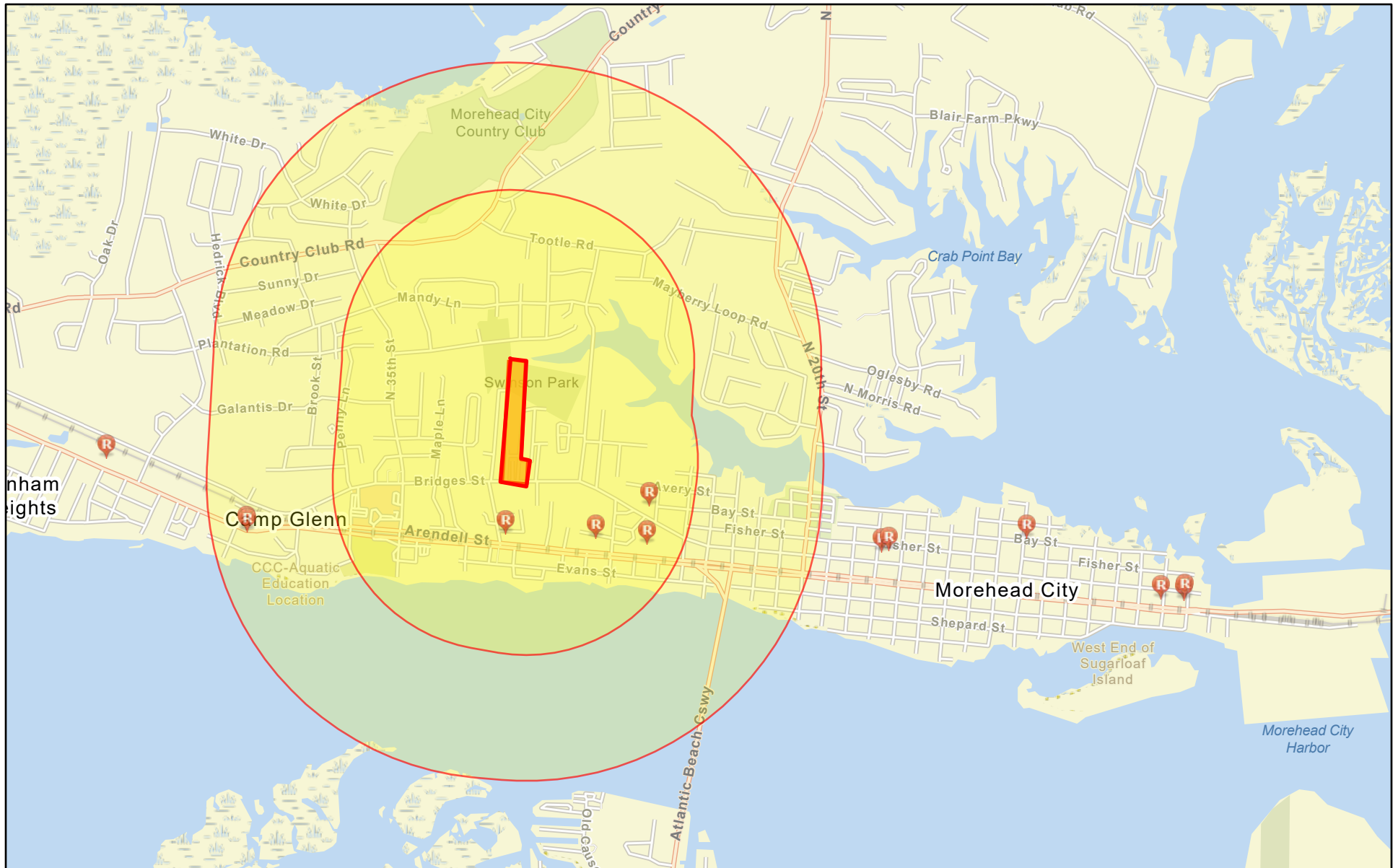
elijahs's landing

1:36,112



State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

Elijah's Landing - DEQ DWM Land Use Restrictions



February 28, 2023

3,000 Foot Buffer

Project Buffer

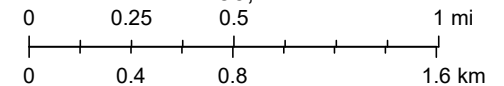
elijahs's landing

Land Use Restriction and/or Notices

Elijah's Landing - EPA Facilities

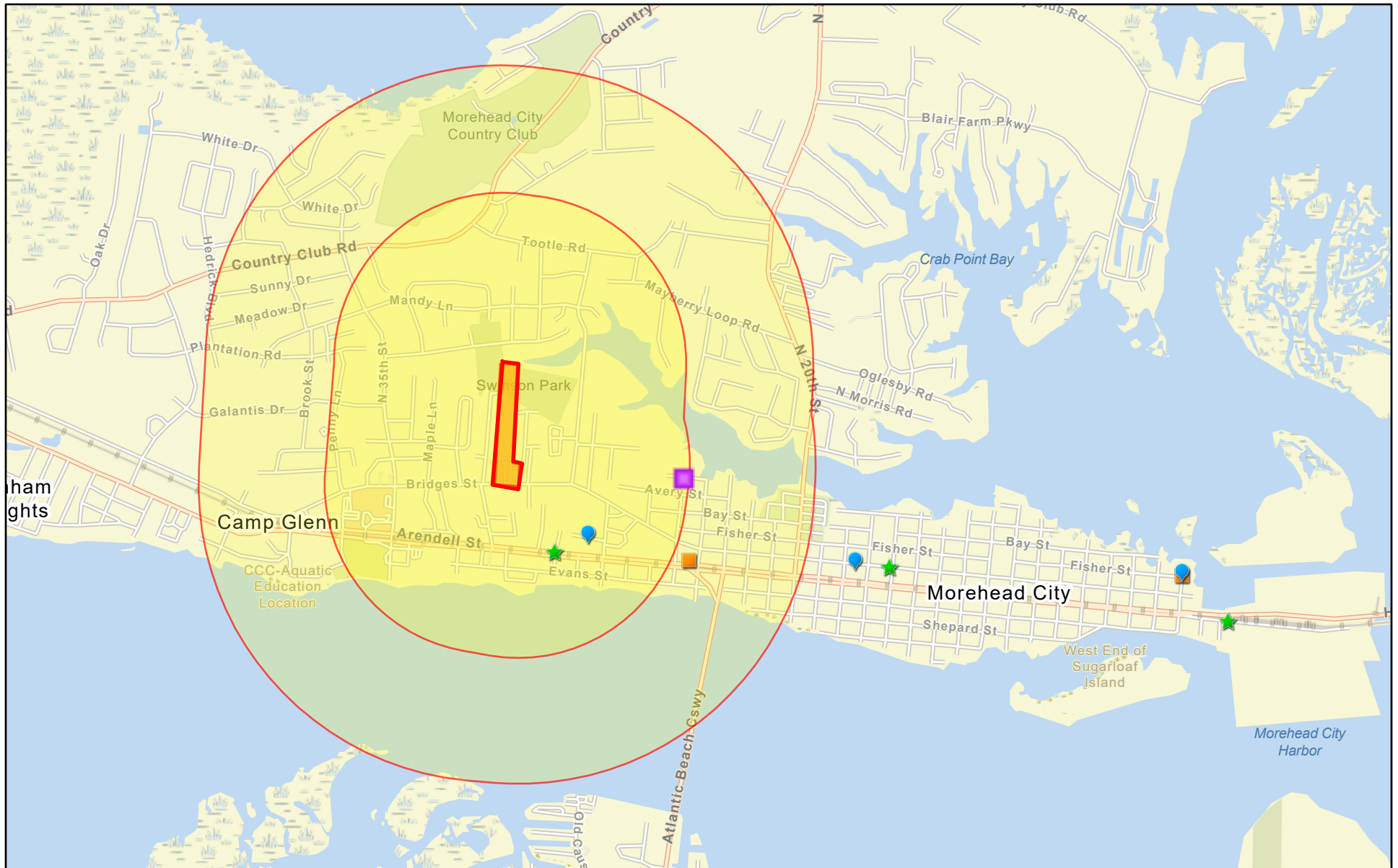
Notice and Restriction

1:36,112



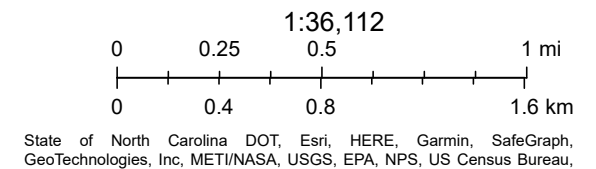
State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

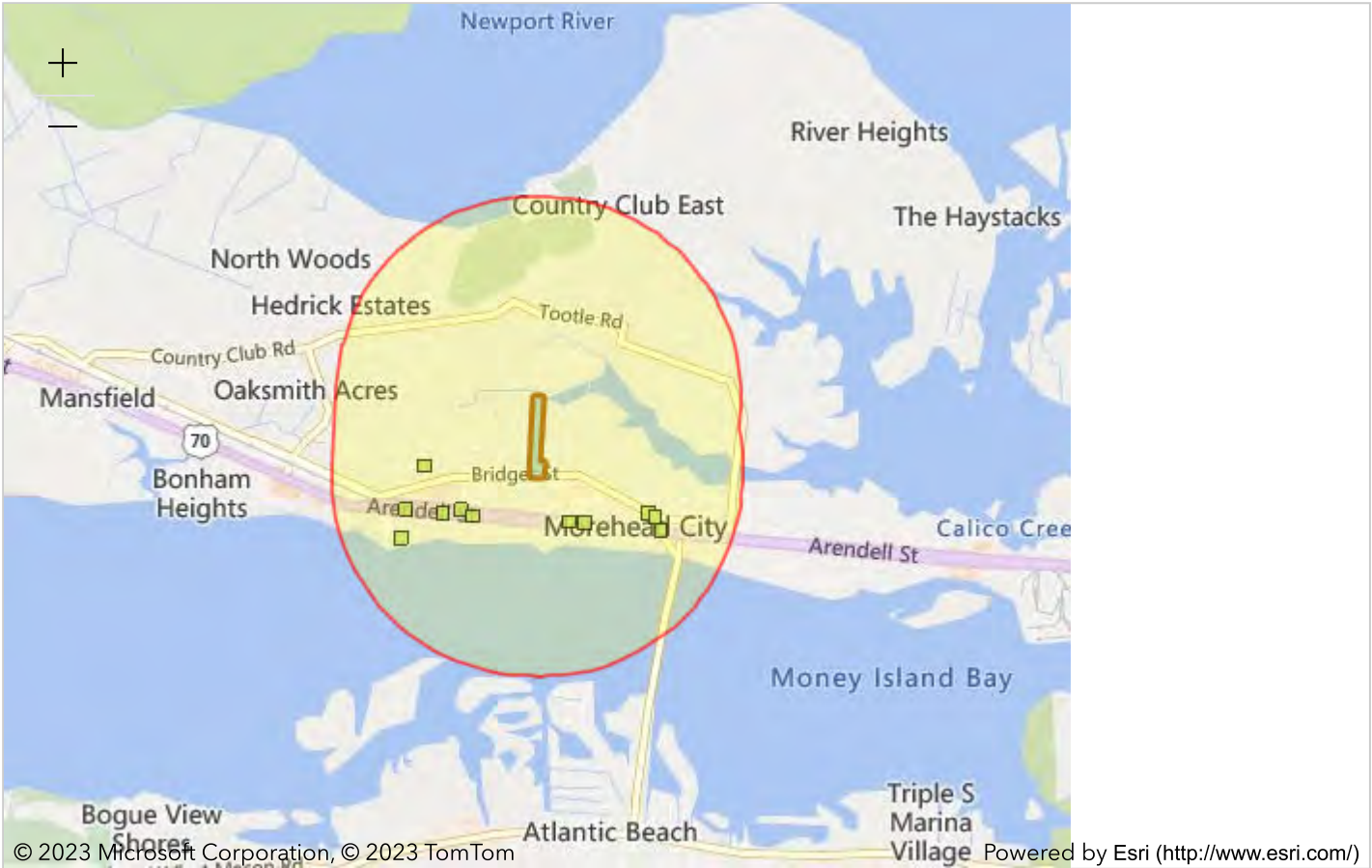
Elijah's Landing - DEQ DWM Remaining Sites



February 28, 2023

- | | | |
|---|--|--|
| — 3,000 Foot Buffer | Pre-Regulatory Landfill Sites | Project Buffer |
| ★ Hazardous Waste Sites | Activity Pending | Elijah's Landing - EPA Facilities |
| 📍 Brownfields Program Sites | Inactive Hazardous Sites | elijah's landing |





Report question: *Within 1 of a Hazardous waste site? yes*

Modify question by entering a new buffer distance and unit for the selected study area:

miles

▼

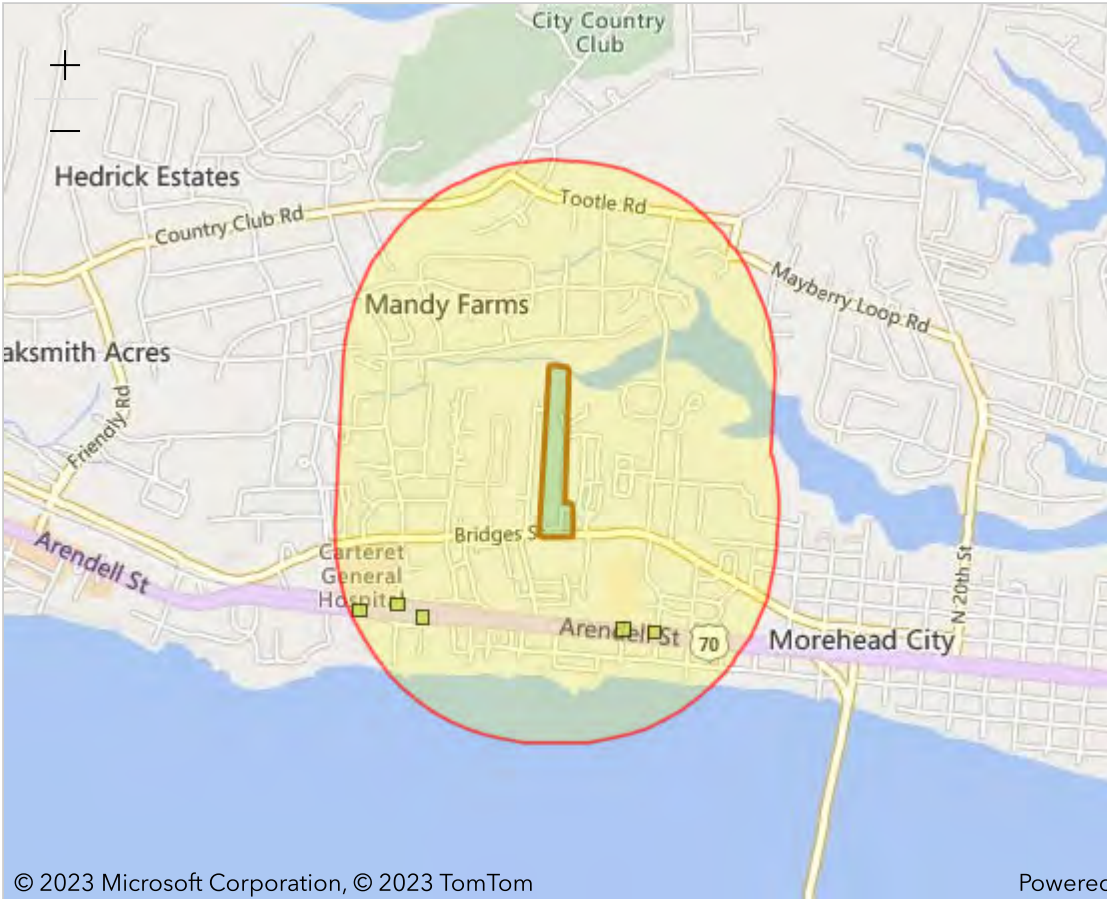
Submit

Name	Distance
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LATITUDE: 34.72379	
LONGITUDE: -76.74262	
PGM_SYS_ACRNM: RCRAINFO	
PGM_SYS_ID: NCR000156661	
LOCATION_ADDRESS: 2904 ARENDELL ST	
CITY_NAME: MOREHEAD CITY	
COUNTY_NAME: CARTERET	
STATE_CODE: NC	
EPA_REGION: Region 4	
POSTAL_CODE: 28557	
FIPS_CODE: 37031	
HUC_CODE:	

Name	Distance
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Name	Distance
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Name	Distance
<input type="checkbox"/> UNC-CHAPEL HILL INSTITUTE OF MARINE SCIENCES (MOREHEAD CITY,NC) (https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCR000170167) REGISTRY_ID: 110070225349 LATITUDE: 34.724335 LONGITUDE: -76.752577 PGM_SYS_ACRNM: RCRAINFO PGM_SYS_ID: NCR000170167 LOCATION_ADDRESS: 3431 ARENDELL STREET CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: 37031 HUC_CODE:	0.35 mile
<input type="checkbox"/> NCSU CTR FOR MARINE SCIENCE & TECHNOLOGY (MOREHEAD CITY,NC) (https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCR000147710) REGISTRY_ID: 110038887265 LATITUDE: 34.72273 LONGITUDE: -76.75897 PGM_SYS_ACRNM: RCRAINFO PGM_SYS_ID: NCR000147710 LOCATION_ADDRESS: 303 COLLEGE CIR CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: 37031 HUC_CODE:	0.72 mile
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Report question: *Within 0.5 of a Hazardous waste site? yes*

Modify question by entering a new buffer distance and unit for the selected study area:

0.5

miles


▼

Submit

Name	Distance
<div><input type="checkbox"/> DBA RITE AID #11537 (MOREHEAD CITY,NC) (https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCR000156661)</div> <div>REGISTRY_ID: 110054847591</div> <div>LATITUDE: 34.72379</div> <div>LONGITUDE: -76.74262</div> <div>PGM_SYS_ACRNM: RCRAINFO</div> <div>PGM_SYS_ID: NCR000156661</div> <div>LOCATION_ADDRESS: 2904 ARENDELL ST</div> <div>CITY_NAME: MOREHEAD CITY</div> <div>COUNTY_NAME: CARTERET</div> <div>STATE_CODE: NC</div> <div>EPA_REGION: Region 4</div> <div>POSTAL_CODE: 28557</div> <div>FIPS_CODE: 37031</div> <div>HUC_CODE:</div>	0.31 miles

Name	Distance
<input type="checkbox"/> CARTERET GENERAL HOSPITAL (MOREHEAD CITY,NC) (https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCD982148702) REGISTRY_ID: 110011738325 LATITUDE: 34.72477 LONGITUDE: -76.75362 PGM_SYS_ACRNM: RCRAINFO PGM_SYS_ID: NCD982148702 LOCATION_ADDRESS: 3500 ARENDELL ST CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: 37031 HUC_CODE:	0.39 miles
<input type="checkbox"/> CARTERET CO COMMUNITY COLLEGE (MOREHEAD CITY,NC) (https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCS000000107) REGISTRY_ID: 110025837263 LATITUDE: 34.72456 LONGITUDE: -76.75525 PGM_SYS_ACRNM: RCRAINFO PGM_SYS_ID: NCS000000107 LOCATION_ADDRESS: 3505 ARENDELL ST CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: 37031 HUC_CODE:	0.48 miles
<input type="checkbox"/> COASTAL DRY CLEANERS (MOREHEAD ITY,NC) (https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCS000000424) REGISTRY_ID: 110024256446 LATITUDE: 34.72389 LONGITUDE: -76.74394 PGM_SYS_ACRNM: RCRAINFO PGM_SYS_ID: NCS000000424 LOCATION_ADDRESS: 3000 ARENDELL ST CITY_NAME: MOREHEAD ITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: 37031 HUC_CODE:	0.26 miles
<input type="checkbox"/> NCDSCA DC160001(COASTAL DRY CLEANERS) (MOREHEAD CITY,NC) (https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCR000140491) REGISTRY_ID: 110024256446 LATITUDE: 34.72389 LONGITUDE: -76.74394 PGM_SYS_ACRNM: RCRAINFO PGM_SYS_ID: NCR000140491 LOCATION_ADDRESS: 3000 ARENDELL ST CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: 37031 HUC_CODE:	0.26 miles

Name	Distance
<div><div><div><div></div></div></div><div>UNC-CHAPEL HILL INSTITUTE OF MARINE SCIENCES (MOREHEAD CITY,NC)</div><div>(https://enviro.epa.gov/envirofacts/rcrainfo/facility?handlerId=NCR000170167)</div><div>REGISTRY_ID: 110070225349</div><div>LATITUDE: 34.724335</div><div>LONGITUDE: -76.752577</div><div>PGM_SYS_ACRNM: RCRAINFO</div><div>PGM_SYS_ID: NCR000170167</div><div>LOCATION_ADDRESS: 3431 ARENDELL STREET</div><div>CITY_NAME: MOREHEAD CITY</div><div>COUNTY_NAME: CARTERET</div><div>STATE_CODE: NC</div><div>EPA_REGION: Region 4</div><div>POSTAL_CODE: 28557</div><div>FIPS_CODE: 37031</div><div>HUC_CODE:</div></div>	0.35 miles

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RCRAInfo Facility

Facility Information

DBA RITE AID #11537

Handler ID: NCR000156661

2904 ARENDELL ST

MOREHEAD CITY, NC 28557

County Name: CARTERET

Latitude: 34.72379

Latitude: -76.74262

Hazardous Waste Generator:

Owner Name: AWN UNION ST

LLC

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE
KIMBERLY A DASCOLI	WILMOT ROAD	DEERFIELD	IL
KIMBERLY DASCOLI	WILMOT ROAD	DEERFIELD	IL

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

HANDLER TYPE

Not in a universe

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
446110	PHARMACIES AND DRUG STORES
44611	PHARMACIES AND DRUG STORES

NO WASTE CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.



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RCRAInfo Facility

Facility Information

BEACHVILLE EXXON SERVICE

Handler ID: NCD986175123

2400 ARRENDELL ST

MOREHEAD CITY, NC 28557

County Name: CARTERET

Latitude: 34.72328

Latitude: -76.73584

**Hazardous Waste Generator:
Very Small Quantity Generator**

Owner Name: HERBERT KELLY

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE
HERBERT KELLY	PO BOX 596	MOREHEAD CITY	NC
HERBERT KELLY	PO BOX 596	MOREHEAD CITY	NC

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

NO HANDLER INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO NAICS CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO WASTE CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.



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RCRAInfo Facility

Facility Information

CARTERET GENERAL HOSPITAL**Handler ID: NCD982148702****3500 ARENDELL ST****MOREHEAD CITY, NC 28557****County Name: CARTERET****Latitude: 34.72477****Latitude: -76.75362****Hazardous Waste Generator:
Very Small Quantity Generator****Owner Name: CARTERET CO
GEN. HOSPITAL CORP.**

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE
JOHN BILLINGTON	3500 ARENDELL ST	MOREHEAD CITY	NC
JOHN BILLINGTON	3500 ARENDELL ST	MOREHEAD CITY	NC



HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

NO HANDLER INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO NAICS CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
U122	FORMALDEHYDE
U239	BENZENE, DIMETHYL- (I,T) (OR) XYLENE (I)



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RCRAInfo Facility

Facility Information

CARTERET CO COMMUNITY
COLLEGE

Handler ID: NCS000000107

3505 ARENDELL ST

MOREHEAD CITY, NC 28557

County Name: CARTERET

Latitude: 34.72456

Latitude: -76.75525

Hazardous Waste Generator:
Owner Name: STATE OF NC
COMMUNITY COLLEGE SYSTEM

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

HANDLER TYPE

Not in a universe

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO NAICS CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO WASTE CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.



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RCRAInfo Facility

Facility Information

COASTAL DRY CLEANERS

Handler ID: NCS000000424

3000 ARENDELL ST

MOREHEAD ITY, NC 28557

County Name: CARTERET

Latitude: 34.72389

Latitude: -76.74394

Hazardous Waste Generator:

Owner Name:

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE
DIANNE THOMAS	OBERLIN RD	RALEIGH	NC
DIANNE THOMAS	OBERLIN RD	RALEIGH	NC

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

HANDLER TYPE

Not in a universe

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
81232	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)

NO WASTE CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.



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RCRAInfo Facility

Facility Information

NCDSCA DC160001(COASTAL DRY CLEANERS)

Handler ID: NCR000140491

3000 ARENDELL ST

MOREHEAD CITY, NC 28557

County Name: CARTERET

Latitude: 34.72389

Latitude: -76.74394

Hazardous Waste Generator:

Owner Name: MOREHEAD PLAZA LLC

BIENNIAL REPORT SUMMARY

REPORT YEAR	GENERATION (Tons)	MANAGEMENT (Tons)	WASTE RECEIVED (Tons)	WASTE SHIPPED (Tons)	INC (To
2011 <>					

2000

0 1

0 1

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE	ZIP CODE	PHONE
SCOTT STUPAK	MAIL SERVICE CENTER	RALEIGH	NC	27699-1646	919-70
SCOTT STUPAK	MAIL SERVICE CENTER	RALEIGH	NC	27699-1646	919-70

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

HANDLER TYPE

Not in a universe

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
81232	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)

NO WASTE CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.



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HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

NO HANDLER INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO NAICS CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
D001	IGNITABLE WASTE
D008	LEAD



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RCRAInfo Facility

Facility Information

TOM POTTER OIL CO
Handler ID: NCD986176493
3825 ARENDELL ST
MOREHEAD CITY, NC 28557
County Name: CARTERET
Latitude: 34.724836
Latitude: -76.758522
Hazardous Waste Generator: Very Small
Quantity Generator
Owner Name: T.H. POTTER

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE	ZIP CODE	PH

T H POTTER	3825 ARENDELL ST	MOREHEAD CITY	NC	28557	919
T H POTTER	3825 ARENDELL ST	MOREHEAD CITY	NC	28557	919

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.


NO HANDLER INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO NAICS CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
D001	IGNITABLE WASTE

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RCRAInfo Facility

Facility Information

MASTER TECH INC
Handler ID: NCS000002424
2408 BRIDGES ST
MOREHEAD CITY, NC 28557
County Name: CARTERET
Latitude: 34.72428
Latitude: -76.73633
Hazardous Waste Generator:
Owner Name: UNKNOWN

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE	ZIP CODE	PH
SHAE LEWIS	BRIDGES ST	MOREHEAD CITY	NC	28557	252

SHAE LEWIS

BRIDGES ST

MOREHEAD CITY

NC

28557

252

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.


HANDLER TYPE

Not in a universe

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO NAICS CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO WASTE CODES ARE AVAILABLE FOR THE FACILITY LISTED ABOVE.

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Facility Information

**UNC-CHAPEL HILL INSTITUTE OF MARINE
SCIENCES**

Handler ID: NCR000170167

**3431 ARENDELL STREET
MOREHEAD CITY, NC 28557**

County Name: CARTERET

Latitude: 34.724335

Latitude: -76.752577

Hazardous Waste Generator: Very Small

Quantity Generator

**Owner Name: THE UNIVERSITY OF NORTH
CAROLINA AT CHAPEL HILL**

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS



NAME	STREET	CITY	STATE	ZIP CODE	PH
CATHY BRENNAN	ESTES DRIVE	CHAPEL HILL	NC	27599	919
HANDLER / FACILITY CLASSIFICATION					
UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.					

NO HANDLER INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
611310	COLLEGES, UNIVERSITIES, AND PROFESSIONAL SCHOOLS

LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
D001	IGNITABLE WASTE
D002	CORROSIVE WASTE
D005	BARIUM
D006	CADMIUM
D007	CHROMIUM
D009	MERCURY
D010	SELENIUM
D011	SILVER

F001

THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

F002

THE FOLLOWING SPENT HALOGENATED SOLVENTS:
TETRACHLOROETHYLENE, METHYLENE CHLORIDE,
TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,
CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-
TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE,
TRICHLOROFLUOROMETHANE, AND 1,1,2,
TRICHLOROETHANE; ALL SPENT SOLVENT
MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL
OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR
MORE OF THE ABOVE HALOGENATED SOLVENTS OR
THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND
STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT
SOLVENTS AND SPENT SOLVENT MIXTURES.

F003

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS:
XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE,
ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL
ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL
SPENT SOLVENT MIXTURES/BLENDS CONTAINING,
BEFORE USE, ONLY THE ABOVE SPENT
NONHALOGENATED SOLVENTS; AND ALL SPENT
SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE
USE, ONE OR MORE OF THE ABOVE NONHALOGENATED
SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY
VOLUME) OF ONE OR MORE OF THOSE SOLVENTS
LISTED IN F001, F002, F004, AND F005; AND STILL
BOTTOMS FROM THE RECOVERY OF THESE SPENT
SOLVENTS AND SPENT SOLVENT MIXTURES.

F004

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS:
CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND
THE STILL BOTTOMS FROM THE RECOVERY OF THESE
SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS
CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT
OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE
NONHALOGENATED SOLVENTS OR THOSE SOLVENTS
LISTED IN F001, F002, AND F005; AND STILL BOTTOMS
FROM THE RECOVERY OF THESE SPENT SOLVENTS AND



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RCRAInfo Facility

Facility Information

**NCSU CTR FOR MARINE SCIENCE &
TECHNOLOGY**

Handler ID: NCR000147710

303 COLLEGE CIR

MOREHEAD CITY, NC 28557

County Name: CARTERET

Latitude: 34.72273

Latitude: -76.75897

Hazardous Waste Generator: Very Small

Quantity Generator

**Owner Name: NORTH CAROLINA STATE
UNIVERSITY**

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS



NAME	STREET	CITY	STATE	ZIP CODE	PH
KAREN TRIMBERGER	NCSU CAMPUS BOX 8007	RALEIGH	NC	27695	919

KAREN NCSU CAMPUS

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

NO HANDLER INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
61131	COLLEGES, UNIVERSITIES, AND PROFESSIONAL SCHOOLS

LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
D001	IGNITABLE WASTE
D002	CORROSIVE WASTE
D003	REACTIVE WASTE
D004	ARSENIC
D005	BARIUM
D006	CADMIUM
D007	CHROMIUM
D008	LEAD
D009	MERCURY
D010	SELENIUM

D011	SILVER
D012	ENDRIN (1,2,3,4,10,10-HEXACHLORO-1,7-EPOXY-1,4,4A,5,6,7,8,8A-OCTAHYDRO-1,4-ENDO, ENDO-5,8-DIMETH-ANO-NAPHTHALENE)
D013	LINDANE (1,2,3,4,5,6-HEXA-CHLOROCYCLOHEXANE, GAMMA ISOMER)
D014	METHOXYCHLOR (1,1,1-TRICHLORO-2,2-BIS [P-METHOXYPHENYL] ETHANE)
D015	TOXAPHENE (C10 H10 CL8, TECHNICAL CHLORINATED CAMPHENE, 67-69 PERCENT CHLORINE)
D016	2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
D017	2,4,5-TP SILVEX (2,4,5-TRICHLOROPHENOXYPROPIONIC ACID)
D018	BENZENE

D019	CARBON TETRACHLORIDE
D020	CHLORDANE
D021	CHLOROBENZENE
D022	CHLOROFORM
D023	O-CRESOL
D024	M-CRESOL
D025	P-CRESOL
D026	CRESOL
D027	1,4-DICHLOROBENZENE
D028	1,2-DICHLOROETHANE
D029	1,1-DICHLOROETHYLENE

D030	2,4-DINITROTOLUENE
D031	HEPTACHLOR (AND ITS EPOXIDE)
D032	HEXACHLOROBENZENE
D033	HEXACHLOROBUTADIENE
D034	HEXACHLOROETHANE
D035	METHYL ETHYL KETONE
D036	NITROBENZENE
D037	PENTACHLOROPHENOL
D038	PYRIDINE
D039	TETRACHLOROETHYLENE
D040	TRICHLORETHYLENE

D041	2,4,5-TRICHLOROPHENOL
D042	2,4,6-TRICHLOROPHENOL
D043	VINYL CHLORIDE
F001	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLORETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

F002

THE FOLLOWING SPENT HALOGENATED SOLVENTS:
TETRACHLOROETHYLENE, METHYLENE CHLORIDE,
TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE,
CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-
TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE,
TRICHLOROFLUOROMETHANE, AND 1,1,2,
TRICHLOROETHANE; ALL SPENT SOLVENT
MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL
OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR
MORE OF THE ABOVE HALOGENATED SOLVENTS OR
THOSE SOLVENTS LISTED IN F001, F004, AND F005; AND
STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT
SOLVENTS AND SPENT SOLVENT MIXTURES.

F003

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS:
XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE,
ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL
ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL
SPENT SOLVENT MIXTURES/BLENDS CONTAINING,
BEFORE USE, ONLY THE ABOVE SPENT
NONHALOGENATED SOLVENTS; AND ALL SPENT
SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE
USE, ONE OR MORE OF THE ABOVE NONHALOGENATED
SOLVENTS, AND A TOTAL OF TEN PERCENT OR MORE (BY
VOLUME) OF ONE OR MORE OF THOSE SOLVENTS
LISTED IN F001, F002, F004, AND F005; AND STILL
BOTTOMS FROM THE RECOVERY OF THESE SPENT
SOLVENTS AND SPENT SOLVENT MIXTURES.

F004

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: CRESOLS, CRESYLIC ACID, AND NITROBENZENE; AND THE STILL BOTTOMS FROM THE RECOVERY OF THESE SOLVENTS; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

F005

THE FOLLOWING SPENT NONHALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NONHALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
F007	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.
F008	PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.
F009	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.

F010	QUENCHING BATH RESIDUES FROM OIL BATHS FROM METAL HEAT TREATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.
F011	SPENT CYANIDE SOLUTIONS FROM SLAT BATH POT CLEANING FROM METAL HEAT TREATING OPERATIONS.
F012	QUENCHING WASTEWATER TREATMENT SLUDGES FROM METAL HEAT TREATING OPERATIONS IN WHICH CYANIDES ARE USED IN THE PROCESS.
F019	WASTEWATER TREATMENT SLUDGES FROM THE CHEMICAL CONVERSION COATING OF ALUMINUM, EXCEPT FROM ZIRCONIUM PHOSPHATING IN ALUMINUM CAN WASHING WHEN SUCH PHOSPHATING IS AN EXCLUSIVE CONVERSION COATING PROCESS.

F020

WASTES (EXCEPT WASTEWATER AND SPENT CARBON FROM HYDROGEN CHLORIDE PURIFICATION) FROM THE PRODUCTION OR MANUFACTURING USE (AS A REACTANT, CHEMICAL INTERMEDIATE, OR COMPONENT IN A FORMULATING PROCESS) OF TRI- OR TETRACHLOROPHENOL OR OF INTERMEDIATES USED TO PRODUCE THEIR PESTICIDE DERIVATIVES. (THIS LISTING DOES NOT INCLUDE WASTES FROM THE PRODUCTION OF HEXACHLOROPHENE FROM HIGHLY PURIFIED 2,4,5-TRICHLOROPHENOL.)

F021

WASTES (EXCEPT WASTEWATER AND SPENT CARBON FROM HYDROGEN CHLORIDE PURIFICATION) FROM THE PRODUCTION OR MANUFACTURING USE (AS A REACTANT, CHEMICAL INTERMEDIATE, OR COMPONENT IN A FORMULATING PROCESS) OF PENTACHLOROPHENOL, OR OF INTERMEDIATES USED TO PRODUCE DERIVATIVES.

F022

WASTES (EXCEPT WASTEWATER AND SPENT CARBON FROM HYDROGEN CHLORIDE PURIFICATION) FROM THE MANUFACTURING USE (AS A REACTANT, CHEMICAL INTERMEDIATE, OR COMPONENT IN A FORMULATING PROCESS) OF TETRA-, PENTA-, OR HEXACHLOROBENZENES UNDER ALKALINE CONDITIONS.

F023

WASTES (EXCEPT WASTEWATER AND SPENT CARBON FROM HYDROGEN CHLORIDE PURIFICATION) FROM THE PRODUCTION OF MATERIALS ON EQUIPMENT PREVIOUSLY USED FOR THE PRODUCTION OR MANUFACTURING USE (AS A REACTANT, CHEMICAL INTERMEDIATE, OR COMPONENT IN A FORMULATING PROCESS) OF TRI- AND TETRACHLOROPHENOLS. (THIS LISTING DOES NOT INCLUDE WASTES FROM EQUIPMENT USED ONLY FOR THE PRODUCTION OR USE OF HEXACHLOROPHENE FROM HIGHLY PURIFIED 2,4,5-TRICHLOROPHENOL.)

F024

PROCESS WASTES INCLUDING, BUT NOT LIMITED TO, DISTILLATION RESIDUES, HEAVY ENDS, TARS, AND REACTOR CLEAN-OUT WASTES FROM THE PRODUCTION OF CERTAIN CHLORINATED ALIPHATIC HYDROCARBONS BY FREE RADICAL CATALYZED PROCESSES. THESE CHLORINATED ALIPHATIC HYDROCARBONS ARE THOSE HAVING CARBON CHAIN LENGTHS RANGING FROM ONE TO, AND INCLUDING FIVE, WITH VARYING AMOUNTS AND POSITIONS OF CHLORINE SUBSTITUTION. (THIS LISTING DOES NOT INCLUDE WASTEWATERS, WASTEWATER TREATMENT SLUDGE, SPENT CATALYSTS, AND WASTES LISTED IN SECTIONS 261.31. OR 261.32)

F025

CONDENSED LIGHT ENDS, SPENT FILTERS AND FILTER AIDS, AND SPENT DESICCANT WASTES FROM THE PRODUCTION OF CERTAIN CHLORINATED ALIPHATIC HYDROCARBONS BY FREE RADICAL CATALYZED PROCESSES. THESE CHLORINATED ALIPHATIC HYDROCARBONS ARE THOSE HAVING CARBON CHAIN LENGTHS RANGING FROM ONE TO, AND INCLUDING FIVE, WITH VARYING AMOUNTS AND POSITIONS OF CHLORINE SUBSTITUTION.

F026

WASTES (EXCEPT WASTEWATER AND SPENT CARBON FROM HYDROGEN CHLORIDE PURIFICATION) FROM THE PRODUCTION OF MATERIALS ON EQUIPMENT PREVIOUSLY USED FOR THE MANUFACTURING USE (AS A REACTANT, CHEMICAL INTERMEDIATE, OR COMPONENT IN A FORMULATING PROCESS) OF TETRA-, PENTA-, OR HEXACHLOROBENZENE UNDER ALKALINE CONDITIONS.

F027

DISCARDED UNUSED FORMULATIONS CONTAINING TRI-, TETRA-, OR PENTACHLOROPHENOL OR DISCARDED UNUSED FORMULATIONS CONTAINING COMPOUNDS DERIVED FROM THESE CHLOROPHENOLS. (THIS LISTING DOES NOT INCLUDE FORMULATIONS CONTAINING HEXACHLOROPHENE SYNTHESIZED FROM PREPURIFIED 2,4,5-TRICHLOROPHENOL AS THE SOLE COMPONENT.)

F028

RESIDUES RESULTING FROM THE INCINERATION OR THERMAL TREATMENT OF SOIL CONTAMINATED WITH EPA HAZARDOUS WASTE NOS. F020, F021, F022, F023, F026, AND F027.

F032

WASTEWATERS, PROCESS RESIDUALS, PRESERVATIVE DRIPPAGE, AND SPENT FORMULATIONS FROM WOOD PRESERVING PROCESSES GENERATED AT PLANTS THAT CURRENTLY USE, OR HAVE PREVIOUSLY USED, CHLOROPHENOLIC FORMULATIONS [EXCEPT POTENTIALLY CROSS-CONTAMINATED WASTES THAT HAVE HAD THE F032 WASTE CODE DELETED IN ACCORDANCE WITH SECTION 261.35 (I.E., THE NEWLY PROMULGATED EQUIPMENT CLEANING OR REPLACEMENT STANDARDS), AND WHERE THE GENERATOR DOES NOT RESUME OR INITIATE USE OF CHLOROPHENOLIC FORMULATIONS]. (THIS LISTING DOES NOT INCLUDE K001 BOTTOM SEDIMENT SLUDGE FROM THE TREATMENT OF WASTEWATER FROM WOOD PRESERVING PROCESSES THAT USE CREOSOTE AND/OR PENTACHLOROPHENOL.)

F034

WASTEWATERS, PROCESS RESIDUALS, PRESERVATIVE DRIPPAGE, AND SPENT FORMULATIONS FROM WOOD PRESERVING PROCESSES GENERATED AT PLANTS THAT USE CREOSOTE FORMULATIONS. THIS LISTING DOES NOT INCLUDE K001 BOTTOM SEDIMENT SLUDGE FROM THE TREATMENT OF WASTEWATER FROM WOOD PRESERVING PROCESSES THAT USE CREOSOTE AND/OR PENTACHLOROPHENOL.

F035

WASTEWATERS, PROCESS RESIDUALS, PRESERVATIVE DRIPPAGE, AND SPENT FORMULATIONS FROM WOOD PRESERVING PROCESSES GENERATED AT PLANTS THAT USE INORGANIC PRESERVATIVES CONTAINING ARSENIC OR CHROMIUM. THIS LISTING DOES NOT INCLUDE K001 BOTTOM SEDIMENT SLUDGE FROM THE TREATMENT OF WASTEWATER FROM WOOD PRESERVING PROCESSES THAT USE CREOSOTE AND/OR PENTACHLOROPHENOL.

F037

PETROLEUM REFINERY PRIMARY OIL/WATER/SOLIDS SEPARATION SLUDGE - ANY SLUDGE GENERATED FROM THE GRAVITATIONAL SEPARATION OF OIL/WATER/SOLIDS DURING THE STORAGE OR TREATMENT OF PROCESS WASTEWATERS AND OILY COOLING WASTEWATERS FROM PETROLEUM REFINERIES. SUCH SLUDGES INCLUDE, BUT ARE NOT LIMITED TO, THOSE GENERATED IN OIL/WATER/SOLIDS SEPARATORS; TANKS AND IMPOUNDMENTS; DITCHES AND OTHER CONVEYANCES; SUMPS; AND STORM WATER UNITS RECEIVING DRY WEATHER FLOW. SLUDGES GENERATED IN STORM WATER UNITS THAT DO NOT RECEIVE DRY WEATHER FLOW, SLUDGES GENERATED IN AGGRESSIVE BIOLOGICAL TREATMENT UNITS AS DEFINED IN SECTION 261.31(B)(2) (INCLUDING SLUDGES GENERATED IN ONE OR MORE ADDITIONAL UNITS AFTER WASTEWATERS HAVE BEEN TREATED IN AGGRESSIVE BIOLOGICAL TREATMENT UNITS), AND K051 WASTES ARE EXEMPTED FROM THIS LISTING.

F038

PETROLEUM REFINERY SECONDARY (EMULSIFIED) OIL/WATER/SOLIDS SEPARATION SLUDGE - ANY SLUDGE AND/OR FLOAT GENERATED FROM THE PHYSICAL AND/OR CHEMICAL SEPARATION OF OIL/WATER/SOLIDS IN PROCESS WASTEWATERS AND OILY COOLING WASTEWATERS FROM PETROLEUM REFINERIES. SUCH WASTES INCLUDE, BUT ARE NOT LIMITED TO, ALL SLUDGES AND FLOATS GENERATED IN INDUCED AIR FLOTATION (IAF) UNITS, TANKS AND IMPOUNDMENTS, AND ALL SLUDGES GENERATED IN DAF UNITS. SLUDGES GENERATED IN STORMWATER UNITS THAT DO NOT RECEIVE DRY WEATHER FLOW, SLUDGES GENERATED IN AGGRESSIVE BIOLOGICAL TREATMENT UNITS AS DEFINED IN SECTION 261.31(B)(2) (INCLUDING SLUDGES GENERATED IN ONE OR MORE ADDITIONAL UNITS AFTER WASTEWATERS HAVE BEEN TREATED IN AGGRESSIVE BIOLOGICAL TREATMENT UNITS), AND F037, K048, AND K051 WASTES ARE EXEMPTED FROM THIS LISTING.

F039	LEACHATE RESULTING FROM THE TREATMENT, STORAGE, OR DISPOSAL OF WASTES CLASSIFIED BY MORE THAN ONE WASTE CODE UNDER SUBPART D, OR FROM A MIXTURE OF WASTES CLASSIFIED UNDER SUBPARTS C AND D OF THIS PART. (LEACHATE RESULTING FROM THE MANAGEMENT OF ONE OR MORE OF THE FOLLOWING EPA HAZARDOUS WASTES AND NO OTHER HAZARDOUS WASTES RETAINS ITS HAZARDOUS WASTE CODE(S): F020, F021, F022, F023, F026, F027, AND/OR F028.)
K001	BOTTOM SEDIMENT SLUDGE FROM THE TREATMENT OF WASTEWATERS FROM WOOD PRESERVING PROCESSES THAT USE CREOSOTE AND/OR PENTACHLOROPHENOL.
K002	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHROME YELLOW AND ORANGE PIGMENTS.
K003	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF MOLYBDATE ORANGE PIGMENTS.

K004	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF ZINC YELLOW PIGMENTS.
K005	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHROME GREEN PIGMENTS.
K006	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHROME OXIDE GREEN PIGMENTS (ANHYDROUS AND HYDRATED).
K007	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF IRON BLUE PIGMENTS.
K008	OVEN RESIDUE FROM THE PRODUCTION OF CHROME OXIDE GREEN PIGMENTS.
K009	DISTILLATION BOTTOMS FROM THE PRODUCTION OF ACETALDEHYDE FROM ETHYLENE.
K010	DISTILLATION SIDE CUTS FROM THE PRODUCTION OF ACETALDEHYDE FROM ETHYLENE.

K011	BOTTOM STREAM FROM THE WASTEWATER STRIPPER IN THE PRODUCTION OF ACRYLONITRILE.
K013	BOTTOM STREAM FROM THE ACETONITRILE COLUMN IN THE PRODUCTION OF ACRYLONITRILE.
K014	BOTTOMS FROM THE ACETONITRILE PURIFICATION COLUMN IN THE PRODUCTION OF ACRYLONITRILE.
K015	STILL BOTTOMS FROM THE DISTILLATION OF BENZYL CHLORIDE.
K016	HEAVY ENDS OR DISTILLATION RESIDUES FROM THE PRODUCTION OF CARBON TETRACHLORIDE.
K017	HEAVY ENDS (STILL BOTTOMS) FROM THE PURIFICATION COLUMN IN THE PRODUCTION OF EPICHLOROHYDRIN.
K018	HEAVY ENDS FROM THE FRACTIONATION COLUMN IN ETHYL CHLORIDE PRODUCTION.

K019	HEAVY ENDS FROM THE DISTILLATION OF ETHYLENE DICHLORIDE IN ETHYLENE DICHLORIDE PRODUCTION.
K020	HEAVY ENDS FROM THE DISTILLATION OF VINYL CHLORIDE IN VINYL CHLORIDE MONOMER PRODUCTION.
K021	AQUEOUS SPENT ANTIMONY CATALYST WASTE FROM FLUOROMETHANE PRODUCTION.
K022	DISTILLATION BOTTOM TARS FROM THE PRODUCTION OF PHENOL/ACETONE FROM CUMENE.
K023	DISTILLATION LIGHT ENDS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM NAPHTHALENE.
K024	DISTILLATION BOTTOMS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM NAPHTHALENE.
K025	DISTILLATION BOTTOMS FROM THE PRODUCTION OF NITROBENZENE BY THE NITRATION OF BENZENE.

K026	STRIPPING STILL TAILS FROM THE PRODUCTION OF METHYL ETHYL PYRIDINES.
K027	CENTRIFUGE AND DISTILLATION RESIDUES FROM TOLUENE DIISOCYANATE PRODUCTION.
K028	SPENT CATALYST FROM THE HYDROCHLORINATOR REACTOR IN THE PRODUCTION OF 1,1,1-TRICHLOROETHANE.
K029	WASTE FROM THE PRODUCT STEAM STRIPPER IN THE PRODUCTION OF 1,1,1-TRICHLOROETHANE.
K030	COLUMN BOTTOMS OR HEAVY ENDS FROM THE COMBINED PRODUCTION OF TRICHLOROETHYLENE AND PERCHLOROETHYLENE.
K031	BY-PRODUCT SALTS GENERATED IN THE PRODUCTION OF MSMA AND CACODYLIC ACID.
K032	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF CHLORDANE.

K033	WASTEWATER AND SCRUB WATER FROM THE CHLORINATION OF CYCLOPENTADIENE IN THE PRODUCTION OF CHLORDANE.
K034	FILTER SOLIDS FROM THE FILTRATION OF HEXACHLOROCYCLOPENTADIENE IN THE PRODUCTION OF CHLORDANE.
K035	WASTEWATER TREATMENT SLUDGES GENERATED IN THE PRODUCTION OF CREOSOTE.
K036	STILL BOTTOMS FROM TOLUENE RECLAMATION DISTILLATION IN THE PRODUCTION OF DISULFOTON.
K037	WASTEWATER TREATMENT SLUDGES FROM THE PRODUCTION OF DISULFOTON.
K038	WASTEWATER FROM THE WASHING AND STRIPPING OF PHORATE PRODUCTION.
K039	FILTER CAKE FROM THE FILTRATION OF DIETHYLPHOSPHORODITHIOIC ACID IN THE PRODUCTION OF PHORATE.

K040	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF PHORATE.
K041	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF TOXAPHENE.
K042	HEAVY ENDS OR DISTILLATION RESIDUES FROM THE DISTILLATION OF TETRACHLOROBENZENE IN THE PRODUCTION OF 2,4,5-T.
K043	2,6-DICHLOROPHENOL WASTE FROM THE PRODUCTION OF 2,4-D.
K044	WASTEWATER TREATMENT SLUDGES FROM THE MANUFACTURING AND PROCESSING OF EXPLOSIVES.
K045	SPENT CARBON FROM THE TREATMENT OF WASTEWATER CONTAINING EXPLOSIVES.
K046	WASTEWATER TREATMENT SLUDGES FROM THE MANUFACTURING, FORMULATION, AND LOADING OF LEAD-BASED INITIATING COMPOUNDS.

K047	PINK/RED WATER FROM TNT OPERATIONS.
K048	DISSOLVED AIR FLOTATION (DAF) FLOAT FROM THE PETROLEUM REFINING INDUSTRY.
K049	SLOP OIL EMULSION SOLIDS FROM THE PETROLEUM REFINING INDUSTRY.
K050	HEAT EXCHANGER BUNDLE CLEANING SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.
K051	API SEPARATOR SLUDGE FROM THE PETROLEUM REFINING INDUSTRY.
K052	TANK BOTTOMS (LEADED) FROM THE PETROLEUM REFINING INDUSTRY.
K060	AMMONIA STILL LIME SLUDGE FROM COKING OPERATIONS.
K061	EMISSION CONTROL DUST/SLUDGE FROM THE PRIMARY PRODUCTION OF STEEL IN ELECTRIC FURNACES.

K062	SPENT PICKLE LIQUOR FROM STEEL FINISHING OPERATIONS OF PLANTS THAT PRODUCE IRON OR STEEL.
K069	EMISSION CONTROL DUST/SLUDGE FROM SECONDARY LEAD SMELTING.
K071	BRINE PURIFICATION MUDS FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION, IN WHICH SEPARATELY PREPURIFIED BRINE IS NOT USED.
K073	CHLORINATED HYDROCARBON WASTE FROM THE PURIFICATION STEP OF THE DIAPHRAGM CELL PROCESS USING GRAPHITE ANODES IN CHLORINE PRODUCTION.
K083	DISTILLATION BOTTOMS FROM ANILINE PRODUCTION.
K084	WASTEWATER TREATMENT SLUDGES GENERATED DURING THE PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS.

K085	DISTILLATION OR FRACTIONATION COLUMN BOTTOMS FROM THE PRODUCTION OF CHLOROBENZENES.
K086	SOLVENT WASHES AND SLUDGES, CAUSTIC WASHES AND SLUDGES, OR WATER WASHES AND SLUDGES FROM CLEANING TUBS AND EQUIPMENT USED IN THE FORMULATION OF INK FROM PIGMENTS, DRIERS, SOAPS, AND STABILIZERS CONTAINING CHROMIUM AND LEAD.
K087	DECANTER TANK TAR SLUDGE FROM COKING OPERATIONS.
K088	SPENT POTLINERS FROM PRIMARY ALUMINUM REDUCTION.
K093	DISTILLATION LIGHT ENDS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE.
K094	DISTILLATION BOTTOMS FROM THE PRODUCTION OF PHTHALIC ANHYDRIDE FROM ORTHO-XYLENE.

K095	DISTILLATION BOTTOMS FROM THE PRODUCTION OF 1,1,1-TRICHLOROETHANE.
K096	HEAVY ENDS FROM THE HEAVY ENDS COLUMN FROM THE PRODUCTION OF 1,1,1-TRICHLOROETHANE.
K097	VACUUM STRIPPER DISCHARGE FROM THE CHLORDANE CHLORINATOR IN THE PRODUCTION OF CHLORDANE.
K098	UNTREATED PROCESS WASTEWATER FROM THE PRODUCTION OF TOXAPHENE.
K099	UNTREATED WASTEWATER FROM THE PRODUCTION OF 2,4-D.
K100	WASTE LEACHING SOLUTION FROM ACID LEACHING OF EMISSION CONTROL DUST/SLUDGE FROM SECONDARY LEAD SMELTING.
K101	DISTILLATION TAR RESIDUES FROM THE DISTILLATION OF ANILINE-BASED COMPOUNDS IN THE PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS.

K102	RESIDUE FROM THE USE OF ACTIVATED CARBON FOR DECOLORIZATION IN THE PRODUCTION OF VETERINARY PHARMACEUTICALS FROM ARSENIC OR ORGANO-ARSENIC COMPOUNDS.
K103	PROCESS RESIDUES FROM ANILINE EXTRACTION FROM THE PRODUCTION OF ANILINE.
K104	COMBINED WASTEWATERS GENERATED FROM NITROBENZENE/ANILINE PRODUCTION.
K105	SEPARATED AQUEOUS STREAM FROM THE REACTOR PRODUCT WASHING STEP IN THE PRODUCTION OF CHLOROBENZENES.
K106	WASTEWATER TREATMENT SLUDGE FROM THE MERCURY CELL PROCESS IN CHLORINE PRODUCTION.
K107	COLUMN BOTTOMS FROM PRODUCT SEPARATION FROM THE PRODUCTION OF 1,1-DIMETHYLHYDRAZINE (UDMH) FROM CARBOXYLIC ACID HYDRAZIDES.

K108	CONDENSED COLUMN OVERHEADS FROM PRODUCT SEPARATION AND CONDENSED REACTOR VENT GASES FROM THE PRODUCTION OF 1,1-DIMETHYLHYDRAZINE FROM CARBOXYLIC ACID HYDRAZIDES.
K109	SPENT FILTER CARTRIDGES FROM PRODUCT PURIFICATION FROM THE PRODUCT OF 1,1-DIMETHYLHYDRAZINE FROM CARBOXYLIC ACID HYDRAZIDES.
K110	CONDENSED COLUMN OVERHEADS FROM INTERMEDIATE SEPARATION FROM THE PRODUCTION OF 1,1-DIMETHYLHYDRAZINE FROM CARBOXYLIC ACID HYDRAZIDES.
K111	PRODUCT WASHWATERS FROM THE PRODUCTION OF DINITROTOLUENE VIA NITRATION OF TOLUENE.
K112	REACTION BY-PRODUCT WATER FROM THE DRYING COLUMN IN THE PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE.

K113	CONDENSED LIQUID LIGHT ENDS FROM PURIFICATION OF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE.
K114	VICINALS FROM THE PURIFICATION OF TOLUENEDIAMINE IN PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE.
K115	HEAVY ENDS FROM PURIFICATION OF TOLUENEDIAMINE IN THE PRODUCTION OF TOLUENEDIAMINE VIA HYDROGENATION OF DINITROTOLUENE.
K116	ORGANIC CONDENSATE FROM THE SOLVENT RECOVERY COLUMN IN THE PRODUCTION OF TOLUENE DIISOCYANATE VIA PHOSGENATION OF TOLUENEDIAMINE.
K117	WASTEWATER FROM THE REACTOR VENT GAS SCRUBBER IN THE PRODUCTION OF ETHYLENE DIBROMIDE VIA BROMINATION OF ETHENE.

K118	SPENT ADSORBENT SOLIDS FROM PURIFICATION OF ETHYLENE DIBROMIDE IN THE PRODUCTION OF ETHYLENE DIBROMIDE VIA BROMINATION OF ETHENE.
K123	PROCESS WASTEWATER (INCLUDING SUPERNATES, FILTRATES, AND WASHWATERS) FROM THE PRODUCTION OF ETHYLENEBISDITHIOCARBAMIC ACID AND ITS SALTS.
K124	REACTOR VENT SCRUBBER WATER FROM THE PRODUCTION OF ETHYLENEBISDITHIOCARBAMIC ACID AND ITS SALTS.
K125	FILTRATION, EVAPORATION, AND CENTRIFUGATION SOLIDS FROM THE PRODUCTION OF ETHYLENEBISDITHIOCARBAMIC ACID AND ITS SALTS.
K126	BAGHOUSE DUST AND FLOOR SWEEPINGS IN MILLING AND PACKAGING OPERATIONS FROM PRODUCTION OR FORMULATION OF ETHYLENEBISDITHIOCARBAMIC ACID AND ITS SALTS.

K131	WASTEWATER FROM THE REACTOR AND SPENT SULFURIC ACID FROM THE ACID DRYER FROM THE PRODUCTION OF METHYL BROMIDE.
K132	SPENT ABSORBENT AND WASTEWATER SEPARATOR SOLIDS FROM THE PRODUCTION OF METHYL BROMIDE.
K136	STILL BOTTOMS FROM THE PURIFICATION OF ETHYLENE DIBROMIDE IN THE PRODUCTION OF ETHYLENE DIBROMIDE VIA BROMINATION OF ETHENE.
K141	PROCESS RESIDUES FROM THE RECOVERY OF COAL TAR, INCLUDING, BUT NOT LIMITED TO, TAR COLLECTING SUMP RESIDUES FROM THE PRODUCTION OF COKE FROM COAL OR THE RECOVERY OF COKE BY-PRODUCTS PRODUCED FROM COAL. THIS LISTING DOES NOT INCLUDE K087 (DECANTER TANK SLUDGE FROM COKING OPERATIONS).
K142	TANK STORAGE RESIDUES FROM THE PRODUCTION OF COKE FROM COAL OR FROM THE RECOVERY OF COKE BY-PRODUCTS FROM COAL.

K143	PROCESS RESIDUES FROM THE RECOVERY OF LIGHT OIL, INCLUDING, BUT NOT LIMITED TO, THOSE GENERATED IN STILLs, DECANTERS, AND WASH OIL RECOVERY UNITS FROM THE RECOVERY OF COKE BY-PRODUCTS PRODUCED FROM COAL.
K144	WASTEWATER SUMP RESIDUES FROM LIGHT OIL REFINING, INCLUDING, BUT NOT LIMITED TO, INTERCEPTING OR CONTAMINATION SUMP SLUDGES FROM THE RECOVERY OF COKE BY-PRODUCTS PRODUCED FROM COAL.
K145	RESIDUES FROM NAPHTHALENE COLLECTION AND RECOVERY OPERATIONS FROM THE RECOVERY OF COKE BY-PRODUCTS PRODUCED FROM COAL.
K147	TAR STORAGE RESIDUES FROM COAL TAR REFINING.
K148	RESIDUES FROM COAL TAR DISTILLATION, INCLUDING, BUT NOT LIMITED TO, STILL BOTTOMS.

K149

DISTILLATION BOTTOMS FROM THE PRODUCTION OF ALPHA (OR METHYL-) CHLORINATED TOLUNES, RING-CHLORINATED TOLUNES, BENZOYL CHLORIDES, AND COMPOUNDS WITH MIXTURES OF THESE FUNCTIONAL GROUPS. [THIS WASTE DOES NOT INCLUDE STILL BOTTOMS FROM THE DISTILLATION OF BENZOYL CHLORIDE]

K150

ORGANIC RESIDUES EXCLUDING SPENT CARBON ADSORBENT, FROM THE SPENT CHLORINE GAS AND HYDROCHLORIC ACID RECOVERY PROCESSES ASSOCIATED WITH THE PRODUCTION OF ALPHA (OR METHYL-) CHLORINATED TOLUNES, BENZOYL CHLORIDES, AND COMPOUNDS WITH MIXTURES OF THESE FUNCTIONAL GROUPS.

K151

WASTEWATER TREATMENT SLUDGES, EXCLUDING NEUTRALIZATION AND BIOLOGICAL SLUDGES, GENERATED DURING THE TREATMENT OF WASTEWATERS FROM THE PRODUCTION OF ALPHA (OR METHYL-) CHLORINATED TOLUNES, BENZOYL CHLORIDES, AND COMPOUNDS WITH MIXTURES OF THESE FUNCTIONAL GROUPS.

K156	ORGANIC WASTE (INCLUDING HEAVY ENDS, STILL BOTTOMS, LIGHT ENDS, SPENT SOLVENTS, FILTRATES, AND DECANTATES) FROM THE PRODUCTION OF CARBAMATES AND CARBAMOYL OXIMES.
K157	WASTEWATERS (INCLUDING SCRUBBER WATERS, CONDENSER WATERS, WASHWATERS, AND SEPARATION WATERS) FROM THE PRODUCTION OF CARBAMATES AND CARBAMOYL OXIMES.
K158	BAG HOUSE DUSTS AND FILTER/SEPARATION SOLIDS FROM THE PRODUCTION OF CARBAMATES AND CARBAMOYL OXIMES.
K159	ORGANICS FROM THE TREATMENT OF THIOCARBAMATE WASTES.
K161	PURIFICATION SOLIDS (INCLUDING FILTRATION, EVAPORATION, AND CENTRIFUGATION SOLIDS), BAG HOUSE DUST AND FLOOR SWEEPINGS FROM THE PRODUCTION OF DITHIOCARBAMATE ACIDS AND THEIR SALTS. (THIS LISTING DOES NOT INCLUDE K125 OR K126).

K169	CRUDE OIL STORAGE TANK SEDIMENT FROM PETROLEUM REFINING OPERATIONS
K170	CLARIFIED SLURRY OIL TANK SEDIMENT AND/OR IN-LINE FILTER/SEPARATION SOLIDS FROM PETROLEUM REFINING OPERATIONS
K171	SPENT HYDROTREATING CATALYST FROM PETROLEUM REFINING OPERATIONS, INCLUDING GUARD BEDS USED TO DESULFURIZE FEEDS TO OTHER CATALYTIC REACTORS (THIS LISTING DOES NOT INCLUDE INERT SUPPORT MEDIA)
K172	SPENT HYDROREFINING CATALYST FROM PETROLEUM REFINING OPERATIONS, INCLUDING GUARD BEDS USED TO DESULFURIZE FEEDS TO OTHER CATALYTIC REACTORS (THIS LISTING DOES NOT INCLUDE INERT SUPPORT MEDIA)
K174	WASTEWATER TREATMENT SLUDGES FROM THE PRODUCTION OF ETHYLENE DICHLORIDE OR VINYL CHLORIDE

K175	WASTEWATER TREATMENT SLUDGE FROM THE PRODUCTION OF VINYL CHLORIDE MONOMER..
K176	BAGHOUSE FILTERS FROM THE PRODUCTION OF ANTIMONY OXIDE, INCLUDING FILTERS FROM THE PRODUCTION OF INTERMEDIATES (E.G.,ANTIMONY METAL OR CRUDE ANTIMONY OXIDE)
K177	SLAG FROM THE PRODUCTION OF ANTIMONY OXIDE THAT IS SPECULATIVELY ACCUMULATED OR DISPOSED,INCLUDING SLAG FROM THE PRODUCTION OF INTERMEDIATES (E.G.,ANTIMONY METAL OR CRUDE ANTIMONY OXIDE)
K178	RESIDUES FROM MANUFACTURING AND MANUFACTURING-SITE STORAGE OF FERRIC CHLORIDE FROM ACIDS FORMED DURING THE PRODUCTION OF TITANIUM DIOXIDE USING THE CHLORIDE-ILMENITE PROCESS.
K181	Nonwastewaters from the production of dyes and/or pigments.

LABP	LAB PACK
P001	2H-1-BENZOPYRAN-2-ONE, 4-HYDROXY-3-(3-OXO-1-PHENYLBUTYL)-, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3% (OR) WARFARIN, & SALTS, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 0.3%
P002	1-ACETYL-2-THIOUREA (OR) ACETAMIDE, N-(AMINOTHIOXOMETHYL)-
P003	2-PROPENAL (OR) ACROLEIN
P004	1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXACHLORO-1,4,4A,5,8,8A,-HEXAHYDRO-, (1ALPHA, 4ALPHA, 4ABETA, 5ALPHA, 8ALPHA, 8ABETA)- (OR) ALDRIN
P005	2-PROPEN-1-OL (OR) ALLYL ALCOHOL
P006	ALUMINUM PHOSPHIDE (R,T)

P007	3(2H)-ISOXAZOLONE, 5-(AMINOMETHYL)- (OR) 5-(AMINOMETHYL)-3-ISOXAZOLOL
P008	4-AMINOPYRIDINE (OR) 4-PYRIDINAMINE
P009	AMMONIUM PICRATE (R) (OR) PHENOL, 2,4,6-TRINITRO-, AMMONIUM SALT (R)
P010	ARSENIC ACID H ₃ ASO ₄
P011	ARSENIC OXIDE AS ₂ O ₅ (OR) ARSENIC PENTOXIDE
P012	ARSENIC OXIDE AS ₂ O ₃ (OR) ARSENIC TRIOXIDE
P013	BARIUM CYANIDE
P014	BENZENETHIOL (OR) THIOPHENOL
P015	BERYLLIUM
P016	DICHLOROMETHYL ETHER (OR) METHANE, OXYBIS[CHLORO-

P017	2-PROPANONE, 1-BROMO- (OR) BROMOACETONE
P018	BRUCINE (OR) STRYCHNIDIN-10-ONE, 2,3-DIMETHOXY-
P020	DINOSEB (OR) PHENOL, 2-(1-METHYLPROPYL)-4,6-DINITRO-
P021	CALCIUM CYANIDE (OR) CALCIUM CYANIDE $\text{Ca}(\text{CN})_2$
P022	CARBON DISULFIDE
P023	ACETALDEHYDE, CHLORO- (OR) CHLOROACETALDEHYDE
P024	BENZENAMINE, 4-CHLORO- (OR) P-CHLORANILINE
P026	1-(O-CHLOROPHENYL)THIOUREA (OR) THIOUREA, (2-CHLOROPHENYL)-
P027	3-CHLOROPROPIONITRILE (OR) PROPANENITRILE, 3-CHLORO-
P028	BENZENE, (CHLOROMETHYL)- (OR) BENZYL CHLORIDE

P029	COPPER CYANIDE (OR) COPPER CYANIDE CU(CN)
P030	CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
P031	CYANOGEN (OR) ETHANEDINITRILE
P033	CYANOGEN CHLORIDE (OR) CYANOGEN CHLORIDE (CN)CL
P034	2-CYCLOHEXYL-4,6-DINITROPHENOL (OR) PHENOL, 2-CYCLOHEXYL-4,6-DINITRO-
P036	ARSONOUS DICHLORIDE, PHENYL- (OR) DICHLOROPHENYLARSINE
P037	2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2AALPHA, 3BETA, 6BETA, 6AALPHA, 7BETA, 7AALPHA)- (OR) DIELDRIN
P038	ARSINE, DIETHYL- (OR) DIETHYLARSINE

P039	DISULFOTON (OR) PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[2-(ETHYLTHIO)ETHYL] ESTER
P040	O,O-DIETHYL O-PYRAZINYL PHOSPHOROTHIOATE (OR) PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-PYRAZINYL ESTER
P041	DIETHYL-P-NITROPHENYL PHOSPHATE (OR) PHOSPHORIC ACID, DIETHYL 4-NITROPHENYL ESTER
P042	1,2-BENZENEDIOL, 4-[1-HYDROXY-2-(METHYLAMINO)ETHYL]-, (R)- (OR) EPINEPHRINE
P043	DIISOPROPYLFLUOROPHOSPHATE (DFP) (OR) PHOSPHOROFUORIDIC ACID, BIS(1-METHYLETHYL) ESTER
P044	DIMETHOATE (OR) PHOSPHORODITHIOIC ACID, O,O-DIMETHYL S-[2-(METHYLAMINO)-2-OXOETHYL] ESTER
P045	2-BUTANONE, 3,3-DIMETHYL-1-(METHYLTHIO)-, O-[METHYLAMINO)CARBONYL] OXIME (OR) THIOFANOX

P046	ALPHA,ALPHA-DIMETHYLPHENETHYLAMINE (OR) BENZENEETHANAMINE, ALPHA, ALPHA-DIMETHYL-
P047	4,6-DINITRO-O-CRESOL, & SALTS (OR) PHENOL, 2-METHYL-4,6-DINITRO-, & SALTS
P048	2,4-DINITROPHENOL (OR) PHENOL, 2,4-DINITRO-
P049	DITHIOBIURET (OR) THIOIMIDODICARBONIC DIAMIDE [(H ₂ N)C(S)] ₂ NH
P050	6,9-METHANO-2,4,3-BENZODIOXATHIEPIN,6,7,8,9,10,10- HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO-,3-OXIDE (OR) ENDOSULFAN
P051	2,7:3,6-DIMETHANONAPHTH[2,3-B]OXIRENE, 3,4,5,6,9,9- HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA, 2BETA, 2ABETA, 3ALPHA, 6ALPHA, 6ABETA, 7BETA, 7AALPHA)- & METABOLITES (OR) ENDRIN (OR) ENDRIN, & METABOLITES
P054	AZIRIDINE (OR) ETHYLENEIMINE

P056	FLUORINE
P057	ACETAMIDE, 2-FLUORO- (OR) FLUOROACETAMIDE
P058	ACETIC ACID, FLUORO-, SODIUM SALT (OR) FLUOROACETIC ACID, SODIUM SALT
P059	4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO- 3A,4,7,7A-TETRAHYDRO- (OR) HEPTACHLOR
P060	1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXA- CHLORO-1,4,4A,5,8,8A,-HEXAHYDRO-, (1ALPHA, 4ALPHA, 4ABETA, 5BETA, 8BETA, 8ABETA)- (OR) ISODRIN
P062	HEXAETHYL TETRAPHOSPHATE (OR) TETRAPHOSPHORIC ACID, HEXAETHYL ESTER
P063	HYDROCYANIC ACID (OR) HYDROGEN CYANIDE
P064	METHANE, ISOCYANATO- (OR) METHYL ISOCYANATE

P065	FULMINIC ACID, MERCURY(2+) SALT (R,T) (OR) MERCURY FULMINATE (R,T)
P066	ETHANIMIDOTHIOIC ACID, N- [[[(METHYLAMINO)CARBONYL]OXY]-, METHYL ESTER (OR) METHOMYL
P067	1,2-PROPYLENIMINE (OR) AZIRIDINE, 2-METHYL-
P068	HYDRAZINE, METHYL- (OR) METHYL HYDRAZINE
P069	2-METHYLLACTONITRILE (OR) PROPANENITRILE, 2-HYDROXY-2-METHYL-
P070	ALDICARB (OR) PROPANAL, 2-METHYL-2-(METHYLTHIO)-, O-[[[(METHYLAMINO)CARBONYL]OXIME
P071	METHYL PARATHION (OR) PHOSPHOROTHIOIC ACID, O,O,-DIMETHYL O-(4-NITROPHENYL) ESTER
P072	ALPHA-NAPHTHYLTHIOUREA (OR) THIOUREA, 1-NAPHTHALENYL-

P073	NICKEL CARBONYL (OR) NICKEL CARBONYL Ni(CO)_4 , (T-4)-
P074	NICKEL CYANIDE (OR) NICKEL CYANIDE Ni(CN)_2
P075	NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS
P076	NITRIC OXIDE (OR) NITROGEN OXIDE NO
P077	BENZENAMINE, 4-NITRO- (OR) P-NITROANILINE
P078	NITROGEN DIOXIDE (OR) NITROGEN OXIDE NO_2
P081	1,2,3-PROPANETRIOL, TRINITRATE (R) (OR) NITROGLYCERINE (R)
P082	METHANIMINE, N-METHYL-N-NITROSO- (OR) N-NITROSODIMETHYLAMINE
P084	N-NITROSOMETHYLVINYLAMINE (OR) VINYLAMINE, N-METHYL-N-NITROSO-

P085	DIPHOSPHORAMIDE, OCTAMETHYL- (OR) OCTAMETHYLPYROPHOSPHORAMIDE
P087	OSMIUM OXIDE OSO ₄ , (T-4)- (OR) OSMIUM TETROXIDE
P088	7-OXABICYCLO[2.2.1]HEPTANE-2,3-DICARBOXYLIC ACID (OR) ENDOTHALL
P089	PARATHION (OR) PHOSPHOROTHIOIC ACID, O,O- DIETHYL-O-(4-NITROPHENYL) ESTER
P092	MERCURY, (ACETATO-O)PHENYL- (OR) PHENYLMERCURY ACETATE
P093	PHENYLTHIOUREA (OR) THIOUREA, PHENYL-
P094	PHORATE (OR) PHOSPHORODITHIOIC ACID, O,O- DIETHYL S-[(ETHYLTHIO)METHYL] ESTER
P095	CARBONIC DICHLORIDE (OR) PHOSGENE
P096	HYDROGEN PHOSPHIDE (OR) PHOSPHINE

P097	FAMPHUR (OR) PHOSPHOROTHIOIC ACID O-[4- [(DIMETHYLAMINO)SULFONYL]PHENYL] O,O-DIMETHYL ESTER
P098	POTASSIUM CYANIDE (OR) POTASSIUM CYANIDE K(CN)
P099	ARGENTATE (1-), BIS(CYANO-C)-, POTASSIUM (OR) POTASSIUM SILVER CYANIDE
P101	ETHYL CYANIDE (OR) PROPANENITRILE
P102	2-PROPYN-1-OL (OR) PROPARGYL ALCOHOL
P103	SELENOUREA
P104	SILVER CYANIDE (OR) SILVER CYANIDE AG(CN)
P105	SODIUM AZIDE
P106	SODIUM CYANIDE (OR) SODIUM CYANIDE NA(CN)

P108	STRYCHNIDIN-10-ONE, & SALTS (OR) STRYCHNINE, & SALTS
P109	TETRAETHYLDITHIOPYROPHOSPHATE (OR) THIODIPHOSPHORIC ACID, TETRAETHYL ESTER
P110	PLUMBANE, TETRAETHYL- (OR) TETRAETHYL LEAD
P111	DIPHOSPHORIC ACID, TETRAETHYL ESTER (OR) TETRAETHYL PYROPHOSPHATE
P112	METHANE, TETRANITRO- (R) (OR) TETRANITROMETHANE (R)
P113	THALLIC OXIDE (OR) THALLIUM OXIDE TL2O3
P114	SELENIOUS ACID, DITHALLIUM (1+) SALT (OR) THALLIUM(I) SELENITE
P115	SULFURIC ACID, DITHALLIUM (1+) SALT (OR) THALLIUM(I) SULFATE

P116	HYDRAZINECARBOTHIOAMIDE (OR) THIOSEMICARBAZIDE
P118	METHANETHIOL, TRICHLORO- (OR) TRICHLOROMETHANETHIOL
P119	AMMONIUM VANADATE (OR) VANADIC ACID, AMMONIUM SALT
P120	VANADIUM OXIDE V2O5 (OR) VANADIUM PENTOXIDE
P121	ZINC CYANIDE (OR) ZINC CYANIDE ZN(CN)2
P122	ZINC PHOSPHIDE ZN3P2, WHEN PRESENT AT CONCENTRATIONS GREATER THAN 10% (R,T)
P123	TOXAPHENE
P124	ACTINOMYCIN D
P127	7-BENZOFURANOL, 2,3-DIHYDRO-2,2-DIMETHYL-, METHYLCARBAMATE (OR) CARBOFURAN

P128	PHENOL, 4-(DIMETHYLAMINO)-3,5-DIMETHYL-, METHYLCARBAMATE (ESTER)
P185	1,3-DITHIOLANE-2-CARBOXALDEHYDE, 2,4-DIMETHYL-, O- [(METHYLAMINO)-CARBONYL]OXIME (OR) TIRPATE
P188	BENZOIC ACID, 2-HYDROXY-, COMPD. WITH (3AS-CIS)-1,2,3,3A,8,8A-HEXAHYDRO-1,3A,8-TRIMETHYLPYRROLO[2,3-B]INDOL-5-YL METHYLCARBAMATE ESTER (1:1) (OR) PHYSOSTIGMINE SALICYLATE
P189	CARBAMIC ACID, [(DIBUTYLAMINO)-THIO]METHYL-, 2,3-DIHYDRO-2,2-DIMETHYL -7-BENZOFURANYL ESTER (OR) CARBOSULFAN
P190	CARBAMIC ACID, METHYL-, 3-METHYLPHENYL ESTER (OR) METOLCARB
P191	CARBAMIC ACID, DIMETHYL-, 1-[(DIMETHYL-AMINO)CARBONYL]- 5-METHYL-1H- PYRAZOL-3-YL ESTER (OR) DIMETILAN

P192	ISOLAN (OR) CARBAMIC ACID, DIMETHYL-, 3-METHYL-(1-METHYLETHYL)-1H- PYRAZOL-5-YL ESTER
P194	ETHANIMIDOTHIOC ACID, 2-(DIMETHYLAMINO)-N-[[(METHYLAMINO) CARBONYL]OXY]-2-OXO-, METHYL ESTER (OR) OXAMYL
P196	MANGANESE DIMETHYLDITHIOCARBAMATE (OR) MANGANESE, BIS(DIMETHYLCARBAMODITHIOATO-S,S')-,
P197	FORMPARANATE (OR) METHANIMIDAMIDE, N,N-DIMETHYL-N'-[2-METHYL-4-[[(METHYLAMINO)CARBONYL]OXY]PHENYL]
P198	METHANIMIDAMIDE, N,N-DIMETHYL-N'-[3-[[(METHYLAMINO)-CARBONYL]OXY]PHENYL]-, MONOHYDROCHLORIDE (OR) FORMETANATE HYDROCHLORIDE
P199	METHIOCARB (OR) MEXACARBATE (OR) PHENOL, (3,5-DIMETHYL-4-(METHYLTHIO)-, METHYLCARBAMATE

P201	PHENOL, 3-METHYL-5-(1-METHYLETHYL)-, METHYL CARBAMATE (OR) PROMECARB
P202	M-CUMENYL METHYLCARBAMATE (OR) 3-ISOPROPYLPHENYL N-METHYLCARBAMATE (OR) PHENOL, 3-(1-METHYLETHYL)-, METHYL CARBAMATE
P203	ALDICARB SULFONE (OR) PROPANAL, 2-METHYL-2-(METHYL-SULFONYL)-, O-[(METHYLAMINO)CARBONYL] OXIME
P204	PHYSOSTIGMINE (OR) PYRROLO[2,3-B]INDOL-5-OL, 1,2,3,3A,8,8A-HEXAHYDRO-1,3A,8-TRIMETHYLMETHYLCARBAMATE (ESTER), (3AS-CIS)-
P205	ZINC, BIS(DIMETHYLCARBAMODITHIOATO-S,S')-, (OR) ZIRAM
U001	ACETALDEHYDE (I) (OR) ETHANAL (I)
U002	2-PROPANONE (I) (OR) ACETONE (I)

U003	ACETONITRILE (I,T)
U004	ACETOPHENONE (OR) ETHANONE, 1-PHENYL-
U005	2-ACETYLAMINOFLUORENE (OR) ACETAMIDE, N-9H-FLUOREN-2-YL
U006	ACETYL CHLORIDE (C,R,T)
U007	2-PROPENAMIDE (OR) ACRYLAMIDE
U008	2-PROPENOIC ACID (I) (OR) ACRYLIC ACID (I)
U009	2-PROPENENITRILE (OR) ACRYLONITRILE
U010	AZIRINO [2',3':3,4]PYRROLO[1,2-A]INDOLE-4,7-DIONE, 6-AMINO-8- [[(AMINOCARBONYL) OXY] METHYL]-1,1A,2,8,8A,8B- HEXAHYDRO-8A-METHOXY-5-METHYL-, [1AS-(1AALPHA, 8BETA, 8AALPHA, 8BALPHA)]- (OR) MITOMYCIN C
U011	1H-1,2,4-TRIAZOL-3-AMINE (OR) AMITROLE

U012	ANILINE (I,T) (OR) BENZENAMINE (I,T)
U014	AURAMINE (OR) BENZENAMINE, 4,4'- CARBONIMIDOYLBIS[N,N-DIMETHYL-
U015	AZASERINE (OR) L-SERINE, DIAZOACETATE (ESTER)
U016	BENZ[C]ACRIDINE
U017	BENZAL CHLORIDE (OR) BENZENE, (DICHLOROMETHYL)-
U018	BENZ[A]ANTHRACENE
U019	BENZENE (I,T)
U020	BENZENESULFONIC ACID CHLORIDE (C,R) (OR) BENZENESULFONYL CHLORIDE (C,R)
U021	[1,1'-BIPHENYL]-4,4'-DIAMINE (OR) BENZIDINE
U022	BENZO[A]PYRENE

U023	BENZENE, (TRICHLOROMETHYL)- (OR) BENZOTRICHLORIDE (C,R,T)
U024	DICHLOROMETHOXY ETHANE (OR) ETHANE, 1,1'- [METHYLENEBIS(OXY)]BIS[2-CHLORO-
U025	DICHLOROETHYL ETHER (OR) ETHANE, 1,1'-OXYBIS[2- CHLORO-
U026	CHLORNAPHAZIN (OR) NAPHTHALENAMINE, N,N'-BIS(2- CHLOROETHYL)-
U027	DICHLOROISOPROPYL ETHER (OR) PROPANE, 2,2'- OXYBIS[2-CHLORO-
U028	1,2-BENZENEDICARBOXYLIC ACID, BIS(2-ETHYLHEXYL) ESTER (OR) DIETHYLHEXYL PHTHALATE
U029	METHANE, BROMO- (OR) METHYL BROMIDE
U030	4-BROMOPHENYL PHENYL ETHER (OR) BENZENE, 1- BROMO-4-PHENOXY-

U031	1-BUTANOL (I) (OR) N-BUTYL ALCOHOL (I)
U032	CALCIUM CHROMATE (OR) CHROMIC ACID H ₂ CrO ₄ , CALCIUM SALT
U033	CARBON OXYFLUORIDE (R,T) (OR) CARBONIC DIFLUORIDE
U034	ACETALDEHYDE, TRICHLORO- (OR) CHLORAL
U035	BENZENE BUTANOIC ACID, 4-[BIS(2- CHLOROETHYL)AMINO]- (OR) CHLORAMBUCIL
U036	4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8- OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO- (OR) CHLORDANE, ALPHA & GAMMA ISOMERS
U037	BENZENE, CHLORO- (OR) CHLOROBENZENE
U038	BENZENEACETIC ACID, 4-CHLORO-ALPHA-(4- CHLOROPHENYL)-ALPHA-HYDROXY-, ETHYL ESTER (OR) CHLOROBENZILATE

U039	P-CHLORO-M-CRESOL (OR) PHENOL, 4-CHLORO-3-METHYL-
U041	EPICHLOROHYDRIN (OR) OXIRANE, (CHLOROMETHYL)-
U042	2-CHLOROETHYL VINYL ETHER (OR) ETHENE, (2-CHLOROETHOXY)-
U043	ETHENE, CHLORO- (OR) VINYL CHLORIDE
U044	CHLOROFORM (OR) METHANE, TRICHLORO-
U045	METHANE, CHLORO- (I,T) (OR) METHYL CHLORIDE (I,T)
U046	CHLOROMETHYL METHYL ETHER (OR) METHANE, CHLOROMETHOXY-
U047	BETA-CHLORONAPHTHALENE (OR) NAPHTHALENE, 2-CHLORO-
U048	O-CHLOROPHENOL (OR) PHENOL, 2-CHLORO-

U049	4-CHLORO-O-TOLUIDINE, HYDROCHLORIDE (OR) BENZENAMINE, 4-CHLORO-2-METHYL-, HYDROCHLORIDE
U050	CHRYSENE
U051	CREOSOTE
U052	CRESOL (CRESYLIC ACID) (OR) PHENOL, METHYL-
U053	2-BUTENAL (OR) CROTONALDEHYDE
U055	BENZENE, (1-METHYLETHYL)- (I) (OR) CUMENE (I)
U056	BENZENE, HEXAHYDRO- (I) (OR) CYCLOHEXANE (I)
U057	CYCLOHEXANONE (I)
U058	2H-1,3,2-OXAZAPHOSPHORIN-2-AMINE, N,N-BIS(2- CHLOROETHYL)TETRAHYDRO-, 2-OXIDE (OR) CYCLOPHOSPHAMIDE

U059	5,12-NAPHTHACENEDIONE, 8-ACETYL-10-[(3-AMINO-2,3,6-TRIDEOXY)-ALPHA-L-LYXO-HEXOPYRANOSYL)OXY]-7,8,9,10-TETRAHYDRO-6,8,11-TRIHYDROXY-1-METHOXY-, (8S-CIS)- (OR) DAUNOMYCIN
U060	BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDD
U061	BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO- (OR) DDT
U062	CARBAMOTHIOIC ACID, BIS(1-METHYLETHYL)-, S-(2,3-DICHLORO-2-PROPENYL) ESTER (OR) DIALATE
U063	DIBENZ[A,H]ANTHRACENE
U064	BENZO[RST]PENTAPHENE (OR) DIBENZO[A,I]PYRENE
U066	1,2-DIBROMO-3-CHLOROPROPANE (OR) PROPANE, 1,2-DIBROMO-3-CHLORO-
U067	ETHANE, 1,2-DIBROMO- (OR) ETHYLENE DIBROMIDE

U068	METHANE, DIBROMO- (OR) METHYLENE BROMIDE
U069	1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER (OR) DIBUTYL PHTHALATE
U070	BENZENE, 1,2-DICHLORO- (OR) O-DICHLOROBENZENE
U071	BENZENE, 1,3-DICHLORO- (OR) M-DICHLOROBENZENE
U072	BENZENE, 1,4-DICHLORO- (OR) P-DICHLOROBENZENE
U073	[1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'-DICHLORO- (OR) 3,3'-DICHLOROBENZIDINE
U074	1,4-DICHLORO-2-BUTENE (I,T) (OR) 2-BUTENE, 1,4-DICHLORO- (I,T)
U075	DICHLORODIFLUOROMETHANE (OR) METHANE, DICHLORODIFLUORO-
U076	ETHANE, 1,1-DICHLORO- (OR) ETHYLIDENE DICHLORIDE

U077	ETHANE, 1,2-DICHLORO- (OR) ETHYLENE DICHLORIDE
U078	1,1-DICHLOROETHYLENE (OR) ETHENE, 1,1-DICHLORO-
U079	1,2-DICHLOROETHYLENE (OR) ETHENE, 1,2-DICHLORO-, (E)-
U080	METHANE, DICHLORO- (OR) METHYLENE CHLORIDE
U081	2,4-DICHLOROPHENOL (OR) PHENOL, 2,4-DICHLORO-
U082	2,6-DICHLOROPHENOL (OR) PHENOL, 2,6-DICHLORO-
U083	PROPANE, 1,2-DICHLORO- (OR) PROPYLENE DICHLORIDE
U084	1,3-DICHLOROPROPENE (OR) 1-PROPENE, 1,3- DICHLORO-
U085	1,2:3,4-DIEPOXYBUTANE (I,T) (OR) 2,2'-BIOXIRANE
U086	HYDRAZINE, 1,2-DIETHYL- (OR) N,N'-DIETHYLHYDRAZINE

U087	O,O-DIETHYL S-METHYL DITHIOPHOSPHATE (OR) PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-METHYL ESTER
U088	1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER (OR) DIETHYL PHTHALATE
U089	DIETHYLSTILBESTEROL (OR) PHENOL, 4,4'-(1,2- DIETHYL-1,2-ETHENEDIYL)BIS, (E)-
U090	1,3-BENZODIOXOLE, 5-PROPYL- (OR) DIHYDROSAFROLE
U091	[1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'-DIMETHOXY- (OR) 3,3'-DIMETHOXYBENZIDINE
U092	DIMETHYLAMINE (I) (OR) METHANAMINE, N-METHYL- (I)
U093	BENZENAMINE, N,N-DIMETHYL-4-(PHENYLAZO)- (OR) P- DIMETHYLAMINOAZOBENZENE
U094	7,12-DIMETHYLBENZ[A]ANTHRACENE (OR) BENZ[A]ANTHRACENE, 7,12-DIMETHYL-

U095	[1,1'-BIPHENYL]-4,4'-DIAMINE, 3,3'-DIMETHYL- (OR) 3,3'-DIMETHYLBENZIDINE
U096	ALPHA,ALPHA-DIMETHYLBENZYLHYDROPEROXIDE (R) (OR) HYDROPEROXIDE, 1-METHYL-1-PHENYLETHYL- (R)
U097	CARBAMIC CHLORIDE, DIMETHYL- (OR) DIMETHYLCARBAMOYL CHLORIDE
U098	1,1-DIMETHYLHYDRAZINE (OR) HYDRAZINE, 1,1-DIMETHYL-
U099	1,2-DIMETHYLHYDRAZINE (OR) HYDRAZINE, 1,2-DIPHENYL-
U101	2,4-DIMETHYLPHENOL (OR) PHENOL, 2,4-DIMETHYL-
U102	1,2-BENZENEDICARBOXYLIC ACID, DIMETHYL ESTER (OR) DIMETHYL PHTHALATE
U103	DIMETHYL SULFATE (OR) SULFURIC ACID, DIMETHYL ESTER

U105	2,4-DINITROTOLUENE (OR) BENZENE, 1-METHYL-2,4-DINITRO-
U106	2,6-DINITROTOLUENE (OR) BENZENE, 2-METHYL-1,3-DINITRO-
U107	1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER (OR) DI-N-OCTYL PHTHALATE
U108	1,4-DIETHYLENEOXIDE (OR) 1,4-DIOXANE
U109	1,2-DIPHENYLHYDRAZINE (OR) HYDRAZINE, 1,2-DIPHENYL-
U110	1-PROPANIMINE, N-PROPYL-(I) (OR) DIPROPYLAMINE (I)
U111	1-PROPANAMINE, N-NITROSO-N-PROPYL- (OR) DI-N-PROPYLNITROSAMINE
U112	ACETIC ACID, ETHYL ESTER (I) (OR) ETHYL ACETATE (I)

U113	2-PROPENOIC ACID, ETHYL ESTER (I) (OR) ETHYL ACRYLATE (I)
U114	CARBAMODITHIOIC ACID, 1,2-ETHANEDIYLBIS-, SALTS & ESTERS (OR) ETHYLENEBISDITHIOCARBAMIC ACID, SALTS & ESTERS
U115	ETHYLENE OXIDE (I,T) (OR) OXIRANE (I,T)
U116	2-IMIDAZOLIDINETHIONE (OR) ETHYLENETHIOUREA
U117	ETHANE, 1,1'-OXYBIS-(I) (OR) ETHYL ETHER (I)
U118	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER (OR) ETHYL METHACRYLATE
U119	ETHYL METHANESULFONATE (OR) METHANESULFONIC ACID, ETHYL ESTER
U120	FLUORANTHENE

U121	METHANE, TRICHLOROFLUORO- (OR) TRICHLOROMONOFLUOROMETHANE
U122	FORMALDEHYDE
U123	FORMIC ACID (C,T)
U124	FURAN (I) (OR) FURFURAN (I)
U125	2-FURANCARBOXALDEHYDE (I) (OR) FURFURAL (I)
U126	GLYCIDYLALDEHYDE (OR) OXIRANECARBOXYALDEHYDE
U127	BENZENE, HEXACHLORO- (OR) HEXACHLOROBENZENE
U128	1,3-BUTADIENE, 1,1,2,3,4,4-HEXACHLORO- (OR) HEXACHLOROBUTADIENE
U129	CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE

U130	1,3-CYCLOPENTADIENE, 1,2,3,4,5,5-HEXACHLORO- (OR) HEXACHLOROCYCLOPENTADIENE
U131	ETHANE, HEXACHLORO- (OR) HEXACHLOROETHANE
U132	HEXACHLOROPHENE (OR) PHENOL, 2,2'-METHYLENEBIS[3,4,6-TRICHLORO-
U133	HYDRAZINE (R,T)
U134	HYDROFLUORIC ACID (C,T) (OR) HYDROGEN FLUORIDE (C,T)
U135	HYDROGEN SULFIDE (OR) HYDROGEN SULFIDE H2S
U136	ARSINIC ACID, DIMETHYL- (OR) CACODYLIC ACID
U137	INDENO[1,2,3-CD]PYRENE
U138	METHANE, IODO- (OR) METHYL IODIDE

U140	1-PROPANOL, 2-METHYL- (I,T) (OR) ISOBUTYL ALCOHOL (I,T)
U141	1,3-BENZODIOXOLE, 5-(1-PROPENYL)- (OR) ISOSAFROLE
U142	1,3,4-METHENO-2H-CYCLOBUTA[CD]PENTALEN-2-ONE, 1,1A,3,3A,4,5,5,5A,5B,6-DECACHLOROOCCTAHYDRO- (OR) KEPONE
U143	2-BUTENOIC ACID, 2-METHYL-, 7-[[2,3-DIHYDROXY-2-(1-METHOXYETHYL)-3-METHYL-1-OXOBUTOXY]METHYL]-2,3,5,7A-TETRAHYDRO-1H-PYRROLIZIN-1-YL ESTER, [1S-[1ALPHA(Z), 7(2S*,3R*), 7AALPHA]]- (OR) LASIOCARPINE
U144	ACETIC ACID, LEAD(2+) SALT (OR) LEAD ACETATE
U145	LEAD PHOSPHATE (OR) PHOSPHORIC ACID, LEAD(2+) SALT (2:3)
U146	LEAD SUBACETATE (OR) LEAD, BIS(ACETATO-O)TETRAHYDROXYTRI-

U147	2,5-FURANDIONE (OR) MALEIC ANHYDRIDE
U148	3,6-PYRIDAZINEDIONE, 1,2-DIHYDRO- (OR) MALEIC HYDRAZIDE
U149	MALONONITRILE (OR) PROPANEDINITRILE
U150	L-PHENYLALANINE, 4-[BIS(2-CHLOROETHYL)AMINO]- (OR) MELPHALAN
U151	MERCURY
U152	2-PROPENENITRILE, 2-METHYL- (I,T) (OR) METHACRYLONITRILE (I,T)
U153	METHANETHIOL (I,T) (OR) THIOMETHANOL (I,T)
U154	METHANOL (I) (OR) METHYL ALCOHOL (I)
U155	1,2-ETHANEDIAMINE, N,N-DIMETHYL-N'-2-PYRIDINYL-N'-(2-THIENYLMETHYL)- (OR) METHAPYRILENE

U156	CARBONOCHLORIDIC ACID, METHYL ESTER, (I,T) (OR) METHYL CHLOROCARBONATE (I,T)
U157	3-METHYLCHOLANTHRENE (OR) BENZ[J]ACEANTHRYLENE, 1,2-DIHYDRO-3-METHYL-
U158	4,4'-METHYLENEBIS(2-CHLOROANILINE) (OR) BENZENAMINE, 4,4'-METHYLENEBIS[2-CHLORO-
U159	2-BUTANONE (I,T) (OR) METHYL ETHYL KETONE (MEK) (I,T)
U160	2-BUTANONE, PEROXIDE (R,T) (OR) METHYL ETHYL KETONE PEROXIDE (R,T)
U161	4-METHYL-2-PENTANONE (I) (OR) METHYL ISOBUTYL KETONE (I) (OR) PENTANOL, 4-METHYL-
U162	2-PROPENOIC ACID, 2-METHYL-, METHYL ESTER (I,T) (OR) METHYL METHACRYLATE (I,T)

U163	GUANIDINE, N-METHYL-N'-NITRO-N-NITROSO- (OR) MNNG
U164	4(1H)-PYRIMIDINONE, 2,3-DIHYDRO-6-METHYL-2-THIOXO- (OR) METHYLTHIOURACIL
U165	NAPHTHALENE
U166	1,4-NAPHTHALENEDIONE (OR) 1,4-NAPHTHOQUINONE
U167	1-NAPHTHALENAMINE (OR) ALPHA-NAPHTHYLAMINE
U168	2-NAPHTHALENAMINE (OR) BETA-NAPHTHYLAMINE
U169	BENZENE, NITRO- (OR) NITROBENZENE (I,T)
U170	P-NITROPHENOL (I,T) (OR) PHENOL, 4-NITRO-
U171	2-NITROPROPANE (I,T) (OR) PROPANE, 2-NITRO- (I,T)
U172	1-BUTANAMINE, N-BUTYL-N-NITROSO- (OR) N-NITROSODI-N-BUTYLAMINE

U173	ETHANOL, 2,2'-(NITROSOIMINO)BIS- (OR) N-NITROSODIETHANOLAMINE
U174	ETHANAMINE, N-ETHYL-N-NITROSO- (OR) N-NITROSODIETHYLAMINE
U176	N-NITROSO-N-ETHYLUREA (OR) UREA, N-ETHYL-N-NITROSO-
U177	N-NITROSO-N-METHYLUREA (OR) UREA, N-METHYL-N-NITROSO-
U178	CARBAMIC ACID, METHYLNITROSO-, ETHYL ESTER (OR) N-NITROSO-N-METHYLURETHANE
U179	N-NITROSOPIPERIDINE (OR) PIPERIDINE, 1-NITROSO-
U180	N-NITROSOPYRROLIDINE (OR) PYRROLIDINE, 1-NITROSO-
U181	5-NITRO-O-TOLUIDINE (OR) BENZENAMINE, 2-METHYL-5-NITRO


U182	1,3,5-TRIOXANE, 2,4,6-TRIMETHYL- (OR) PARALDEHYDE
U183	BENZENE, PENTACHLORO- (OR) PENTACHLOROBENZENE
U184	ETHANE, PENTACHLORO- (OR) PENTACHLOROETHANE
U185	BENZENE, PENTACHLORONITRO- (OR) PENTACHLORONITROBENZENE (PCNB)
U186	1,3-PENTADIENE (I) (OR) 1-METHYLBUTADIENE (I)
U187	ACETAMIDE, N-(4-ETHOXYPHENYL)- (OR) PHENACETIN
U188	PHENOL
U189	PHOSPHORUS SULFIDE (R) (OR) SULFUR PHOSPHIDE (R)
U190	1,3-ISOBENZOFURANDIONE (OR) PHTHALIC ANHYDRIDE
U191	2-PICOLINE (OR) PYRIDINE, 2-METHYL-

U192	BENZAMIDE, 3,5-DICHLORO-N-(1,1-DIMETHYL-2-PROPYNYL)- (OR) PRONAMIDE
U193	1,2-OXATHIOLANE, 2,2-DIOXIDE (OR) 1,3-PROPANE SULTONE
U194	1-PROPANAMINE (I,T) (OR) N-PROPYLAMINE (I,T)
U196	PYRIDINE
U197	2,5-CYCLOHEXADIENE-1,4-DIONE (OR) P-BENZOQUINONE
U200	RESERPINE (OR) YOHIMBAN-16-CARBOXYLIC ACID, 11,17-DIMETHOXY-18-[(3,4,5-TRIMETHOXYBENZOYL)OXY]-, METHYL ESTER, (3BETA, 16BETA, 17ALPHA, 18BETA, 20ALPHA)-
U201	1,3-BENZENEDIOL (OR) RESORCINOL
U203	1,3-BENZODIOXOLE, 5-(2-PROPENYL)- (OR) SAFROLE

U204

SELENIOUS ACID (OR) SELENIUM DIOXIDE



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RCRAInfo Facility

Facility Information

CVS PHARMACY #11347

Handler ID: NCR000173625

301 PENNY LANE

MOREHEAD CITY, NC 28557

County Name: CARTERET

Latitude: 34.72797

Latitude: -76.75682

Hazardous Waste Generator:

Very Small Quantity Generator

Owner Name: GEORGE W. PEAL

& ANN W. PEAL

NO BIENNIAL REPORT DATA IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF FACILITY CONTACTS

NAME	STREET	CITY	STATE
NICOLE WILKINSON	CVS DR MC2340	WOONSOCKET	RI
NICOLE WILKINSON	CVS DR MC2340	WOONSOCKET	RI

HANDLER / FACILITY CLASSIFICATION

UNSPECIFIED UNIVERSE FOR THE FACILITY LISTED ABOVE.

NO HANDLER INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

NO PROCESS INFORMATION IS AVAILABLE FOR THE FACILITY LISTED ABOVE.

LIST OF NAICS CODES AND DESCRIPTIONS

NAICS CODE	NAICS DESCRIPTION
446110	PHARMACIES AND DRUG STORES
44611	PHARMACIES AND DRUG STORES

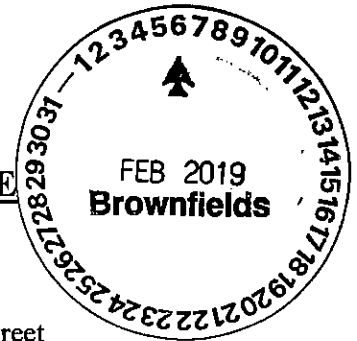
LIST OF WASTE CODES AND DESCRIPTIONS

WASTE CODE	WASTE DESCRIPTION
D001	IGNITABLE WASTE
D002	CORROSIVE WASTE
D007	CHROMIUM
D009	MERCURY
D010	SELENIUM
U002	2-PROPANONE (I) (OR) ACETONE (I)

U129	CYCLOHEXANE, 1,2,3,4,5,6- HEXACHLORO-, (1ALPHA, 2ALPHA, 3BETA, 4ALPHA, 5ALPHA, 6BETA)- (OR) LINDANE
U165	NAPHTHALENE
U188	PHENOL
U205	SELENIUM SULFIDE (OR) SELENIUM SULFIDE SES2 (R,T)

NC BROWNFIELDS
LAND USE RESTRICTIONS ("LUR") UPDATE

Year Certification Made: 2019



Name: Morehead City Main
Project #: 17005-13-016

Address: 2806 Arendell Street
County: Carteret

Property Owner (In part or whole): BB&T

Read the following LURs and mark each restriction accordingly. Additional remarks may be added for compliance status clarification. Attach any required or supplemental documentation, sign, notarize and submit to the following address:

NC Division of Waste Management
Attn: Brownfields Program Staff
1646 Mail Service Center
Raleigh, NC 27699-1646

LUR 1: No use may be made of the Property other than for Commercial/Office.

- a. Commercial/Office - Land parcels used for wholesale, retail, office, entertainment or services, including those uses predominantly at street level on multi-functional structures, plus related contiguous accessory uses such as parking areas and service drives, and does not include schools and child-care facilities.

☒ In compliance ☐ Out of compliance

Remarks: _____

LUR 2: Unless compliance with this LUR is waived in writing in advance by the Department of Environmental Quality ("DEQ") in relation to particular buildings, no use of the Property may occur prior to demolition of buildings on the Property depicted on the plat component of the Notice of Brownfields Property ("Notice") referenced as Exhibit B in accordance with applicable legal requirements, including without limitation those related to lead and asbestos abatement that are administered by the Health Hazards Control Unit within the Division of Public Health of the North Carolina Department of Health and Human Services.

☒ In compliance ☐ Out of compliance

Remarks: _____

LUR 3: Physical redevelopment of the Property may not occur other than in accord, as determined by DEQ, with an Environmental Management Plan approved in writing by DEQ in advance (and revised to DEQ's written satisfaction prior to each subsequent redevelopment phase) that is consistent with all the other LURs and describes redevelopment activities at the Property, the timing of redevelopment phases, and addresses health, safety and environmental issues that may arise from, use of the Property during construction or redevelopment in any other form, including without limitation:

- a. Soil and water management issues, including without limitation those resulting from contamination identified in the Environmental Reports;
- b. Potential sources of the contamination referenced in Table A of the Notice;
- c. Surface soil sampling for any soil areas that are planned to be exposed after the planned development, and subsurface soil sampling as required by DEQ.
- d. Contingency plans for addressing newly discovered potential sources of environmental contamination (e.g. tanks, drums, septic drain fields); and
- e. Plans for the proper characterization of, and, as necessary, disposal of soils excavated during redevelopment.

☒ In compliance

☐ Out of compliance

Remarks: _____

LUR 4: Groundwater at the Property may not be used for any purpose without the prior written approval of DEQ.

☒ In compliance

☐ Out of compliance

Remarks: _____

LUR 5: No activity that encounters groundwater on the Property may occur unless and until DEQ states in writing, in advance of the proposed activity that said activity may occur if carried out along with any measures DEQ deems necessary to ensure the Property will be suitable for the uses specified in LUR 1 above while fully protecting public health and the environment, except for emergency repair of underground infrastructure, provided that DEQ shall be given written notice (if only by email) of any such emergency repair no later than the next business day, and that any related assessment and remedial measures required by DEQ shall be taken.

☒ In compliance

☐ Out of compliance

Remarks: _____

Morehead City Main (#17005-13-016) LUR Update

LUR 6: None of the contaminants known to be present in the environmental media at the Property, including those appearing above in Table A, may be used or stored at the Property without prior written approval of DEQ, except in *de minimis* amounts for cleaning and other routine housekeeping activities.

☒ In compliance ☐ Out of compliance

Remarks: _____

LUR 7: The Property may not be used for agriculture or grazing, without the prior written approval of DEQ.

☒ In compliance ☐ Out of compliance

Remarks: _____

LUR 8: The Property may not be used as a park or for sports of any kind, including, but not limited to, golf, football, soccer and baseball, without the prior written approval of DEQ.

☒ In compliance ☐ Out of compliance

Remarks: _____

LUR 9: The Property may not be used as a playground, or for child care centers or schools, without the prior written approval of DEQ.

☒ In compliance ☐ Out of compliance

Remarks: _____

LUR 10: The owner of any portion of the Property where any existing, or subsequently installed, DEQ-approved monitoring well is damaged shall be responsible for repair of any such wells to DEQ's written satisfaction and within a time period acceptable to DEQ, unless compliance with this LUR is waived in writing by DEQ in advance.

☒ In compliance ☐ Out of compliance

Remarks: _____

LUR 11: Neither DEQ, nor any party conducting environmental assessment or remediation at the Property at the direction of, or pursuant to a permit, order or agreement issued or entered into by DEQ, may be denied access to the Property for purposes of conducting such assessment or remediation, which is to be conducted using reasonable efforts to minimize interference with authorized uses of the Property.

☒ In compliance

☐ Out of compliance

Remarks: _____

LUR 12: During January of each year after the year in which the Notice of Brownfields Property is recorded, the owner of any part of the Property as of January 1st of that year shall submit a notarized Land Use Restrictions Update ("LURU") to DEQ, and to the chief public health and environmental officials of Carteret County, certifying that, as of said January 1st, the Notice of Brownfields Property containing these LURs remains recorded at the Carteret County Register of Deeds office and that the land use restrictions are being complied with, and stating:

- a. the name, mailing address, telephone and facsimile numbers, and contact person's e-mail address of the owner submitting the LURU if said owner acquired any part of the Property during the previous calendar year.

No change in ownership

- b. the transferee's name, mailing address, telephone and facsimile numbers, and contact person's e-mail address, if said owner transferred any part of the Property during the previous calendar year.

☒ In compliance

☐ Out of compliance

Remarks: _____

Notarized signing and submittal of this Land Use Restrictions Update constitutes certification that the Notice of Brownfields Property remains recorded at the Carteret County Register of Deeds office and that the Land Use Restrictions are being complied with.

This Land Use Restrictions Update is certified by Natalie Lanier, owner of at least part of the Brownfields Property on this **31st** day of **January**, 2019.

Name typed or printed of party making certification: BB&T by Natalie Lanier/VP

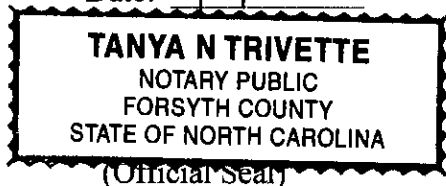
[Note: additional entities or owners may be added if appropriate (i.e. multiple managing members/entities)]

BB&T
By: Natalie Lanier (signature)
Name typed or printed: Natalie Lanier
Title typed or printed: Vice President

NORTH CAROLINA
Forsyth COUNTY

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Vice President.

Date: 2/4/2019



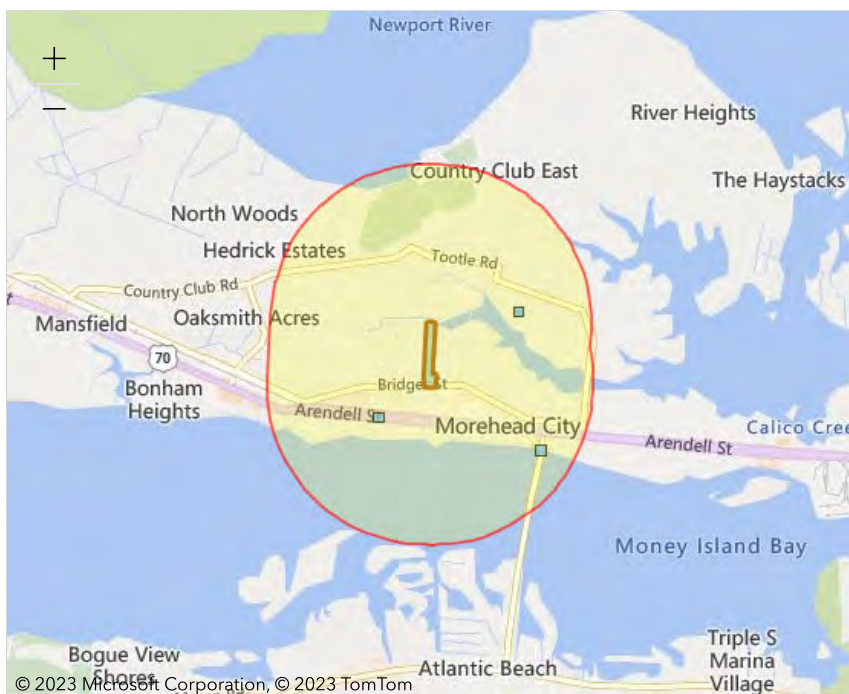
Tanya N Trivette

Official Signature of Notary

Tanya N Trivette

Notary's printed or typed name, Notary Public

My commission expires: 8/17/2019

Powered by Esri (<http://www.esri.com/>)**Report question: Within 1 of a Water dischargers site? yes**

Modify question by entering a new buffer distance and unit for the selected study area:

Name	Distance
<input type="checkbox"/> ATLANTIC BEACH SEAFOOD MARKET (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCG530169) REGISTRY_ID: 110067571363 LATITUDE: 34.7213 LONGITUDE: -76.73434 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCG530169 LOCATION_ADDRESS: 415 ATLANTIC BEACH CAUSEWAY CITY_NAME: MOREHEAD CITY COUNTY_NAME: STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: HUC_CODE:	0.79 mile
<input type="checkbox"/> MOREHEAD CITY WWTP (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NC0026611) REGISTRY_ID: 110030994066 LATITUDE: 34.734036 LONGITUDE: -76.736873 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NC0026611 LOCATION_ADDRESS: 1000 TREATMENT PLANT RD CITY_NAME: MOREHEAD CITY COUNTY_NAME: STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: HUC_CODE:	0.54 mile

Name	Distance
<input type="checkbox"/> UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCG530154) REGISTRY_ID: 110024565923 LATITUDE: 34.724335 LONGITUDE: -76.752577 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCG530154 LOCATION_ADDRESS: 3431 ARENDELL ST CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: NC031 HUC_CODE:	0.35 mile
<input type="checkbox"/> TOWN OF MOREHEAD CITY (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCL026611) REGISTRY_ID: 110030994066 LATITUDE: 34.734036 LONGITUDE: -76.736873 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCL026611 LOCATION_ADDRESS: 706 ARENDELL ST CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557-4234 FIPS_CODE: NC031 HUC_CODE:	0.54 mile
<input type="checkbox"/> MOREHEAD CITY WWTP (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCG110110) REGISTRY_ID: 110030994066 LATITUDE: 34.734036 LONGITUDE: -76.736873 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCG110110 LOCATION_ADDRESS: 1000 TREATMENT PLANT RD CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: NC031 HUC_CODE:	0.54 mile

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Facility

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
STREET 1	415 ATLANTIC BEACH CAUSEWAY	SIC CODE	

CITY		MAJOR / MINOR	
COUNTY NAME		TYPE OF OWNERSHIP	Privately Owned Facility
STATE	NC	ACTIVITY STATUS	Expired
ZIP CODE	28557	INACTIVE DATE	
REGION	Region 4	TYPE OF PERMIT ISSUED	General Permit Covered Facility
LATITUDE	34.734883	ORIGINAL PERMIT ISSUE DATE	16-OCT-2015
LONGITUDE	-76.746079	PERMIT ISSUED DATE	16-OCT-2015
LAT/LON CODE OF ACCURACY	30	PERMIT EXPIRED DATE	31-JUL-2017
LAT/LON METHOD			
LAT/LON SCALE		USGS HYDRO BASIN CODE	
LAT/LON DATUM		FLOW	0
RECEIVING WATERS		FEDERAL GRANT IND	
PRETREATMENT CODE		SLUDGE CLASS FAC IND	NON-POTW
MAILING NAME		SLUDGE RELATED PERMIT NUM	
MAILING STREET (1)		ANNUAL DRY SLUDGE PROD	
MAILING STREET (2)			
MAILING CITY			
MAILING STATE			

MAILING ZIP CODE			
COGNIZANT OFFICIAL		COGNIZANT OFFICIAL TEL	

Activity

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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ACTIVITY NAME	ACTIVITY TYPE DESCRIPTION	ACTIVITY STATUS DESCRIPTION	ACTIVITY STATUS DATE	ACTUAL BEGIN DATE	ACTUAL END DATE
	Permit	Active	05-MAY-2016		
NCG530169-CEI-2022-02-09	Inspection/Evaluation	Active	03-MAR-2022	09-FEB-2022	09-FEB-2022
	Permit	Active	02-DEC-2021		
	Permit	Active	01-NOV-2018		

Contacts

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No Contacts Found.

Permit Tracking

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	16-OCT- 2015
PERMIT ISSUED DATE	26-OCT-2018	PERMIT EXPIRED DATE	31-MAR- 2021
EFFECTIVE DATE	26-OCT-2018	RETIREMENT DATE	30-NOV- 2021

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	16-OCT- 2015
PERMIT ISSUED DATE	16-OCT-2015	PERMIT EXPIRED DATE	31-JUL- 2017
EFFECTIVE DATE	16-OCT-2015	RETIREMENT DATE	25-OCT- 2018

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	16-OCT- 2015
PERMIT ISSUED DATE	01-DEC-2021	PERMIT EXPIRED DATE	30-NOV- 2026
EFFECTIVE DATE	01-DEC-2021	RETIREMENT DATE	

Permit Tracking Events:

EVENT DESCRIPTION	EVENT DATE
--------------------------	-------------------

Permit Expiration	30-NOV-2026
Permit Issued	01-DEC-2021
Permit Effective	01-DEC-2021
Permit Reissued	01-DEC-2021
Permit Retired	30-NOV-2021
Permit Expiration	31-MAR-2021
Permit Effective	26-OCT-2018
Permit Issued	26-OCT-2018
Permit Reissued	26-OCT-2018
Permit Retired	25-OCT-2018
Permit Expiration	31-JUL-2017
Permit Issued	16-OCT-2015
Permit Effective	16-OCT-2015

Inspections

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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INSPECTION TYPE	DATE OF INSPECTION	INSPECTION PERFORMED BY
NCG530169-CEI-2022-02-09	03-MAR-2022	State

Outfalls/Pipe Schedules

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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OUTFALL TYPE		PIPE NUMBER	
ACTIVITY STATUS		REPORT DESIGNATOR	
LATITUDE		LONGITUDE	
LAT/LON ACCURACY		LAT/LON METHOD	
LAT/LON SCALE		LAT/LON DATUM	
INACTIVE DATE		USGS HYDRO BASIN CODE	
INIT DMR DUE DATE		SUBMISSION UNITS	
PIPE DESCRIPTION		UNITS IN SUBM. PERIOD	
INIT REPORTING DATE		REPORTING UNITS	
UNITS IN REPORTING PERIOD		DMR COMMENT	

Limits Report

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PIPE NUMBER			
PIPE DESCRIPTION		REPORT DESIGNATOR	
DMR COMMENT		LIMIT SET TYPE	

No ICIS Limits Report Found.

Limits Report

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Limits Information Found.

Measurements and Violations

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Measurements Information Found.

Compliance Schedules and Violations

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No Compliance Schedules Found.

Pretreatment Inspections/Audits

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Pretreatment Inspections Found.

Pretreatment Performance Summary

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Pretreatment Performance Summary Information Found.

Note: You are viewing results from the modernized data system, Integrated Compliance Information System (ICIS). The state reporting this data to EPA previously reported the data to a historic data system, Permit Compliance System (PCS). Use the following button to view the historic data from PCS. **Run a PCS Search**

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Facility

FACILITY NAME (1)	MOREHEAD CITY WWTP	NPDES	NC0026611
STREET 1	1000 TREATMENT PLANT RD	SIC CODE	4952 = Sewerage Systems

CITY		MAJOR / MINOR	M = Major
COUNTY NAME		TYPE OF OWNERSHIP	Municipal or Water District
STATE	NC	ACTIVITY STATUS	Expired
ZIP CODE	28557	INACTIVE DATE	
REGION	Region 4	TYPE OF PERMIT ISSUED	NPDES Individual Permit
LATITUDE	34.7361	ORIGINAL PERMIT ISSUE DATE	12-OCT-2007
LONGITUDE	-76.7367	PERMIT ISSUED DATE	12-OCT-2007
LAT/LON CODE OF ACCURACY		PERMIT EXPIRED DATE	31-JUL-2012
LAT/LON METHOD			
LAT/LON SCALE		USGS HYDRO BASIN CODE	
LAT/LON DATUM		FLOW	3000000
RECEIVING WATERS		FEDERAL GRANT IND	
PRETREATMENT CODE		SLUDGE CLASS FAC IND	POTW
MAILING NAME		SLUDGE RELATED PERMIT NUM	
MAILING STREET (1)		ANNUAL DRY SLUDGE PROD	
MAILING STREET (2)			
MAILING CITY			
MAILING STATE			
MAILING ZIP CODE			

COGNIZANT OFFICIAL		COGNIZANT OFFICIAL TEL	
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Activity

FACILITY NAME (1)	MOREHEAD CITY WWTP	NPDES	NC0026611
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ACTIVITY NAME	ACTIVITY TYPE DESCRIPTION	ACTIVITY STATUS DESCRIPTION	ACTIVITY STATUS DATE	ACTUAL BEGIN DATE	ACTUAL END DATE
NPDES Permit (CWA)	Permit				
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		31-OCT-2002		31-OCT-2002
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		30-JAN-1998		30-JAN-1998
MOREHEAD CITY WWTP (Permit NC0026611) Administrative Consent Order	Administrative - Formal	Closed	30-DEC-1990	01-DEC-2012	30-DEC-1990
MOREHEAD CITY WWTP (Permit NC0026611) Cwa Penalty Ao	Administrative - Formal	Closed	30-AUG-2005	01-DEC-2012	30-AUG-2005
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		28-MAY-1987		28-MAY-1987

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		28-FEB-2001		28-FEB-2001
MOREHEAD CITY WWTP (Permit NC0026611) Penalty Ao Issued By State	Administrative - Formal	Final Order Issued	27-NOV-2000	01-DEC-2012	
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		26-AUG-2009		26-AUG-2009
MOREHEAD CITY WWTP (Permit NC0026611) Letter Of Violation/Warning Letter	Administrative - Informal	Achieved	25-JUN-2007		25-JUN-2007
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		25-FEB-2000		25-FEB-2000
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		25-FEB-1985		25-FEB-1985
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		23-SEP-2004		23-SEP-2004
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		23-JAN-2004		23-JAN-2004
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		20-MAY-1980		20-MAY-1980

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		20-JUL-1989		20-JUL-1989
	Administrative - Informal	Achieved	19-OCT-2016		19-OCT-2016
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		19-MAR-1992		19-MAR-1992
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		19-FEB-1980		19-FEB-1980
MOREHEAD CITY WWTP (Permit NC0026611) Penalty Ao Issued By State	Administrative - Formal	Final Order Issued	19-DEC-2000	01-DEC-2012	
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		18-NOV-1987		18-NOV-1987
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		18-MAY-2006		18-MAY-2006
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Biomonitoring	Inspection/Evaluation		18-MAY-1994		18-MAY-1994
MOREHEAD CITY WWTP (Permit NC0026611) Cwa Penalty Ao	Administrative - Formal	Closed	17-MAY-2006	01-DEC-2012	17-MAY-2006

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		17-AUG-1993		17-AUG-1993
NC0026611-CEI-2014-07-30	Inspection/Evaluation	Active	16-OCT-2019	30-JUL-2014	30-JUL-2014
	Administrative - Formal	Final Order Issued	16-MAR-2016		
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		15-MAY-2008		15-MAY-2008
	Administrative - Formal	Final Order Issued	14-NOV-2016		
MOREHEAD CITY WWTP (Permit NC0026611) Letter Of Violation/Warning Letter	Administrative - Informal	Achieved	14-MAR-2006		14-MAR-2006
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		14-JAN-1988		14-JAN-1988
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		12-NOV-1986		12-NOV-1986
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Biomonitoring	Inspection/Evaluation		12-APR-1994		12-APR-1994
MOREHEAD CITY WWTP (Permit NC0026611) Reconnaissance	Inspection/Evaluation		11-JUN-1987		11-JUN-1987

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		10-MAR-1993		10-MAR-1993
	Administrative - Informal	Achieved	10-DEC-2012		10-DEC-2012
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		10-AUG-2010		10-AUG-2010
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		10-APR-2002		10-APR-2002
	Administrative - Informal	Achieved	09-FEB-2017		09-FEB-2017
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		09-AUG-1988		09-AUG-1988
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		09-APR-1986		09-APR-1986
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		08-AUG-1990		08-AUG-1990
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Biomonitoring	Inspection/Evaluation		07-FEB-2012		07-FEB-2012

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		07-FEB-1996		07-FEB-1996
	Administrative - Informal	Achieved	07-AUG-2020		07-AUG-2020
	Administrative - Formal	Closed	06-NOV-2020		
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		06-MAR-2007		06-MAR-2007
	Administrative - Informal	Achieved	06-JAN-2016		06-JAN-2016
NPDES Permit (CWA)	Permit	Active	05-MAR-2020		
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		05-MAR-2007		05-MAR-2007
MOREHEAD CITY WWTP (Permit NC0026611) Administrative Consent Order	Administrative - Formal	Closed	05-JUL-1989	01-DEC-2012	05-JUL-1989
MOREHEAD CITY WWTP (Permit NC0026611) Letter Of Violation/Warning Letter	Administrative - Informal	Achieved	04-APR-2007		04-APR-2007
MOREHEAD CITY WWTP (Permit NC0026611) Penalty Ao Issued By State	Administrative - Formal	Final Order Issued	04-APR-1990	01-DEC-2012	

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		03-JUN-1999		03-JUN-1999
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		03-FEB-2005		03-FEB-2005
NC0026611-CEI-2019-12-05	Inspection/Evaluation	Active	02-JAN-2020	05-DEC-2019	05-DEC-2019
NC0026611-CEI-2021-11-17	Inspection/Evaluation	Active	02-DEC-2021	17-NOV-2021	17-NOV-2021
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		01-SEP-1994		01-SEP-1994
NC0026611-CBI-2020-08-25	Inspection/Evaluation	Active	01-OCT-2020	25-AUG-2020	25-AUG-2020
NC0026611-CEI-2018-09-08	Inspection/Evaluation	Active	01-NOV-2018	08-SEP-2018	08-SEP-2018
NPDES Permit (CWA)	Permit	Active	01-MAY-2013		

Contacts

FACILITY NAME (1)	MOREHEAD CITY WWTP	NPDES	NC0026611
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No Contacts Found.

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Facility

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
STREET 1	3431 ARENDELL ST	SIC CODE	
CITY		MAJOR / MINOR	
COUNTY NAME	Carteret	TYPE OF OWNERSHIP	Privately Owned Facility
STATE	NC	ACTIVITY STATUS	Expired
ZIP CODE	28557	INACTIVE DATE	
REGION	Region 4	TYPE OF PERMIT ISSUED	General Permit Covered Facility
LATITUDE	34.7236	ORIGINAL PERMIT ISSUE DATE	31-MAR-2006
LONGITUDE	-76.7525	PERMIT ISSUED DATE	30-JUL-2007
LAT/LON CODE OF ACCURACY	50	PERMIT EXPIRED DATE	31-JUL-2012
LAT/LON METHOD			

LAT/LON SCALE		USGS HYDRO BASIN CODE	
LAT/LON DATUM		FLOW	
RECEIVING WATERS	Bogue Sound (Including Intracoastal	FEDERAL GRANT IND	N
PRETREATMENT CODE		SLUDGE CLASS FAC IND	NON-POTW
MAILING NAME		SLUDGE RELATED PERMIT NUM	
MAILING STREET (1)		ANNUAL DRY SLUDGE PROD	
MAILING STREET (2)			
MAILING CITY			
MAILING STATE			
MAILING ZIP CODE			
COGNIZANT OFFICIAL	Adrian Whichard	COGNIZANT OFFICIAL TEL	2527266841

Activity

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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ACTIVITY NAME	ACTIVITY TYPE DESCRIPTION	ACTIVITY STATUS DESCRIPTION	ACTIVITY STATUS DATE	ACTUAL BEGIN DATE	ACTUAL END DATE
NPDES Permit (CWA)	Permit				
NPDES Permit (CWA)	Permit	Active	19-FEB-2013		
NCG530154-CEI-2014-04-11	Inspection/Evaluation	Active	16-OCT-2019	11-APR-2014	11-APR-2014
UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	Inspection/Evaluation		13-JAN-2006		13-JAN-2006

UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	Inspection/Evaluation		11-APR- 2007		11-APR- 2007
NCG530154-CEI-2019- 05-03	Inspection/Evaluation	Active	06-MAY- 2019	03-MAY- 2019	03-MAY- 2019
NPDES Permit (CWA)	Permit	Active	02-DEC- 2021		
NPDES Permit (CWA)	Permit	Active	01-NOV- 2018		

Contacts

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No Contacts Found.

Permit Tracking

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	30-JUL-2007	PERMIT EXPIRED DATE	31-JUL-2012
EFFECTIVE DATE	01-AUG-2007	RETIREMENT DATE	31-JUL-2012

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	26-OCT-2018	PERMIT EXPIRED DATE	31-MAR- 2021
EFFECTIVE DATE	26-OCT-2018	RETIREMENT DATE	30-NOV- 2021

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	01-DEC-2021	PERMIT EXPIRED DATE	30-NOV- 2026
EFFECTIVE DATE	01-DEC-2021	RETIREMENT DATE	

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	01-AUG-2012	PERMIT EXPIRED DATE	31-JUL-2017
EFFECTIVE DATE	01-AUG-2012	RETIREMENT DATE	25-OCT- 2018

Permit Tracking Events:

EVENT DESCRIPTION	EVENT DATE
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Permit Expiration	30-NOV-2026
Permit Issued	01-DEC-2021
Permit Effective	01-DEC-2021
Permit Reissued	01-DEC-2021
Permit Retired	30-NOV-2021
Permit Expiration	31-MAR-2021
Permit Issued	26-OCT-2018
Permit Reissued	26-OCT-2018
Permit Effective	26-OCT-2018
Permit Retired	25-OCT-2018
Permit Expiration	31-JUL-2017
Permit Issued	01-AUG-2012
Permit Reissued	01-AUG-2012
Permit Effective	01-AUG-2012
Permit Expiration	31-JUL-2012

Permit Retired	31-JUL-2012
Permit Effective	01-AUG-2007
Permit Issued	30-JUL-2007
Application/NOI Received	05-FEB-2007
Draft Permit/Public Notice	03-MAR-2006

Inspections

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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INSPECTION TYPE	DATE OF INSPECTION	INSPECTION PERFORMED BY
NCG530154-CEI-2014-04-11	16-OCT-2019	State
UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	13-JAN-2006	State
UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	11-APR-2007	State

NCG530154-CEI-2019-05-03	06-MAY-2019	State
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Outfalls/Pipe Schedules

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
OUTFALL TYPE		PIPE NUMBER	
ACTIVITY STATUS		REPORT DESIGNATOR	
LATITUDE		LONGITUDE	
LAT/LON ACCURACY		LAT/LON METHOD	
LAT/LON SCALE		LAT/LON DATUM	
INACTIVE DATE		USGS HYDRO BASIN CODE	
INIT DMR DUE DATE		SUBMISSION UNITS	
PIPE DESCRIPTION		UNITS IN SUBM. PERIOD	
INIT REPORTING DATE		REPORTING UNITS	

UNITS IN REPORTING PERIOD		DMR COMMENT	
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Limits Report

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PIPE NUMBER			
PIPE DESCRIPTION		REPORT DESIGNATOR	
DMR COMMENT		LIMIT SET TYPE	

No ICIS Limits Report Found.

Limits Report

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Limits Information Found.

Measurements and Violations

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Measurements Information Found.

Compliance Schedules and Violations

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No Compliance Schedules Found.

Pretreatment Inspections/Audits

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Pretreatment Inspections Found.

Pretreatment Performance Summary

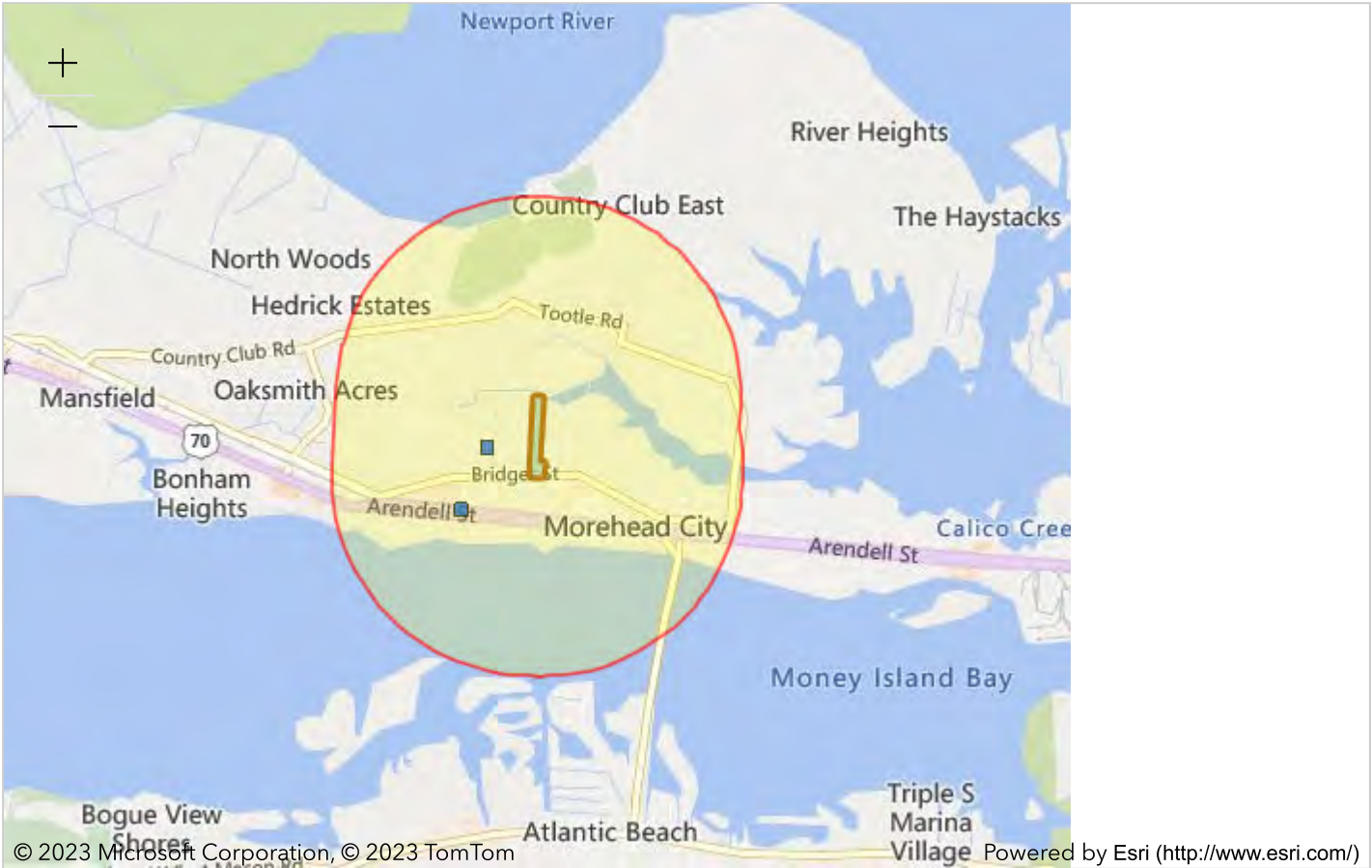
FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Pretreatment Performance Summary Information Found.

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Report question: *Within 1 of a Air emissions site? yes*

Modify question by entering a new buffer distance and unit for the selected study area:

meters

▼

Submit

Name	Distance
<div><input type="checkbox"/> CP&L - MOREHEAD CITY PLANT ** INACTIVE ** (MOREHEAD CITY,NC)</div> <div>(https://enviro.epa.gov/enviro/airsquery.detail_plt_view?p_id=NC0000003701600116)</div> <div>REGISTRY_ID: 110001475966</div> <div>LATITUDE: 34.729345</div> <div>LONGITUDE: -76.751275</div> <div>PGM_SYS_ACRNM: AIR</div> <div>PGM_SYS_ID: NC0000003701600116</div> <div>LOCATION_ADDRESS: 406 MAPLE LANE</div> <div>CITY_NAME: MOREHEAD CITY</div> <div>COUNTY_NAME:</div> <div>STATE_CODE: NC</div> <div>EPA_REGION: Region 4</div> <div>POSTAL_CODE: 28555</div> <div>FIPS_CODE: NC031</div> <div>HUC_CODE:</div>	0.22 mile

Name	Distance
<div><input type="checkbox"/> CARTERET HEALTH CARE (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/airsquery.detail_plt_view?p_id=NC0000003701600020) REGISTRY_ID: 110011738325 LATITUDE: 34.72477 LONGITUDE: -76.75362 PGM_SYS_ACRNM: AIR PGM_SYS_ID: NC0000003701600020 LOCATION_ADDRESS: 3500 ARENDELL STREET CITY_NAME: MOREHEAD CITY COUNTY_NAME: STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 285571619 FIPS_CODE: NC031 HUC_CODE:</div>	0.39 mile

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Plant Information










CP&L - MOREHEAD CITY PLANT ** INACTIVE *

406 MAPLE LANE
MOREHEAD CITY, NC 28555
EPA Plant ID: 110001475966

Operating Status:	X	HPV Flag:					
Operating Status Description:	PERMANENTLY CLOSED	State Registration Number:					
State County Compliance Source:	3703100116	Government Facility Code Description:	PRIVATELY OWNED/OPERATED				
Region Code:	04	Class Code:	<table><tr><td>SM</td><td>i</td></tr><tr><td colspan="2"></td></tr></table>	SM	i		
SM	i						
Primary SIC Code:	4911	Class Code Description:	<table><tr><td>POT EMISSIONS BELOW MAJR</td><td>i</td></tr><tr><td colspan="2"></td></tr></table>	POT EMISSIONS BELOW MAJR	i		
POT EMISSIONS BELOW MAJR	i						
Primary SIC Description:	ELECTRIC SERVICES	Compliance Status:	<table><tr><td>3</td><td>i</td></tr><tr><td colspan="2"></td></tr></table>	3	i		
3	i						

NAICS Code:	221122	Compliance Status Description:	<table><tr><td>IN COMPLIANCE - INSPECTIO</td><td></td></tr><tr><td colspan="2"></td></tr></table>	IN COMPLIANCE - INSPECTIO			
IN COMPLIANCE - INSPECTIO							
NAICS Code Description:	Electric Power Distribution	Date Plant Information Last Updated:	09/16/2014				

Air Program Information

Air Program Code	Air Program Description	Air Program Status	Air Program Status Description	Air Program Subpart	Air Program Subpart Description	Class Code	Class Code Description	Compliance Status	Compliance Status Description																
0	SIP	X	PERMANENTLY CLOSED			<table><tr><td>SM</td><td>.</td></tr><tr><td colspan="2"></td></tr></table>	SM	.			<table><tr><td>POT EMISSIONS BELOW MAJR</td><td>.</td></tr><tr><td colspan="2"></td></tr></table>	POT EMISSIONS BELOW MAJR	.			<table><tr><td>3</td><td></td></tr><tr><td colspan="2"></td></tr></table>	3				<table><tr><td>IN COMPLIANCE - INSPECTIO</td><td>.</td></tr><tr><td colspan="2"></td></tr></table>	IN COMPLIANCE - INSPECTIO	.		
SM	.																								
POT EMISSIONS BELOW MAJR	.																								
3																									
IN COMPLIANCE - INSPECTIO	.																								
M	MACT (SECTION 63 NESHAPS)	X	PERMANENTLY CLOSED	ZZZZ	RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)	<table><tr><td>B</td><td></td></tr><tr><td colspan="2"></td></tr></table>	B				<table><tr><td>POTENTIAL UNCONTROLLED EM</td><td>.</td></tr><tr><td colspan="2"></td></tr></table>	POTENTIAL UNCONTROLLED EM	.			<table><tr><td>9</td><td></td></tr><tr><td colspan="2"></td></tr></table>	9				<table><tr><td>IN COMPLIANCE - SHUT DOWN</td><td>.</td></tr><tr><td colspan="2"></td></tr></table>	IN COMPLIANCE - SHUT DOWN	.		
B																									
POTENTIAL UNCONTROLLED EM	.																								
9																									
IN COMPLIANCE - SHUT DOWN	.																								

Pollutant Data

Air Program Code	Pollutant Code / CAS Number	Pollutant / CAS Description	Attain Indicator	Attain Indicator Description	Pollutant Compliance Status	ES Pollutant Compliance Description	Pollutant Class Code	Pollutant Class Description
0	CO	CARBON MONOXIDE	A	ATTAINMENT AREA FOR A GIV	3	IN COMPLIANCE - INSPECTIO	SM	POT EMISSIONS BELOW MAJR
0	FACIL	FACILITY-WIDE PERMIT REQUIREMENTS	A	ATTAINMENT AREA FOR A GIV	9	IN COMPLIANCE - SHUT DOWN	B	POTENTIAL UNCONTROLLED EM
0	NO2	NITROGEN DIOXIDE	A	ATTAINMENT AREA FOR A GIV	9	IN COMPLIANCE - SHUT DOWN	SM	POT EMISSIONS BELOW MAJR
0	PM10	PARTICULATE MATTER < 10 UM	A	ATTAINMENT AREA FOR A GIV	3	IN COMPLIANCE - INSPECTIO	SM	POT EMISSIONS BELOW MAJR
0	PT	TOTAL PARTICULATE MATTER	A	ATTAINMENT AREA FOR A GIV	9	IN COMPLIANCE - SHUT DOWN	B	POTENTIAL UNCONTROLLED EM
0	SO2	SULFUR DIOXIDE	A	ATTAINMENT AREA FOR A GIV	9	IN COMPLIANCE - SHUT DOWN	B	POTENTIAL UNCONTROLLED EM
0	VOC	VOLATILE ORGANIC COMPOUNDS	A	ATTAINMENT AREA FOR A GIV	3	IN COMPLIANCE - INSPECTIO	SM	POT EMISSIONS BELOW MAJR
M	FACIL	FACILITY-WIDE PERMIT REQUIREMENTS	A	ATTAINMENT AREA FOR A GIV	9	IN COMPLIANCE - SHUT DOWN	B	POTENTIAL UNCONTROLLED EM
M	THAP	TOTAL HAP POLLUTANT	A	ATTAINMENT AREA FOR A GIV	9	IN COMPLIANCE - SHUT DOWN	B	POTENTIAL UNCONTROLLED EM

Compliance Monitoring Strategy

CMS Start Date	FY2008 CMS Indicator	FY2008 CMS Indicator Description	FY2009 CMS Indicator	FY2009 CMS Indicator Description
	S	80% SYNTHETIC MINOR	S	80% SYNTHETIC MINOR

Plant Actions

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
90000		0			00	RO START ACTION	01-FEB-95						
00040		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	10-APR-13		MC	IN COMPLIANCE			
00040		M	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	10-APR-13		MC	IN COMPLIANCE			
00039		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	15-DEC-11		MC	IN COMPLIANCE			
00039		M	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	15-DEC-11		MC	IN COMPLIANCE			
00038		0	PS	STATE/LOCAL PCE/ON-SITE	PS	STATE CONDUCTED PCE/ ON-SITE	09-DEC-10		MC	IN COMPLIANCE			
00037		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	21-OCT-10		MC	IN COMPLIANCE			

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
00036		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	14-JAN-10		MC	IN COMPLIANCE			
00035		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	22-DEC-08		MC	IN COMPLIANCE			
00034		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	05-NOV-07		MC	IN COMPLIANCE	SO2		
00033		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	28-FEB-07		MC	IN COMPLIANCE	SO2		
00032		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	13-JUL-06		MC	IN COMPLIANCE	SO2		
00031		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	10-MAR-05		MC	IN COMPLIANCE	SO2		
00030		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	17-SEP-04		MC	IN COMPLIANCE	SO2		
00029		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	10-OCT-03		MC	IN COMPLIANCE	SO2		

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
00028		0	PS	STATE/LOCAL PCE/ON-SITE	PS	STATE CONDUCTED PCE/ ON-SITE	02-JUL-03		MC	IN COMPLIANCE	SO2		
00027		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	30-DEC-02		MC	IN COMPLIANCE	SO2		
00026		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	19-JUN-02		MC	IN COMPLIANCE	SO2		
00025		0	FS	STATE/LOCAL CONDUCTED FCE/ON-SITE	FS	STATE CONDUCTED FCE/ ON-SITE	27-NOV-01		MC	IN COMPLIANCE	SO2		
00024		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	05-JUL-01		MC	IN COMPLIANCE	SO2		
00023		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	30-DEC-99		MC	IN COMPLIANCE	SO2		
00022		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	29-SEP-99		MC	IN COMPLIANCE	SO2		

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
00021		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	30-JUL-99		MC	IN COMPLIANCE	SO2		
00020		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	30-JUL-98		MC	IN COMPLIANCE	SO2		
00019		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	28-AUG-97		MC	IN COMPLIANCE	SO2		
00018		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	28-MAR-96		01	ACTION ACHIEVED			
00017		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	28-APR-93						
00016		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	29-APR-92						

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
00015		0	5C	STATE INSPECTION - LEVEL 2 OR GREATER	S8	INSPECTION BY STATE - LEVEL 2 OR GREATER	28-AUG-91						
00014		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	28-AUG-90					03	
00013		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	28-AUG-90		01	ACTION ACHIEVED			
00012		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	28-AUG-90		01	ACTION ACHIEVED			
00011		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	12-APR-89					03	
00010		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	12-APR-89		01	ACTION ACHIEVED			

Action Number	Key Action Numbers	Air Program Codes	National Action Type	National Action Description	Action Type	Action Description	Date Achieved	Penalty Amount	Results Code	Results Code Description	Pollutant Code	Regional Data Element	Regional Data Element 16
00009		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	10-MAY-88					03	
00007		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	10-MAY-88		01	ACTION ACHIEVED			
00006		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	14-OCT-87					03	
00005		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	14-OCT-87					03	
00003		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	14-OCT-87		01	ACTION ACHIEVED			
00002		0	PS	STATE/LOCAL PCE/ON-SITE	27	STATE COMPLIANCE INSPECTION - LEVEL 2 OR GREATER	05-OCT-87					03	

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Plant Information

CARTERET HEALTH CARE 3500 ARENDELL STREET MOREHEAD CITY, NC 285571619		
--	--	--

Operating Status Code	OPR	Operating Status Desc.	Operating
Facility ID	NC0000003701600020	State Registration Number	
Facility Type Code	POF	Facility Type Desc.	Privately Owned Facility
Government Facility Code		Government Facility Description	

NAICS Information		SIC Information	
NAICS Code	NAICS Description	SIC Code	SIC Description
622110	General Medical and Surgical Hospitals	8062	General Medical & Surgical Hospitals

Air Program Information

Program Code	Program Description	Operating Status	Subpart Code	Subpart Description
CAAGACTM	40 CFR Part 63 Area Sources	Operating	CAAGACTMZZZZ	40 CFR Part 63 Area Sources - Subpart ZZZZ - STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)
CAAMACT	MACT Standards (40 CFR Part 63)	Operating	CAAMACTA	MACT Part 63 - Subpart A - GENERAL PROVISIONS

Program Code	Program Description	Operating Status	Subpart Code	Subpart Description
CAANSPSM	New Source Performance Standards (Non-Major)	Operating	CAANSPSMA	New Source Performance Standards (Non-Major) - Subpart A - GENERAL PROVISIONS
CAANSPSM	New Source Performance Standards (Non-Major)	Operating	CAANSPSMIII	New Source Performance Standards (Non-Major) - Subpart III - STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES
CAASIP	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards	Operating		
CAAGACTM	40 CFR Part 63 Area Sources	Permanently Closed	CAAGACTMZZZZ	40 CFR Part 63 Area Sources - Subpart ZZZZ - STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)
CAAMACT	MACT Standards (40 CFR Part 63)	Permanently Closed	CAAMACTA	MACT Part 63 - Subpart A - GENERAL PROVISIONS

Air Pollutant Information

Pollutant Code	Pollutant Description	Chemical Abstract Service (CAS) Number	SRS ID	AIR Pollutant Class Code	AIR Pollutant Class Description
10193	Carbon monoxide	630080	65052	MIN	Minor Emissions
10461	Sulfur dioxide	7446095	150367	MIN	Minor Emissions
10461	Sulfur dioxide	7446095	150367	SMI	Synthetic Minor Emissions
300000236	VISIBLE EMISSIONS		1647650	MIN	Minor Emissions
300000329	FACIL			MIN	Minor Emissions

Air Compliance Monitoring Information

State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	PCE	PCE On-Site	26-SEP-22	CAANSPSM,CAASIP

State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	PCE	PCE On-Site	17-AUG-21	CAANSPSM,CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	30-SEP-20	CAANSPSM,CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	14-MAR-19	CAANSPSM,CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	25-JAN-18	CAANSPSM,CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	24-JAN-17	CAANSPSM,CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	03-MAR-16	CAAGACTM,CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	13-JAN-15	CAAGACTM,CAASIP

State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	FOO	FCE On-Site	14-MAR-14	CAAGACTM,CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	07-AUG-13	CAAGACTM,CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	25-JUL-12	CAAGACTM,CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	19-MAY-11	CAAGACTM,CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	15-JUL-10	CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	28-MAY-09	CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	24-JUL-08	CAASIP

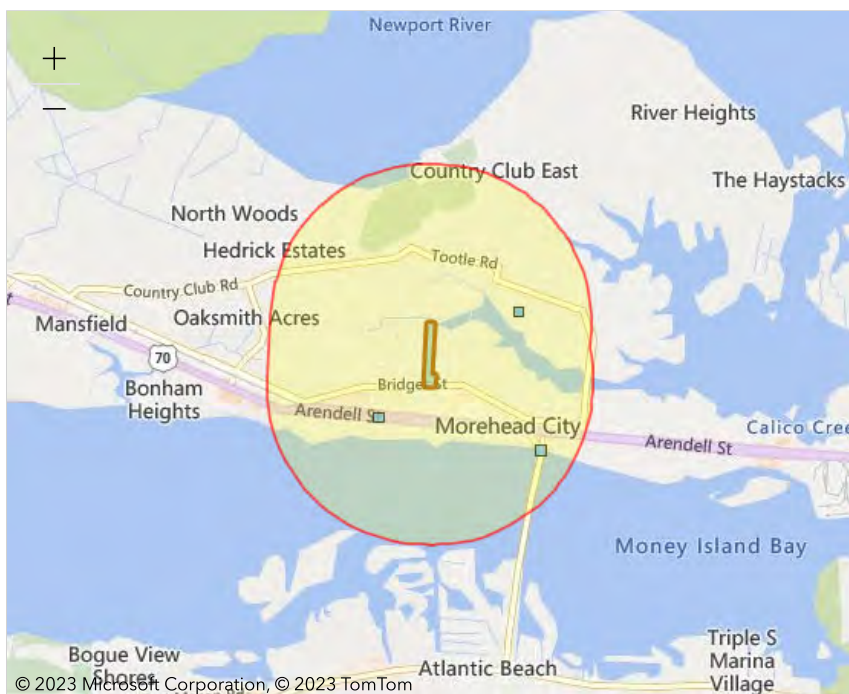
State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	FOO	FCE On-Site	12-JUL-07	CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	05-JUL-06	CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	09-JUN-05	CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	09-AUG-04	CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	26-AUG-03	CAASIP
S	INS	Inspection/Evaluation	FOO	FCE On-Site	05-SEP-02	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	19-JUL-01	CAASIP

State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	PCE	PCE On-Site	12-JUL-00	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	08-JUN-99	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	19-DEC-97	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	22-MAY-97	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	09-AUG-95	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	08-SEP-94	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	28-APR-93	CAASIP

State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	PCE	PCE On-Site	28-APR-92	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	14-MAR-90	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	14-MAR-90	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	17-FEB-89	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	17-FEB-89	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	31-JAN-89	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	31-JAN-89	CAASIP

State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	PCE	PCE On-Site	01-JUN-88	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	01-JUN-88	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	28-APR-87	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	28-APR-87	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	07-OCT-86	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	07-OCT-86	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	04-MAR-86	CAASIP

State/EPA Flag	Activity Type	Activity Type Description	Compliance Monitor Type	Compliance Monitor Type Description	End Date	Program Code
S	INS	Inspection/Evaluation	PCE	PCE On-Site	17-SEP-85	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	27-SEP-84	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	13-SEP-83	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	04-MAY-82	CAASIP
S	INS	Inspection/Evaluation	PCE	PCE On-Site	23-APR-81	CAASIP

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Modify question by entering a new buffer distance and unit for the selected study area:

Name	Distance
<input type="checkbox"/> ATLANTIC BEACH SEAFOOD MARKET (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCG530169) REGISTRY_ID: 110067571363 LATITUDE: 34.7213 LONGITUDE: -76.73434 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCG530169 LOCATION_ADDRESS: 415 ATLANTIC BEACH CAUSEWAY CITY_NAME: MOREHEAD CITY COUNTY_NAME: STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: HUC_CODE:	0.79 mile
<input type="checkbox"/> MOREHEAD CITY WWTP (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NC0026611) REGISTRY_ID: 110030994066 LATITUDE: 34.734036 LONGITUDE: -76.736873 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NC0026611 LOCATION_ADDRESS: 1000 TREATMENT PLANT RD CITY_NAME: MOREHEAD CITY COUNTY_NAME: STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: HUC_CODE:	0.54 mile

Name	Distance
<input type="checkbox"/> UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCG530154) REGISTRY_ID: 110024565923 LATITUDE: 34.724335 LONGITUDE: -76.752577 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCG530154 LOCATION_ADDRESS: 3431 ARENDELL ST CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: NC031 HUC_CODE:	0.35 mile
<input type="checkbox"/> TOWN OF MOREHEAD CITY (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCL026611) REGISTRY_ID: 110030994066 LATITUDE: 34.734036 LONGITUDE: -76.736873 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCL026611 LOCATION_ADDRESS: 706 ARENDELL ST CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557-4234 FIPS_CODE: NC031 HUC_CODE:	0.54 mile
<input type="checkbox"/> MOREHEAD CITY WWTP (MOREHEAD CITY,NC) (https://enviro.epa.gov/enviro/ICIS_DETAIL_REPORTS_NPDESID.icis_tst? npvalue=1&npvalue=13&npvalue=14&npvalue=3&npvalue=4&npvalue=5&npvalue=6&rvalue=13&npvalue=2&npvalue=7&npvalue=8&npvalue=11&npvalue=12&npdesid=NCG110110) REGISTRY_ID: 110030994066 LATITUDE: 34.734036 LONGITUDE: -76.736873 PGM_SYS_ACRNM: NPDES PGM_SYS_ID: NCG110110 LOCATION_ADDRESS: 1000 TREATMENT PLANT RD CITY_NAME: MOREHEAD CITY COUNTY_NAME: CARTERET STATE_CODE: NC EPA_REGION: Region 4 POSTAL_CODE: 28557 FIPS_CODE: NC031 HUC_CODE:	0.54 mile

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Facility

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
STREET 1	415 ATLANTIC BEACH CAUSEWAY	SIC CODE	

CITY		MAJOR / MINOR	
COUNTY NAME		TYPE OF OWNERSHIP	Privately Owned Facility
STATE	NC	ACTIVITY STATUS	Expired
ZIP CODE	28557	INACTIVE DATE	
REGION	Region 4	TYPE OF PERMIT ISSUED	General Permit Covered Facility
LATITUDE	34.734883	ORIGINAL PERMIT ISSUE DATE	16-OCT-2015
LONGITUDE	-76.746079	PERMIT ISSUED DATE	16-OCT-2015
LAT/LON CODE OF ACCURACY	30	PERMIT EXPIRED DATE	31-JUL-2017
LAT/LON METHOD			
LAT/LON SCALE		USGS HYDRO BASIN CODE	
LAT/LON DATUM		FLOW	0
RECEIVING WATERS		FEDERAL GRANT IND	
PRETREATMENT CODE		SLUDGE CLASS FAC IND	NON-POTW
MAILING NAME		SLUDGE RELATED PERMIT NUM	
MAILING STREET (1)		ANNUAL DRY SLUDGE PROD	
MAILING STREET (2)			
MAILING CITY			
MAILING STATE			

MAILING ZIP CODE			
COGNIZANT OFFICIAL		COGNIZANT OFFICIAL TEL	

Activity

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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ACTIVITY NAME	ACTIVITY TYPE DESCRIPTION	ACTIVITY STATUS DESCRIPTION	ACTIVITY STATUS DATE	ACTUAL BEGIN DATE	ACTUAL END DATE
	Permit	Active	05-MAY-2016		
NCG530169-CEI-2022-02-09	Inspection/Evaluation	Active	03-MAR-2022	09-FEB-2022	09-FEB-2022
	Permit	Active	02-DEC-2021		
	Permit	Active	01-NOV-2018		

Contacts

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No Contacts Found.

Permit Tracking

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	16-OCT- 2015
PERMIT ISSUED DATE	26-OCT-2018	PERMIT EXPIRED DATE	31-MAR- 2021
EFFECTIVE DATE	26-OCT-2018	RETIREMENT DATE	30-NOV- 2021

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	16-OCT- 2015
PERMIT ISSUED DATE	16-OCT-2015	PERMIT EXPIRED DATE	31-JUL- 2017
EFFECTIVE DATE	16-OCT-2015	RETIREMENT DATE	25-OCT- 2018

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	16-OCT- 2015
PERMIT ISSUED DATE	01-DEC-2021	PERMIT EXPIRED DATE	30-NOV- 2026
EFFECTIVE DATE	01-DEC-2021	RETIREMENT DATE	

Permit Tracking Events:

EVENT DESCRIPTION	EVENT DATE
--------------------------	-------------------

Permit Expiration	30-NOV-2026
Permit Issued	01-DEC-2021
Permit Effective	01-DEC-2021
Permit Reissued	01-DEC-2021
Permit Retired	30-NOV-2021
Permit Expiration	31-MAR-2021
Permit Effective	26-OCT-2018
Permit Issued	26-OCT-2018
Permit Reissued	26-OCT-2018
Permit Retired	25-OCT-2018
Permit Expiration	31-JUL-2017
Permit Issued	16-OCT-2015
Permit Effective	16-OCT-2015

Inspections

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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INSPECTION TYPE	DATE OF INSPECTION	INSPECTION PERFORMED BY
NCG530169-CEI-2022-02-09	03-MAR-2022	State

Outfalls/Pipe Schedules

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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OUTFALL TYPE		PIPE NUMBER	
ACTIVITY STATUS		REPORT DESIGNATOR	
LATITUDE		LONGITUDE	
LAT/LON ACCURACY		LAT/LON METHOD	
LAT/LON SCALE		LAT/LON DATUM	
INACTIVE DATE		USGS HYDRO BASIN CODE	
INIT DMR DUE DATE		SUBMISSION UNITS	
PIPE DESCRIPTION		UNITS IN SUBM. PERIOD	
INIT REPORTING DATE		REPORTING UNITS	
UNITS IN REPORTING PERIOD		DMR COMMENT	

Limits Report

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
PIPE NUMBER			
PIPE DESCRIPTION		REPORT DESIGNATOR	
DMR COMMENT		LIMIT SET TYPE	

No ICIS Limits Report Found.

Limits Report

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Limits Information Found.

Measurements and Violations

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Measurements Information Found.

Compliance Schedules and Violations

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No Compliance Schedules Found.

Pretreatment Inspections/Audits

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Pretreatment Inspections Found.

Pretreatment Performance Summary

FACILITY NAME (1)	ATLANTIC BEACH SEAFOOD MARKET	NPDES	NCG530169
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No ICIS Pretreatment Performance Summary Information Found.

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Facility

FACILITY NAME (1)	MOREHEAD CITY WWTP	NPDES	NC0026611
STREET 1	1000 TREATMENT PLANT RD	SIC CODE	4952 = Sewerage Systems

CITY		MAJOR / MINOR	M = Major
COUNTY NAME		TYPE OF OWNERSHIP	Municipal or Water District
STATE	NC	ACTIVITY STATUS	Expired
ZIP CODE	28557	INACTIVE DATE	
REGION	Region 4	TYPE OF PERMIT ISSUED	NPDES Individual Permit
LATITUDE	34.7361	ORIGINAL PERMIT ISSUE DATE	12-OCT-2007
LONGITUDE	-76.7367	PERMIT ISSUED DATE	12-OCT-2007
LAT/LON CODE OF ACCURACY		PERMIT EXPIRED DATE	31-JUL-2012
LAT/LON METHOD			
LAT/LON SCALE		USGS HYDRO BASIN CODE	
LAT/LON DATUM		FLOW	3000000
RECEIVING WATERS		FEDERAL GRANT IND	
PRETREATMENT CODE		SLUDGE CLASS FAC IND	POTW
MAILING NAME		SLUDGE RELATED PERMIT NUM	
MAILING STREET (1)		ANNUAL DRY SLUDGE PROD	
MAILING STREET (2)			
MAILING CITY			
MAILING STATE			
MAILING ZIP CODE			

COGNIZANT OFFICIAL		COGNIZANT OFFICIAL TEL	
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Activity

FACILITY NAME (1)	MOREHEAD CITY WWTP	NPDES	NC0026611
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ACTIVITY NAME	ACTIVITY TYPE DESCRIPTION	ACTIVITY STATUS DESCRIPTION	ACTIVITY STATUS DATE	ACTUAL BEGIN DATE	ACTUAL END DATE
NPDES Permit (CWA)	Permit				
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		31-OCT-2002		31-OCT-2002
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		30-JAN-1998		30-JAN-1998
MOREHEAD CITY WWTP (Permit NC0026611) Administrative Consent Order	Administrative - Formal	Closed	30-DEC-1990	01-DEC-2012	30-DEC-1990
MOREHEAD CITY WWTP (Permit NC0026611) Cwa Penalty Ao	Administrative - Formal	Closed	30-AUG-2005	01-DEC-2012	30-AUG-2005
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		28-MAY-1987		28-MAY-1987

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		28-FEB-2001		28-FEB-2001
MOREHEAD CITY WWTP (Permit NC0026611) Penalty Ao Issued By State	Administrative - Formal	Final Order Issued	27-NOV-2000	01-DEC-2012	
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		26-AUG-2009		26-AUG-2009
MOREHEAD CITY WWTP (Permit NC0026611) Letter Of Violation/Warning Letter	Administrative - Informal	Achieved	25-JUN-2007		25-JUN-2007
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		25-FEB-2000		25-FEB-2000
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		25-FEB-1985		25-FEB-1985
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		23-SEP-2004		23-SEP-2004
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		23-JAN-2004		23-JAN-2004
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		20-MAY-1980		20-MAY-1980

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		20-JUL-1989		20-JUL-1989
	Administrative - Informal	Achieved	19-OCT-2016		19-OCT-2016
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		19-MAR-1992		19-MAR-1992
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		19-FEB-1980		19-FEB-1980
MOREHEAD CITY WWTP (Permit NC0026611) Penalty Ao Issued By State	Administrative - Formal	Final Order Issued	19-DEC-2000	01-DEC-2012	
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		18-NOV-1987		18-NOV-1987
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		18-MAY-2006		18-MAY-2006
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Biomonitoring	Inspection/Evaluation		18-MAY-1994		18-MAY-1994
MOREHEAD CITY WWTP (Permit NC0026611) Cwa Penalty Ao	Administrative - Formal	Closed	17-MAY-2006	01-DEC-2012	17-MAY-2006

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		17-AUG-1993		17-AUG-1993
NC0026611-CEI-2014-07-30	Inspection/Evaluation	Active	16-OCT-2019	30-JUL-2014	30-JUL-2014
	Administrative - Formal	Final Order Issued	16-MAR-2016		
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		15-MAY-2008		15-MAY-2008
	Administrative - Formal	Final Order Issued	14-NOV-2016		
MOREHEAD CITY WWTP (Permit NC0026611) Letter Of Violation/Warning Letter	Administrative - Informal	Achieved	14-MAR-2006		14-MAR-2006
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		14-JAN-1988		14-JAN-1988
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		12-NOV-1986		12-NOV-1986
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Biomonitoring	Inspection/Evaluation		12-APR-1994		12-APR-1994
MOREHEAD CITY WWTP (Permit NC0026611) Reconnaissance	Inspection/Evaluation		11-JUN-1987		11-JUN-1987

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		10-MAR-1993		10-MAR-1993
	Administrative - Informal	Achieved	10-DEC-2012		10-DEC-2012
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		10-AUG-2010		10-AUG-2010
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		10-APR-2002		10-APR-2002
	Administrative - Informal	Achieved	09-FEB-2017		09-FEB-2017
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		09-AUG-1988		09-AUG-1988
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		09-APR-1986		09-APR-1986
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		08-AUG-1990		08-AUG-1990
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Biomonitoring	Inspection/Evaluation		07-FEB-2012		07-FEB-2012

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		07-FEB-1996		07-FEB-1996
	Administrative - Informal	Achieved	07-AUG-2020		07-AUG-2020
	Administrative - Formal	Closed	06-NOV-2020		
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		06-MAR-2007		06-MAR-2007
	Administrative - Informal	Achieved	06-JAN-2016		06-JAN-2016
NPDES Permit (CWA)	Permit	Active	05-MAR-2020		
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		05-MAR-2007		05-MAR-2007
MOREHEAD CITY WWTP (Permit NC0026611) Administrative Consent Order	Administrative - Formal	Closed	05-JUL-1989	01-DEC-2012	05-JUL-1989
MOREHEAD CITY WWTP (Permit NC0026611) Letter Of Violation/Warning Letter	Administrative - Informal	Achieved	04-APR-2007		04-APR-2007
MOREHEAD CITY WWTP (Permit NC0026611) Penalty Ao Issued By State	Administrative - Formal	Final Order Issued	04-APR-1990	01-DEC-2012	

MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		03-JUN-1999		03-JUN-1999
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Eval (Non-Sampling)	Inspection/Evaluation		03-FEB-2005		03-FEB-2005
NC0026611-CEI-2019-12-05	Inspection/Evaluation	Active	02-JAN-2020	05-DEC-2019	05-DEC-2019
NC0026611-CEI-2021-11-17	Inspection/Evaluation	Active	02-DEC-2021	17-NOV-2021	17-NOV-2021
MOREHEAD CITY WWTP (Permit NC0026611) Compliance Sampling	Inspection/Evaluation		01-SEP-1994		01-SEP-1994
NC0026611-CBI-2020-08-25	Inspection/Evaluation	Active	01-OCT-2020	25-AUG-2020	25-AUG-2020
NC0026611-CEI-2018-09-08	Inspection/Evaluation	Active	01-NOV-2018	08-SEP-2018	08-SEP-2018
NPDES Permit (CWA)	Permit	Active	01-MAY-2013		

Contacts

FACILITY NAME (1)	MOREHEAD CITY WWTP	NPDES	NC0026611
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No Contacts Found.

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Facility

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
STREET 1	3431 ARENDELL ST	SIC CODE	
CITY		MAJOR / MINOR	
COUNTY NAME	Carteret	TYPE OF OWNERSHIP	Privately Owned Facility
STATE	NC	ACTIVITY STATUS	Expired
ZIP CODE	28557	INACTIVE DATE	
REGION	Region 4	TYPE OF PERMIT ISSUED	General Permit Covered Facility
LATITUDE	34.7236	ORIGINAL PERMIT ISSUE DATE	31-MAR-2006
LONGITUDE	-76.7525	PERMIT ISSUED DATE	30-JUL-2007
LAT/LON CODE OF ACCURACY	50	PERMIT EXPIRED DATE	31-JUL-2012
LAT/LON METHOD			

LAT/LON SCALE		USGS HYDRO BASIN CODE	
LAT/LON DATUM		FLOW	
RECEIVING WATERS	Bogue Sound (Including Intracoastal	FEDERAL GRANT IND	N
PRETREATMENT CODE		SLUDGE CLASS FAC IND	NON-POTW
MAILING NAME		SLUDGE RELATED PERMIT NUM	
MAILING STREET (1)		ANNUAL DRY SLUDGE PROD	
MAILING STREET (2)			
MAILING CITY			
MAILING STATE			
MAILING ZIP CODE			
COGNIZANT OFFICIAL	Adrian Whichard	COGNIZANT OFFICIAL TEL	2527266841

Activity

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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ACTIVITY NAME	ACTIVITY TYPE DESCRIPTION	ACTIVITY STATUS DESCRIPTION	ACTIVITY STATUS DATE	ACTUAL BEGIN DATE	ACTUAL END DATE
NPDES Permit (CWA)	Permit				
NPDES Permit (CWA)	Permit	Active	19-FEB-2013		
NCG530154-CEI-2014-04-11	Inspection/Evaluation	Active	16-OCT-2019	11-APR-2014	11-APR-2014
UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	Inspection/Evaluation		13-JAN-2006		13-JAN-2006

UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	Inspection/Evaluation		11-APR- 2007		11-APR- 2007
NCG530154-CEI-2019- 05-03	Inspection/Evaluation	Active	06-MAY- 2019	03-MAY- 2019	03-MAY- 2019
NPDES Permit (CWA)	Permit	Active	02-DEC- 2021		
NPDES Permit (CWA)	Permit	Active	01-NOV- 2018		

Contacts

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No Contacts Found.

Permit Tracking

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	30-JUL-2007	PERMIT EXPIRED DATE	31-JUL-2012
EFFECTIVE DATE	01-AUG-2007	RETIREMENT DATE	31-JUL-2012

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	26-OCT-2018	PERMIT EXPIRED DATE	31-MAR- 2021
EFFECTIVE DATE	26-OCT-2018	RETIREMENT DATE	30-NOV- 2021

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	01-DEC-2021	PERMIT EXPIRED DATE	30-NOV- 2026
EFFECTIVE DATE	01-DEC-2021	RETIREMENT DATE	

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PERMIT ISSUED BY		ORIGINAL DATE OF ISSUE	31-MAR- 2006
PERMIT ISSUED DATE	01-AUG-2012	PERMIT EXPIRED DATE	31-JUL-2017
EFFECTIVE DATE	01-AUG-2012	RETIREMENT DATE	25-OCT- 2018

Permit Tracking Events:

EVENT DESCRIPTION	EVENT DATE
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Permit Expiration	30-NOV-2026
Permit Issued	01-DEC-2021
Permit Effective	01-DEC-2021
Permit Reissued	01-DEC-2021
Permit Retired	30-NOV-2021
Permit Expiration	31-MAR-2021
Permit Issued	26-OCT-2018
Permit Reissued	26-OCT-2018
Permit Effective	26-OCT-2018
Permit Retired	25-OCT-2018
Permit Expiration	31-JUL-2017
Permit Issued	01-AUG-2012
Permit Reissued	01-AUG-2012
Permit Effective	01-AUG-2012
Permit Expiration	31-JUL-2012

Permit Retired	31-JUL-2012
Permit Effective	01-AUG-2007
Permit Issued	30-JUL-2007
Application/NOI Received	05-FEB-2007
Draft Permit/Public Notice	03-MAR-2006

Inspections

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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INSPECTION TYPE	DATE OF INSPECTION	INSPECTION PERFORMED BY
NCG530154-CEI-2014-04-11	16-OCT-2019	State
UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	13-JAN-2006	State
UNC INSTITUTE OF MARINE SCIENC (Permit NCG530154) Compliance Eval (Non-Sampling)	11-APR-2007	State

NCG530154-CEI-2019-05-03	06-MAY-2019	State
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Outfalls/Pipe Schedules

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
OUTFALL TYPE		PIPE NUMBER	
ACTIVITY STATUS		REPORT DESIGNATOR	
LATITUDE		LONGITUDE	
LAT/LON ACCURACY		LAT/LON METHOD	
LAT/LON SCALE		LAT/LON DATUM	
INACTIVE DATE		USGS HYDRO BASIN CODE	
INIT DMR DUE DATE		SUBMISSION UNITS	
PIPE DESCRIPTION		UNITS IN SUBM. PERIOD	
INIT REPORTING DATE		REPORTING UNITS	

UNITS IN REPORTING PERIOD		DMR COMMENT	
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Limits Report

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
PIPE NUMBER			
PIPE DESCRIPTION		REPORT DESIGNATOR	
DMR COMMENT		LIMIT SET TYPE	

No ICIS Limits Report Found.

Limits Report

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Limits Information Found.

Measurements and Violations

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Measurements Information Found.

Compliance Schedules and Violations

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No Compliance Schedules Found.

Pretreatment Inspections/Audits

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Pretreatment Inspections Found.

Pretreatment Performance Summary

FACILITY NAME (1)	UNC INSTITUTE OF MARINE SCIENCES - MOREHEAD CITY	NPDES	NCG530154
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No ICIS Pretreatment Performance Summary Information Found.

Note: You are viewing results from the modernized data system, Integrated Compliance Information System (ICIS). The state reporting this data to EPA previously reported the data to a historic data system, Permit Compliance System (PCS).

Use the following button to view the historic data from PCS. **Run a PCS Search**

Data Refresh Information <<https://www.epa.gov/resources/echo-data/about-the-data#sources>>

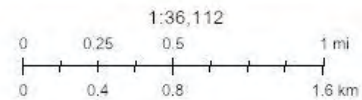
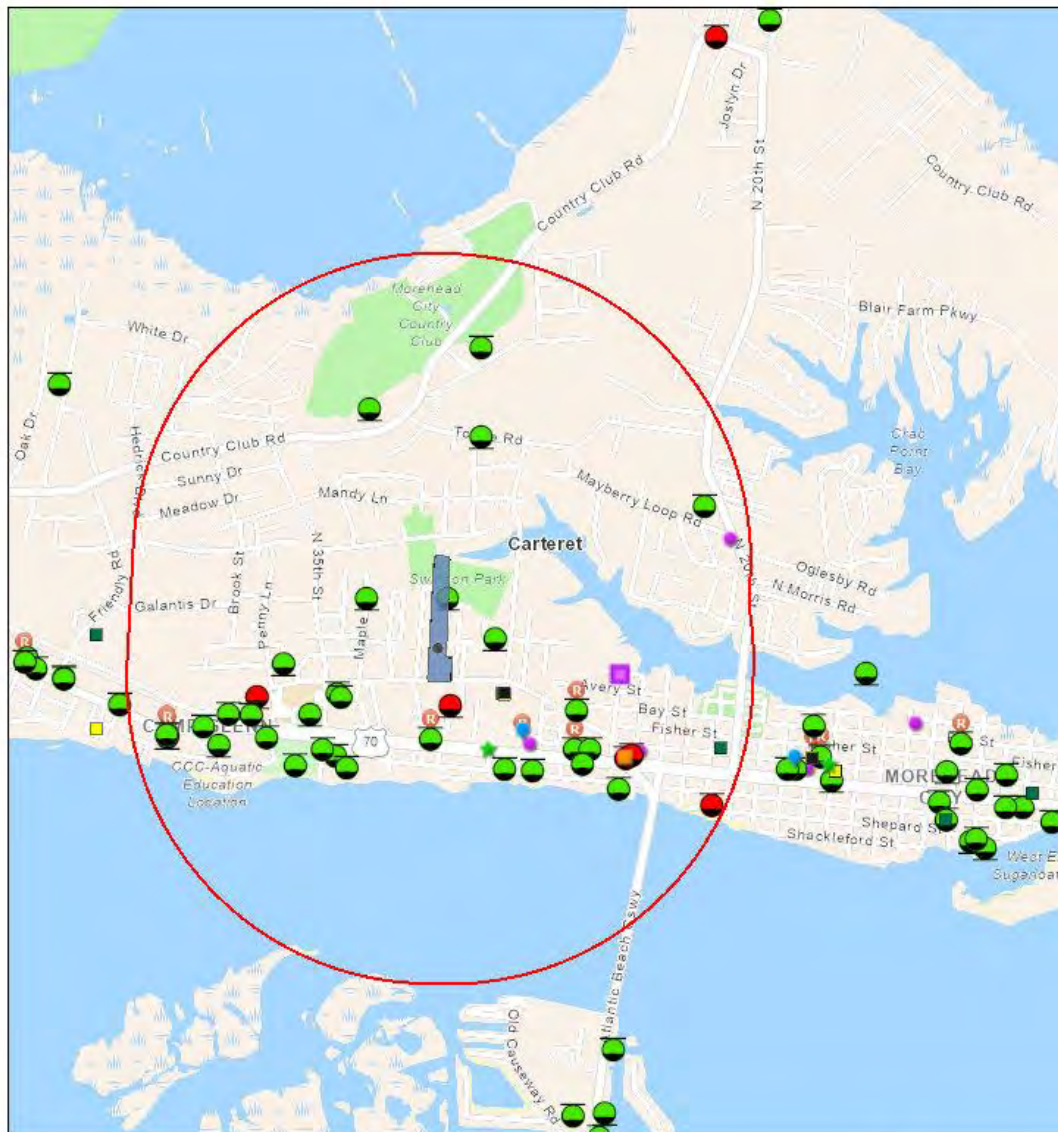


DWM Screening Report - Elijah's Landing with 1-mile Buffer

Area of Interest (AOI) Information

Area : 114,894,330.75 ft²

Apr 21 2023 13:24:28 Eastern Daylight Time



NCDOT GIS Unit, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Hazardous Waste Sites

#	HANDLER_ID	SITE_NAME	Count
1	NCR000140491	NCDSCA 016-0001(COASTAL DRY CLEANERS)	1

Brownfields Program Sites

#	BF_ID	BF_Name	Count
1	1700513016	Morehead City Main (RN)	1

Inactive Hazardous Sites

#	EPAID	SITENAME	Count
1	NONCD0001466	BEACHVIEW EXXON	1

Pre-Regulatory Landfill Sites

#	EPAID	SITENAME	Count
1	NONCD0000205	Morehead City Refuse Dump	1

DryCleaning Remediation Program

#	Site_ID	Site_Name	Count
1	DC160001	Coastal Dry Cleaners	1

DryCleaning Historical Boiler Inspections

#	Drycleaner	InspDate	Count
1	COASTAL DRY CLEANERS & COIN LDRY	10/18/1985	1

DryCleaning City Directories

#	Drycleaner	Address	Count
1	Rainbow Launderette	2008 Bridges, Morehead City,NC	1
2	Raincheck One Hour Cleaners	Morehead Plaza, Morehead City,NC	1

UST Incidents

#	IncidentNumber	IncidentName	Count
1	3685	SNAK N PAK # 3	1
2	5024	LONGLY SUPPLY INCIDENT	1
3	6094	TURNERS TEXACO	1
4	7726	PINE STATE CREAMERY-MOREHEAD	1
5	13149	ZIP MART (FORMER)	1
6	15516	POTTER TIRE COMPANY	1
7	17489	NC DIV. OF MARINE FISHERIES-MAIN. SHOP	1
8	19180	NC DIV. OF MARINE FISHERIES-DISPENSER ISL.	1
9	21125	BEACHVIEW EXXON	1
10	23051	CLEGGs TERMITE & PEST CONTROL	1
11	32080	CRANK, GLADYS RESIDENCE	1
12	32299	MEYER PROPERTY (FRANCIS)	1
13	32364	DIVISION OF MARINE FISHERIES (HEATING OIL)	1
14	32438	CARTERET COUNTY COMMUNITY COLLEGE	1
15	32523	PECHELES PROPERTY	1
16	32811	NCANG-MOREHEAD CITY ARMORY	1
17	32897	HANDY MART # 134	1
18	32928	ARENDELL ST-3913(CARTERET TIRE)	1
19	43061	bridges street -3413 National Guard Armory	1
20	43138	MARGARET MILLS PROPERTY	1
21	43165	BRADLEY PROPERTY	1
22	47725	Bridge View Gas Service - Hurricane Florence Release	1
23	48613	Evans Street - 2800	1
24	No Data	HANDY MART	1
25	No Data	CARTERET TIRE	1

Non-UST Incidents

#	IncidentNumber	IncidentName	Count
1	6052	CARTERET GENERAL HOSPITAL	1
2	16194	US ARMY RESERVE CENTER-SITE #1,COURTYARD APAR	1
3	18170	EASTERN BUILDERS (HUCKMEYER RELEASE)	1
4	85295	CP&L IC TURBINE PLANT	1
5	85516	POTTER OIL COMPANY	1
6	86668	US ARMY RESERVE CENTER-SITE #2,WILLIS PROPERT	1
7	86669	US ARMY RESERVE CENTER-SITE #3,JOHNSON PROPER	1
8	94127	morehead city country club	1
9	94235	Century Care of the Crystal Coast	1
10	94239	Mandy Lane Fuel Spill	1
11	94241	Arendell St-3913(Carteret Tire)	1

UST Active Facilities

#	FACILID	FACILNAME	Count
1	00-0-0000002190	JIM DANDY 8	1
2	00-0-0000002813	HANDY HOUSE 6	1
3	00-0-0000004427	HANDY MART #4705	1
4	00-0-0000004619	BRIDGE VIEW GAS SERVICE	1
5	00-0-0000041612	GOGAS 21	1

Land Use Restriction and/or Notices

#	Prj_Number	Prj_Name	Count
1	17005-13-016	Morehead City Main (RN)	1
2	WI-2012	CLEGGs TERMITE & PEST CONTROL	1
3	WI-780	SNACK N PAK # 3	1
4	WI-7862	ARENDELL ST-3913(CARTERET TIRE)	1
5	WI-877	TURNERS TEXACO	1
6	WI-88406	Arendell St-3913(Carteret Tire)	1

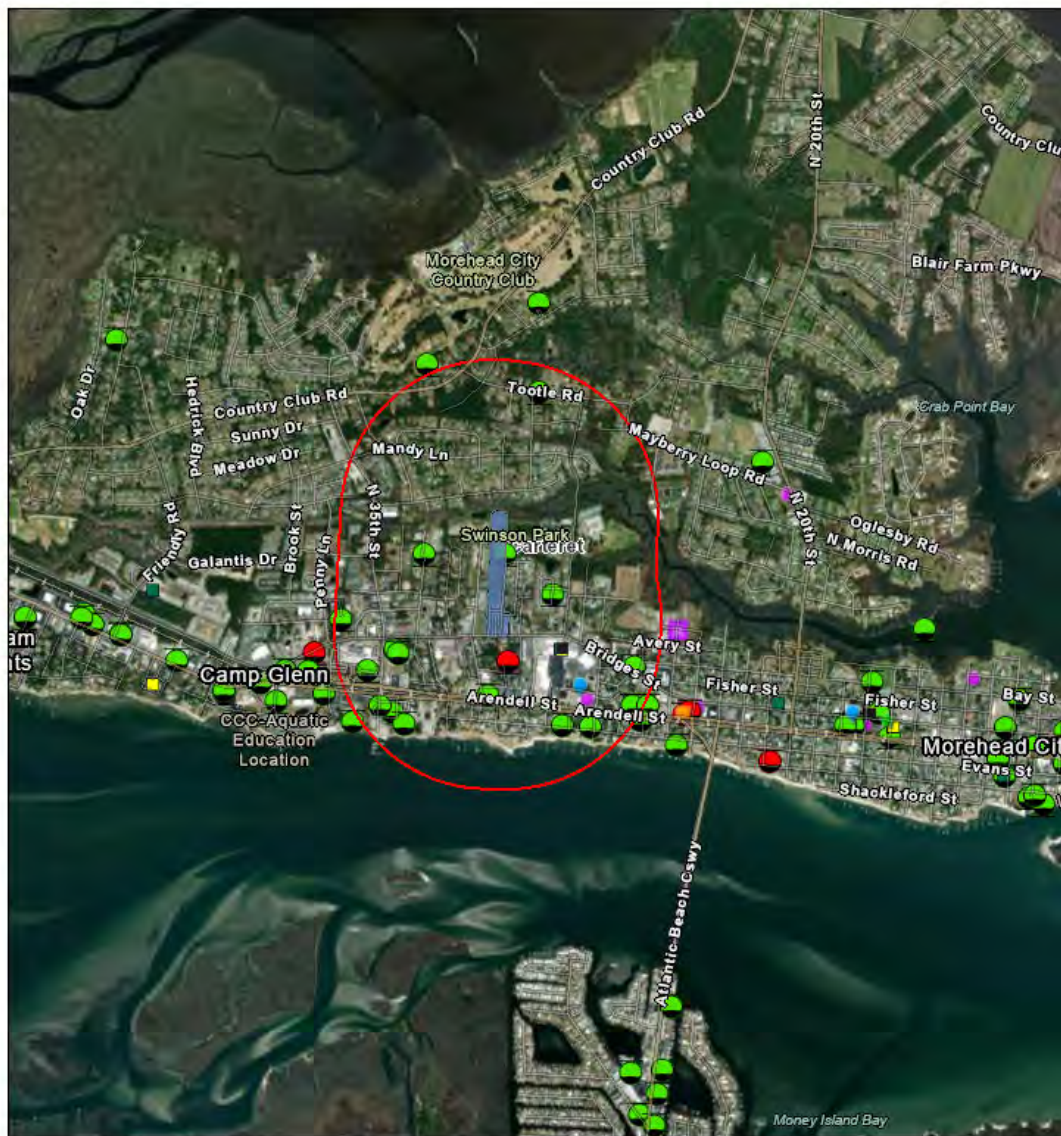


DWM Screening Report - Elijah's Landing with 0.5-mile Buffer

Area of Interest (AOI) Information

Area : 35,921,936 ft²

Apr 21 2023 16:34:38 Eastern Daylight Time



NCDOT GIS Unit. Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Hazardous Waste Sites

#	HANDLER_ID	SITE_NAME	Count
1	NCR000140491	NCDSCA 016-0001(COASTAL DRY CLEANERS)	1

Brownfields Program Sites

#	BF_ID	BF_Name	Count
1	1700513016	Morehead City Main (RN)	1

DryCleaning Remediation Program

#	Site_ID	Site_Name	Count
1	DC160001	Coastal Dry Cleaners	1

DryCleaning Historical Boiler Inspections

#	Drycleaner	InspDate	Count
1	COASTAL DRY CLEANERS & COIN LDRY	10/18/1985	1

DryCleaning City Directories

#	Drycleaner	Address	Count
1	Raincheck One Hour Cleaners	Morehead Plaza, Morehead City,NC	1

UST Incidents

#	IncidentNumber	IncidentName	Count
1	3685	SNAK N PAK # 3	1
2	6094	TURNERS TEXACO	1
3	17489	NC DIV. OF MARINE FISHERIES-MAIN. SHOP	1
4	19180	NC DIV. OF MARINE FISHERIES-DISPENSER ISL.	1
5	23051	CLEGGS TERMITE & PEST CONTROL	1
6	32299	MEYER PROPERTY (FRANCIS)	1
7	32364	DIVISION OF MARINE FISHERIES (HEATING OIL)	1
8	32811	NCANG-MOREHEAD CITY ARMORY	1
9	43061	bridges street -3413 National Guard Armory	1
10	48613	Evans Street - 2800	1

Non-UST Incidents

#	IncidentNumber	IncidentName	Count
1	6052	CARTERET GENERAL HOSPITAL	1
2	16194	US ARMY RESERVE CENTER-SITE #1,COURTYARD APAR	1
3	85295	CP&L IC TURBINE PLANT	1
4	86668	US ARMY RESERVE CENTER-SITE #2,WILLIS PROPERT	1
5	86669	US ARMY RESERVE CENTER-SITE #3,JOHNSON PROPER	1
6	94235	Century Care of the Crystal Coast	1
7	94239	Mandy Lane Fuel Spill	1

UST Active Facilities

#	FACILID	FACILNAME	Count
1	00-0-0000041612	GOGAS 21	1

Land Use Restriction and/or Notices

#	Prj_Number	Prj_Name	Count
1	17005-13-016	Morehead City Main (RN)	1
2	WI-2012	CLEGGs TERMITE & PEST CONTROL	1
3	WI-780	SNAK N PAK # 3	1
4	WI-877	TURNERS TEXACO	1

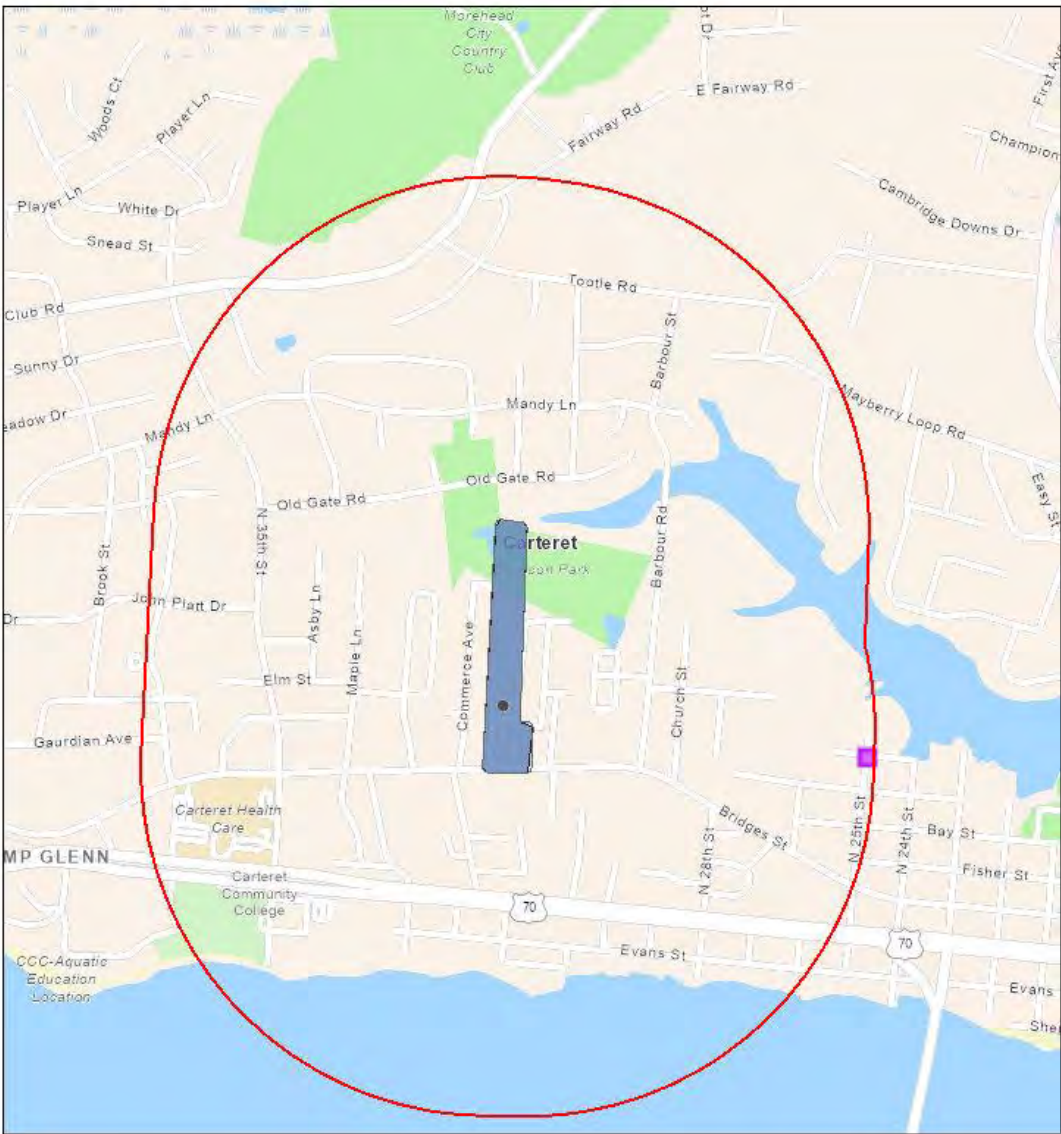


DWM Screening Report - Elijah's Landing with 3,000-foot Buffer

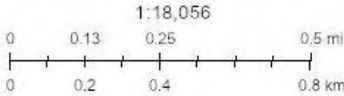
Area of Interest (AOI) Information

Area : 44,115,298.76 ft²

Apr 21 2023 13:33:20 Eastern Daylight Time



- Elijah's Landing - shapefile
- Activity Pending
- County Boundary



NC DOT GIS Unit, Esri Community Maps Contributors, State of North Carolina, DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Hazardous Waste Sites

#	HANDLER_ID	SITE_NAME	Count
1	NCR000140491	NCDSCA 016-0001(COASTAL DRY CLEANERS)	1

Brownfields Program Sites

#	BF_ID	BF_Name	Count
1	1700513016	Morehead City Main (RN)	1

Pre-Regulatory Landfill Sites

#	EPAID	SITENAME	Count
1	NONCD0000205	Morehead City Refuse Dump	1

DryCleaning Remediation Program

#	Site_ID	Site_Name	Count
1	DC160001	Coastal Dry Cleaners	1

DryCleaning Historical Boiler Inspections

#	Drycleaner	InspDate	Count
1	COASTAL DRY CLEANERS & COIN LDRY	10/18/1985	1

DryCleaning City Directories

#	Drycleaner	Address	Count
1	Raincheck One Hour Cleaners	Morehead Plaza, Morehead City,NC	1

UST Incidents

#	IncidentNumber	IncidentName	Count
1	3685	SNAK N PAK # 3	1
2	6094	TURNERS TEXACO	1
3	7726	PINE STATE CREAMERY-MOREHEAD	1
4	17489	NC DIV. OF MARINE FISHERIES-MAIN. SHOP	1
5	19180	NC DIV. OF MARINE FISHERIES-DISPENSER ISL.	1
6	23051	CLEGGs TERMITE & PEST CONTROL	1
7	32299	MEYER PROPERTY (FRANCIS)	1
8	32364	DIVISION OF MARINE FISHERIES (HEATING OIL)	1
9	32438	CARTERET COUNTY COMMUNITY COLLEGE	1
10	32811	NCANG-MOREHEAD CITY ARMORY	1
11	43061	bridges street -3413 National Guard Armory	1
12	43138	MARGARET MILLS PROPERTY	1
13	48613	Evans Street - 2800	1

Non-UST Incidents

#	IncidentNumber	IncidentName	Count
1	6052	CARTERET GENERAL HOSPITAL	1
2	16194	US ARMY RESERVE CENTER-SITE #1,COURTYARD APAR	1
3	85295	CP&L IC TURBINE PLANT	1
4	86668	US ARMY RESERVE CENTER-SITE #2,WILLIS PROPERT	1
5	86669	US ARMY RESERVE CENTER-SITE #3,JOHNSON PROPER	1
6	94127	morehead city country club	1
7	94235	Century Care of the Crystal Coast	1
8	94239	Mandy Lane Fuel Spill	1

UST Active Facilities

#	FACILID	FACILNAME	Count
1	00-0-0000041612	GOGAS 21	1

Land Use Restriction and/or Notices

#	Prj_Number	Prj_Name	Count
1	17005-13-016	Morehead City Main (RN)	1
2	WI-2012	CLEGGs TERMITE & PEST CONTROL	1
3	WI-780	SNAK N PAK # 3	1
4	WI-877	TURNERS TEXACO	1

TOWN OF MOREHEAD CITY
2016 STREET IMPROVEMENTS PROJECT
CONTRACT NO. 96 - PUBLIC WORKS BUILDING
CARTERET COUNTY, NORTH CAROLINA
DECEMBER 7, 2016

[illegible]

W:\D84x_gen\084x_eng\084x_ac\16-6062-4700-084x-P02-Site Plan.dwg
P02
Friday, January 20, 2017, 2:45:10pm
Plotted:



GENERAL CONSTRUCTION NOTES

- The building shall be a pre-engineered metal building in accordance with Section 13122 of the Specifications. The building height shall be as required to provide a minimum eave height of 19'-0".
- Finished floor elevation = 14.85.
- Concrete shall have a minimum compressive strength of 3000 psi at 28 days.
- Reinforcing steel shall be Grade 60.
- Sand directly below concrete floor slabs shall be offsite material meeting the requirements of the NCDOT SSRS for type 2S fine aggregate for Portland cement concrete.
- Prior to placement of the concrete slab, the building pad shall be treated for termite protection by a properly licensed pest control agent in conformance with the North Carolina Pest Control Act.
- All exposed concrete edges shall be chamfered 3/4".
- All exposed metal, concrete masonry, wood, equipment, and piping, except CPVC and PVC piping, shall be painted. CPVC and PVC piping shall NOT be painted. Colors shall be as selected by the OWNER.
- Fire extinguishers shall be suitable for use on Class A, Class B, and Class C fires and shall have a UL rating of not less than 4-A:60-B:C. Fire extinguishers shall be equipped with a pressure gauge allowing immediate pressure status check and a UL approved wall hanger. A glow-in-the-dark label (6" X 2 1/2") shall be mounted on the wall directly above each fire extinguisher location. The label shall include the words "Fire Extinguisher" within a downward pointing arrow and the words "Do Not Block" below the arrow.

GRADING NOTES

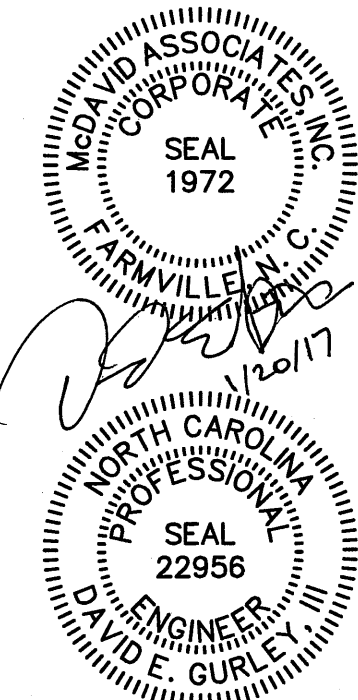
- CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO BEGINNING WORK AND SHALL FULLY COOPERATE WITH THEM AND HAVE ALL UTILITIES FLAGGED WITHIN THE AREA OF CONSTRUCTION. KNOWN UTILITIES WITHIN THE PROJECT AREA AND THEIR RESPECTIVE CONTACTS ARE AS FOLLOWS:
A. ELECTRICAL: DUKE ENERGY PROGRESS (800) 452-2777
B. TELEPHONE: AT&T (800) 632-4949
C. CABLE TV: TIME WARNER CABLE (866) 874-2389
D. WATER/SEWER: TOWN OF MOREHEAD CITY (252) 726-6848
- ALL LOCATIONS OF EXISTING UTILITIES, STORM DRAINAGE, AND OTHER FACILITIES ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER UPON FINDING ANY DISCREPANCIES OR CONFLICTS IMMEDIATELY.
- CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL (1-800-632-4949) FOR FLAGGING OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ALSO CALL CITY OF MOREHEAD CITY, (252) 726-6848, FOR LOCATION OF UTILITIES.
- THIS PLAN IS DIAGRAMMATIC AND REPRESENTS THE APPROXIMATE LOCATION OF UTILITIES UNLESS SPECIFICALLY DIMENSIONED. THE CONTRACTOR SHALL COORDINATE THE ACTUAL AND PROPOSED LOCATION OF UTILITIES TO AVOID CONFLICTS.
- CONTRACTOR SHALL COORDINATE THE LOCATION OF UTILITIES SERVICES TO THE BUILDING WITH THE BUILDING CONTRACTOR AND THE BUILDING PLANS.
- REFER TO SHEET 6 FOR CONSTRUCTION DETAILS.
- SPOT ELEVATIONS SHOWN REFLECT FINISHED GRADE.
- CONTRACTOR SHALL BLEND NEW WORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADES, HOWEVER, NO GRADING WORK SHALL BE PERFORMED BEYOND THE PROPERTY LIMITS OR LIMITS OF CONSTRUCTION. SUCH WORK IS SUBJECT TO PENALTY AND/OR FINE.
- ALL FILL SHALL BE COMPACTED PER THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL WORK WILL PROVIDE POSITIVE DRAINAGE IN GUTTERS AND SHEET FLOW ACROSS PARKING AREAS TO DRAINAGE STRUCTURES, TO INCLUDE PLACEMENT OF SPILL GUTTERS WHERE NECESSARY.
- ALL AREAS DISTURBED AND NOT RECEIVING ASPHALT, CONCRETE OR BUILDING SHALL RECEIVE 4 INCHES OF TOPSOIL. AREAS TO BE GRASSED SHALL BE TEMPORARILY SEEDDED UNTIL HEALTHY STAND OF GRASS IS ESTABLISHED.

EROSION CONTROL NOTES

- CONTRACTOR IS TO ADHERE TO ALL EROSION AND SEDIMENT CONTROL REGULATIONS AS STIPULATED BY THE CITY OF MOREHEAD CITY AND THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
- THE INSTALLATION OF EROSION CONTROL MEASURES AND TREE PROTECTION DEVICES SHALL OCCUR PRIOR TO OR CONCURRENT WITH LAND DISTURBING ACTIVITIES. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES BY ON-SITE INSPECTION.
- SEDIMENT AND EROSION CONTROL FACILITIES AND STORM DRAINAGE FACILITIES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
- ALL GRADED AREAS SHALL BE STABILIZED IMMEDIATELY WITH A TEMPORARY FAST-GROWING COVER AND/OR MULCH.
- CONTRACTOR SHALL BE RESPONSIBLE DURING CONSTRUCTION FOR THE CONTINUOUS MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES AS CALLED FOR ON THE DRAWINGS AND THE SPECIFICATIONS. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
- SEDIMENT AND EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION IS COMPLETE AND UNTIL A PERMANENT GROWING COVER HAS BEEN ESTABLISHED.
- ALL PERMANENT OPEN DRAINAGE SWALES SHALL BE GRASSED AND RIP RAP SHALL BE PLACED AS REQUIRED TO CONTROL EROSION.
- SILT FENCES SHALL BE LOCATED ON SITE TO PREVENT SEDIMENT AND EROSION FROM LEAVING PROPERTY LIMITS.
- DETENTION FACILITIES AND EROSION CONTROL MEASURES ARE TO ACCOMPLISHED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- THE CONTRACTOR SHALL MAKE PROVISIONS TO CONTINUOUSLY REMOVE ANY SEDIMENT DEPOSITED ON ROADWAYS.
- SILT FENCE SHALL BE CLEANED OR REPLACED WHEN SILT BUILDS UP TO WITHIN ONE FOOT OF TOP OF SILT FENCE AS NECESSARY.

DWQ GENERAL PERMIT REQUIREMENTS

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES FLATTER THAN 3:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)



REVISIONS

NO.	DATE	DESCRIPTION
1.	1/20/17	REVISED

McDAVID ASSOCIATES, INC.

Engineers • Planners • Land Surveyors

Corporate License No. C-131

BRANCH OFFICE
108 East Main Street
P.O. Box 1776
Morehead City, NC 28557
Telephone: (819) 735-7839
Facsimile: (819) 735-7351

CORPORATE OFFICE
3714 North Main Street
P.O. Drawer 49
Farmington, NC 28534
Telephone: (252) 733-2139
Facsimile: (252) 733-7220

CAD FILE DIRECTORY: \\G-CAS\0845\16-6062-4700

CAD DWG FILE NAME: 16-6062-4700-CN96-P02-SITE PLAN.DWG

CAD PLOT FILE NAME: 16-6062-4700-CN96-P02-PLT

MAP FILE REFERENCE:

PROJECT NO.: 2-16-6062-4700

SURVEYED BY:

DRAWING NO.:

SCALE: 1" = 20'

DRAWN BY:

APPROVED BY:

DATE:

SITE PLAN

CONTRACT NO. 96 - PUBLIC WORKS BUILDING

2016 STREET IMPROVEMENTS

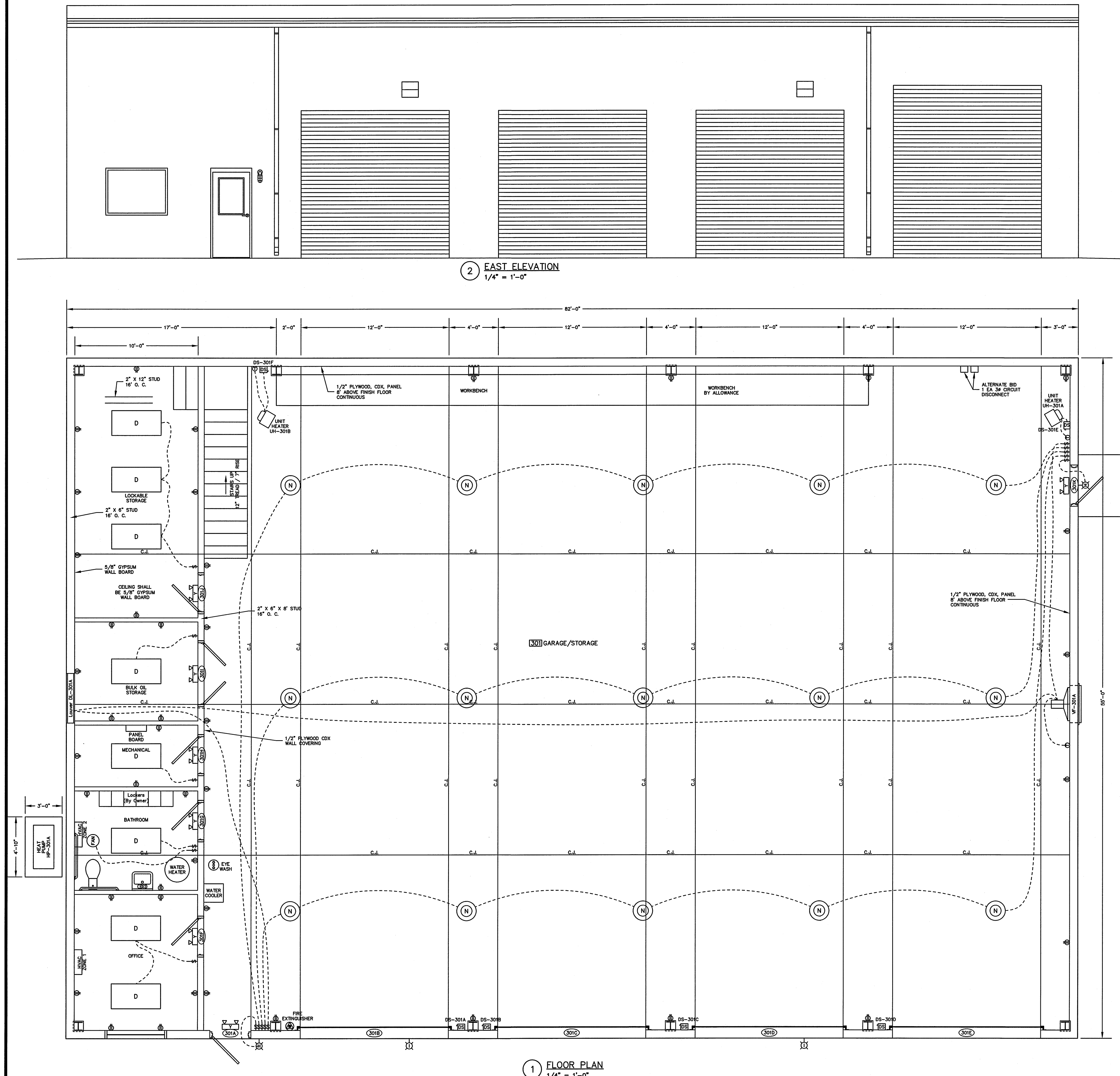
TOWN OF MOREHEAD CITY

NORTH CAROLINA

CARTERET

SHEET 2 OF 7

Drawing: W:\D84x_eng\0845_eng\0845.ac\16-6062 NH City Public Works Building\4700 Eng const Adm\16-6062-4700-CN96-P03-Floor Plan.dwg
P03
Plotted: Friday, January 20, 2017, 2:44:19pm

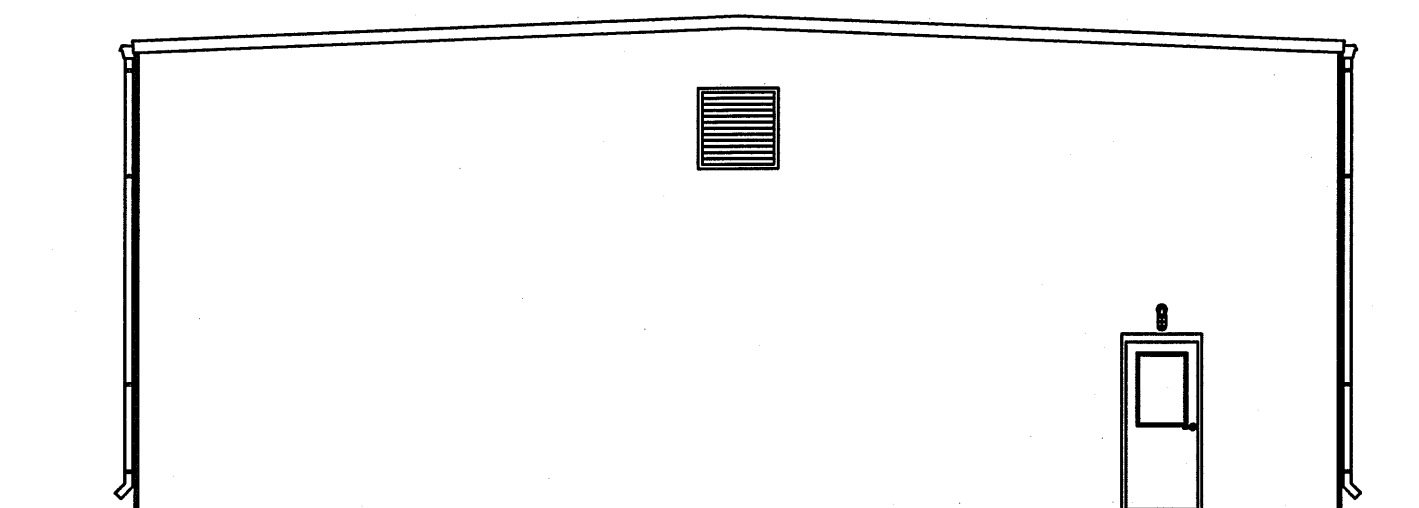


301 GARAGE/STORAGE Room Number and Name

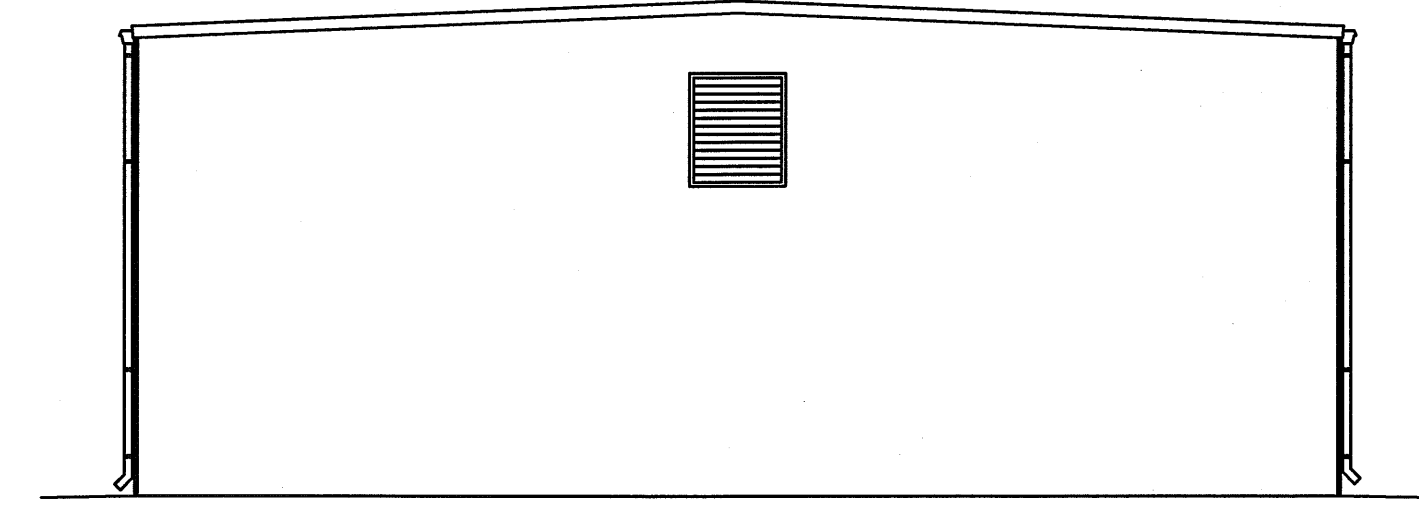
301A Door Identification Number

GENERAL CONSTRUCTION NOTES

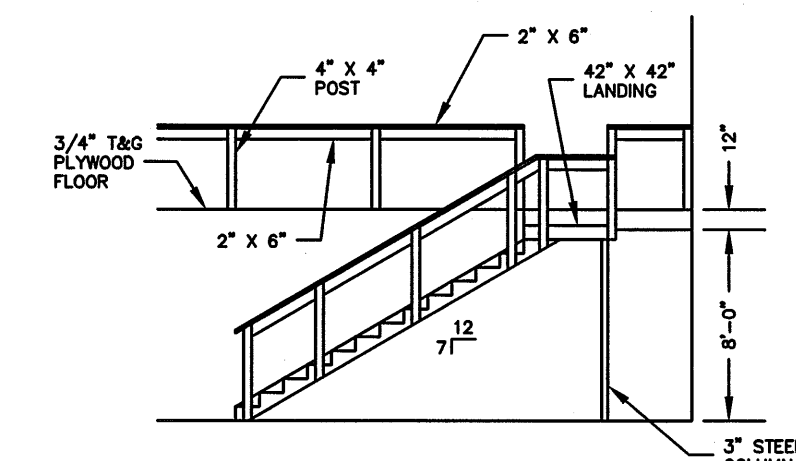
- The building shall be a pre-engineered metal building in accordance with Section 13122 of the Specifications. The building height shall be as required to provide a minimum eave height of 20'-0".
- Finished floor elevation = 14.85.
- Concrete shall have a minimum compressive strength of 3000 psi at 28 days.
- Reinforcing steel shall be Grade 60.
- Sand directly below concrete floor slabs shall be offset material meeting the requirements of the NCDOT SSRS for type 25 fine aggregate for Portland cement concrete.
- Prior to placement of the concrete slab, the building pad shall be treated for termite protection by a properly licensed pest control agent in conformance with the North Carolina Pest Control Act.
- All exposed concrete edges shall be chamfered 3/4".
- All exposed gypsum wallboard shall be painted. Colors shall be as selected by the OWNER. Plywood walls shall not be painted. All walk doors shall be painted. Building frame members to be shop primed. Locations damaged during construction to be touched up with similar paint.
- Fire extinguishers shall be suitable for use on Class A, Class B, and Class C fires and shall have a UL rating of not less than 4-A:60-B:C. Fire extinguishers shall be equipped with a pressure gauge allowing immediate pressure status check and a UL approved wall hanger. A glow-in-the-dark label (6" x 2 1/2") shall be mounted on the wall directly above each fire extinguisher location. The label shall include the words "Fire Extinguisher" within a downward pointing arrow and the words "Do Not Block" below the arrow.
- Office room ceiling height shall be 8'-0". Ceiling joists shall be 2" x 12" lumber installed 16" O.C. Mezzanine floor and load carrying walls shall be capable of 125 lbs/sf. All wood framing material shall be southern yellow pine, grade 2 or better.
- Flooring on office and restroom shall be vinyl composition tile with vinyl cove base. All other rooms shall be concrete with trowel finish.
- Interior walls and ceiling of rooms shall be covered with 5/8" gypsum wall board. Walls and ceiling of office and bathroom shall be installed with R13 fiberglass insulation.



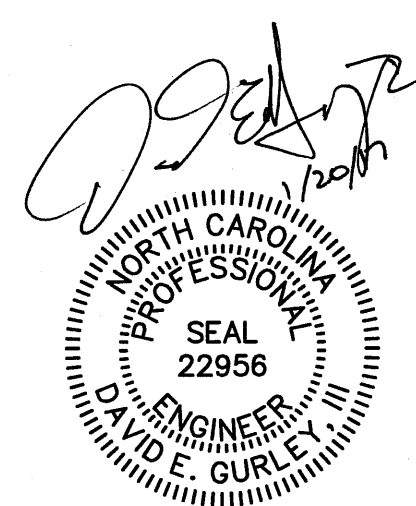
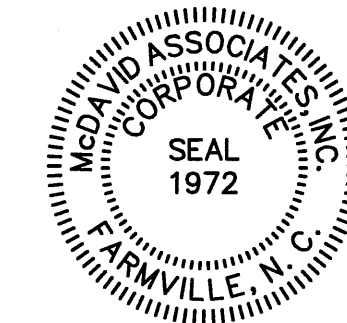
3 NORTH ELEVATION
1/8" = 1'-0"



4 SOUTH ELEVATION
1/8" = 1'-0"



5 STAIRS ELEVATION
N.T.S.



REVISIONS	
NO.	DESCRIPTION
1	1/20/17
2	REVISED

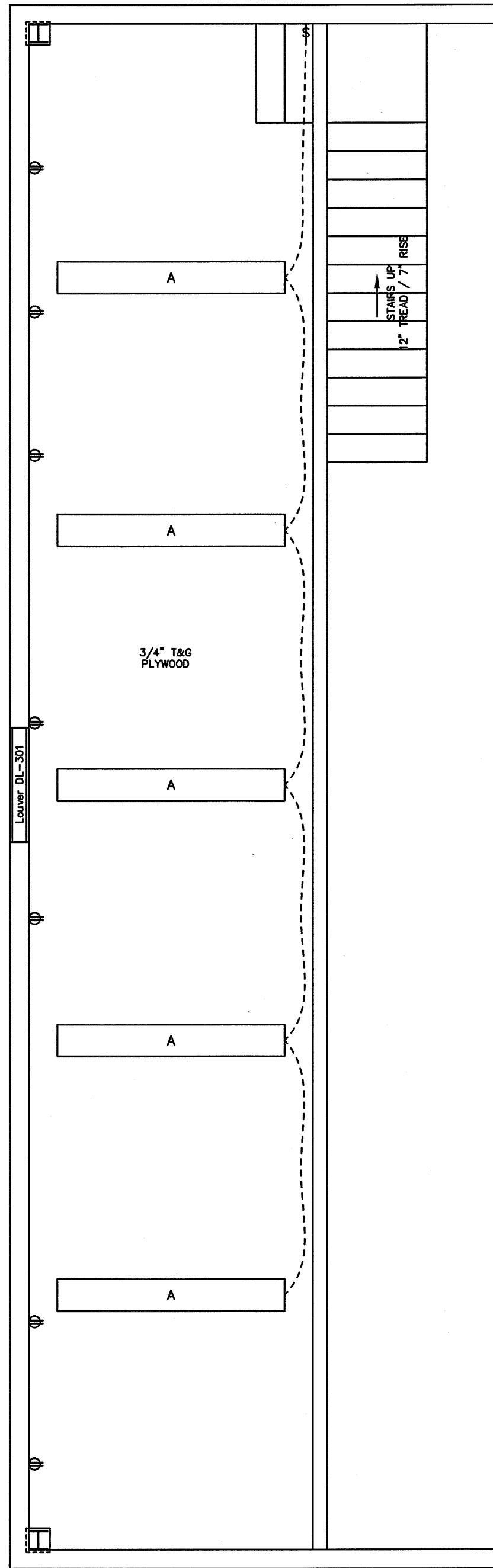
McDAVID ASSOCIATES, INC.	
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Corporate License No. C-131	Land Surveyors
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Farmville, NC 27828	
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Fax: (252) 753-1330	

CAD FILE DIRECTORY: \\C-GAS\0845\16-6062-4700	CAD FILE NAME: 16-6062-4700-CN96-P03-FLOOR PLAN.DWG
CAD PLOT FILE NAME: 16-6062-4700-CN96-P03-PLT	MAP FILE REFERENCE:
PROJECT NO.: 2-16-6062-4700	SURVEYED BY:
DRAWING NO.: 1" = 20'	COMPUTED BY:
DATE: DECEMBER 7, 2016	DRAWN BY:
	APPROVED BY:

FLOOR PLAN AND ELEVATIONS
CONTRACT NO. 96 - PUBLIC WORKS BUILDING
2016 STREET IMPROVEMENTS
TOWN OF MOREHEAD CITY
NORTH CAROLINA
CARTERET

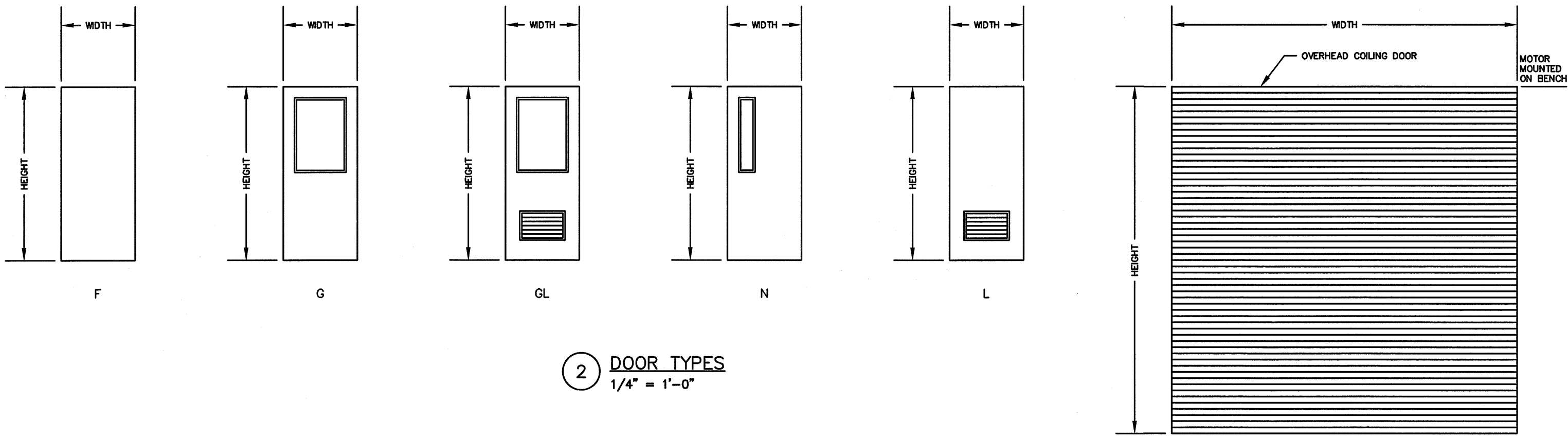
SHEET 3 OF 7

Drawing: W:\DBxx_gen\084x_eng\0845_ac\16-6062 MH City Public Works Building\4700 Eng const Adm\16-6062-4700-CN96-P04-door.dwg
Layout: P04
Plotted: Friday, January 20, 2017, 2:43:59pm

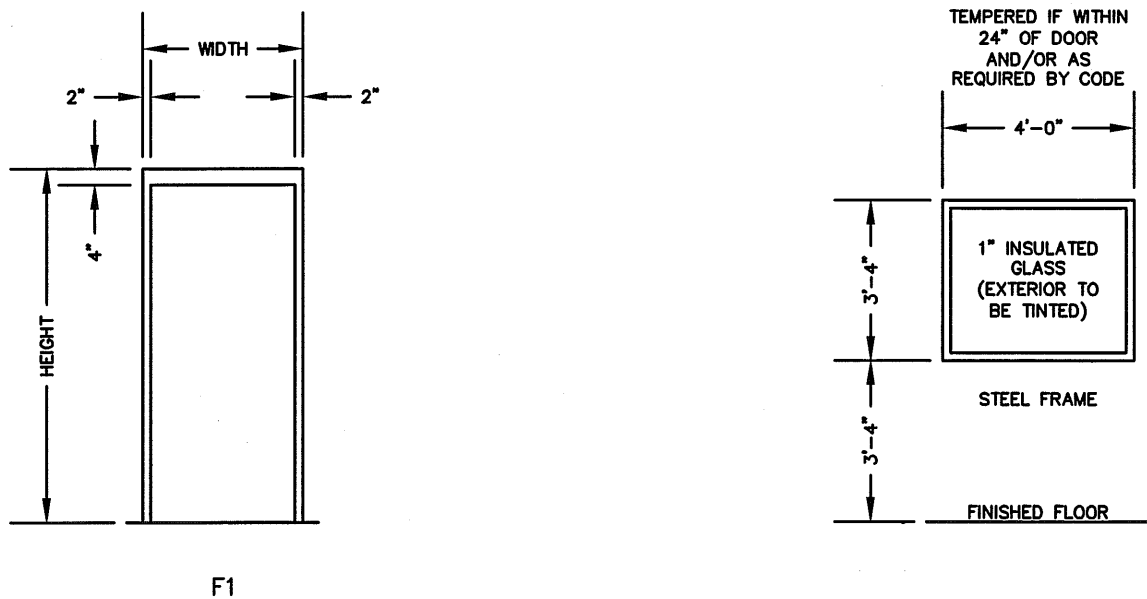


1 LOFT FLOOR PLAN
1/4" = 1'-0"

DOOR SCHEDULE														
DOOR NUMBER	DOOR							FRAME			FIRE LABEL	HARDWARE SET	REMARKS	
	TYPE	MATERIAL	SIZE			GLASS		FINISH	TYPE	MATERIAL				FINISH
			WIDTH	HEIGHT	THICKNESS	TYPE	SIZE							
301A	G	FRP	3'-0"	7'-0"	1 3/4"	TEMP	23" X 32"	PAINT	F1	FRP	PAINT	NR	1	
301B	RS	STEEL	12'-0"	12'-0"	--	--	--	PAINT	--	STEEL	PAINT	NR		INTERIOR HOOD MOUNT, ELECTRIC OPERATOR
301C	RS	STEEL	12'-0"	12'-0"	--	--	--	PAINT	--	STEEL	PAINT	NR		INTERIOR HOOD MOUNT, ELECTRIC OPERATOR
301D	RS	STEEL	12'-0"	12'-0"	--	--	--	PAINT	--	STEEL	PAINT	NR		INTERIOR HOOD MOUNT, ELECTRIC OPERATOR
301E	RS	STEEL	14'-0"	12'-0"	--	--	--	PAINT	--	STEEL	PAINT	NR		INTERIOR HOOD MOUNT, ELECTRIC OPERATOR
301F	N	HM	3'-0"	7'-0"	1 3/4"	TEMP	23" X 8"	PAINT	F1	STEEL	PAINT	NR	2	
301G	F	HM	3'-0"	7'-0"	1 3/4"	--	--	PAINT	F1	STEEL	PAINT	NR	2	
301H	GL	HM	3'-0"	7'-0"	1 3/4"	TEMP	23" X 32"	PAINT	F1	STEEL	PAINT	NR	2	
301I	L	HM	3'-0"	7'-0"	1 3/4"	--	--	PAINT	F1	STEEL	PAINT	NR	2	MINIMUM LOUVER SIZE = 23" X 18"
301J	L	HM	3'-0"	7'-0"	1 3/4"	--	--	PAINT	F1	STEEL	PAINT	NR	2	MINIMUM LOUVER SIZE = 23" X 18"
301K	G	FRP	3'-0"	7'-0"	1 3/4"	TEMP	23" X 32"	PAINT	F1	FRP	PAINT	NR	1	
<u>LEGEND</u> FRP - FIBERGLASS REINFORCED PLASTIC HM - HOLLOW METAL NR - NOT REQUIRED TEMP - TEMPERED														



2 DOOR TYPES
1/4" = 1'-0"



3 DOOR FRAME TYPE
1/4" = 1'-0"

4 WINDOW
1/4" = 1'-0"

HARDWARE SCHEDULE

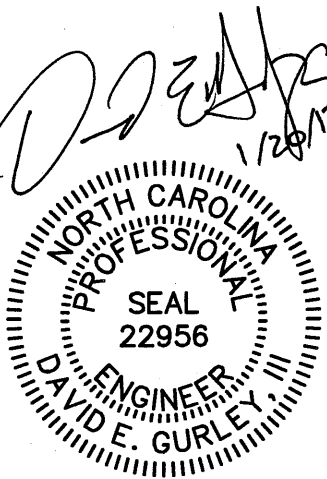
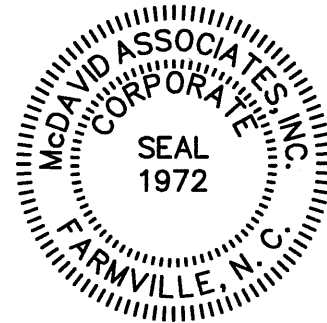
HARDWARE SET NO. 1

3 EA	Butt Hinges	Stanley	FBB191 NRP 4.5 X 4.5 X US32D
1 EA	Lockset	Yale	AUE8722FL X US32D
1 EA	Door Closer	Norton	PR7701H X SRI X AL
1 EA	Threshold	Pemko	177AV
1 EA	Weatherstripping	Pemko	319CR

HARDWARE SET NO. 2

3 EA	Butt Hinges	Full Mortise, Ball Bearing, 4.5 X 4.5 X US32D Finish
1 EA	Lockset	Lever Handle, Entrance Lock Function X US32D Finish
1 EA	Silencers	Gray Rubber with Pneumatic Chambers
1 EA	Wall Bumper	Wrought Base, Concealed Tamper Proof Mounting, Rubber Bumper

Locksets shall be keyed to the OWNER's standard keying system. The OWNER will make a key available to the CONTRACTOR for use in keying locksets.



LOFT FLOOR PLAN, DOOR SCHEDULE AND DETAILS
CONTRACT NO. 96 - PUBLIC WORKS BUILDING
2016 STREET IMPROVEMENTS
TOWN OF MOREHEAD CITY
NORTH CAROLINA

CARTERET

CAD FILE DIRECTORY: \\G-CAS\0845\16-6062\4700
CAD DWG FILE NAME: 16-6062-4700-CN96-P04-DOOR.DWG
CAD PLOT FILE NAME: 16-6062-4700-CN96-P04.DWG
MAP FILE REFERENCE:
PROJECT NO.: 2-16-6062-4700
DRAWING NO.:
SCALE: 1" = 20'
DATE: DECEMBER 7, 2016

SURVEYED BY:
COMPUTED BY:
DRAWN BY:
APPROVED BY:

1/28/17

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Drawing:
Layout:
Plotted:



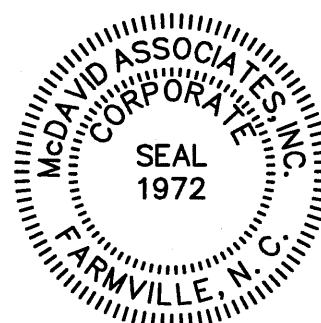
① WAL
N.T.S.



(2) WAS
N.T.S.

GENERAL CONSTRUCTION NOTES

1. All piping shall be supported and restrained to evenly distribute loads and to prevent loads from being transferred to equipment.
2. All waste piping shall be Schedule 40 PVC DWV.
3. With local building inspector's approval, vent stacks may be terminated with approved air admittance valves.
4. Pipe supports, standoffs, clamps, screws, nuts, bolts, and other hardware for all pipe 2" and smaller shall be stainless steel.
5. Water Cooler shall be ADA Compliant wall mounted unit by Oasis Model PSBFSL with bottle filler combination, or Equal.



PLUMBING DETAILS
CONTRACT NO. 96 - PUBLIC WORKS BUILDING
2016 STREET IMPROVEMENTS
TOWN OF MOREHEAD CITY

CARTER

SHEET 5 OF





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Drawing: W:\08xx_gen\084x_eng\0845_ac\16-6062 MH City Public Works Building\4700 Eng const Adm\16-6062-4700-CN96-P06-schd-pnls.dwg
P16
Plotted: Friday, January 20, 2017, 2:42:50pm

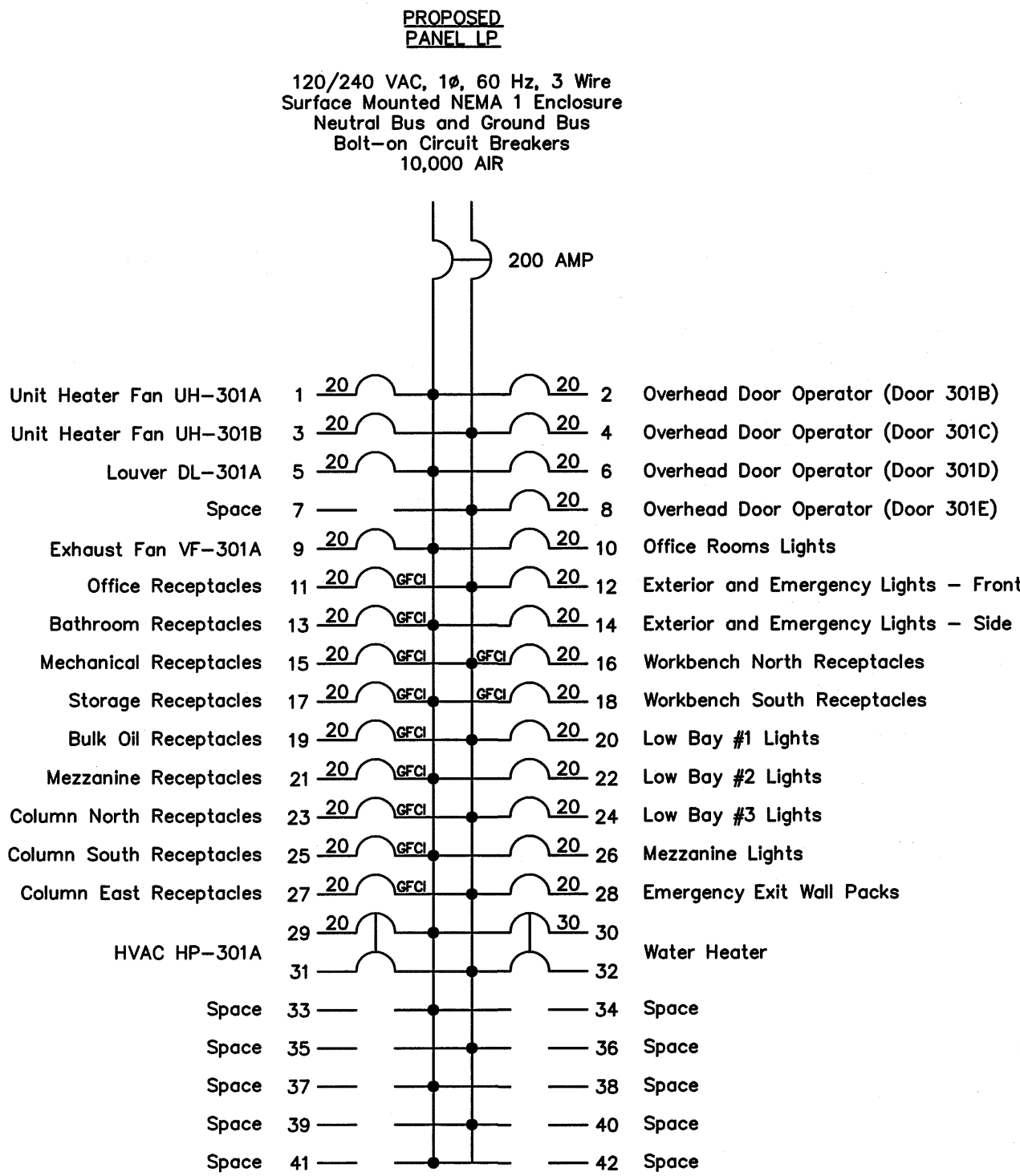
LIGHT FIXTURE SCHEDULE						
FIXTURE SYMBOL	FIXTURE DESCRIPTION	LAMPS	MOUNTING HEIGHT	MANUFACTURER MODEL NUMBER	MANUFACTURER MODEL NUMBER	MANUFACTURER MODEL NUMBER
A	8' Industrial fluorescent, top reflector, electronic ballast, 2 high output T8 lamps, 120 VAC	2 Each F96T8/735/HO	Bottom of Steel Joists	Lithonia EJ 2 96HOT8 120 GEB	Metaltux DCI 296T8HO 120 EB81	Columbia KL8-286-EB8120
D	2' X 4' Ceiling surface mount, fluorescent fixture, steel housing, 0.125" acrylic lens, dual electronic ballasts, 4 T8 lamps, 120 VAC	4 Each F32T8/735	Surface Mount	Lithonia 2SP G 4 32 A12125 120 GEB	Metaltux 2GC 432A125 120 EB82	Columbia 4PS24-432G-FS-A12.125-EB8120
	100 Watt incandescent, decorative, wall mounted fixture, glass diffuser, wet location listed, 1 lamp, 120 VAC	1 Each 100 Watt, A19	7'-4" Above Finished Floor	Lithonia WGCW 100I	Halo H2411	Prescolite 9300
	175 Watt metal halide, wall mounted fixture, photoelectric cell control 1 lamp, 120 VAC	1 Each 175 Watt Metal Halide	As Noted	Lithonia TWP 175M 120 PE	Lumark MHWP-175H-MT-PE	General Electric W1LR17MOA1LSN4DB with PEK-120
	Low Bay LED	1 Each 1 50 Watt	16'-0" Above Finished Floor	Neptun LED-LB-19150-AL-UNV		
	Combination emergency/exit light, wall mounted, adjustable dual lamps, LED exit illumination, single face, red letters, white housing, 90 minute 6 VDC battery, damp location rated, 120 VAC	Fully Lamped in accordance with manufacturer's recommendations	8'-0" Above Finished Floor	Lithonia LHQM S W 1 R 120/277	Sure-Lites CCX-71-RWHDH	McPhilben CCL1RWDR
Manufacturers' names and model numbers are cited only to denote the quality standard of products desired and do not restrict BIDDERS to a specific brand, make, manufacturer, or specific name. They are used only to set forth and convey to BIDDERS the general style, type, character, and quality of products desired. The ENGINEER will review submittals for other products to determine equivalence. Equivalent products will be acceptable.						

GAS HEATER SCHEDULE					
HEATER DESIGNATION	LOCATION	CAPACITY BTUs	FAN SUPPLY VOLTAGE	HEATER TYPE	MODEL
UH-301A	North End of Building	175,000	120 VAC, 1ø	Ceiling Hung	Reznor UDAP_300*
UH-301B	South End of Building	175,000	120 VAC, 1ø	Ceiling Hung	Reznor UDAP_300*
HEATERS TO EXHAUST VIA DUCT THROUGH BUILDING ROOF					*OR EQUAL

DISCONNECT SWITCH SCHEDULE							
SWITCH DESIGNATION	EQUIPMENT SERVED	SWITCH AMPACITY	SWITCH VOLTAGE	NUMBER OF POLES	SOLID NEUTRAL	FUSES	ENCLOSURE NEMA TYPE
DS-301A	Overhead Door Operator (Door 301B)	30	120 VAC, 1ø	1	YES	NONE	1
DS-301B	Overhead Door Operator (Door 301C)	30	120 VAC, 1ø	1	YES	NONE	1
DS-301C	Overhead Door Operator (Door 301D)	30	120 VAC, 1ø	1	YES	NONE	1
DS-301D	Overhead Door Operator (Door 301E)	30	120 VAC, 1ø	1	YES	NONE	1
DS-301E	Unit Heater UH-301A	30	240 VAC, 1ø	2	NO	NONE	1
DS-301F	Unit Heater UH-301B	30	240 VAC, 1ø	2	NO	NONE	1

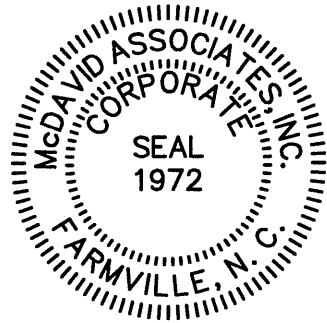
FAN SCHEDULE								
FAN DESIGNATION	LOCATION	TYPE	MINIMUM CAPACITY CFM/SP	MAXIMUM CAPACITY CFM/SP	SUPPLY VOLTAGE	MAXIMUM MOTOR SPEED	CONTROL	MOUNTING HEIGHT
VF-301A	North Wall	Wall	5000/0.125	6000/0.125	115 VAC, 1ø	1750 RPM	Switch/Therm.	14'-0" AFF
Wall fans shall be propeller type complete with exterior gravity operated shutters, wall duct, and interior fan guard.			Fans shown with "Switch/Therm" control shall be controlled by a wall mounted thermostat wired in parallel with a wall switch. Thermostats shall close on rise (cooling cycle) and shall have an adjustable temperature range of 90° to 150°F with a differential of not more than 15°F.					
Mounting heights 6'-0" and above are to top of wall opening. Mounting heights below 6'-0" are to bottom of wall opening.								

DAMPER/LOUVER SCHEDULE					
UNIT DESIGNATION	LOCATION	NOMINAL SIZE (W X H)	MINIMUM FREE AREA	OPERATOR TYPE	MOUNTING HEIGHT
DL-301A	South Wall	48" X 56"	9.00 Sq. Ft.	E,29,NC	14'-0" AFF
E,2P,NC - Electric, 2 position, normally closed operator.			Mounting heights are to bottom of wall opening.		
DAMPER/LOUVER SPECIFICATIONS					
Frame	- 6063T5 extruded aluminum, minimum thickness = 0.080 inches				
Blades	- 6063T5 extruded aluminum, minimum thickness = 0.072 inches				
Birdscreen	- 0.051" X 3/4" diamond pattern, expanded aluminum				
Insect Screen	- 18 X 16 mesh aluminum				
Finish	- Baked on enamel				
Acceptable Product	- Vent Products Model 2000 Ajust-O-Vent Combination Damper/Louver, or equal.				



ELECTRICAL CONSTRUCTION NOTES

- All wiring shall be run in conduit. Conduit and wire shall be sized in accordance with the National Electric Code and all local codes.
- Special cabling may be required for some equipment. If so, the special cable shall be provided by the equipment supplier and installed by the ELECTRICAL CONTRACTOR. Scheduled wire may be deleted where special cabling is provided.
- All branch circuit and control circuit wire shall be No. 12 minimum except as shown otherwise.
- The ELECTRICAL CONTRACTOR shall be responsible for routing all conduits unless shown otherwise on the PLANS. Conduits shall be routed in accordance with the PLANS, SPECIFICATIONS, and as directed by the ENGINEER.
- Conduit in or under concrete slabs, in concrete or masonry, concealed in outside walls, where exposed to moisture, underground, for feeder circuits, and for conduits larger than one (1) inch shall be rigid metal or rigid PVC.
- Conduit exposed to mechanical injury and in all exposed outdoor locations shall be rigid metal.
- Screws, nuts, bolts, clamps, conduit supports, channels, and other hardware used to support electrical work shall be stainless steel.
- Conduit used in underground duct banks outside buildings and structures shall be rigid PVC.
- Conduit in finished areas shall be run concealed within walls, below floors, or above ceilings. Conduits in unfinished areas may be run exposed along interior walls and ceilings. See Section 16110 of the SPECIFICATIONS for definition of finished and unfinished areas and other requirements for installing conduit.
- Conduit for equipment and motors in open floor areas located more than two (2) feet from the nearest wall shall be run under the floor and shall terminate above the floor adjacent to the equipment or motor. Conduit shall not be run over floors or suspended from ceilings or walls unless specifically approved by the ENGINEER.
- Spare wires shall be neatly bundled, coiled, taped, and secured inside the box or enclosure where they terminate.
- Circuit breakers shall be rated for 20 amperes unless shown otherwise.
- The electrical service shall be coordinated with the electric utility company and the ENGINEER. The service entrance shall meet all utility company requirements, the National Electric Code, and all local codes.
- Grounding shall be provided in full compliance with the National Electrical Code.
- The electrical system shall be complete and fully operational.
- Disconnect switches for overhead door motor shall be placed on wall adjacent to respective door. Disconnect switches for unit heater shall be placed 42" off floor on nearest wall under heater.
- HVAC system shall be 14,000 BTU 22 SEER Ductless Dual Zone Heat Pump Package in the office and bathroom. Power supply shall be single phase, 120/240 volt. One (1) each 7,000 BTU air handler shall be mounted on the south office wall. One (1) each 7,000 BTU air handler shall be mounted on the bathroom south wall. Each air handler shall be connected to the exterior condenser unit. The condenser unit shall be mounted on a concrete pad.



[Signature]
1/20/17

REVISIONS

NO.	DATE	DESCRIPTION
1.	1/20/17	REUSED

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CAD FILE DIRECTORY: \\G-GAS\DRAS\16-6062-4700

CAD DWG FILE NAME: 16-6062-4700-CN96-P06-SCHD-PNLS.DWG

CAD PLOT FILE NAME: 16-6062-4700-CN96-P06-PDF

MVP FILE REFERENCE:

PROJECT NO.: 2-16-6062-4700

DRAWING NO.: 16-6062-4700

SCALE: 1" = 20'

DATE: DECEMBER 7, 2016

SURVED BY:

COMPUTED BY:

DRAWN BY:

APPROVED BY:

ELECTRICAL DETAILS

CONTRACT NO. 96 - PUBLIC WORKS BUILDING

2016 STREET IMPROVEMENTS

TOWN OF MOREHEAD CITY

NORTH CAROLINA

CARTERET



- D



- D

SHEET 7 OF 7

GENERAL

1. THESE DRAWINGS ARE TO BE COORDINATED WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND CIVIL DRAWINGS.
2. THIS STRUCTURE AND ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE NC RESIDENTIAL CODE AND ANY LOCAL LAWS WHERE THE STRUCTURE IS TO BE CONSTRUCTED.

MISCELLANEOUS

1. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING, SHORING, AND GUYING OF FRAMING AND WALLS AGAINST WIND, CONSTRUCTION LOADS, AND OTHER TEMPORARY FORCES UNTIL SUCH PROTECTION IS NO LONGER REQUIRED FOR THE SAFE SUPPORT OF THE FRAMING.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE DIMENSIONS OF THE STRUCTURAL DRAWINGS AND ADVISING THE ENGINEER OF ANY DIFFERENCES IN DIMENSIONS BETWEEN THE ARCHITECTURAL PLANS AND SECTIONS PRIOR TO COMMENCING CONSTRUCTION.
3. CONSTRUCTION SAFETY: THESE STRUCTURAL DRAWINGS DO NOT CONTAIN NECESSARY COMPONENTS FOR SAFETY DURING CONSTRUCTION.

DESIGN LOADS

- | | | |
|-----|--|---------|
| 1. | BUILDING CODES | |
| 1.1 | 2012 NORTH CAROLINA BUILDING CODE | |
| 1.2 | MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES,
ASCE 7-05 | |
| 2. | WIND LOADS / DATA | |
| 2.1 | BASIC WIND SPEED (3 SECOND GUST) | 135 MPH |
| 2.2 | WIND IMPORTANCE FACTOR, I_w | 1.00 |
| 2.3 | EXPOSURE | C |

FOUNDATIONS

1. THE STRUCTURAL ENGINEER HAS NOT PERFORMED A SUBSURFACE INVESTIGATION. THE FOUNDATION IS BASED UPON AN ASSUMED SOIL BEARING CAPACITY OF 2000 PSF NET BEARING. VERIFICATION OF THIS ASSUMED VALUE IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR. SHOULD ANY ADVERSE SOIL CONDITION BE ENCOUNTERED, THE STRUCTURAL ENGINEER MUST BE CONTACTED BEFORE PROCEEDING.
2. ANY FILL SHALL BE PLACED UNDER THE DIRECTION OR RECOMMENDATION OF A LICENSED PROFESSIONAL ENGINEER. THE RESULTING SOIL SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY.

CONCRETE

1. REINFORCED CONCRETE WORK SHALL COMPLY WITH BOTH "SPECIFICATIONS FOR STRUCTURAL BUILDINGS" ACI 301 AND "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318
2. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 304R.
3. DURING HOT WEATHER THE CONTROL OF CONCRETE PLACEMENT, PROTECTION AND CURING SHALL COMPLY WITH ACI 305R.
4. WHEN THE MEAN DAILY TEMPERATURE IS BELOW 40 DEGREES F THE CONTROL OF PLACEMENT, PROTECTION AND CURING SHALL COMPLY WITH ACI 306R.
5. CONCRETE SHALL HAVE NORMAL WEIGHT AGGREGATE AND A MINIMUM COMPRESSIVE STRENGTH (F_c) AT 28 DAYS AS LISTED BELOW.

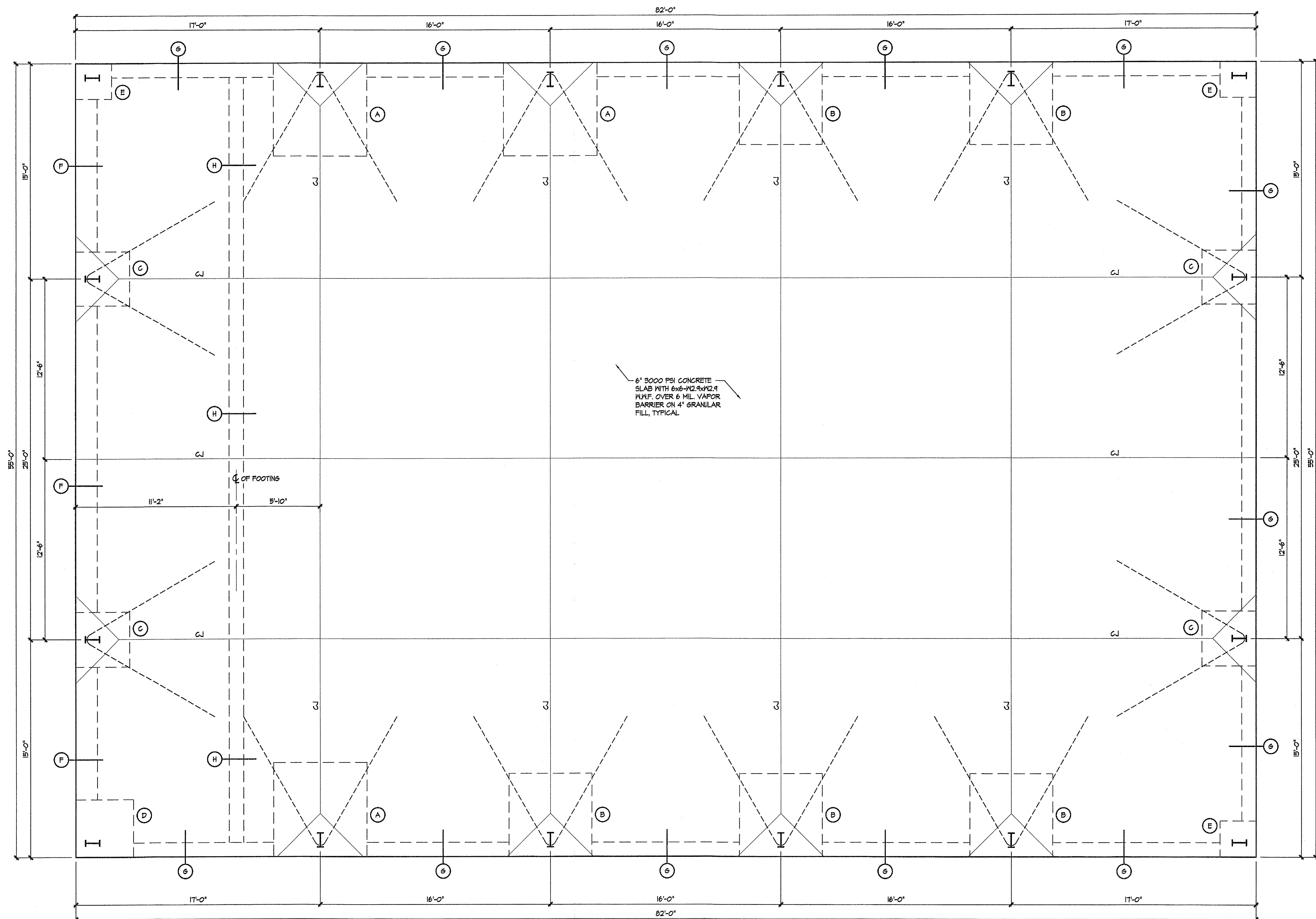
5.1 FOOTINGS	3000 PSI
5.2 SLABS--ON--GRADE	3000 PSI
6. ENTRAINED AIR MUST BE USED IN ALL CONCRETE THAT WILL BE EXPOSED TO FREEZING AND THAWING AND DEICING CHEMICALS. AMOUNT OF AIR ENTRAINMENT (PERCENT) SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE WITH A RANGE OF -1 TO +2 PERCENTAGE POINTS OF THE TARGET VALUE:

5.1 FOOTINGS	0%
6.2 INTERIOR SLABS	0%
6.3 EXTERIOR SLABS	5%

NOTE. IT IS RECOMMENDED THAT INTERIOR SLABS TO BE GIVEN A SMOOTH, DENSE, HARD--TROWLED FINISH NOT TO CONTAIN ENTRAINED AIR SINCE BUSTLING OR DELAMINATION MAY OCCUR. IF SLAB WILL BE EXPOSED TO DEICING OR OTHER AGGRESSIVE CHEMICALS, CONTACT STRUCTURAL ENGINEER FOR PROPER AIR ENTRAINMENT REQUIREMENTS.
7. CONCRETE SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.1R--96 "GUIDE FOR CONCRETE SLAB AND SLAB CONSTRUCTION"
8. CONTROL JOINTS SHALL BE SPACED IN SLABS ON GRADE AT A MAXIMUM OF 20'-0" O.C. UNLESS OTHERWISE NOTED.

REINFORCING STEEL

1. REINFORCING STEEL SHALL COMPLY WITH ASTM A615, GRADE 60. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A185. WELDABLE REINFORCING BARS SHALL COMPLY WITH ASTM A706, GRADE 60.
2. ANCHOR BOLTS SHALL COMPLY WITH ASTM A3070.
3. CLEAR CONCRETE COVER ON REINFORCING STEEL: BOTTOM OF FOOTINGS= 3", SIDE AND TOP SURFACE OF FOOTINGS= 2", BOTTOM OF SLAB ON GROUND= 2 1/2", WALL SURFACE = 2", TOP OR BOTTOM SURFACE OF FLOOR SLABS = 3/4"
4. PROVIDE CLASS 3 BAR AND MESH SUPPORTS.
5. DETAILING, FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH 315 (LATEST EDITION) MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES.
6. HORIZONTAL FOOTING REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE CORNER BARS SHALL BE INSTALLED. THE CORNER BAR SHALL HAVE THE SAME SIZE AND SPACING AS THE HORIZONTAL REINFORCEMENT WITH A CLASS B TENSION SPLICE.
7. LAP REINFORCEMENT AS REQUIRED A MINIMUM OF 40 BAR DIAMETERS FOR TENSION OR COMPRESSION UNLESS NOTED OTHERWISE. SPLICES IN MASONRY SHALL BE A MINIMUM OF 48 BAR DIAMETERS.



FOUNDATION PLAN

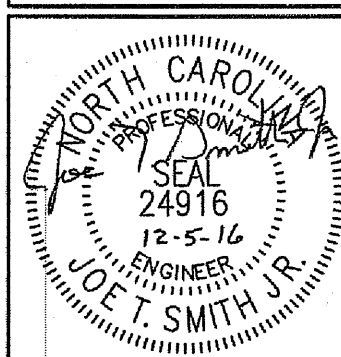
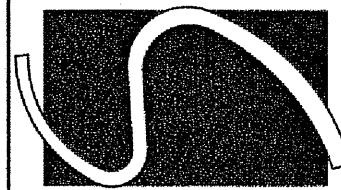
NOTE

CONTRACTOR SHALL PROVIDE ENGINEER WITH FINAL BUILDING PLANS AND LOAD REACTIONS FROM PRE-ENGINEERED METAL BUILDING MANUFACTURER FOR VERIFICATION OF COLUMN FOOTING SIZES PRIOR TO COMMENCING CONSTRUCTION.

SCALE: 3/16" = 1'-0"

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**SMITH ENGINEERING
AND DESIGN, P.A.**



REVISIONS	DESCRIPTION
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REV	DATE
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**CONTRACT NO. 96-PUBLIC WORKS BUILDING
2016 STREET IMPROVEMENTS
TOWN OF MOREHEAD CITY**

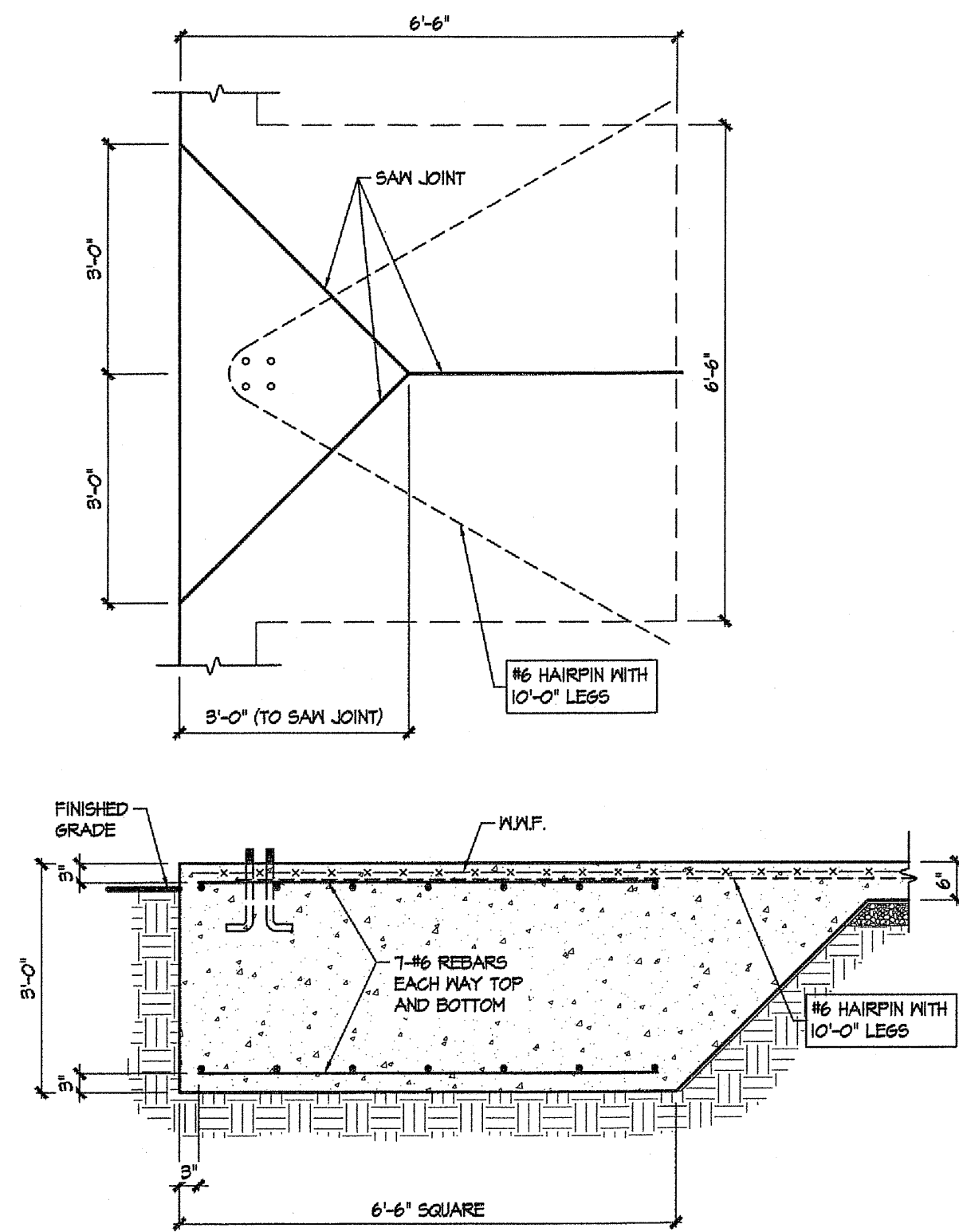
Carteret County, North Carolina

DATE: 5 December 2016

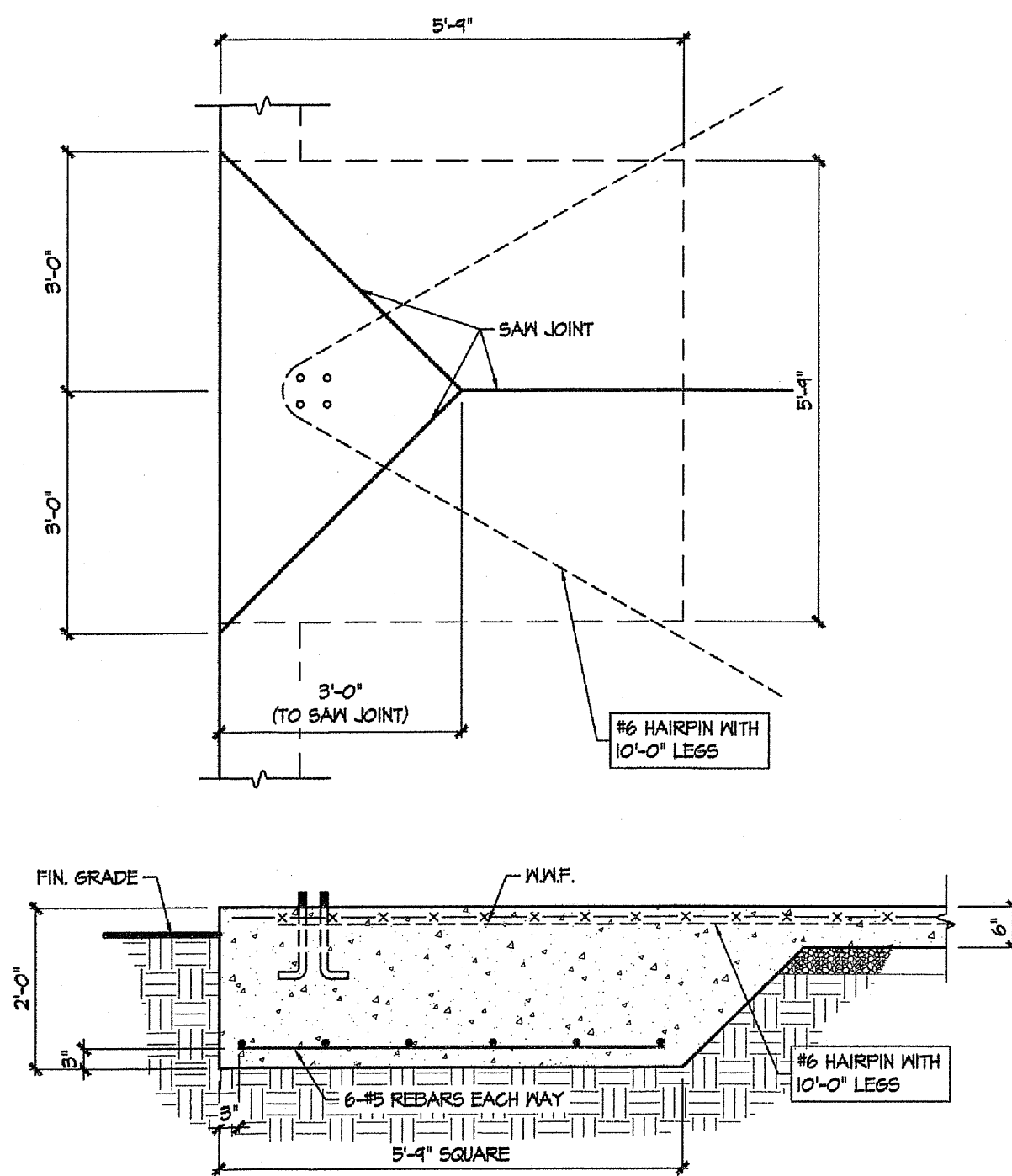
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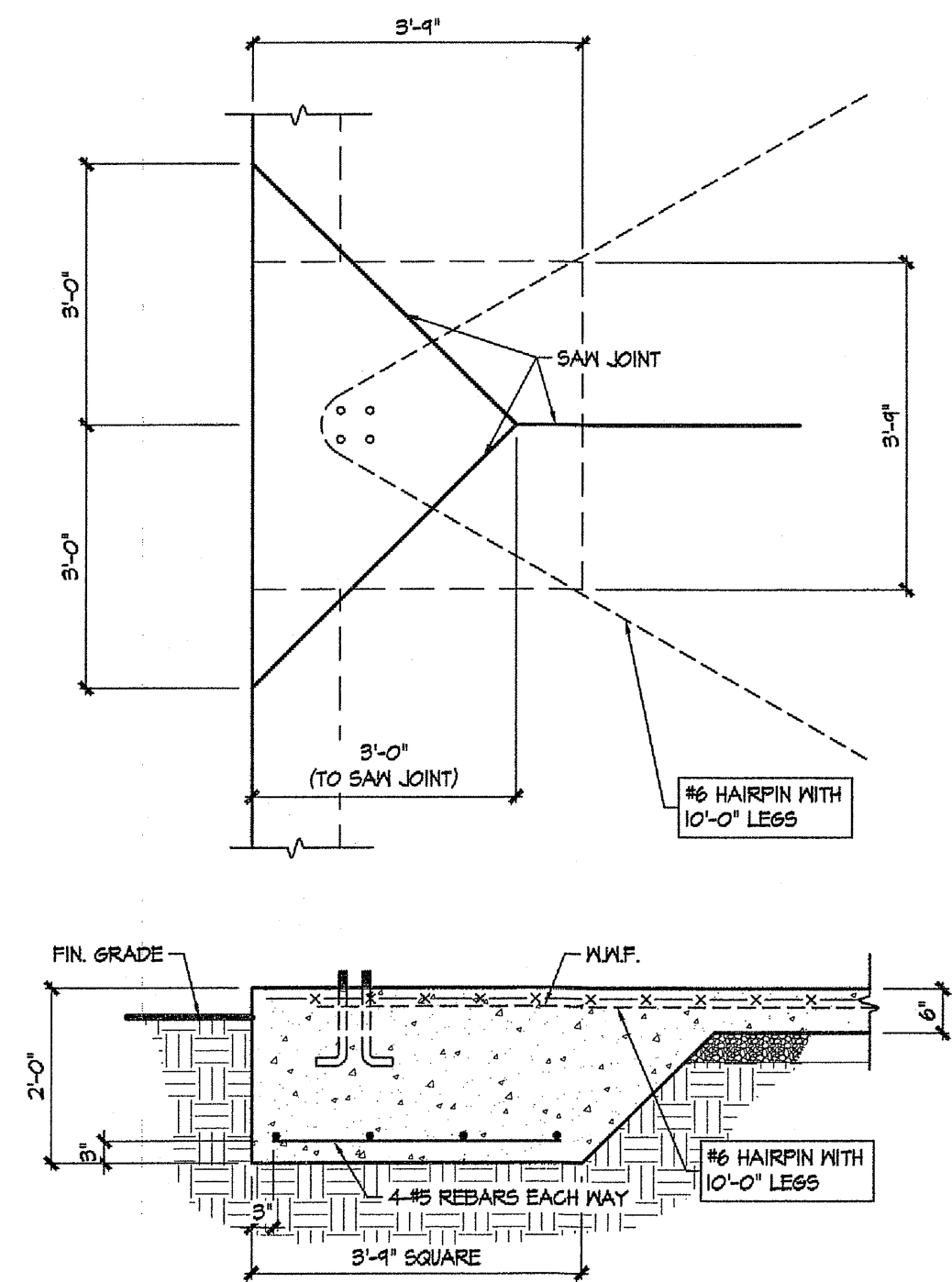
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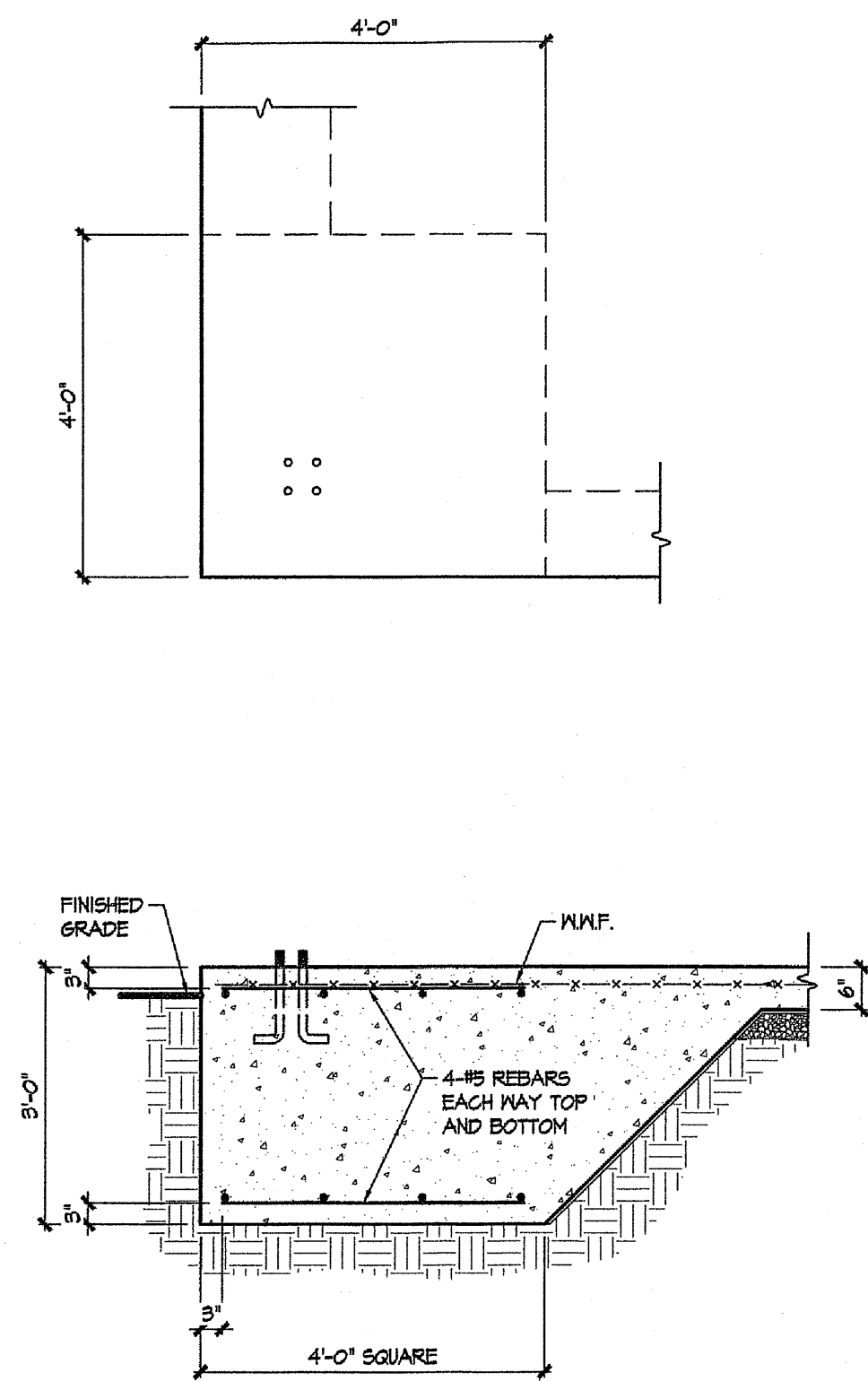
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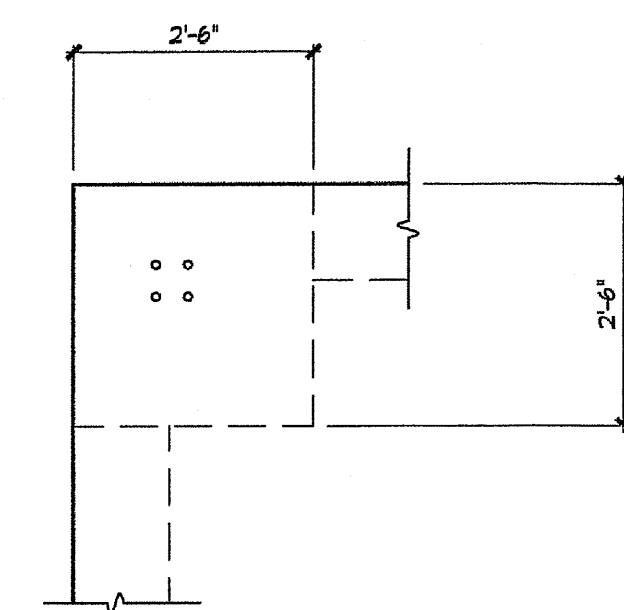
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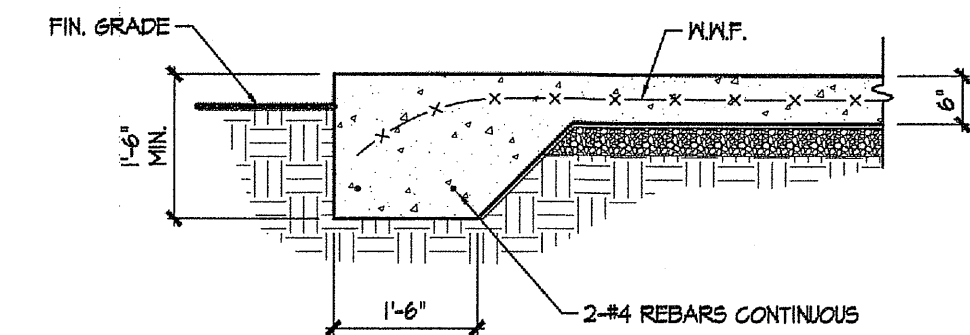
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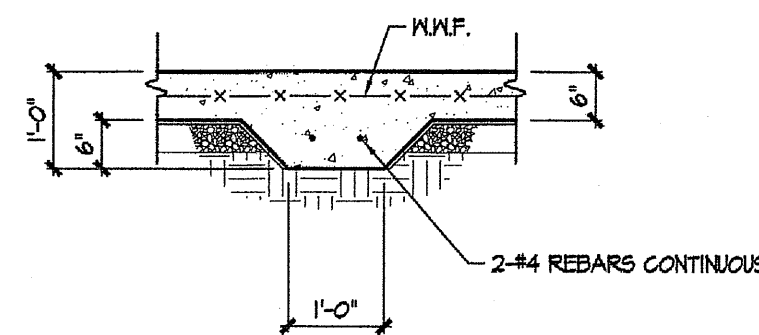
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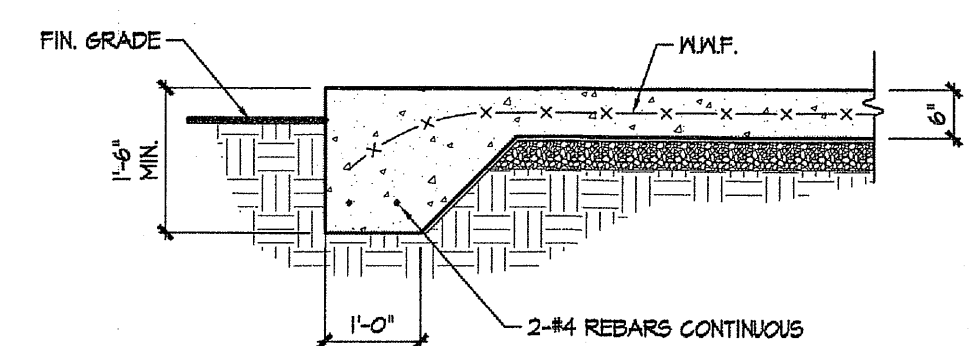
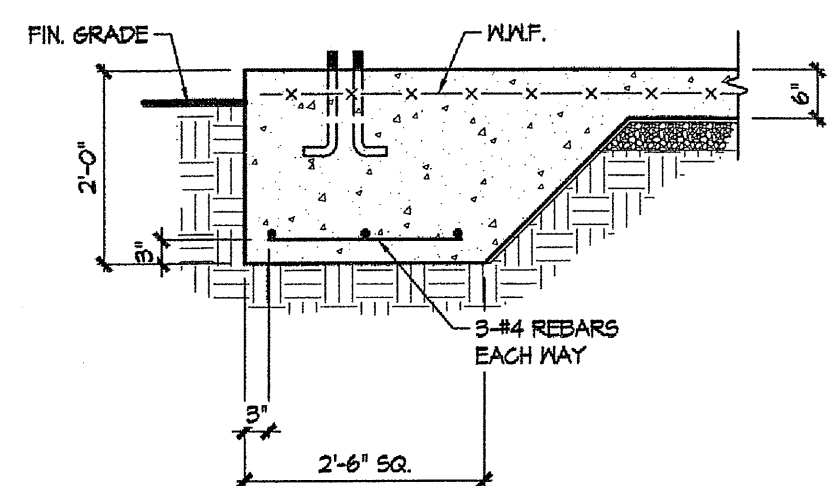
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8
S-2 WALL FOOTING "H" SCALE: 1/2" = 1'-0"



7
S-2 PERIMETER FOOTING "G" SCALE: 1/2" = 1'-0"



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL SCOTT
Director

March 14, 2017

Morehead City Planning and Inspections
Att: Linda Staab, Planning and Inspections Director
706 Arendell St
Morehead City, NC 28557

Re: Notice of Pre-Regulatory Landfill Location
Morehead City Refuse Dump
25th Street (34.727493, -76.736325)
Site ID# NONCD0000205

Dear Mr. Fowler:

The North Carolina Department of Environmental Quality, Division of Waste Management (Division), Pre-Regulatory Landfill Unit is making you aware of the location of an identified Pre-Regulatory Landfill, referenced above along with the latitude and longitude coordinates of site's entrance. A Pre-Regulatory Landfill (PRLF) is any landfill that accepted municipal waste prior to January 1, 1983.

Often old closed landfills are not well marked or easily identified. In that your office is involved in development, you may contact our program for additional information as pockets of waste may be unearthed by developers which may cause unknown risks to workers and the environment and result in improper re-disposal of the material. Our office addresses old uncontrolled dumps and landfills that operated before regulations were in place controlling what went in the landfill. A couple of resources available through the Divisions website include online records and a map of known locations of pre-regulatory landfills.

If you would like to view the records the Division has on this PRLF, you can visit the Division's online documents at <http://deq.nc.gov/Waste-Management-laserfiche> and click on *Superfund Customers* to access instructions and weblink. The ID# provided above should be entered into the ID search field to the left of the webpage, no other information needs to be entered.

To view the Division's online map of PRLF known locations visit <http://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/waste-management-gis-maps> in the View Map column (1st column) of the table scroll down and select *Pre-Regulatory Landfill Sites*. The interactive map of the PRLFs allows the user to enter the address, the general area of the known waste disposal site is marked by a purple star.

If any imminent plans of development or redevelopment of the PRLF referenced above are proposed, please contact: Cheryl Marks, Pre-Regulatory Landfill Unit Supervisor at 919-707-8333 or by e-mail, cheryl.marks@ncdenr.gov. If you have any questions or concerns, please contact me by e-mail katie.tatum@ncdenr.gov or call 919-707-8155.

Sincerely,

Katie Tatum
Environmental Specialist
Division of Waste Management



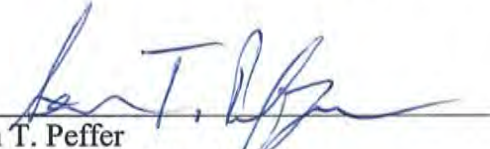
LANDFILL SITE ASSESSMENT
Morehead City Refuse Dump
NONCD0000205
Carteret County
HURRICANE LANDFILL ASSESSMENT PROJECT
STATE OF NORTH CAROLINA
CONTRACT NO. N200016
S&ME PROJECT NO. 1040-00-338K
VOLUME XI OF XVII

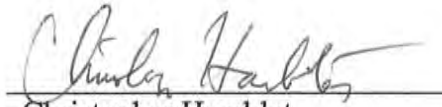
Prepared for:

North Carolina Department of Environment and Natural Resources
Superfund Section
Inactive Sites Branch
401 Oberlin Road
Raleigh, North Carolina 27604

Prepared by:

S&ME, Inc.
3118 Spring Forest Road
Raleigh, North Carolina 27616


Sean T. Pepper
Environmental Scientist


Christopher Hamblet
Project Manager

August 30, 2002



S&ME

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APPENDICES

Appendix I	Copies of Aerial Photographs
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DATA SUMMARY SHEET

Site Name: Morehead City Refuse Dump
Site Identification Number: NONCD0000205
County: Carteret County
Date Reported: August 30, 2002

Location: 25th Street
Site Entrance Coordinates: Northing NAD83(m): 110798
Easting NAD83 (m): 816895
Landfill Size: ~ 5.5 Acres
Date Opened: 1968
Date Closed: 1971
Directions: From US Highway 70, turn north onto 25th Street. The site is at the north end of the road on the left.

OWNERSHIP INFORMATION

Owner Name	Address	City	State	Zip	Phone
Morehead City	P.O. Drawer M	Morehead City	NC	28557	(252) 726-6848

WELL AND SURFACE WATER INTAKE SURVEY SUMMARY

Well Number	Northing (NAD83 meters)	Easting (NAD83 meters)	Owner's Name	Street Address	Type of Well	Distance and directions from site
No wells or surface water intakes were observed within the search radius.						

AREAS OF CONCERN SUMMARY

AOC #	Northing Central Point Coordinate (NAD83 meters)	Easting Central Point Coordinate (NAD83 meters)	Description	Estimated Size
1	Public Record Review		A 1973 Land Disposal Site Modification Report states that the site had problems with burning trash, water pollution, and lack of daily cover during operation.	N/A
2	110954	816720	Calico Creek and associated estuarine wetlands are adjacent to the site. The wetlands abut the site to the west, east and north.	Undetermined
3	110823 110845	816857 816848	Two heating oil ASTs located at the maintenance facility.	500-gallons each

AOC #	Northing Central Point Coordinate (NAD83 meters)	Easting Central Point Coordinate (NAD83 meters)	Description	Estimated Size
4	110878	816875	Two ASTs, one containing gasoline and the other diesel fuel, are located on the eastern portion of the site.	4,000 gallons each
5	Data Not Available		A ditch along the northern and eastern limits of fill.	~ 100 ft. in length
6	110945	816795	Rust- colored seeps were observed along the northern limits of fill migrating toward the perimeter ditch.	Undetermined
7	110944	816731	Several areas of ponding were observed along the northern limits of fill. These areas had discolored water with a rusty sheen.	Undetermined
8	110909	816909	Four empty, crushed, and corroded ASTs were observed along the eastern limits of fill	~ 10 ft. x 10 ft.
9	Southwest portion of the landfill		Surface of fill area is presently developed for human activity, including the Morehead City City Vehicle Maintenance garage and utilities offices.	~1.5 acres

1.0 INTRODUCTION

The purpose of this study was to evaluate the condition of the Morehead City Refuse Dump, a closed landfill located in Carteret County. The study was undertaken on behalf of the North Carolina Department of Environment and Natural Resources (NCDENR), Superfund Section, Inactive Sites Branch (hereafter referred to as the Branch). The goal of this assessment is to provide the Branch with information regarding the Morehead City Refuse Dump in order that the Branch may identify and evaluate potential threats to public health and/or the environment presented by this site. Such conditions may have resulted from or have been exacerbated by floodwaters or other causes related to Hurricane Floyd in September 1999. This report describes the procedures and results of this assessment, including, but not limited to: 1) obtaining the location and ownership information of the Morehead City Refuse Dump; 2) describing current site use and land use within the search radius; and, 3) identifying Areas-of-Concern that may merit further evaluation by NCDENR as to the need for possible corrective actions.

1.1 Methods

The methods used for this assessment of the Morehead City Refuse Dump are described in detail in the document *Site Assessment Plan, Hurricane Landfill Assessment Project, State of North Carolina Contract No. N200016* prepared by S&ME and dated July 14, 2000 (hereafter referred to as the SAP). In accordance with the SAP criteria, the site is defined as the limits of the waste disposal area, or if the waste disposal area cannot be determined, then the site is defined as the property boundary where the waste disposal area is reported to be located. The search radius is defined as 1,000 feet from the site boundaries. In summary, S&ME performed the following tasks to assess the site:

Task 1 –Identify and confirm the site location. This task involved the review of aerial photographs, maps, and interviews of people potentially knowledgeable of the site. Once identified, this location was confirmed by physical observation in the field.

Task 2 - Review available public records. S&ME searched for and reviewed public records regarding the Morehead City Refuse Dump to identify current ownership of the site, to collect readily available historical and current information of the site, and to review public records for other sites within the search radius that are listed in published environmental databases.

Task 3 – Interview people knowledgeable of the site. S&ME endeavored to find and interview owners, neighbors, and local public officials to gather local knowledge regarding the historical aspects of the site's operational history and to obtain current environmental-related information about the site.

Task 4 – Conduct an on-site reconnaissance of the property and a non-invasive reconnaissance of the adjacent properties within the search radius. S&ME performed this task to visually identify and assess Areas-of-Concern (AOCs), current site usage, site vicinity characteristics, surface water bodies, surface water intakes, and water supply wells.

1.2 Limitations

Limitations to the scope of work detailed in the SAP may be imposed by limited or no public records regarding the site, difficulty in finding the actual location of the waste deposits, and the presence of physical obstructions, such as paved areas and dense vegetation. Based on the tasks described above, the limitations for this site are as follows:

- S&ME collected coordinate data for areas-of-concern, water supply wells and site entrance locations using a differentially corrected global positioning system (dGPS) receiver. These coordinates were not obtained by a registered land surveyor and are not intended to represent surveyed locations for use in legal documents (e.g., deeds, tax maps, property maps, etc.) or other official purposes. These coordinates are intended for general information purposes only and not to be used as surveyed data points.
- S&ME obtained ownership information from recent tax records at the Carteret County tax office. Please note that deed book reference and page number were not available. S&ME also relied on ownership information provided by those individuals that are listed on the tax records for the site.

- The location of the limits of the waste disposal area could not be determined during the reconnaissance due to partial development on-site. The southern portion of the waste disposal area is currently developed with the Morehead City vehicle maintenance garage, the water and sewer department office, and several piles of fill soil. The limits of the waste disposal area were approximated based on historical aerial photographs and from discussions with the Morehead City Director of Public Works.

2.0 SITE IDENTIFICATION AND LOCATION

Initial information on the identification and location of the Morehead City Refuse Dump was taken from the "Old Landfill" database that was provided to S&ME by the Branch. Starting with information contained in the Old Landfill database, the site's estimated latitude and longitude coordinates were plotted on a digitized United States Geological Survey (USGS) Topographic Map. Using this preliminary location, S&ME reviewed NCDENR's Solid Waste Division's Landfill Section's files to obtain additional information about the site and its location.

Attempts were made to obtain aerial photographs of the site taken during the time that it was operational to better approximate the site's location and limits of operation. A recent aerial photograph was also sought to show the site's current condition and vicinity characteristics/land use within the search radius. The search for aerial photographs included sources at the North Carolina Department of Transportation, Photogrammetry Unit in Raleigh, North Carolina and at the USGS's digital aerial photograph database maintained by Microsoft[®] on the internet at <http://terraserver.microsoft.com>. Additional sources of historical aerial photographs that were reviewed included the United States Department of Agriculture's Natural Resource Conservation Service Office and the county tax and planning offices. Copies of historic aerial photographs reviewed are included as Appendix I of the report. A recent aerial photograph has been incorporated into Figure 2.

To verify the landfill location from information found in NCDENR files and as observed in the aerial photographs and file records, S&ME made a preliminary non-entry site visit. During this visit, attempts were also made to contact local residents for additional confirmation.

Based on the methods for identifying and verifying the site's location as described above, the following information relating to the closed dump was determined:

Site Name: Morehead City Refuse Dump
Site Identification Number: NONCD0000205
Site's Address: 25th Street
Morehead City, NC 28557
County: Carteret County
Coordinates of Site's Entrance: Northing NAD83 (m): 110798
Easting NAD83 (m): 816895
Landfill Size: ~ 5.5 Acres
Date Opened: 1968
Date Closed: 1971
Directions to the Site: From US Highway 70, turn north onto 25th
Street. The site is at the north end of the
road on the left.

Details of the public record review, ownership information search, initial site visit and site reconnaissance are described in the following sections.

3.0 PUBLIC RECORD REVIEW

Once the site's location was verified, S&ME proceeded with a review of readily available NCDENR public records. The purpose of the public record review was to identify the site's owner and to collect copies of public documents that may be relevant for evaluating the site. To identify available files at NCDENR's central or regional offices, S&ME reviewed several State and EPA databases. These environmental regulatory database listings were obtained from VISTA Information Solutions, Inc. (VISTA) of San Diego, California regarding the Morehead City Refuse Dump and possible sites/facilities within the search radius. A copy of the VISTA report is provided in Appendix II. The review of state and federal database listings and informational sources included, but was not limited to, the following:

- Federal National Priorities List (NPL or Superfund);
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS);
- North Carolina Inactive Hazardous Waste Sites State Priority List (SPL) and sites listed in the Inactive Hazardous Sites Inventory (IHSI).
- State's Waste Facilities/Landfill Sites (SWF/LS) and sites listed in the NC Superfund Section, Inactive Sites Branch's Old Landfill database;
- Lists of facilities that have been issued identification numbers by the EPA under the Resource Conservation and Recovery Act (RCRA) and associated databases;
- Emergency Response Notification System (ERNS);
- Toxic Release Inventory System (TRIS);
- Environmental permitting information (NPDES Permits and Air Quality Permits);
- North Carolina Underground Storage Tank (UST) State Trust Fund database and the North Carolina Incident Management database; and,
- North Carolina Registered Underground Storage Tank database.

If a site was listed in one or more of these databases, S&ME requested access to review available public files. S&ME also contacted local government agencies (e.g., county/city agencies, planners, health departments, utility agencies, etc.) to obtain information regarding the site's history and current status. Information sought from these agencies included current or recent drinking water usage and problems, availability of utilities (municipal water supplies, community well systems, sewer services, etc.), and waste disposal history for municipally operated sites.

The results of the database review and information obtained from government agencies files are presented in Sections 3.1 through 3.5. Copies of records judged pertinent to the site are included in Appendix III.

3.1 Federal/NCDENR Files

S&ME reviewed the database listings obtained from NCDENR and from the VISTA report concerning North Carolina State Inactive Hazardous Sites. The Morehead City Refuse Dump was not listed as a North Carolina State Hazardous Site. No North Carolina State Hazardous Sites were identified within the search radius.

Additional NCDENR files were reviewed based on information gathered from the Branch files or the VISTA report. Based on the findings for the Morehead City Refuse Dump, files of the Division of Waste Management were reviewed. No other sites were listed in the aforementioned databases within the search radius.

One record pertaining to the site was found in the Division of Waste Management files. A Land Disposal Site Modification Report was completed on November 13, 1973, for the Morehead City Refuse Dump. The report indicated that the site had previously had problems with burning, water pollution, and a lack of daily cover. At the time of the 1973 report, the problems had been corrected and the dump was closed. The report indicated that upon suspension of dump operations, trash would be hauled to the Carteret County Landfill on State Route 1141.

3.2 FIRM and NWI Maps

S&ME reviewed both the Flood Insurance Rating Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA), and the United States Department of Interior National Wetlands Inventory (NWI) map pertinent to the site (Appendix III). A review of the FIRM map indicated that the Morehead City Refuse Dump site is located in the 100-year flood plain. Our review of the NWI map indicated that the soils and vegetation located in the search radius include wetland areas classified as estuarine, intertidal, scrub shrub, evergreen, irregularly flooded (E2SS7P) and estuarine, intertidal, emergent, persistent, regularly flooded (E2EMIN).

3.3 City/County Files and Interviews

S&ME visited and interviewed local county agencies and agency representatives to collect historical and current information regarding the Morehead City Refuse Dump. S&ME interviewed Mr. David McCabe, the Morehead City Public Works Director,. S&ME personnel met with Mr. McCabe at the site, which is currently the location of the public works maintenance garage.

During the interview, S&ME inquired about current and past environmental characteristics associated with the site. S&ME used a standard set of questions listed in a questionnaire form (Appendix IV). The following is a summary of responses to our inquiries.

Mr. McCabe stated that he was knowledgeable of the dump's operational history. He was aware of exposed debris on site consisting of scrap metal and demolition debris. Mr. McCabe also stated that he had seen areas of stressed vegetation and dead trees, but these were due to hurricane activity. He indicated that the site had not been flooded during Hurricane Floyd.

3.4 Aerial Photographs

The following photographs were obtained from the NCDOT, the Carteret County Natural Resource Conservation Service, and the USGS.

AERIAL PHOTOGRAPHS

Date	Scale	Source	Reference
September 1975	Not to Scale (NTS)	NRCS	Sheet #19
March 1986	1" = 400'	County Tax Office	Cadastral
March 7, 1993	NTS	USGS	N/A

Copies of these photographs are included in Appendix I. A copy of the 1986 photograph is included as Figure 2.

The 1975 aerial, which was taken from a county soil survey, shows the site after closure. The site appears cleared of vegetation or structures. The immediate vicinity around the site appears to be forested and undeveloped. A road, which is currently 25th Street, is visible leading from the south along the eastern perimeter of the site.

In the 1986 aerial photograph, the site has been developed with several structures. Three buildings occupy the north and southeast portions of the waste disposal area. A parking lot is visible in the northeast area of the site. 25th Street can be seen leading into the eastern portion of the site and an access road leads west along the site's southern site boundary. Calico Creek and associated wetlands are located to the northeast of the site. Residential housing is visible south of the site.

The 1993 aerial photograph is similar in appearance with the 1986 photograph. The property has been altered slightly by additional clearing of trees and shrubs near the southwest corner to the waste disposal area.

3.5 AOCs Identified in the Public Record and Interviews

Based on our public record review and interviews of state and local agency representatives, the following AOCs were identified:

- A 1973 Land Disposal Site Modification Report states that the site had problems with burning trash, water pollution, and lack of daily cover during operation.
- Calico Creek, and unnamed tidal creek, and associated esturine wetlands are adjacent to the site. The creek is northeast of the site and the wetlands abut the site on the west, east, and north.
- The site is developed with the Town of Morehead City Public Works Department's maintenance facilities.

4.0 OWNERSHIP INFORMATION

After the location of the Morehead City Refuse Dump was confirmed, the site's ownership information was obtained from Carteret County Tax office and Register of Deeds office. S&ME used the information obtained from the public records review to identify and locate the site's tax identification number, tax parcel number, street address, owner mailing address, size, and relevant deed information. Copies of documents obtained from the County Revenue office and Register of Deeds office are included in Appendix V.

Based on recent tax information, the current owner of the site is the Town of Morehead City. The site property, which is listed as 2.9 acres in size, was purchased by the Town from Clyde and Mary Douglass in 1949. The cover page of the deed indicated that the parcel was to be used as a trash dump by the Morehead City Public Works Department. The site property expanded to approximately 5.5 acres due to additional real estate purchases by the town. A summary of site ownership information is shown on Table 1.

5.0 INITIAL SITE VISIT

The purpose of our initial site visit was to verify the location of the Morehead City Refuse Dump, to gather information regarding land use characteristics of the site and vicinity, to perform a well survey within the search radius, and to interview local residents. Information gained during the public record search and review of topographic maps and aerial photographs was also used to assist in identifying the site and its physical setting.

5.1 Topography

S&ME examined the USGS topographic map of the Mansfield quadrangle dated 1947 (Figure 1). Based on our review of this source and our site reconnaissance, the site is located in the northwest area of Morehead City. Morehead City, which is bordered by Bogue Sound to the south and Calico Creek to the north, has minimal topographic relief.

Calico Creek is adjacent to the northeast of the site. The majority of the site is slightly higher in elevation than the surrounding area due to development. Drainage on the site appears to flow north and northeast towards Calico Creek and its associated estuarine wetland areas. Estuarine wetlands abut the site to the west, east, and north of the site.

5.2 Land Use/Development

Based on our initial site visit, our examination of topographic map data, and our review of recent aerial photographs, the site and its vicinity are described as follows:

The Morehead City Refuse Dump is located near the urbanized coastal town of Morehead City. The site is the current location of the town's Public Works garage, which houses city maintenance equipment and the town's utility offices. The vicinity to the south is developed with residences and businesses. The areas to the west, east, and north are predominantly wooded with residential and commercial development. Calico Creek, which is an extension of Crab Point Bay, is located to the north of the site. Estuarine wetlands are situated east, west, and north of the site.

5.3 Groundwater and Surface Water Resources

During the preliminary site visit, S&ME conducted a visual well survey along roadways that were within the search radius looking for evidence of wells and public and private water systems. Based on our observations of water meters and fire hydrants, no water supply wells were identified within the search radius. Our observations were further confirmed with information collected from interviews of county personnel. According to Mr. David McCabe, the Director of Public Works, the site vicinity is supplied by a public water supply system.

Using topographic maps, aerial photographs, and our visual observations of the initial site visit, S&ME identified one surface water body within the search radius. Calico Creek is approximately 200 to 400 feet northeast of the site (Figure 1). The creek is brackish and tidally influenced. A wetland area and an unnamed tidal creek are located between the waste disposal area and Calico Creek.

In addition to identifying surface water bodies within the search radius, S&ME also attempted to identify surface water intakes for drinking water supply systems within the search radius. Based on our observation, no surface water intake systems were identified within the search radius.

5.4 AOCs Identified in the Search Radius

Based on our initial site visit, two AOCs were identified within the search radius.

- Calico Creek and associated estuarine wetlands are adjacent to the site. The creek is northeast of the site and the wetlands abut the site to the west, east, and north.
- The site is developed with the Town of Morehead City Public Works maintenance shops and office facilities (as mentioned in Sect. 3.5).

6.0 SITE RECONNAISSANCE

After receiving written permission to access the site from the property owner, S&ME performed a site reconnaissance at the Morehead City Refuse Dump. The site reconnaissance was completed on April 4, 2001. The purpose for the site reconnaissance was to record the physical characteristics of the site, which included the identification, if any, of AOCs or potential AOCs. As defined in the SAP, AOCs included, but were not limited to the following conditions in the waste disposal area:

- Slope failure
- Excessive erosion
- Leachate seeps
- Significant settling
- Standing water
- Stressed vegetation
- Human activity
- Stained soil
- Noticeable odors

S&ME personnel looked for visual evidence of water inundation on the site as an indication of flooding. During our interviews, S&ME also asked people knowledgeable of the site whether the site was flooded by Hurricane Floyd or other storm events. According to Mr. David McCabe, the town Director of Public Works, the site was not flooded by Hurricane Floyd.

During the site reconnaissance, observations of AOCs and general site conditions were recorded and color photographs were taken (Appendix VI). Using a dGPS receiver, S&ME recorded the northing and easting coordinates of the site's entrance and observed AOCs. The coordinate format is in North American Datum of 1983 (NAD83), North Carolina Plane Coordinate System in meters as requested by the Branch. S&ME also attempted to establish coordinates using dGPS of selected on-site features (e.g., limits of the waste disposal areas, streams, roadways or property corners) to the extent that these areas could be identified. The following sections describe our observations made during our site reconnaissance.

6.1 Site Description

The site consists of a developed tract of land approximately 5.5 acres in size. The property is bordered by estuarine wetlands to the west, north, and east with Calico Creek further to the northeast. The site is slightly higher in elevation than the surrounding area, but gently slopes topographically downgradient as it nears the north and northeast wetland areas.

The Town of Morehead City Public Works facility has been built on the southern portion of the waste disposal area. This facility consists of the town water and sewer offices, a vehicle maintenance garage, with an area on the central portion of the property used to stockpile soil. Two heating oil aboveground storage tanks (ASTs), 500-gallons in size, are located at the maintenance garage. One AST is situated at the north end of the building and the other is on the south side. Approximately 50 feet south of the garage are two 4,000 gallon ASTs, which are used to store gasoline and diesel fuel.

The northern portion of the site is undeveloped and wooded. A ditch, approximately 100 feet long, extends along the north and east sides of the waste disposal area. At the time of our reconnaissance, rust colored seeps were observed in several areas along the north side of the site. No water was observed flowing from the seeps, but they appeared to be migrating toward the above mentioned ditch.

At the time of our site reconnaissance, S&ME did not observe visual evidence of flooding. In addition to our observations, S&ME spoke with Mr. David McCabe, the towns Director of Public Works. Mr. McCabe further confirmed our observations by stating that the site was not flooded during Hurricane Floyd.

6.2 Waste Disposal Area

S&ME walked the site to identify the limits of the waste disposal area (fill area). During our reconnaissance, S&ME observed visual evidence of exposed debris indicating the

limits of the fill area on the northern portion of the waste disposal area. The eastern, southern, and western limits of fill were approximated due to development on-site. Mr. David McCabe outlined the approximate limits of fill to S&ME on a recent aerial photograph. According to Mr. McCabe, the majority of the dump lies beneath the grounds of the maintenance facility. The coordinates for the approximate limits of fill, as well as other site features, are summarized on Table 3.

Using the 1996 aerial photograph, Mr. McCabe estimated the south, west, and east limits of the waste disposal area as beginning at the entrance of the maintenance facility and extending along the access road, which circles the facility. S&ME personnel then walked this access road and found evidence of the northern limits of fill. The northern limits of fill were evident by a small earthen berm, and the presence of partially exposed debris. Along the northern perimeter of the fill several areas of ponding were observed. These areas had a rusty sheen on the surface with discolored water.

Along the estimated eastern limits of fill, four crushed, corroded ASTs were observed. These ASTs were empty with no stained soil evident.

6.3 Areas of Concern – On Site

The coordinates, descriptions and related photographs of the AOCs are summarized in Table 4.

- Calico Creek, associated estuarian wetlands, and an unnamed tidal creek are adjacent to the site. Calico Creek is northeast of the site and the wetlands and tidal creek abut the west, east, and north sides of the site.
- Two, approximately 500-gallon, heating oil ASTs are located at the maintenance facility.
- Two, 4,000 gallon ASTs, one containing gasoline and the other diesel fuel, are located on the eastern portion of the site. These tanks are used to fuel the town maintenance vehicles.

- A ditch along the northern and eastern limits of fill, approximately 100 feet in length.
- Rust colored seeps were observed along the northern limits of fill migrating toward the perimeter ditch. No noticeable water flow was observed coming from the seeps.
- Several areas of ponding were observed along the northern limits of fill. These areas had discolored water with a rusty sheen.
- Four empty, crushed and corroded ASTs were observed along the eastern limits of fill.

7.0 SUMMARY OF FINDINGS

S&ME performed assessment activities for the Morehead City Refuse Dump following the procedures presented in the *Site Assessment Plan, Hurricane Landfill Assessment Project, State of North Carolina Contract No. N200016* prepared by S&ME, Inc. dated July 14, 2000. The following is a summary of the findings of this assessment.

7.1 Site Location and Ownership

Site Information

Site Name: Morehead City Refuse Dump
Site Identification Number: NONCD0000205
Site's Address 25th Street
Morehead City, NC 28557
County: Carteret County
Coordinates of Site's Entrance: Northing NAD83 (m): 110798
Easting NAD83 (m): 816895
Landfill Size: ~ 5.5 Acres
Date Opened: 1968
Date Closed: 1971
Directions to the Site: From US Highway 70, turn north onto 25th Street. The site is at the north end of the road on the left.

SITE OWNERSHIP

Owner Name	Address	City	State	Zip	Phone
Morehead City	P.O. Drawer M	Morehead City	NC	28557	(252) 726-6848

7.2 Public Record Review

The following public records were reviewed for the Morehead City Refuse Dump and for sites listed on environmental database listings within the search radius.

AGENCY FILES

Agency	Item Copied
NCDENR - SWS	Land Disposal Site Modification Report
Carteret County Register of Deeds	Deed
Carteret County Tax Office	Tax Information Card Tax Map with Parcel Lines Cadastral

A Land Disposal Site Modification Report was completed on November 13, 1973 for the Morehead City Refuse Dump. The report indicated that the site had previously had problems with burning, water pollution, and a lack of daily cover. At the time of that report, the problems had been corrected and the dump was closed.

7.3 Site Vicinity Setting/Characteristics

Based on a review of topographic maps, available aerial photographs, and our site reconnaissance, the site is located in the northwest portion of the Morehead City. Morehead City, which is bordered by Bogue Sound to the south, has minimal topographic relief. The majority of the site is slightly higher in elevation than the surrounding area due to development. Drainage on the site appears to flow north and northeast, towards Calico Creek and its associated wetland areas.

The Morehead City Refuse Dump and its vicinity are in a rural coastal community. The site is the current location of the Morehead City Public Works garage, which houses city maintenance equipment and town utility offices. The vicinity to the south is developed with several houses and businesses. The areas to the west, east, and north are predominantly wooded with some residential and commercial development.

During our review of the site and vicinity characteristics, S&ME performed a well survey and a survey for surface water bodies and surface water intakes at the site and within the search radius. In summary, Calico Creek and wetland areas are located north and east of the site. No wells or surface water intakes were identified at the site or within the search radius. According to the Director of Public Works, the site vicinity is served by a public water supply system.

7.4 Site Reconnaissance

S&ME performed a site reconnaissance at Morehead City Refuse Dump on April 4, 2001. The site consists of a developed tract of land approximately 5.5 acres in size. The property is bordered by wetlands to the west, north, and east with Calico Creek further to the northeast. The site is slightly higher in elevation than the surrounding area, but gently slopes downgradient as it nears the north and northeast wetland areas. The Town of Morehead City Public Works facility has been built on the southern portion of the property. This facility consists of the town water and sewer offices, a vehicle maintenance garage, and an area on the central portion of the property which is used to stockpile soil. Along the estimated eastern limits of fill, four crushed, corroded ASTs were observed. These ASTs were empty with no stained soil evident.

A ditch, approximately 100 feet long, extends along the north and east perimeter of the waste disposal area. At the time of our reconnaissance, rust colored seeps were observed in several areas along the north perimeter of the site. No water was observed flowing from the seeps, but the seepage appeared to be migrating toward the previously mentioned ditch.

At the time of our site reconnaissance, S&ME did not observe visual evidence of flooding. In addition to our observations, S&ME spoke with Mr. David McCabe, the town's Director of Public Works. Mr. McCabe further confirmed S&ME's observations by stating in the standard questionnaire that the site was not flooded during Hurricane Floyd.

7.5 Areas of Concern

S&ME observed AOCs on the site, and found evidence in the public record of other potential areas of concern.

- A 1973 Land Disposal Site Modification Report states that the site had problems with burning trash, water pollution, and a lack of daily cover during operation.
- Calico Creek and associated estuarine wetlands are adjacent to the site. The creek is northeast of the site and the wetlands abut the west, east, and north sides of the site.
- Two heating oil ASTs located at the maintenance facility, approximately 500-gallons in size.
- Two, 4,000 gallon ASTs, one containing gasoline and the other diesel fuel, are located on the eastern portion of the site. These tanks are used to fuel maintenance vehicles.
- A ditch along the northern and eastern limits of fill, approximately 100 feet in length.
- Rust-colored seeps were observed along the northern limits of fill migrating toward the perimeter ditch. No flowing water was observed in the seeps.
- Several areas of ponding were observed along the northern limits of fill. These areas had discolored water with a rusty sheen.
- Four empty, crushed and corroded ASTs were observed along the eastern limits of fill.
- The surface of the waste disposal area is presently developed for human activity. The Morehead City Vehicle Maintenance Facility and the water and sewer department offices occupy about one-third of the site.

PROPERTY AND THE ADJACENT AREA (within 3/8 mile) CONT.

Facility Region:	08
Tank ID:	4
Tank Capacity in Gallons:	10000
Date Installed:	19840214
Tank Status:	IN USE
Tank Substance:	GASOLINE, GASOLINE MIXTURE
Tank Material:	STEEL
Facility Phone:	(919) 726-5020
Facility Region:	08
Tank ID:	5
Tank Capacity in Gallons:	2000
Date Installed:	19840214
Tank Status:	IN USE
Tank Substance:	DIESEL, DIESEL MIXTURE
Tank Material:	STEEL
Fields Not Reported by the Source Agency for this Site:	Comment1(3), Date Removed(5), Cert Type(5), Comment1(2)

VISTA Address*:	PINE STATE CREAMERY COMPANY 2500 ARENDELL ST MOREHEAD CITY, NC 28557	VISTA ID#:	65821527
		Distance/Direction:	0.35 MI / S
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 353		Agency ID:	0-003527

Map ID

5

Agency Address:	SAME AS ABOVE
Facility ID:	0-003527
Facility Name:	PINE STATE CREAMERY COMPANY
Facility Address:	2500 ARENDELL ST
Facility City:	MOREHEAD CITY
Facility State:	NC
Facility Zip:	28557
Facility County:	CARTERET
Facility Phone:	(919) 828-7401
Facility Region:	08
Tank ID:	1
Tank Capacity in Gallons:	1000
Date Installed:	19760215
Date Removed:	19920203
Tank Status:	ABANDONED (REMOVAL OR CLOSED IN PLACE)
Tank Substance:	GASOLINE, GASOLINE MIXTURE
Tank Material:	STEEL
Fields Not Reported by the Source Agency for this Site:	Comment1(1), Cert Type(1), Leak Detection Tank(1), Leak Detection Piping(1)



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

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SITES IN THE SURROUNDING AREA (within 3/8 - 1/2 mile)

VISTA Address*:	HERBERT KELLY BEACHVIEW EXXON 2401 ARENDELL ST MOREHEAD CITY, NC 28557	VISTA ID#:	65244884
		Distance/Direction:	0.38 MI / S
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 353		Agency ID:	0-004619
Agency Address:	SAME AS ABOVE		
Facility ID:	0-004619		
Facility Name:	HERBERT KELLY BEACHVIEW EXXON		
Facility Address:	2401 ARENDELL ST		
Facility City:	MOREHEAD CITY		
Facility State:	NC		
Facility Zip:	28557		
Facility County:	CARTERET		
Facility Phone:	(301) 563-5185		
Facility Region:	08		
Tank ID:	1		
Tank Capacity in Gallons:	4000		
Date Installed:	19690407		
Tank Status:	IN USE		
Tank Substance:	GASOLINE, GASOLINE MIXTURE		
Tank Material:	STEEL		
Facility Phone:	(301) 563-5185		
Facility Region:	08		
Tank ID:	2		
Tank Capacity in Gallons:	4000		
Date Installed:	19690407		
Tank Status:	IN USE		
Tank Substance:	GASOLINE, GASOLINE MIXTURE		
Tank Material:	STEEL		
Facility Phone:	(301) 563-5185		
Facility Region:	08		
Tank ID:	3		
Tank Capacity in Gallons:	4000		
Date Installed:	19690407		
Tank Status:	IN USE		
Tank Substance:	GASOLINE, GASOLINE MIXTURE		
Tank Material:	STEEL		
Facility Phone:	(301) 563-5185		
Facility Region:	08		
Tank ID:	4		
Tank Capacity in Gallons:	4000		
Date Installed:	19690407		
Date Removed:	19900112		
Tank Status:	ABANDONED (REMOVAL OR CLOSED IN PLACE)		
Tank Substance:	GASOLINE, GASOLINE MIXTURE		
Tank Material:	STEEL		

Map ID

2B



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 3/8 - 1/2 mile) CONT.

Facility Phone:	(301) 563-5185
Facility Region:	08
Tank ID:	5
Tank Capacity in Gallons:	4000
Date Installed:	19690407
Tank Status:	IN USE
Tank Substance:	GASOLINE, GASOLINE MIXTURE
Tank Material:	STEEL
Facility Phone:	(301) 563-5185
Facility Region:	08
Tank ID:	7
Tank Capacity in Gallons:	1000
Date Installed:	19640101
Tank Status:	IN USE
Tank Substance:	FUEL OIL
Tank Material:	STEEL
Facility Phone:	(301) 563-5185
Facility Region:	08
Tank ID:	6
Tank Capacity in Gallons:	1000
Date Installed:	19690407
Date Removed:	19981221
Tank Status:	ABANDONED (REMOVAL OR CLOSED IN PLACE)
Tank Substance:	OIL, NEW/USED/MIXTURE
Tank Material:	FIBERGLASS REINFORCED PLASTIC
Fields Not Reported by the Source	Comment1(2), Date Removed(5), Cert Type(7), Leak Detection Tank(7), Leak Detection Piping(7), Comment1(2), Comment1(1), Comment1(2)
Agency for this Site:	
STATE LUST - State Leaking Underground Storage Tank / SRC# 357	
Agency Address:	BEACHVIEW EXXON 2401 ARENDELL ST MOREHEAD CITY, NC 0
Name:	BEACHVIEW EXXON
Address:	2401 ARENDELL ST
City/Town:	MOREHEAD CITY
State:	NC
County:	CARTE
Region:	WILMINGTON
Incident No:	21125
Date Occurred:	12/9/98
Submitted Date:	1/26/00
Description of Incident:	CONTAMINATED SOIL WAS DISCOVERED DURING UST CLOSURE
Owner Name:	MR HERBERT KELLY
Owner Company:	BEACHVIEW EXXON
Owner Address:	2401 ARENDELL STREET
Owner City:	MOREHEAD CITY
Owner State:	NC



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 3/8 - 1/2 mile) CONT.

Owner Zip:	28557
Owner Phone	252-726-3363
Ownership:	PRIVATE
Operation Type:	COMMERCIAL
Source:	LEAK, UST
Type:	GASOLINE/DIESEL
Location:	FACILITY
Priority Update:	1/26/00
Pirf Min Soil:	MIN_SOIL
Incident No:	21125
Material Involved:	1X1000 WASTE OIL TANK
Incident No:	21125
Incident Location Name:	BEACHVIEW EXXON
County:	CARTE
Region:	WIL
Date Entered:	2/4/00
Source:	3
Source Desc:	LEAK, UST
Incident No:	21125
Incident Phase:	RE
Incident Phase Desc:	RESPONSE
Fields Not Reported by the Source Agency for this Site:	GW Contam No(1), Major Soil Contam(1), Owner County(1), Risk Site(1), Site Priority(1), Priority Code(1), Dem Regional Contact(1), Wells Affected(1), No of Wells Affected(1), Samples Taken By(1), Samples Include(1), Min Quad 7 5(1), Min Quad 5(1), Latitude(1), Longitude(1), Amount Lost(1), Amount Recovered(1), Facility ID(1), Last Modified(1), Nov Issued(1), Norr Issued(1), Forty5day Report(1), Public Meeting Held(1), Corrective Action Plan(1), Soc Signed(1), Reclassification Report(1), RS Designation(1), Closure Request Date(1), Closeout Report(1)

VISTA Address*:	MAIN LIFT STATION 600 N 26TH STREET MOREHEAD CITY, NC 28557	VISTA ID#:	65838879
		Distance/Direction:	0.39 MI / S
		Plotted as:	Point
STATE UST - State Underground Storage Tank / SRC# 353		Agency ID:	0-031656
Agency Address:	SAME AS ABOVE		
Facility ID:	0-031656		
Facility Name:	MAIN LIFT STATION		
Facility Address:	600 N 26TH STREET		
Facility City:	MOREHEAD CITY		
Facility State:	NC		
Facility Zip:	28557		
Facility County:	CARTERET		
Facility Phone:	(919) 726-6848		
Facility Region:	08		
Tank ID:	1		
Tank Capacity in Gallons:	500		
Date Installed:	19840101		
Date Removed:	19910930		
Tank Status:	ABANDONED (REMOVAL OR CLOSED IN PLACE)		

Map ID

4B



* VISTA address includes enhanced city and ZIP.

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SITES IN THE SURROUNDING AREA (within 3/8 - 1/2 mile) CONT.

Tank Substance:	DIESEL, DIESEL MIXTURE
Tank Material:	UNKNOWN
Fields Not Reported by the Source Agency for this Site:	Comment1(1), Cert Type(1), Leak Detection Tank(1), Leak Detection Piping(1)

VISTA Address*:	ZIP MART (FORMER) 1009 N 20TH ST MOREHEAD CITY, NC 28557	VISTA ID#:	65230790
		Distance/Direction:	0.49 MI / NE
		Plotted as:	Point

Map ID

6

STATE LUST - State Leaking Underground Storage Tank / SRC# 352		Agency ID:	3
Agency Address:	ZIP MART (FORMER) 1009 N 20TH ST MOREHEAD CITY, NC 0		
Name:	ZIP MART (FORMER)		
Location:	1009 N 20TH ST		
City:	MOREHEAD CITY		
State:	NC		
County:	CARTERET		
Incident No:	13149		
Eligible:	TRUE		
Facility ID:	0-026993		
Deductable Amount:	20000		
Priority Rank:	H		

SITES IN THE SURROUNDING AREA (within 1/2 - 3/4 mile)

VISTA Address*:	TURNERS TEXACO 3212 ARENDELL ST MOREHEAD CITY, NC 28557	VISTA ID#:	65231686
		Distance/Direction:	0.63 MI / SW
		Plotted as:	Point

Map ID

7

STATE LUST - State Leaking Underground Storage Tank / SRC# 352		Agency ID:	302
Agency Address:	TURNERS TEXACO 3212 ARENDELL ST MOREHEAD CITY, NC 0		
Name:	TURNERS TEXACO		
Location:	3212 ARENDELL ST		
City:	MOREHEAD CITY		
State:	NC		
County:	CARTERET		
Incident No:	6094		
Eligible:	TRUE		
Facility ID:	0-011115		
Deductable Amount:	50000		
Priority Rank:	L		
Fields Not Reported by the Source Agency for this Site:	Date Start(1), Date End(1)		



*** VISTA address includes enhanced city and ZIP.**

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SITES IN THE SURROUNDING AREA (within 1/2 - 3/4 mile) CONT.

STATE LUST - State Leaking Underground Storage Tank / SRC# 357		Agency ID:	14365
Agency Address:	TURNERS TEXACO 3212 ARENDELL ST MOREHEAD CITY, NC 0 TURNERS TEXACO		
Name:	3212 ARENDELL ST		
Address:	MOREHEAD CITY		
City/Town:	NC		
State:	CARTE		
County:	WILMINGTON		
Region:			
Incident No:	6094		
Date Occurred:	11/21/90		
Submitted Date:	12/13/90		
GW Contam No	Y		
Description of Incident:	A GASKET IN THE PIPING RESULTED IN A RELEASE OF GASOLINE		
Owner Name:	MR. J.M. DAVIS, PRESIDENT		
Owner Company	J.M. DAVIS INDUSTRIES, INC.		
Owner Address:	201 ARENDELL STREET		
Owner City:	MOREHEAD CITY		
Owner State:	NC		
Owner Zip:	28557		
Owner County	CARTE		
Ownership:	PRIVATE		
Operation Type:	COMMERCIAL		
Source:	LEAK, UST		
Type:	GASOLINE/DIESEL		
Location:	FACILITY		
Risk Site	Y		
Site Priority	70E		
Priority Code	L		
Priority Update:	5/30/98		
Wells Affected	N		
No of Wells Affected	0		
Samples Taken By	1		
Samples Include	2		
Latitude	764500		
Longitude	344328		
Pirf Min Soil:	PIRF		
Incident No:	6094		
Material Involved:	GASOLINE		
Incident No:	6094		
Last Modified	1/12/00		
Incident Phase:	FU		
Nov Issued	12/30/99		
Incident Phase Desc:	FOLLOW UP		



*** VISTA address includes enhanced city and ZIP.**

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

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SITES IN THE SURROUNDING AREA (within 1/2 - 3/4 mile) CONT.

**Fields Not Reported by the Source
Agency for this Site:**

*Major Soil Contam(1), Owner Phone(1), Dem Regional Contact(1), Min Quad 7
5(1), Min Quad 5(1), Amount Lost(1), Amount Recovered(1), Narr Issued(1)*

SITES IN THE SURROUNDING AREA (within 3/4 - 1 1/4 miles)

No Records Found



*** VISTA address includes enhanced city and ZIP.**

For more information call VISTA Information Solutions, Inc. at **1 - 800 - 767 - 0403.**

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UNMAPPED SITES

VISTA Address*:	USMC/CRASH CREW BURN PIT MCALF BOGUE MOREHEAD CITY, NC 28557	VISTA ID#:	6854257
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CERCLIS / SRC# 17	Agency ID:	0403191
Agency Address:	SAME AS ABOVE	
EPA ID:	NC7170090008	
Site ID:	0403191	
EPA Region:	04	
USGS Hydrologic Unit Code:	03020106	
Ownership Type:	FEDERALLY OWNED	
Federal Facility Indicator:	FEDERAL FACILITY	
NPL Status:	NOT ON THE NPL	
Hazardous Waste Docket Flag:	LISTED ON THE HAZARDOUS WASTE DOCKET	
Site Incident Category Description:	FEDERAL FACILITY	
Action:	DISCOVERY	
Action Lead:	FEDERAL FACILITIES	
Actual Completion Date:	FEBRUARY 12, 1988	
Action:	PRELIMINARY ASSESSMENT	
Action Qualifier:	NFRAP (NO FUTHER REMEDIAL ACTION PLANNED)	
Action Lead:	FEDERAL FACILITIES	
Actual Start Date:	FEBRUARY 15, 1983	
Actual Completion Date:	FEBRUARY 15, 1988	
Action:	SCREENING SITE INSPECTION	
Action Qualifier:	NFRAP (NO FUTHER REMEDIAL ACTION PLANNED)	
Action Lead:	FEDERAL FACILITIES	
Actual Completion Date:	SEPTEMBER 30, 1993	
Action:	SCREENING SITE INSPECTION	
Action Qualifier:	NFRAP (NO FUTHER REMEDIAL ACTION PLANNED)	
Action Lead:	FEDERAL FACILITIES	
Scheduled Completion Date:	JULY 15, 1992	
Actual Start Date:	AUGUST 25, 1991	
Actual Completion Date:	JANUARY 30, 1992	
Operable Unit ID:	00	
Operable Unit Name:	SITEWIDE	
Alias ID:	101	
Alias Name:	USMC/CRASH CREW BURN PIT	
Fields Not Reported by the Source	Financial Management System ID(1), Action Qualifier(1), Scheduled Start Date(4), Scheduled Completion Date(3), Actual Start Date(2), Description(1), Address(1)	
Agency for this Site:		

VISTA Address*:	ZIP MART (FORMER) N 20TH ST MOREHEAD CITY, NC 0	VISTA ID#:	65262686
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STATE LUST - State Leaking Underground Storage Tank / SRC# 357	Agency ID:	15914
Agency Address:	SAME AS ABOVE	
Name:	ZIP MART (FORMER)	



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

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UNMAPPED SITES CONT.

Address:	N 20TH ST
City/Town:	MOREHEAD CITY
State:	NC
County:	CARTE
Region:	WILMINGTON
Incident No:	13149
Date Occurred:	9/2/1904
Submitted Date:	1/18/95
GW Contam No	Y
Description of Incident:	UPON CLOSURE OF UST, GW SAMPLE CONFIRMED CONTAMINATION.
Owner Name:	MR. ROBERT E. BRYAN, JR.
Owner Company	BRYAN OIL COMPANY, INC
Owner Address:	P.O. BOX 53557
Owner City:	FAYETTEVILLE
Owner State:	NC
Owner Zip:	28305
Owner County	CARTE
Ownership:	PRIVATE
Operation Type:	COMMERCIAL
Source:	LEAK, UST
Type:	GASOLINE/DIESEL
Location:	FACILITY
Risk Site	Y
Site Priority	90B
Priority Code	H
Priority Update:	5/30/98
Wells Affected	N
No of Wells Affected	0
Samples Taken By	3
Samples Include	1
Min Quad 5	X16
Latitude	344408
Longitude	764353
Pirf Min Soil:	PIRF
Incident No:	13149
Material Involved:	GASOLINE
Incident No:	13149
Incident Location Name:	ZIP MART (FORMER)
County:	CARTE
Region:	WIL
Date Entered:	1/20/95
Source:	3
Source Desc:	LEAK, UST
Incident No:	13149
Last Modified	8/17/00



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

Report ID: 672202901

Date of Report: April 17, 2001

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UNMAPPED SITES CONT.

Incident Phase:	CO
Closeout Report	7/31/00
Incident Phase Desc:	CLOSED OUT
Fields Not Reported by the Source	Major Soil Contam(1), Owner Phone(1), Dem Regional Contact(1), Min Quad 7 5(1), Amount Lost(1), Amount Recovered(1), Facility ID(1), Nov Issued(1)
Agency for this Site:	

VISTA Address*:	RON CO HWY 70 MOREHEAD CITY, NC 28557	VISTA ID#:	3803561
-----------------	---	------------	---------

STATE LUST - State Leaking Underground Storage Tank / SRC# 357		Agency ID:	11909
Agency Address:	RON CO HWY 70 MOREHEAD CITY, NC 0		
Name:	RON CO		
Address:	HWY 70		
City/Town:	MOREHEAD CITY		
State:	NC		
County:	CARTE		
Region:	WILMINGTON		
Incident No:	9442		
Date Occurred:	10/22/92		
Submitted Date:	11/19/92		
Major Soil Contam	Y		
Description of Incident:	DURING REMOVAL OF USTS CONTAMINATED SOIL WAS DISCOVERED AND EXCAVATED. SOIL SAMPLES INDICATE RELEASE OF PETROLEUM HAS OCCURRED AT THIS SITE.		
Owner Name:	MR. RONNIE COLLINS		
Owner Address:	49 GOOSE CREEK LAND		
Owner City:	NEWPORT		
Owner State:	NC		
Owner Zip:	28570		
Owner County:	CARTE		
Ownership:	PRIVATE		
Operation Type:	COMMERCIAL		
Source:	LEAK, UST		
Type:	GASOLINE/DIESEL		
Location:	FACILITY		
Risk Site	Y		
Site Priority	55B		
Priority Code	H		
Priority Update:	5/30/98		
Wells Affected	N		
No of Wells Affected	0		
Samples Taken By	3		
Samples Include	1		
Min Quad 5	X18A		
Latitude	344457		



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

Report ID: 672202901

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UNMAPPED SITES CONT.

Longitude	765018
Pirf Min Soil:	PIRF
Incident No:	9442
Material Involved:	GASOLINE
Incident No:	9442
Incident Location Name:	RON-CO
County:	CARTE
Region:	WIL
Date Entered:	11/24/92
Source:	3
Source Desc:	LEAK, UST
Incident No:	9442
Incident Phase:	RE
Incident Phase Desc:	RESPONSE
Fields Not Reported by the Source Agency for this Site:	GW Contam No(1), Owner Company(1), Owner Phone(1), Dem Regional Contact(1), Min Quad 7 5(1), Amount Lost(1), Amount Recovered(1), Facility ID(1), Last Modified(1), Nov Issued(1), Norr Issued(1), Forty5day Report(1), Public Meeting Held(1), Corrective Action Plan(1), Soc Signed(1), Reclassification Report(1), RS Designation(1), Closure Request Date(1), Closeout Report(1)

VISTA Address*:	CRYSTAL COAST AUTO CENTER HWY 70 MOREHEAD CITY, NC 28557	VISTA ID#:	7600368
-----------------	--	------------	---------

STATE LUST - State Leaking Underground Storage Tank / SRC# 357		Agency ID:	3571
Agency Address:	CRYSTAL COAST AUTO CENTER HWY 70 MOREHEAD CITY, NC 0		
Name:	CRYSTAL COAST AUTO CENTER		
Address:	HWY 70		
City/Town:	MOREHEAD CITY		
State:	NC		
County:	CARTE		
Region:	WILMINGTON		
Incident No:	6560		
Date Occurred:	3/13/91		
Submitted Date:	5/2/91		
Description of Incident:	WHILE REMOVING A WASTE OIL UST THE SEPTIC SYSTEM WAS CRUSHED AND SOIL WAS CONTAM. W/WASTE OIL AND SEWAGE.		
Owner Name:	JOE ALCOE PONTIAC		
Owner Address:	3305 CLARENDON DR.		
Owner City:	NEW BERN		
Owner County:	CRAVE		
Ownership:	PRIVATE		
Operation Type:	COMMERCIAL		
Source:	LEAK, UST		
Type:	OTHER ORGANICS		
Location:	FACILITY		
Site Priority	105		
Wells Affected	N		



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

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UNMAPPED SITES CONT.

No of Wells Affected	0
Samples Taken By	3
Samples Include	1
Latitude	764801
Longitude	344407
Pirf Min Soil:	PIRF
Incident No:	6560
Material Involved:	DIESEL
Amount Recovered	NONE
Incident No:	6560
Material Involved:	WASTE OIL
Incident No:	6560
Last Modified	3/29/99
Incident Phase:	CO
Closeout Report	4/30/91
Incident Phase Desc:	CLOSED OUT
Fields Not Reported by the Source Agency for this Site:	GW Contam No(1), Major Soil Contam(1), Owner Company(1), Owner State(1), Owner Zip(1), Owner Phone(1), Risk Site(1), Priority Code(1), Priority Update(1), Dem Regional Contact(1), Min Quad 7 5(1), Min Quad 5(1), Amount Lost(2), Amount Recovered(1), Nov Issued(1)



* VISTA address includes enhanced city and ZIP.

For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

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SITE ASSESSMENT PLUS REPORT (EXTENDED BY 1/4 MILE)

DESCRIPTION OF DATABASES SEARCHED

A) DATABASES SEARCHED TO 1 1/4 MILES

NPL
SRC#: 19 VISTA conducts a database search to identify all sites within 1.25 mile of your property.
The agency release date for National Priorities List was December, 2000.

The NPL Report is the US EPA's registry of the nation's worst uncontrolled or abandoned hazardous waste sites. NPL sites are targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980.

SPL
SRC#: 350 VISTA conducts a database search to identify all sites within 1.25 mile of your property.
The agency release date for Annual Report to the North Carolina General Assembly was November, 1998.

This database is provided by the Department of Environmental Health Natural Resources, Superfund Section. The agency may be contacted at: 919-733-2801.

CORRACTS
SRC#: 14 VISTA conducts a database search to identify all sites within 1.25 mile of your property.
The agency release date for RCRIS Corrective Action Sites was June, 2000.

The CORRACTS database contains information concerning RCRA facilities that have conducted, or are currently conducting a corrective action. A Corrective Action Order is issued pursuant to RCRA Section 3008 (h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may also be imposed as a requirement of receiving and maintaining a TSDF permit.

RCRIS-TSDC
SRC#: 556 VISTA conducts a database search to identify all sites within 1.25 mile of your property.
The agency release date for RCRIS TSDs Subject to Corrective Action was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA TSDCs are treatment, storage and/or disposal facilities that are subject to corrective action under RCRA.



B) DATABASES SEARCHED TO 3/4 MILE

CERCLIS
SRC#: 17 VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for Comprehensive Environmental Response, Compensation and Liability Information Sys was December, 2000.

The CERCLIS database is a comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites have either been investigated, or are currently under investigation by the U.S. EPA for the release, or threatened release of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation, and ultimately placed on the National Priorities List (NPL).

NFRAP
SRC#: 18 VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for No Further Remedial Action Planned was December, 2000.

The No Further Remedial Action Planned Report (NFRAP), also known as the CERCLIS Archive, contains information pertaining to sites which have been removed from the U.S. EPA's CERCLIS database. NFRAP sites may be sites where, following an initial investigation, either no contamination was found, contamination was removed quickly without need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration.

SCL
SRC#: 351 VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for Annual Report to the North Carolina General Assembly was November, 1998.

This database is provided by the Department of Environmental Health Natural Resources, Superfund Section. The agency may be contacted at: 919-733-2801.

RCRIS-TSD
SRC#: 12 VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for RCRIS Treatment, Storage and Disposal Facilities was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA TSDs are facilities which treat, store and/or dispose of hazardous waste.

SWLF
SRC#: 23 VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for USGS Solid Waste Landfills was December, 1991.

This database is provided by the United States Geological Survey. The agency may be contacted at: 703-648-5613.



SWLF
SRC#: 354

VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for Inactive and Closed Solid Waste Facilities was September, 1999.

This database is provided by the Dept. of Environmental Health Natural Resources, Solid Hazardous Waste Mgmt. The agency may be contacted at: 919-733-0692.

SWLF
SRC#: 355

VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for Solid Waste Facilities was October, 2000.

This database is provided by the Dept. of Environmental Health Natural Resources, Solid Hazardous Waste Mgmt. The agency may be contacted at: 919-733-0692.

LUST
SRC#: 352

VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for North Carolina State Trust Fund Sites was October, 2000.

This database is provided by the Department of Environmental Health Natural Resources, Ground Water Operations. The agency may be contacted at: 919-715-6187.

LUST
SRC#: 357

VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for Incident Report was January, 2001.

This database is provided by the Department of Environmental Health Natural Resources, Ground Water Operations. The agency may be contacted at: 919-715-6187.

USGS-WELLS
SRC#: 3

VISTA conducts a database search to identify all sites within 3/4 mile of your property.
The agency release date for USGS Water Wells was March, 1998.

The Ground Water Site Inventory (GWSI) database was provided by the United States Geological Survey (USGS). The database contains information for over 1,000,000 wells and other sources of groundwater which the USGS has studied, used or documented during research.

C) DATABASES SEARCHED TO 1/2 MILE

RCRIS-VIOL
SRC#: 11

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for RCRIS Facilities with Violations was June, 2000.

The Resource Conservation and Recovery Act Information System (RCRIS) identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRIS Violations report contains information concerning facilities that have been cited for violations of RCRA, as well as any enforcement actions taken against the facility.



UST
SRC#: 353

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Underground Storage Tanks was January, 2001.

This database is provided by the Department of Environmental Health Natural Resources, Div of Environmental Mgt. The agency may be contacted at: 919-733-1308. Be advised that some states do not require registration of heating oil tanks, especially those used for residential purposes.

TRIS
SRC#: 2

VISTA conducts a database search to identify all sites within 1/2 mile of your property.
The agency release date for Toxic Release Inventory System was January, 1998.

All facilities that manufacture, process, or import toxic chemicals in quantities in excess of 25,000 pounds per year are required to register with the EPA under Section 313 of the Superfund Amendments and Reauthorization Act (SARA Title III) of 1986. Data contained in the TRIS system covers approximately 20,000 sites and 75,000 chemical releases.

D) DATABASES SEARCHED TO 3/8 MILE

ERNS
SRC#: 8

VISTA conducts a database search to identify all sites within .375 mile of your property.
The agency release date for Emergency Response Notification System was December, 1999.

ERNS is a national computer database system that is used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS reporting system contains preliminary information on specific releases, including the spill location, the substance released, and the responsible party.

RCRA-LQG
SRC#: 16

VISTA conducts a database search to identify all sites within .375 mile of your property.
The agency release date for RCRIS Large Quantity Generators was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Large Generators are facilities which generate at least 1000 kg./month of non-acutely hazardous waste (or 1 kg./month of acutely hazardous waste).

RCRIS-SQG
SRC#: 15

VISTA conducts a database search to identify all sites within .375 mile of your property.
The agency release date for RCRIS Small Quantity Generators was June, 2000.

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA Small Quantity Generators are facilities which generate less than 1000 kg./month of non-acutely hazardous waste.



For more information call VISTA Information Solutions, Inc. at 1 - 800 - 767 - 0403.

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SPILLS
SRC#: 356

VISTA conducts a database search to identify all sites within .375 mile of your property.
The agency release date for Incident Report was January, 2001.

This database is provided by the Department of Environmental Health Natural Resources, Ground Water Operations. The agency may be contacted at: 919-715-6187.

End of Report



For more information call VISTA Information Solutions, Inc. at **1 - 800 - 767 - 0403.**

Report ID: **672202901**

Date of Report: **April 17, 2001**

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APPENDIX III

M.
11-19-73

Community Solid Waste Practices
LAND DISPOSAL SITE MODIFICATION REPORT

1. STATE <u>ALC.</u>	2. COUNTY <u>Carters</u>	3. SITE LOCATION <u>Morehead City</u>	4. POLITICAL JURISDICTION <u>3720</u>
5. NAME OF SITE <u>Morehead City Refuse Dump</u>	6. ADDRESS OF SITE <u> Hwy 70 W. Morehead City near Carters Rock Track</u>	7. DATE OF REPORT DAY: <u>13</u> MONTH: <u>11</u> YEAR: <u>73</u>	
8. NAME OF PERSON COMPLETING FORM <u>Fred J Wood</u>	9. TITLE <u>Dist. San.</u>	10. ORGANIZATION AND ADDRESS <u>Div of Health Services</u>	

10. Original Land Disposal Site Problems (check appropriate categories)

☒ Burning

☒ Water Pollution

☒ Lack of Daily Cover

11. Site Has Been (check A or B and appropriate actions completed)

A ☒ Eliminated and:

☒ Rats Eradicated

☒ Burning Stopped

☒ Water Pollution Corrected

☒ Access Prohibited

☒ Site Covered

☐ Other (Specify)

B ☐ Converted to Sanitary Landfill and:

☐ Rats Eradicated

☐ Burning Stopped

☐ Water Pollution Corrected

☐ Daily Cover Practiced

☐ Other (Specify)

12. Reason for Modification (check one)

☐ Law

☐ Operation Completed

☒ Other New Site
(Specify)

13. Date Modification Completed

Day

Month

Year

9

10

71

14. Waste Formerly Hauled to the Eliminated Site Now Being Hauled to:

County	Site Location	Name of Site	Address	Tons or Percent
A <u>Carters</u>	<u>SR 1141 4 miles S. of Newport</u>	<u>Carters County Landfill</u>	<u>SR. 1141</u>	<u>100</u>
B				
C				
D				
E				

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

**TOWN OF
MOREHEAD CITY,
NORTH CAROLINA
CARTERET COUNTY**

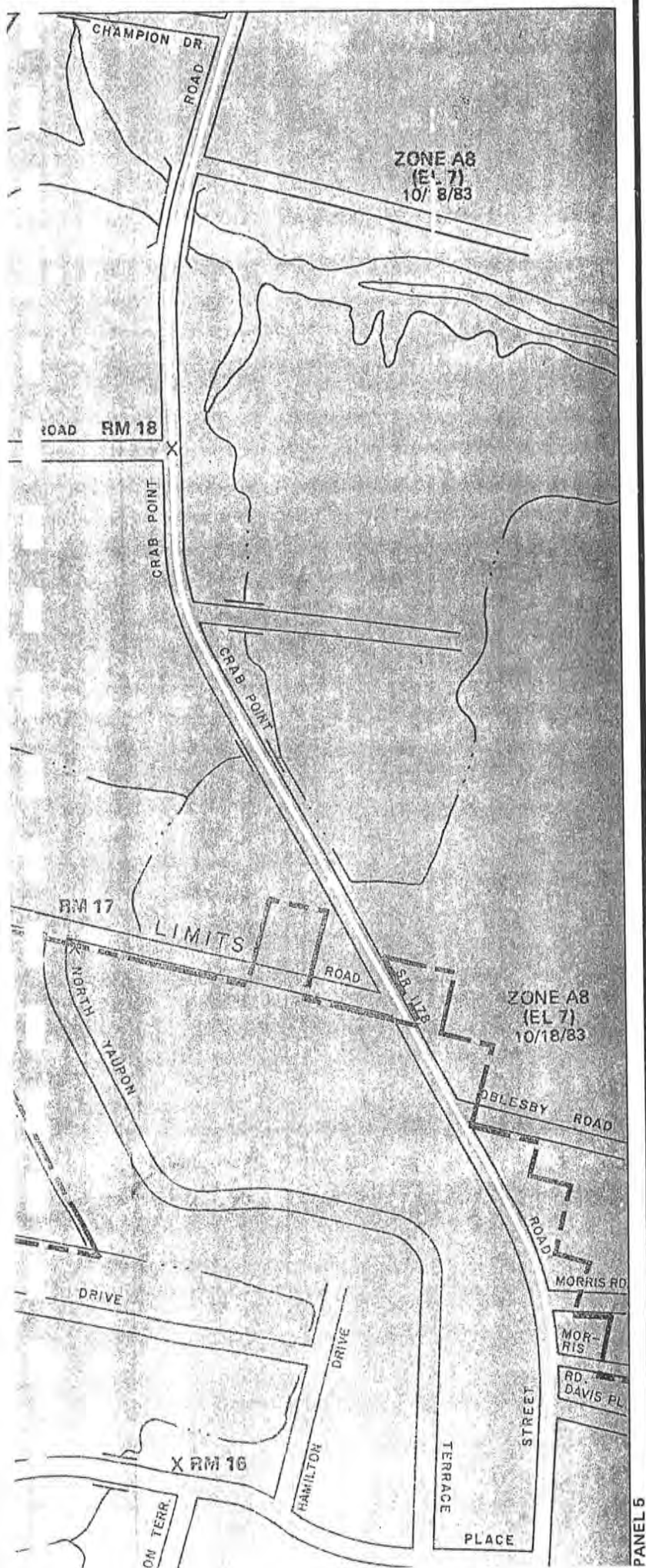
PANEL 4 OF 5

**COMMUNITY-PANEL NUMBER
370048 0004 B**

**REVISION DATE:
OCTOBER 18, 1983**



Federal Emergency Management Agency



KEY TO MAP

500-Year Flood Boundary	→
100-Year Flood Boundary	→
Zone Designations* With Date of Identification e.g., 12/2/74	→
100-Year Flood Boundary	→
500-Year Flood Boundary	→
Base Flood Elevation Line With Elevation In Feet**	~~~~~513~~~~~
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7X
Zone D Boundary	— — — — —
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

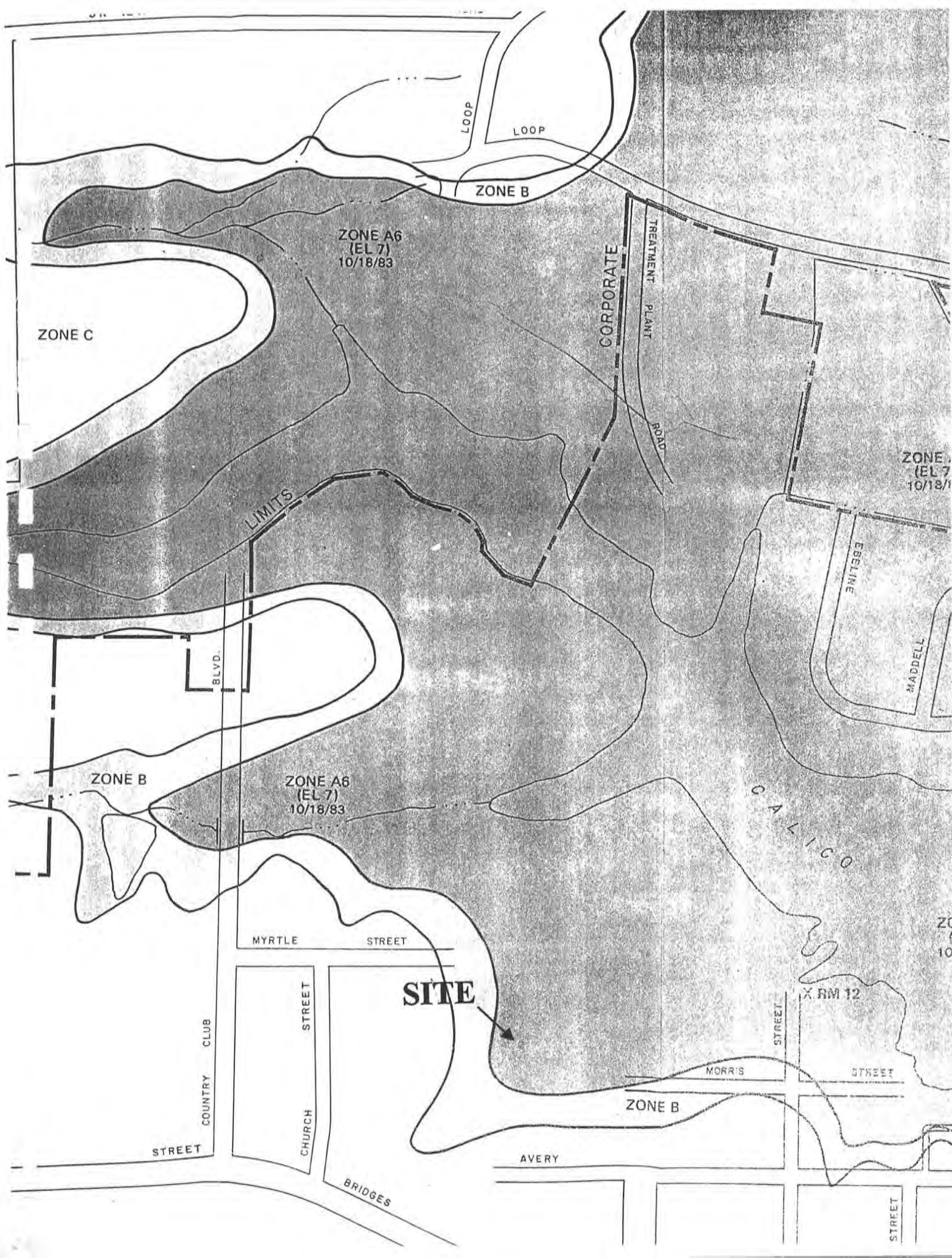
This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

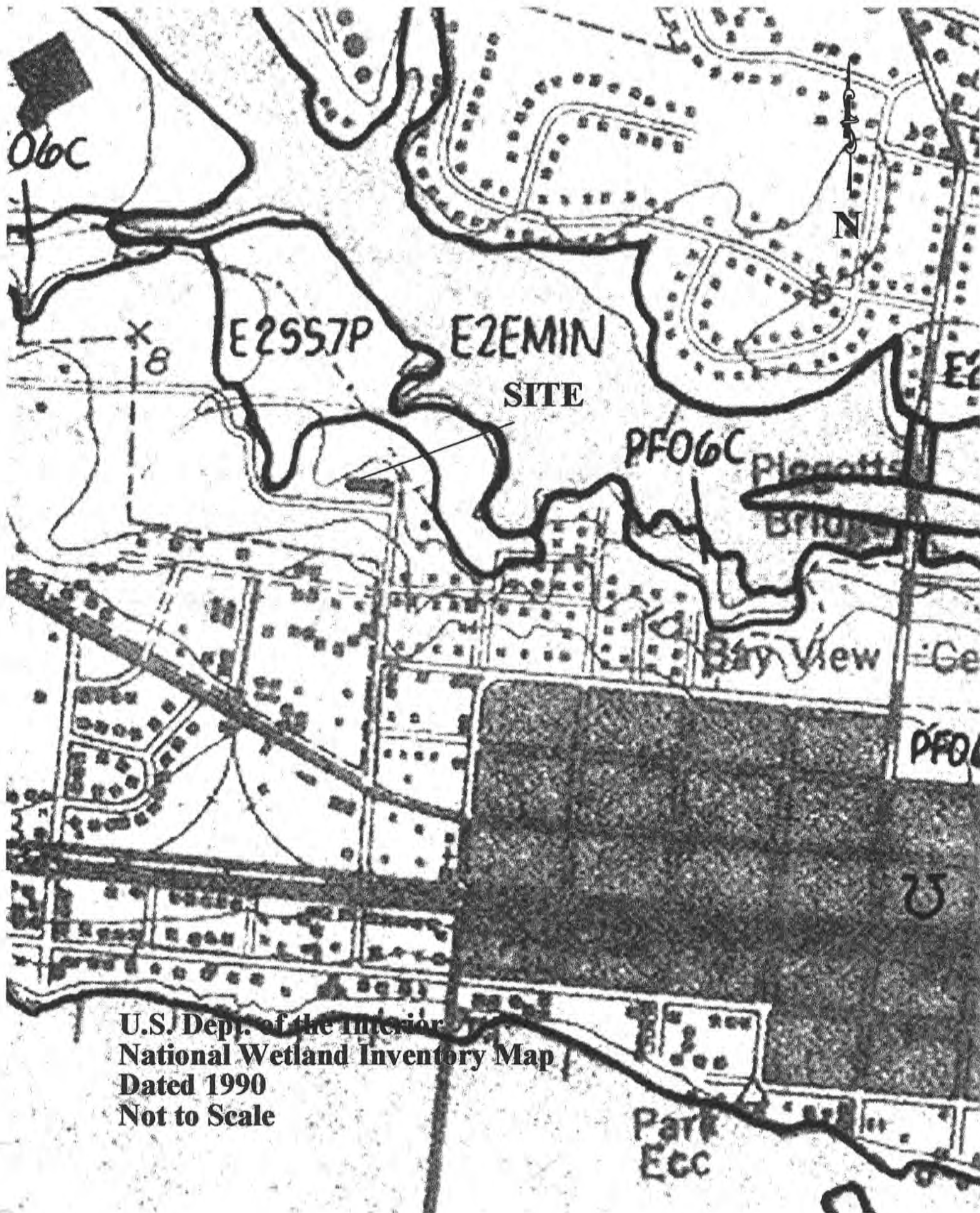
For adjoining map panels, see separately printed Index To Map Panels.

Coastal Base Flood Elevations shown on this map include the effects of wave action.

Coastal Base Flood Elevations apply only landward of the shoreline shown on this map.

For description of elevation reference marks see panel 370048-0001B.





APPENDIX IV

Hurricane Landfill Assessment Questionnaire

Contract Number N200016

County:	Carteret	Site's DENR ID Number:	NONCD00000205
Site Name:	Morehead City Refuse Dump	S&ME, Inc. Project Number:	1040-00-338K

Question	Owner / Occupant / Public Official / Neighbor	Comments
1. Is the Site or any adjoining Site currently used for disposal of trash, construction debris, used vehicles and/or other wastes?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk ¹	
2. Is the Site or any adjoining Site used in the past for disposal of trash, construction debris, used vehicles and/or other wastes?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	
3. Are you aware of any asbestos or asbestos containing materials disposed of at the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
4. Are you aware of any transformers, capacitors, or any hydraulic equipment that was disposed of on the Site or for which there are any records indicating the presence of PCBs?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
5. Have you any knowledge of exposed waste materials on the Site.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk ¹	Metal debris, C & D
6. Are there currently, or to the best of your knowledge have there been previously, any industrial drums (typically 55 gal (208 L) or sacks of chemicals located on the Site or at the facility?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
7. Are you aware or is there evidence of stained surface water or seeps at the site or adjacent to the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
8. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
9. Are there any streams on or flowing next to the Site?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	Calico Creek
10. Is there currently any stained soil on the Site or unusual odors emanating from the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
11. To the best of your knowledge have there been previously any stained soil on the Site or unusual odors emanating from the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
12. Are there any areas of stressed vegetation or dead trees on the Site?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	Killed by hurricanes & beetles
13. Are there currently or to the best of your knowledge have there been previously any registered or unregistered storage tanks (above or underground) located on the Site?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unk	diesel & gas ASTs (2) 4000g



Hurricane Landfill Assessment Questionnaire

Contract Number N200016

County:	Carteret	Site's DENR ID Number:	NONCD00000205
Site Name:	Morehead City Refuse Dump	S&ME, Inc. Project Number:	1040-00-338K

Question	Owner / Occupant / Public Official / Neighbor	Comments
14. To the best of your knowledge, have there been any fires on the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	Tree debris burned
15. Is the Site or adjoining properties served by a private well or non-public water system?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
16. If there is a private well non-public water system currently used on or are used at adjoining properties, have there been any unusual tastes, odors, or color in the water? Has the water been tested by the Health Dept.?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	N/A
17. Are you aware or suspect that groundwater is contaminated at the site or from adjoining property to the site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
18. Are you aware of any erosion on the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
19. Does the owner or occupant of the Site have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the Site or any facility located on the Site?	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	
20. Miscellaneous Comments	Yes <input type="radio"/> No <input checked="" type="radio"/> Unk	No flooding at site

This questionnaire was completed by: Name: <u>Chris Hamblot</u> Title: <u>Env. Scientist</u> Address: _____ Phone No.: _____ Date: _____	Person(s) responding to the questionnaire: Name: <u>David M. Cate</u> Address: <u>Town Hall, 706 Cromwell St., Morehead City</u> Phone No.: <u>252 726-6848</u> Relationship to Site: <u>Public Works Director</u> Date/Time: <u>4/4/2001</u> (e.g., Owner, Occupant, Neighbor, Fire Marshal, Sheriff, or other Agency Representative)
---	--



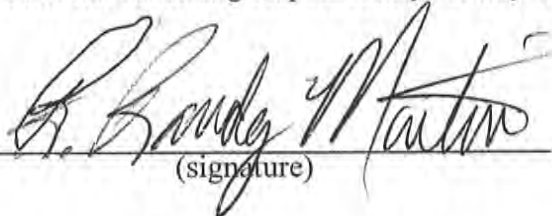
APPENDIX V

SITE ACCESS PERMISSION FORM

Site Name: Morehead City Refuse Dump
Address: 25th Street, Morehead City
County: Carteret
Site ID Number: NONCD0000205

I grant the State of North Carolina's contractor, S&ME, Inc., permission to inspect my property for the presence of hazards caused by the property's possible past use as a landfill or open dump. I understand that this inspection is for information gathering purposes only and S&ME will not be performing any invasive activities during this inspection.

By signing this form, I am not assuming responsibility for any hazards that are found.

Property Owner:  (signature) Date: 4/4/01

UNIC... EXEMPTION
 PID E 6376.16.93.6361000
 LISTER 12/02/1999 JS
 TWP MOREHEAD CITY
 LOT BLK
 NBHD 51000800 USE 001000 EXEMPT
 LEGAL: ACREAGE MOZINGO LAND TOWN OF MOREHEAD CITY
 PO DRAWER M
 MOREHEAD CITY NC 28557
 FIRE ** 1999 SPECIAL DISTRESSCUE **SPECIAL DISTRICT 2 OTHER * SPECIAL DIST
 ADDRESS 00000000
 PRINTED 4/24/2001 BY DAVINA
 18,500 Prev yr Value
 245,500 MVT
 2.900 ACRES
 CAP 001
 002
 BLDG 000
 XFOB 000

LAND

Seq Zone	Code	Use	Front	Depth	Back	FT	#Units	UT	UTPrice	Adj1	Adj2	Adj3	Adj4	Padj	Dadj	Bff Rate	Value	
1	510837						2.000 AC	UT	150,000.000	-70	1.00	1.00	1.00	1.00	1.00	1.00	105,000.000	210,000
2	510803						.900 AC	DEED	50,000.000	-70	1.00	1.00	1.00	1.00	1.00	1.00	35,000.000	31,500



Disclaimer

This is a Print Title

1 in. = 264 ft



NOTED
FOR RECORDING

HAYCO L. DOUGLASS & CO.
May 2, 1904

TO

Town of Morehead City

Jack Sharp
(Public Works Dept.)

QUEREN
DEED

Filed for registration at 3:20 PM

in the 24th day of January

1904 and is now in the office of the
Register of Deeds at Morehead City, N.C.

The *Deed*

in Book 124, No. 100

John H. Davis

Register of Deeds

HAMILTON & MCNEIL
ATTORNEYS AT LAW
MOREHEAD CITY, N.C.

NORTH CAROLINA, CARTERET COUNTY.

THIS DEED, Made this 22nd day of January, 1949, by and between Clyde A. Douglass and wife, Mary A. Douglass, of Wake County, North Carolina, parties of the first part, and Town of Morehead City, party of the second part.

WITNESSETH, that said parties of the first part, for and in consideration of the sum of Ten Dollars and other good and valuable consideration, to them in hand paid by the party of the second part, the receipt of which is hereby acknowledged, have remised and released and by these presents do remise, release and forever quitclaim unto the party of the second part and its successors and assigns, all right, title, claim and interest of the parties of the first part in and to that certain tract or parcel of land lying and being in the County of Carteret, State of North Carolina, in Morehead Township, and more particularly described as follows:

That property shown on the official map and plan of the Town of Morehead City as 25th Street, said right of ownership having arisen or accrued by virtue of the ownership of certain blocks adjacent to said street, and particularly Blocks 165, 166 and 167, and it is the purpose and intent of the grantors herein shown to sell and to convey to the said Town of Morehead City whatever right, title and interest they may have in and to that part of their said property which now appears on the Town Map as 25th Street, said property lying north of Bridges Street and/or U. S. Highway #70.

TO HAVE AND TO HOLD the aforesaid tract or parcel of land and all privileges thereunto belonging to it, the said party of the second part, and its successors and assigns, free and discharged from all right, title, claim or interest of the said parties of the first part or anyone claiming by, through or under them.



APPENDIX VI

PHOTOGRAPH RECORD

S&ME Project Number: 1040-00-338K Project Name: Morehead City Refuse Dump
Site Location: Public Works Maintenance Garage, Morehead City, North Carolina



Photograph No. 1 Site entrance looking north from 25th Street.



Photograph No. 2: One of two heating oil aboveground storage tanks used by the maintenance garage, which is located on the site.

PHOTOGRAPH RECORD

S&ME Project Number: 1040-00-338K Project Name: Morehead City Refuse Dump
Site Location: Public Works Maintenance Garage, Morehead City, North Carolina



Photograph No. 3:	Two 4,000-gallon above ground storage tanks, and associated pump islands, used to store gasoline and diesel fuel on the site.
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Photograph No. 4	View of the ditch along the north and northeast perimeter of the site. Trash is also visible.
------------------	---

PHOTOGRAPH RECORD

S&ME Project Number: 1040-00-338K Project Name: Morehead City Refuse Dump
Site Location: Public Works Maintenance Garage, Morehead City, North Carolina



Photograph No. 5

One of several rust colored seeps along the northern portion of the site. These seeps appeared to be migrating towards the abutting wetland area.



Photograph No. 6

Ponding, which was visible along the northern limits of the fill area.

PHOTOGRAPH RECORD

S&ME Project Number: 1040-00-338K Project Name: Morehead City Refuse Dump
Site Location: Public Works Maintenance Garage, Morehead City, North Carolina



Photograph No. 7	Four (4) crushed and corroded above ground storage tanks near the northeast limits of fill.
------------------	---

245PRLFSF547



DocumentID NONCD0000205

SITENAME MOREHEAD CITY REFUSE DUMP

DocumentType Correspondence (C)

RptSegment 1

DocDate 8/30/2002

DocRcvd 8/30/2002

Box SF547

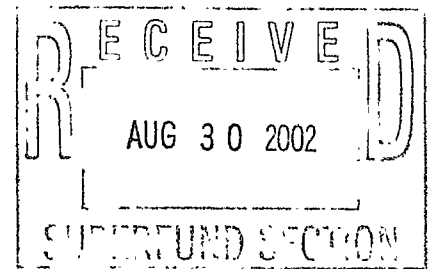
AccessLevel Public

Division Waste Management

Section Superfund

Program IHS (IHS)

DocCat Facility



August 30, 2002

Mr. John Walch
North Carolina Department of Environment and Natural Resources
Superfund Section
Inactive Sites Branch
401 Oberlin Road
Raleigh, North Carolina 27604

Reference: **Atlantic Beach Refuse Dump (NONCD0000202)**
Hurricane Landfill Assessment Project
State Contract No. N200016
S&ME Project No. 1040-00-338A
Volume I of XVII

Dear Mr. Walch:

Upon review of the Old Landfill Inventory information concerning the Atlantic Beach Refuse Dump site, the information appears to refer to the same site as the Morehead City Refuse Dump (NONCD0000205). Both sites' coordinates are identical, and the directions to the site, landfill size and dates of operation are very similar. No other information was identified in the Division of Waste Management's public record files regarding the Atlantic Beach Refuse Dump. The Morehead City Refuse Dump is also located near the bridge from Atlantic Beach. The following table summarizes the Old Landfill Inventory information for these sites.

	Atlantic Beach Refuse Dump	Morehead City Refuse Dump
Latitude	34.7383	34.7383
Longitude	-76.7798	-76.7798
Directions	Hwy. 70, W of Morehead City near Race Track	Hwy. 70 W near Race Track
Landfill Size	2	3
Open Date	1967	1968
Closed Date	1971	1971

S&ME, Inc.
3118 Spring Forest Road
Raleigh, North Carolina 27616

Mailing address:
P.O. Box 58069
Raleigh, North Carolina 27658-8069


(919) 872-2660
(919) 790-9827 fax
www.smeinc.com


Therefore, please refer to the Morehead City Refuse Dump report (S&ME Project No.1040-00-338K) for additional information concerning this site.

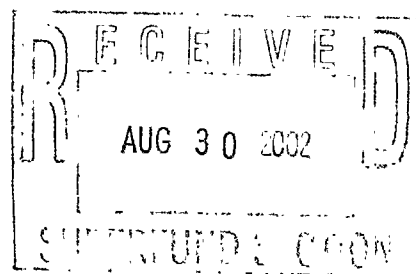
Please contact our office if you have any questions or comments regarding this site.

Sincerely,

S&ME, Inc.


Christopher Hamblet
Environmental Scientist


Edmund Woleszyn, Jr., R.E.M.
Manager, Technical Applications Dept.



August 30, 2002

Mr. John Walch
North Carolina Department of Environment and Natural Resources
Superfund Section
Inactive Sites Branch
401 Oberlin Road
Raleigh, North Carolina 27604

Reference: **Whaley Refuse Dump (NONCD000020¹/₂)**
Hurricane Landfill Assessment Project
State Contract No. N200016
S&ME Project No. 1040-00-338P
Volume XVI of XVII

Dear Mr. Walch:

Upon review of the Old Landfill Database information concerning the Whaley Refuse Dump site, the information appears to refer to the same site as the Morehead City Refuse Dump (NONCD0000205). The sites' coordinates are identical, and the directions to the site, landfill size and dates of operation are very similar. No other information was identified in the Division of Waste Management's public record files regarding the Whaley Refuse Dump. The following table summarizes the Old Landfill Database information for these sites.

	Whaley Refuse Dump	Morehead City Refuse Dump
Latitude	34.7383	34.7383
Longitude	-76.7798	-76.7798
Directions	Off Hwy. 70 W near Carteret Race Track	Hwy. 70 W near Race Track
Landfill Size	2	3
Open Date	1966	1968
Closed Date	1971	1971

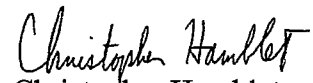
S&ME, Inc.
3118 Spring Forest Road
Raleigh, North Carolina 27616


Mailing address:
P.O. Box 58069
Raleigh, North Carolina 27658-8069

(919) 872-2660
(919) 790-9827 fax
www.smeinc.com

Therefore, please reference the Morehead City Refuse Dump report (S&ME Project No.1040-00-338K) for additional information concerning this site. Please contact our office if you have any questions or comments regarding this site.

Sincerely,
S&ME, Inc.


Christopher Hamblet
Environmental Scientist


Edmund Woloszyn, Jr., R.E.M.
Manager, Technical Applications Dept.

Community Solid Waste Practices
LAND DISPOSAL SITE MODIFICATION REPORT

1. STATE MD. 2. COUNTY Carver 3. SITE LOCATION (POLITICAL JURISDICTION) Morehead City

4. NAME OF SITE Morehead City Refuse Dump 5. ADDRESS OF SITE Hwy 70 W. Morehead City near Carver Rock Truck 6. DATE OF REPORT
DAY 13 MONTH 11 YEAR 73

7. NAME OF PERSON COMPLETING FORM Fred J. Wood 8. TITLE Dist. San. 9. ORGANIZATION AND ADDRESS Div. of Health Services

10. Original Land Disposal Site Problems (check appropriate categories)

☒ Burning ☒ Water Pollution ☒ Lack of Daily Cover

11. Site Has Been (check A or B and appropriate actions completed)

A ☒ Eliminated and;

B ☐ Converted to Sanitary Landfill and;

☒ Rats Eradicated

☐ Rats Eradicated

☒ Burning Stopped

☐ Burning Stopped

☒ Water Pollution Corrected

☐ Water Pollution Corrected

☒ Access Prohibited

☐ Daily Cover Practiced

☒ Site Covered

☐ Other (Specify)

☐ Other (Specify)

12. Reason for Modification (check one)

☐ Law

☐ Operation Completed

☒ Other New Site (Specify)

13. Date Modification Completed

Day 9 Month 10 Year 71

14. Waste Formerly Hauled to the Eliminated Site Now Being Hauled to:

County	Site Location	Name of Site	Address	Tons or Percent
<u>Carver</u>	<u>SR. 1141 & M. 105 S. of Newport</u>	<u>Carver County Landfill</u>	<u>SR. 1141</u>	<u>100</u>
B				
C				
D				
E				

7m
11-19-73

Community Solid Waste Practices
LAND DISPOSAL SITE MODIFICATION REPORT

1. STATE NC	2. COUNTY Carteret	3. SITE LOCATION (POLITICAL JURISDICTION) Morehead City
4. NAME OF SITE Atlantic Beach Refuse Dump	5. ADDRESS OF SITE Highway 70 W. of Morehead City Near Race Track	6. DATE OF REPORT DAY: 13 MONTH: 11 YEAR: 73
7. NAME OF PERSON COMPLETING FORM Fred F. Wood	8. TITLE Dist. San.	9. ORGANIZATION AND ADDRESS Div. Health Services

10. Original Land Disposal Site Problems (check appropriate categories)

☒ Burning ☒ Water Pollution ☒ Lack of Daily Cover

11. Site Has Been (check A or B and appropriate actions completed)

A ☒ Eliminated and:

B ☐ Converted to Sanitary Landfill and:

☒ Rats Eradicated
☒ Burning Stopped
☒ Water Pollution Corrected
☒ Access Prohibited
☒ Site Covered
☐ Other _____
(Specify)

☐ Rats Eradicated
☐ Burning Stopped
☐ Water Pollution Corrected
☐ Daily Cover Practiced
☐ Other _____
(Specify)

12. Reason for Modification (check one)

☐ Law

☐ Operation Completed

☒ Other **New Site**
(Specify)

13. Date Modification Completed

Day: **9** Month: **10** Year: **71**

14. Waste Formerly Hauled to the Eliminated Site Now Being Hauled to:

County	Site Location	Name of Site	Address	Tons or Percent
Carteret	SR 1141 4 miles S. of Newport	Carteret County Landfill	SR. 1141	100%
B				
C				
D				
E				



Atlantic Shores Environmental Services, Ltd.

January 10, 2023

Mr. Keith Walker
Elijah's Landing of Morehead City, LLC
PO Box 2400
Beaufort, North Carolina 28516

Reference: Phase I Environmental Site Assessment
3200 Bridges Steet
Morehead City, North Carolina
ASE Project No. 1591

Dear Mr. Walker,

Atlantic Shores Environmental Services, Ltd. (ASE) is pleased to provide you with the results of our Phase I Environmental Site Assessment (ESA) for the referenced property. Our services were provided in general accordance with ASE proposal number 1578-P dated November 11, 2022, and generally meet the requirements of ASTM E 1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and EPA Standards and Practices for All Appropriate Inquiries contained in 40 CFR Part 312.

If there are questions regarding this report, or a need for further information, please contact us at 910-371-5980.

Respectfully submitted,

ATLANTIC SHORES ENVIRONMENTAL SERVICES, LTD.

Cheryl J. Moody, PE, REM
Principal Engineer

Kevin Dillon
Project Scientist



**PHASE I ENVIRONMENTAL SITE ASSESSMENT
3200 BRIDGES STREET
MOREHEAD CITY, NORTH CAROLINA**

ASE PROJECT NO. 1591

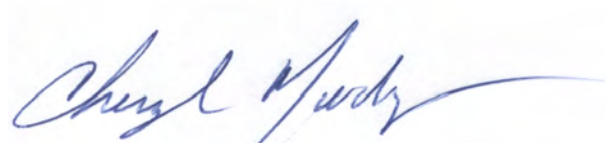
FOR

ELIJAH'S LANDING OF MOREHEAD CITY, LLC

JANUARY 10, 2023

ENVIRONMENTAL PROFESSIONAL STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Cheryl J. Moody, PE, REM
Principal Engineer

January 10, 2023

Date



Atlantic Shores Environmental Services, Ltd.

PROJECT

Phase I Environmental Site Assessment
3200 Bridges Street
Morehead City, Carteret County, North Carolina

CLIENT

Elijah's Landing of Morehead City, LLC
PO Box 2400
Beaufort, North Carolina 28516

SUBMITTED BY

Atlantic Shores Environmental Services, Ltd.
175-1 Venture Drive
Belville, North Carolina 28451

PROJECT No. 1591

DATE

January 10, 2023

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
3200 BRIDGES STREET
MOREHEAD CITY, CARTERET COUNTY, NORTH CAROLINA
ASE PROJECT NO. 1591**

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1.0 EXECUTIVE SUMMARY

The site referred to as “subject property”, “site” or “the property” is located in Morehead City, Carteret County, North Carolina and consists of Carteret County PIN number: 637615648235000. The site is located on the north side of Bridges Street and is currently addressed of 3200 Bridges Street.

The site consists of approximately 11.64 acres of primarily vacant land. A derelict garage is situated on the northern portion of the site. Several 5 gallon bucket of petroleum products remain in the structure. One of these buckets has an open top and is exposed to the elements. Rainwater has forced oil out of the bucket onto the concrete. A small area of soil has been impacted by this. The structure was formerly serviced by a septic system. The southern portion of the site is an open grassy area. The remaining areas of the site are vegetated with thick vegetation. Indications of non-native piles were observed on the northern portion of the site. The visible piles appeared to contain, soil, rocks, constructure debris and miscellaneous garbage. The site is currently zoned Single Family Residential – Conditional Zoning (R15-CZ).

The site is bounded by undeveloped land, including Calico Creek to the north, followed by residential development. The site is bounded by Bridges Street to the south, followed by mixed residential and commercial development. The site is bounded by residential development, consisting of manufactured homes to the east, followed by mixed single family residential, multi-family residential, and commercial development. The site is bounded to the west by multi-family residential and commercial development. A more detailed description of the adjoining properties is included in Section 6.2 of this report.

Research of readily available historical data, including aerial photographs, topographical maps, city directories, property deeds and historic reports indicate that the subject site was agriculturally developed in 1938 with what appears to be residential structures along Bridges Street (based on the earliest available data record reviewed, a 1938 aerial photograph). It is likely that herbicides and pesticides have been used on the site. However, application of these chemicals in accordance with manufacturer approved application rates is considered a de minimus condition.

The site appears to have been addressed as 3110, 3118, and 3200 Bridges Road during its documented history reviewed as part of this ESA. Sometime between 1957 and 1964 the southern portion of the site was developed into a mobile home park. The site use remained the same until sometime between 1970 and 1982 when the central and northern portions of the site ceased to be farmed and areas of the site were disturbed. The on-site structure was reportedly constructed in 1982 and was utilized by Willis Landscaping and Construction, then Willis Septic Tanks. Mr. Willis (former owner) was cited by Carteret County Environmental Health Department for operating an unpermitted landfill on the site in July of 1983. This dumping appears to have continued through at least 1998. Historical assessments of the site have identified waste consisting of construction debris to be buried as deep as 10 feet below grade

in some areas of the site. The presence of this debris is considered a business environmental risk. Sometime between 2006 and 2009, the mobile home park on the south side of the site was removed. The site has been vacant for at least 15 years.

Property north of the site appears to have been undeveloped since at least 1936 with the agricultural land north of the undeveloped land becoming residential in the early 1980's. Property immediately south of the site appears to have been residential and remains residential today. The adjoining property to the east and west of the site was agricultural in 1936, with the exception of what appears to be residential property adjacent to the on-site residential area. The area slowly became developed beginning in the early 1970's.

The Standard Environmental Records (SER) search was prepared by Environmental Data Resources, Inc. (EDR). EDR identified the site in the standard environmental records National Pollution Discharge Elimination System (NPDES), Leaking above ground storage tank (LAST) and Incident management database (IMD).

- The site is reported to have an active NPDES State Stormwater permit (Permit number SW8201102) which was issued on February 3, 2021, and is scheduled to expire on February 3, 2029.
- US Army Reserve Center Site #2, Willis Property – (LAST and IMD) Approximately 1,100 cubic yards of petroleum contaminated fill, was imported to the site from another location in 1996. This material was removed from the site by the Army Corps of Engineers in September 2001. Approximately 200 tons of contaminated soil was excavated and removed from the site. A no further action (NFA) letter was issued for this incident by NCDEQ on June 4, 2004. However, a copy of this NFA was not located by ASE. This incident is considered a historic REC.

Several properties within their respective search distances were identified in the SER search prepared by EDR. However, based on the property location, distance from the site and/or the closure status, release from these properties would not be expected to impact the site.

Historical assessment of the site identified the following:

- The site structure was used for vehicle maintenance. The structure has a septic system. the septic system and associated leach field are located along the south side of the building structure.
- A sink in the on-site building structure drained directly to the ground surface.
- A suspect petroleum sheen and odor, and dead animals were observed in and around the tributary leading to a creek to the north of the property near debris piles identified on the northern portion of the site.
- An approximately 250-gallon waste oil AST and visible surface staining were observed along the west side of the on-site building.

In 2018 Subsurface Investigation included a geophysical survey, advancement of five (5) soil

borings and six (6) test pits to facilitate the collection and analysis of representative soil and groundwater samples from the north and central portions of the subject site, and the collection of a surface water sample from the creek, traversing the northern portion of the subject site. The sampling location were designed to address the items listed above.

Soil and groundwater samples were collected from the site and were analyzed for volatile organic compounds (VOCs) and poly aromatic hydrocarbons (PAHs). The VOCs p-isopropyltoluene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and the PAH pyrene were identified above the laboratory method detection limit (MDL) in one of five soil samples. However, these concentrations were below State action levels for residential property and the protection of groundwater.

Neither VOCs nor PAHs were identified in the collected groundwater, surface water or test pit soil samples. Based on the results of this sampling, Partner did not recommend additional assessment of the on-site septic system, AST, sink discharge or buried debris.

As documented and qualified by this report, this assessment has revealed the following evidence of RECs in connection with the site.

- A release of oil was observed at the eastern entrance of the on-site garage. This release was from an open top five gallon bucket exposed to the elements. The majority of the oil staining is contained to concrete. However soil staining is present along the concrete.

As documented and qualified by this report, this assessment has revealed the following evidence of a Historic REC.

- US Army Reserve Center Site #2, Willis Property LAST and IMD incident.

As documented and qualified by this report, this assessment has revealed the following evidence of Business Environmental Risks in connection with the site.

- Wetlands are present on the site.
- The presence of the buried and surficial debris is considered a business environmental risk.
- Approximate 500 cubic feet of corrugated transite (asbestos) roofing is present on the site.
- A portion of the site is located in a flood zone.
- Some petroleum products remain on the site that will require proper disposal.

This Executive Summary is an integral part of the Phase I Environmental Site Assessment report. ASE recommends that the report be read in its entirety.

Although the application of pesticides and herbicides in accordance with manufacturers

approved application rates is considered a de minimus condition, if an on-site well is proposed for the site it would be prudent to sample the well for pesticides and herbicides prior to use.

2.0 INTRODUCTION

2.1 Purpose and Reason for Performing Phase I ESA

The purpose of the ESA is to:

- Evaluate the probability of impact to the surface water, groundwater and/or soils within the site boundaries through a review of regulatory information and a reconnaissance of the subject site and vicinity;
- Evaluate historical land usage to identify previous conditions that could potentially impact the environmental condition of the site;
- Evaluate the potential for on-site and off-site contamination;
- Provide a professional opinion regarding the potential for environmental impact at the site, and a list of Recognized Environmental Conditions (RECs); and
- Conduct all appropriate inquiry as defined by ASTM E 1527-21.

The reason for the ESA is to qualify for landowner liability protections to CERCLA liability.

2.2 Scope of Services

ASE was contracted by Elijah's Landing of Morehead City, LLC to perform a Phase I ESA for the property located at 3200 Bridges Street in Morehead City, Carteret County, North Carolina. The site location and site boundary are illustrated on the attached figures included in Appendix I. The Environmental Assessment was conducted in substantial accordance with ASTM E 1527-21 and EPA Standards and Practices for All Appropriate Inquiries. The Environmental Assessment was conducted under the supervision or responsible charge of an individual that qualifies as an environmental professional, as defined in 40 CFR §312.10.

2.3 Limitations

The ESA involved a reconnaissance of the site and contiguous properties and a review of regulatory and historical information in general accordance with the ASTM standard and EPA regulation referenced herein. No non-scope considerations or additional issues such as asbestos, radon, wetlands or mold were investigated, unless otherwise described in Section 7.0 of this report.

The conclusions and/or recommendations presented within this report are based upon a reasonable level of investigation within normal bounds and standards of professional practice for a site in this particular geographic and geologic setting. The intent of this assessment is to identify the potential for recognized environmental conditions in connection with the site; however, no environmental site assessment can completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the site. The findings of this ESA are not intended to serve as an audit for health and safety compliance issues pertaining to improvements or activities at

the site. ASE is not liable for the discovery or elimination of hazards that may potentially cause damage, accidents or injury.

All observations, conclusions and/or recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and or materials reviewed at the time this study was undertaken. It was not the purpose of this study to determine the actual presence, degree or extent of contamination, if any, at this site. This could require additional exploratory work, including sampling and laboratory analysis. No other warranty, expressed or implied, is made with regard to the conclusions and/or recommendations presented within this report. Due to limited areas with significant thick vegetation, some areas of the site were obscured on the day of the site reconnaissance. This is considered a data gap. However, based on the other available environmental reports, ASE does not identify this data gap as significant.

ASTM E-1527-21 defines a "recognized environmental condition" as: "(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment."

ASTM E-1527-21 defines a "de minimis condition" as: "a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. A condition determined to be a de minimis condition is not a recognized environmental condition nor a controlled recognized environmental condition."

ASTM E-1527-21 defines a "controlled recognized environmental condition" as a "recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of required controls (for example, activity and use limitations or other property use limitations)."

ASTM E-1527-21 defines "historical recognized environmental condition" as: "a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations)." A historical recognized environmental condition is not a recognized environmental condition.

ASTM E-1527-21 defines a "business environmental risk" as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of commercial real estate, not necessarily related to those environmental issues required to be investigated in this practice."

This report is provided for the exclusive use of Elijah's Landing of Morehead City, LLC under the existing terms and conditions for this project under ASE proposal number 1578-P, dated November 11, 2022. This report is not intended to be used or relied upon in connection with other projects or

by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ASE disclaims liability for any such third-party use or reliance.

3.0 SITE DESCRIPTION

3.1 Site Location and Legal Description

The site referred to as "subject property", "site" or "the property" is located in Morehead City, Carteret County, North Carolina and consists of Carteret County PIN number: 637615648235000. The site is located on the north side of Bridges Street and currently possesses the address of 3200 Bridges Street.

ASE was not provided with a legal description of the site, however, the legal descriptions within the deeds were reviewed.

3.2 Physical Setting and Hydrogeology

As determined by the United States Geological Survey (USGS) Topographic map, Beaufort North Carolina 2019 quadrangle (Figure 1), the site lies at approximately 12 feet above the National Geodetic Vertical Datum (NGVD). The site generally slopes very gently towards the north. A natural channel, reported to be a Freshwater Forested/Shrub Wetland, transects the site from northeast to southwest.

In general, shallow unconfined groundwater movement within the overlying soils is controlled largely by topographic gradients. Recharge occurs primarily by infiltration along higher elevations and typically discharges into streams or other surface water bodies. The elevation of the shallow water table is transient and can vary greatly with seasonal fluctuations in precipitation. Movement of groundwater under water table conditions is generally from higher to lower elevations. Therefore, groundwater in the vicinity of the site is generally expected to flow in a northerly direction. Actual site groundwater flow direction cannot be determined without site-specific groundwater information determined through the installation of groundwater monitoring wells.

The site is located in the Coastal Plain Physiographic Province. The Coastal Plain is characterized by flat land to gently rolling hills and valleys. Elevations range from sea level near the coast to approximately 600 feet in the Sand Hills of the Southern Inner Coastal Plain.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Map Numbers 3720637600J, effective on July 16, 2003. The majority of the site is located in unshaded Zone X. Unshaded X Zones are areas of minimal flooding. A small area on the east central portion of the site and the northern property boundary are located in the shaded Zone X. Shaded Zone X are areas of 0.02% annual chance flood; areas of 1% annual chance flood with an average depth of less than one foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. A copy of the FEMA map has been included in Appendix IV.

3.3 Current Use and Description of the Site

The site consists of approximately 11.64 acres of vacant land with a derelict garage structure located on the central northern portion of the site. The site is moderately treed on the northern and southern portions of the site, while the center of the site is heavily treed and vegetated. A small creek/drainage traverses the center portion of the site from northeast to southwest. The U.S. Fish and Wildlife Service has reported this area to be a Freshwater Forested/Shrub Wetland. The site is currently zoned Single Family Residential – Conditional Zoning (R15-CZ). Improvements, including stormwater collection appurtenances, overhead power lines, sidewalks and subsurface utility duct banks are present in the subject property's southern easement.

3.4 Current Uses of the Adjoining Properties

The site is bounded by undeveloped land, including Calico Creek to the north, followed by residential development. The site area is a mix of commercial and residential development. A more detailed description of the adjoining properties is included in Section 6.2 of this report.

4.0 USER PROVIDED INFORMATION

An ASTM User Questionnaire was completed by Mr. Keith Walker, the User of the Report.

4.1 Title Information

ASE was not provided with a chain-of-title for our review. If this information is provided at a later date, we will review it for evidence of environmental concerns and issue an addendum to this report if the review indicates a material difference in our findings.

4.2 Environmental Liens or Activity and Use Limitations

Mr. Walker indicated that he was unaware of any environmental liens or activity use limitations related to the subject site.

4.3 Specialized Knowledge

Specialized Knowledge is defined as: any specialized knowledge or experience that is material to recognized environmental conditions in connection with the property. If the User is aware of this, it is the user's responsibility to communicate any such information to the environmental professional prior to the site reconnaissance.

Mr. Walker, indicated that he does not have specialized knowledge of the subject site or surrounding properties with the exception of a previous Phase I ESA and wetland study. These reports are discussed in Section 5.4.7.

4.4 Commonly Known or Reasonably Ascertainable Information

Commonly known or reasonably ascertainable information is defined as: any commonly known or reasonably ascertainable information within the local community that is material to recognized

environmental conditions in connection with the property. It is the User's responsibility to communicate any such information to the environmental professional prior to the site reconnaissance.

Mr. Walker indicated that the subject property was utilized as a mobile home park, previously.

4.5 Valuation Reduction for Environmental Issues

Mr. Walker indicated that the purchase price of the subject site reflects fair market value.

4.6 Owner, Property Manager, and Occupant Information

According to Carteret County GIS, the property is currently owned by Elijah's Landing of Morehead City, LLC. Mr. Walker is the owner representative and manager of the property. The site is currently unoccupied.

4.7 Degree of Obviousness

ASE was not provided knowledge of obviousness indicators related to contamination of the property.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

A Standard Environmental Records (SER) search was provided by Environmental Data Resources, Inc. (EDR). The SER search involves searching a series of databases for facilities that are located within a specified radius from the subject property. The ASTM standard specifies an approximate minimum search distance from the subject site for each database. Based on our knowledge of the subject property and the surrounding area, ASE attempts to verify and interpret this data. While this attempt at verification is made with due diligence, ASE cannot guarantee the accuracy of the record search beyond that of information provided by EDR. A copy of the information provided by EDR is included in Appendix III. Mapped and unmapped sites identified by EDR that are not addressed below were field verified (to the extent possible) and not found to be within the approximate minimum search distance and are excluded from this ESA report. ASE makes no warranty regarding the accuracy of the EDR database report information. The following is a list of databases searched and the results obtained by EDR for each database.

National Priorities List (NPL)

The National Priorities List (NPL) is a subset of CERCLIS and identifies "superfund" sites that have had documented contamination incidents.

Neither the site nor properties located within one (1) mile of the site were identified on the NPL.

Delisted NPL

The Delisted NPL identifies sites previously listed on the NPL where no further response is appropriate.

Neither the site nor properties located within one (1) mile of the site were identified on the Delisted NPL.

Superfund Enterprise Management System (SEMS)

At the start of 2016 the U.S. EPA retired **Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)**, which contained data on potentially hazardous waste sites that have been reported to the U.S. EPA. CERCLIS contained sites that are either proposed to be or are on the National Priorities List and sites that are in the screening and assessment phase for possible inclusion on the NPL. In order stay in line with modern technology the U.S. EPA Created the Superfund Enterprise Management System (SEMS). Information contained within this database represents the same information that was stored within CERCLIS.

Neither the site nor properties located within one-half (½) mile of the site were identified on the SEMS database.

SEMS ARCHIVE

SEMS-ARCHIVE tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP and was renamed to SEMS ARCHIVE by the EPA in 2015. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration.

Neither the site nor properties located within one-half (½) mile of the site were identified on the SEMS Archive database.

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers that have been subject to corrective action under the Resource Conservation and Recovery Act (RCRA).

Neither the site nor properties located within one (1) mile of the site were identified on the CORRACTS database.

Resource Conservation and Recovery Information System (RCRIS)

The Resource Conservation and Recovery Information System (RCRIS) identifies facilities that generate, transport, treat, store or dispose of hazardous wastes as defined by RCRA. RCRA-Transfer, Storage, and Disposal (TSD) facilities treat, store or dispose of hazardous waste.

Transporters are entities that move hazardous waste from the generator to a facility that can recycle, treat, store or dispose of the waste. NonGen are facilities which presently do not generate hazardous waste. They could have historically been listed as a generator. Conditionally exempt small quantity generators generate less than 100 kilograms of hazardous waste, or less than 1 kilogram of acutely hazardous waste, per month. Small quantity generators (SQGs) generate between 100 and 1,000 kilograms of hazardous waste per month. Large quantity generators (LQGs) generate more than 1,000 kilograms of hazardous waste or more than 1 kilogram of acutely hazardous waste per month.

The site was not listed on the RCRA generators database. Two (2) properties were listed on the RCRA Very Small Quantity Generator (VSQG) within one-quarter ($\frac{1}{4}$) mile of the site.

- **Coastal Dry Cleaners-** located at the Morehead Plaza Shopping Center, approximately 971 feet south-southeast and cross gradient of the subject property. RCRA violations have not been identified for this facility. It is not likely that releases from this facility would impact the subject site. Releases from this property would not be expected to impact the site based on the location relative to the site.
- **Carteret Health Care -** located at 3500 Arendell Street, approximately 2,164 feet -southwest and upgradient of the subject property. RCRA violations have not been identified for this facility. This facility is also listed on the Leaking Aboveground Storage Tank (LAST) database list and the Incident Management Database (IMD) list. Releases from this property would not be expected to impact the site based on the distance and location relative to the site.

Federal Engineering Controls (EC) List

The Federal EC List identifies engineering controls including various forms of caps, building foundations, liners, and treatment methods used to eliminate pathways for regulated substances to enter environmental media or affect human health.

Engineering controls were not identified for the site.

Federal Institutional Controls (IC) List

The Federal IC List identifies institutional controls including administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants.

Institutional controls were not identified for the site.

Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) List is a national database that stores and records information on reported releases of hazardous substances, including petroleum products.

The site is not identified on the ERNS List.

State Hazardous Substance Disposal Sites (HSDS)

The State Hazardous Substance Disposal Sites (HSDS) records are locations of uncontrolled and unregulated hazardous waste sites. The records include sites on the NPL as well as those on the state priority list.

Neither the site nor properties located within one (1) mile of the site were identified on the HSDS database.

State Hazardous Waste Sites (SHWS) Inventory

State hazardous waste site records are the states' equivalent to SEMS (formerly CERCLIS). These sites may or may not be already listed on the federal SEMS database.

The site was not listed on the SHWS list. One (1) property within one-half (½) mile of the site was listed on the SHWS list.

- **Beachview Exxon-** located at 2410 Arendell Street, approximately 3,268 feet southeast and cross gradient of the subject property. Based on the distance and the location of this property relative to the site, releases from this property would not be expected to impact the subject site.

Solid Waste Facility (SWF)/Landfill (LF) List

The North Carolina Solid Waste Section maintains a list of permitted solid waste facilities. These facilities may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Neither the site nor properties located within one-half (½) mile of the site were listed on the SWF/LF list.

Old Landfill Inventory (OLI)

The Old Landfill Inventory (OLI) is maintained by the North Carolina Department of Environmental Quality. The inventory does not include No Further Action sites and other agency lead sites.

Neither the site nor properties within one-half (½) mile of the site was identified on the OLI.

Historical Landfill (HIST LF) List

The Historical Landfill (HIST LF) list is maintained by the North Carolina Department of Environmental Quality. The list identifies historical solid waste facility locations.

Neither the site nor properties within one-half (½) mile of the site was identified on the HIST LF list.

Aboveground Storage Tank (AST) Database

The AST Database is a list maintained by the North Carolina Department of Environmental Quality of facilities with ASTs that have a capacity greater than 21,000-gallons.

Neither the site nor properties located within one-quarter ($\frac{1}{4}$) mile of the site were identified on the LAST database.

Leaking Aboveground Storage Tank (LAST) List

The Leaking Aboveground Storage Tank (LAST) List is a record of reported leaking aboveground storage tank incidents. The LAST List may also identify properties that have had soil and/or groundwater contamination associated with documented releases from above ground storage tanks, surface spills and other sources.

The site was listed on the LAST database.

- **US Army Reserve Center Site #2, Willis Property** – This incident is geocoded to the site but is identified as being located on Tootle Road, which is located approximately 2,000 feet north of the site. This facility was reported to have had a petroleum release (incident number 86668) on January 19, 1996. The incident was closed out on June 4, 2004. Further information regarding the incident was not provided in the database. According to records, this listing is one (1) of three (3) incident listings, including incident number 16194 and incident number 86669, held in the same incident file. Each incident is reported to have the same incident report date and the same incident closure date. Incident number 16194 and incident number 86669 are discussed below.

Other previous environmental reports reviewed by ASE (Phase I ESA, Elijah's Landing by Partner dated December 28, 2020- attached in Appendix IV) regarding the subject property, indicate that this LAST listing is on the subject site. The reports also indicate that the incident was the result of 1,100 cubic yards of contaminated fill, which was imported to the subject property from the location of a newly constructed US Army Reserve Center on Fisher Street between 4th and 5th Streets (2.3 miles east southeast of the site). Soil from this property was also transported to two other locations in the site area. It was further reported that approximately 200 tons of contaminated soil was excavated and removed from the area of fill, on or adjacent to the subject property, in September 2001. The previous environmental report indicated that an NFA was issued by NCDEQ on June 4, 2004. However, a copy of this NFA was not locate by ASE. This incident was also listed on the Incident Management Database (IMD) list. This is considered an historic REC of the site.

Six (6) properties within one-half ($\frac{1}{2}$) mile of the site were identified on the LAST database.

- **US Army Reserve Center Site #1, Courtyard Apartments** - located at 303 Barbour Road, approximately 756 feet east-southeast and upgradient of the subject property. This facility was reported to have had a petroleum release (incident number 16194) on January 19, 1996. The incident was closed out on June 4, 2004. No further information regarding the incident was provided in the database. According The Partner Phase I Report, soils from the new Army Reserve Center being constructed on "Fisher Street between 4th and 5th Streets" were

transported to the property. The previous environmental report indicated that an NFA was issued by NCDEQ on June 4, 2004. However, a copy of this NFA was not located by ASE. Releases from this property would not be expected to impact the subject site based on the location and closed status of this incident.

- **CP&L IC Turbine Plant** - located on Maple Street, approximately 1,167 feet west potentially upgradient of the subject property. This facility was reported to have had a petroleum release (incident number 82595) on January 11, 1988. Records additionally indicate that the original release occurred in 1976, following hurricane Fran, when approximately 30,000 gallons of #2 fuel oil were released. Product was reportedly recovered from area ditches and a nearby swamp, with cleanup activities terminated in 1979. A free product recovery system had reportedly been operating at the site and soil was excavated from the site in May 2005. Ongoing monitoring occurred at the site until closure was granted on September 30, 2020. This facility is also listed on the Incident Management Database (IMD) list. Based on the distance and closure status of this incident, release from this property would not be expected to impact the site.
- **Mandy Lane Fuel Spill** - located at 3118 Mandy Lane, approximately 1,207 feet north and downgradient of the subject property. This location was reported to have had a petroleum release (incident number 94239) related to a fuel spill on July 14, 2014. The number of gallons released was not reported. The incident was closed out on February 19, 2015. Based on the distance and location of this incident, release from this property would not be expected to impact the site.
- **Carteret Health Care** - located at 3500 Arendell Street, approximately 2,164 feet southwest and upgradient of the subject property. This facility was reported to have had a petroleum release (incident number 6052) related to its AST on November 1, 1990. The incident was closed out on February 27, 1992. This facility is also listed on the Resource Conservation and Recovery Act (RCRA) Very Small Quantity Generator (VSQG) database, the Incident Management Database (IMD) list, the US AIRS database, the FINDS database, and the ECHO database. Based on the distance and location of this incident, release from this property would not be expected to impact the site.
- **US Army Reserve Center Tootle Road** - located on Tootle Road, approximately 2,279 feet north-northeast of the subject property. This facility is the third disposal property for the soils from the newly constructed US Army Reserve Center on Fisher Street between 4th and 5th Streets. The incident was closed out on June 4, 2004. This facility is also listed on the Incident Management Database (IMD) list. Based on the distance and closed status of this incident, release from this property would not be expected to impact the site.

Registered Underground Storage Tank (UST) List

The Registered Underground Storage Tank (UST) List inventories underground storage tanks registered with the North Carolina Department of Environmental Quality, Division of Waste Management. This list does not identify USTs that have not been registered with the North Carolina Department of Environmental Quality, such as home heating oil tanks and other unregulated tanks.

Neither the site nor properties located within one-quarter ($\frac{1}{4}$) mile of the site were identified on the UST database.

Leaking Underground Storage Tank (LUST) List

The Leaking Underground Storage Tank (LUST) List is a record of reported leaking underground storage tank incidents. The LUST List may also identify properties that have had soil and/or groundwater contamination associated with documented releases from above ground storage tanks, surface spills and other sources.

The site was not listed on LUST list. Eleven (11) properties within one-half ($\frac{1}{2}$) mile of the site were identified on the LUST list.

- **Turners Texaco** - located at 3212 Arendell Street, approximately 1,080 feet south of the subject property. This facility was reported to have had a release (incident number 6094) on November 21, 1990. Database records indicate that the incident was closed on February 10, 2008. This facility is also listed in the Incident Management Database (IMD) list and State Institutional Control (IC) database, and are summarized below. Based on the distance, location, and closed status of this incident, release from this property would not be expected to impact the site.
- **North Carolina Air National Guard, Morehead City Armory** - located at 3413 Bridges Street, approximately 1,693 feet west-southwest of the subject property.
 - This facility was reported to have had a release (incident number 32811) on October 17, 2012. Database records indicate that the incident was closed on April 19, 2021.
 - This facility was reported to have had a second release (incident number 43061) on December 14, 2016. Database records indicate that the incident was closed on March 20, 2017.

Based on the distance, location and closed status of this incident, release from this property would not be expected to impact the site.

- **Meyer Property (Francis).** - located at 2906 Evans Street, approximately 1,807 feet south-southeast of the subject property. This facility was reported to have had a release (incident number 32299) on February 9, 2006. Database records indicate that the incident was closed on November 16, 2007. This facility is also listed in the Incident Management Database (IMD) list discussed below. Based on the distance, location and closed status of this incident, release from this property would not be expected to impact the site.
- **North Carolina Division of Marine Fisheries** - located at 3441 Arendell Street, approximately 2,159 feet southwest of the subject property.
 - This facility was reported to have had a release (incident number 17489) on June 1, 1995. Database records indicate that the incident was closed on November 6, 1998.
 - This facility was reported to have had a second release (incident number 19180) on September 1, 1994. Database records indicate that the incident was closed on November 6, 1998.
 - This facility was reported to have had a third release (incident number 32364) on November 17, 2006. No information regarding incident closure was reported in the database, indicating that site remediation may still be ongoing for this incident. This

facility is also listed in the Incident Management Database (IMD) list and is summarized below.

Based on the distance, location and/or closed status of these incidents, releases from this property would not be expected to impact the site.

- **Crystal Coast Auto Center** - located on Highway 70, approximately 2,231 feet west-northwest of the subject property. This facility was reported to have had a release (incident number 6560) on March 13, 1991. Database records indicate that the incident was closed on October 5, 1998. Based on a review of the NCDEQ UST Incidents Map, ASE has determined that this facility is mislocated on the database and is actually 3 ½ miles west-southwest of the subject site. This facility is also listed in the Incident Management Database (IMD) list, below. Based on the distance, release from this property would not be expected to impact the site.
- **Carteret County Community College** - located at 3505 Arendell Street, approximately 2,259 feet southwest and upgradient of the subject property. This facility was reported to have had a release (incident number 32438) on September 20, 2007. Database records indicate that the incident was closed on April 27, 2021. Based on the distance, location and closed status of this incident, release from this property would not be expected to impact the site.
- **Cleggs Termite and Pest Control** - located at 2700 Bridges Street, approximately 2,437 feet southeast and upgradient of the subject property. This facility was reported to have had a release (incident number 23051) on January 10, 2001. Database records indicate that the incident was closed on July 27, 2004. This facility is also listed in the Incident Management Database (IMD) list and the State Institutional Control (IC) database list, which are summarized below. Based on the distance, location and closed status of this incident, release from this property would not be expected to impact the site.
- **Amoco Food Shop #3 (aka Snak N Pak #3)** - located at 2610 Arendell Street, approximately 2,535 feet southeast and upgradient of the subject property. This facility was reported to have had a release (incident number 3685) on March 16, 1998. Database records indicate that the incident was closed on August 6, 2010. This facility is also listed in the Incident Management Database (IMD) list and the State Institutional Control (IC) database list, which are summarized below. Based on the distance, location and closed status of this incident, release from this property would not be expected to impact the site.

Incident Management Database (IMD)

The Incident Management Database (IMD) is a record of groundwater and soil contamination incidents.

The site was not listed on the IMD. Thirteen (13) properties within one-half (½) mile of the site were identified on the IMD.

- **US Army Reserve Center Site #2, Willis Property** - This incident is listed on the Leaking Aboveground Storage Tank (LAST) list, discussed above.

- **US Army Reserve Center Site #1, Courtyard Apartments** - This Incident is listed on the Leaking Aboveground Storage Tank (LAST) list, discussed above.
- **Turners Texaco** - located at 3212 Arendell Street, This incident is the same as listed in the Leaking Underground Storage Tank (LUST) list above.
- **CP&L IC Turbine Plant** - This incident is listed on the Leaking Aboveground Storage Tank (LAST) list and is discussed above.
- **Coastal Dry Cleaners**- located at the Morehead Plaza Shopping Center, approximately 971 feet south southeast and upgradient of the subject property. This facility was included on the IMD because it is under the jurisdiction of the drycleaners section. This facility does not have identified violations. This facility is also listed on the Leaking Aboveground Storage Tank (LAST) list, Incident Management Database (IMD) list, the US AIRS database, the FINDS database, and the ECHO database. Releases from this property would not be expected to impact the site based on its location.
- **Nelcey Residence (Vera)** - located at 3204 Evans Street, approximately 1,453 feet south of the subject property. This facility was included on the IMD due to a reported petroleum release, which occurred on August 31, 2004. Database records indicate that the release occurred due to a cracked fill pipe on a heating oil UST. The UST was removed with no signs of further release. The incident was closed on November 1, 2004. Releases from this property would not be expected to impact the site based on its location and closed status.
- **Meyer Property (Francis)**. - located at 2906 Evans Street, approximately 1,807 feet south-southeast of the subject property. This facility was included on the IMD as a result of a release (incident number 32299) on February 9, 2006. Database records indicate that the incident was closed on November 16, 2007. This facility is also listed on the Leaking Underground Storage Tank (LUST) database, summarized above. Releases from this property would not be expected to impact the site based on its location and closed status.
- **North Carolina Division of Marine Fisheries** - located at 3441 Arendell Street. This facility is listed on the Leaking Underground Storage Tank (LUST) database, summarized above. Releases from this property would not be expected to impact the site based on its location and/or closed status.
- **Carteret Health Care** - located at 3500 Arendell Street. This incident is discussed in the LAST section above. Based on the distance and location of this incident, release from this property would not be expected to impact the site
- **Crystal Coast Auto Center** - located on Highway 70. This incident is listed on the Leaking Underground Storage Tank (LUST) database, summarized above. Based on the distance and location of this incident, release from this property would not be expected to impact the site

- **US Army Reserve Center Tootle Road** - located on Tootle Road. This incident is discussed on the Leaking Aboveground Storage Tank (LAST) list, discussed above.
- **Cleggs Termite and Pest Control** - located at 2700 Bridges Street, approximately 2,437 feet southeast and upgradient of the subject property. This facility was included on the IMD due to soil contamination discovered during a UST closure on December 26, 2000 (incident number 23051). Database records indicate that the incident was closed on July 27, 2004. This facility is also listed on the Leaking Underground Storage Tank (LUST) database, above and the State Institutional Control (IC) database list, below. Based on the distance, location and closed status of this incident, release from this property would not be expected to impact the site.
- **Snak N Pak #3 (aka Amoco Food Shop #3)** - located at 2610 Arendell Street, approximately 2,535 feet southeast and upgradient of the subject property. This facility was included on the IMD due a reported release (incident number 3685) on March 16, 1998. An incident closure date was not reported in the IMD. This facility is also listed on the Leaking Underground Storage Tank (LUST) database, above and the State Institutional Control (IC) database list, below. Based on the distance of this incident, release from this property would not be expected to impact the site.

State Responsible Party Voluntary Action (VCP) Sites

The Responsible Party Voluntary Action (VCP) Sites is a listing of sites that parties wish to remediate voluntarily. The program is administered by the North Carolina Department of Environmental Quality.

Neither the site nor properties located within one-half (½) mile of the site were identified on the VCP database.

State Brownfield Projects Inventory

The State Brownfield Projects Inventory identifies Brownfield projects inventoried with the North Carolina Department of Environmental Quality. The properties in the inventory are working toward a Brownfield agreement for cleanup and liability control.

The site was not identified on the State Brownfields Inventory. One (1) property located within one-half (½) mile of the site was identified on the State Brownfields Inventory.

- **BB & T Morehead City** - located at 2806 Arendell Street, approximately 1,783 feet south-southeast of the subject property. This facility is listed in the State Brownfields Projects Inventory (project ID 17005-13-16). No further information was reported on the database. This facility is also listed on the State Institutional Control (IC) database list, below. Based on the distance, and location of this property, release from this property would not be expected to impact the site.

State IC List

The State IC List identifies No Further Action facilities with land use restrictions monitoring requirements.

The site was not identified on the State IC List. Four (4) properties within one-half (½) mile of the site were identified on the State IC List.

- **Turners Texaco** - located at 3212 Arendell Street, approximately 1,080 feet south of the subject property. This facility has a reported institutional control, restricting groundwater use, encumbering the property. The restriction is related to a previous petroleum release reported on November 21, 1990. This facility is also listed on the Leaking Underground Storage Tank (LUST) list and the Incident Management Database (IMD) list, above. Based on the distance, location and closed status of this incident, release from this property would not be expected to impact the site.
- **BB & T Morehead City** - located at 2806 Arendell Street, approximately 1,783 feet south-southeast and upgradient of the subject property. This facility is reported to have an unspecified institutional control, which was recorded on September 18, 2013. No further information was reported on the database. This facility is also listed on the State Brownfields list database, above. Based on the distance and location of this incident, release from this property would not be expected to impact the site.
- **Cleggs Termite and Pest Control** - located at 2700 Bridges Street, approximately 2,437 feet southeast and upgradient of the subject property. This facility has a reported institutional control, restricting groundwater use, encumbering the property. The restriction is related to a previous had a release (incident number 23051) reported on January 10, 2001. This facility is also listed on the Leaking Underground Storage Tank (LUST) list and the Incident Management Database (IMD) list, above. Based on the distance and of this property, release from this property would not be expected to impact the site.
- **Amoco Food Shop #3 (aka Snak N Pak #3)** - located at 2610 Arendell Street, approximately 2,535 feet southeast and upgradient of the subject property. This facility has a reported institutional control, restricting groundwater use, encumbering the property. The restriction is related to a previous release (incident number 3685) reported on March 16, 1998. This facility is also listed on the Leaking Underground Storage Tank (LUST) list and the Incident Management Database (IMD) list, above. Based on the distance and of this property, release from this property would not be expected to impact the site.

State EC List

The State of North Carolina currently does not maintain a listing of Engineering Controls.

5.2 **Additional Environmental Record Sources**

NPL Liens

The NPL Liens is a USEPA listing of filed notices of Superfund Liens.

Neither the site nor properties within one (1) mile of the site were identified on the NPL Lien list.

US Brownfields

The US Brownfields identifies Brownfield's properties inventoried with the U.S. EPA. The properties in the listing are addressed by Cooperative Agreement Recipients and Targeted Brownfields Assessments.

Neither the site nor properties located within one-half ($\frac{1}{2}$) mile of the site were identified on the US Brownfields Inventory.

Drycleaners

The Drycleaners database identifies potential and known dry-cleaning sites, active and abandoned, that the Dry-cleaning Solvent Cleanup Program has knowledge of and entered into this database.

Neither the site nor properties located within one-quarter ($\frac{1}{4}$) mile of the site were identified on the Drycleaners database.

Historic MGP, Auto Stations, and Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential manufactured gas plants (MGP), gas station/filling station/service station, and dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include manufactured gas plants, gas station/filling station/service station, dry-cleaning establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns but may not show up in current government records searches.

Neither the site nor properties located within one-eighth ($\frac{1}{8}$) mile of the site were identified on the HRHR database.

Solid Waste Recycling

Solid Waste Recycling Sites Listing NCDEQ Division of Waste Management.

Neither the site nor properties located within one-half ($\frac{1}{2}$) mile of the site were identified on the

SWRCY list.

National Pollutant Discharge Elimination System (NPDES)

EDR identified one (1) NPDES record related to the site. Properties within one (1) mile of the site were not identified on the NPDES list.

- The site is reported to have an active NPDES State Stormwater permit (Permit number SW8201102) related to a stormwater detention pond, which was issued on February 3, 2021, and is scheduled to expire on February 3, 2029. No further information regarding the permit was reported. However, a stormwater pond has not been constructed on the site and it is assumed that this permit is for pending redevelopment activities on the site.

5.3 NCDEQ File Review

ASE conducted a review of NCDEQ's on-line AST and UST incident mapping system. Files related to the subject site were not found during ASE's on-line review.

5.4 Historical Use Information

5.4.1 Aerial Photograph Review

ASE has reviewed aerial photographs of the site and immediately surrounding properties for evidence of former usage, which may constitute a potential for environmental concern. The aerial photographs were obtained from EDR. The aerial photographs reviewed during this Phase I ESA were dated, 1938, 1942, 1957, 1964, 1970, 1982, 1993, 1998, 2006, 2009, 2012 and 2016. Copies of the aerial photographs are included in Appendix IV. ASE also reviewed aerial photographs for 2002, 2003, 2005, 2006, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019, on Google Earth.

Multiple five-year or more interval data gaps were encountered during the aerial photograph review. ASE does not consider these data gaps to be significant since the site structure has not changed. The following is a description of the historic aerial photographs that ASE reviewed for this Phase I ESA:

Table 1- Historic Aerial Photographs

Date	Description
1938	This aerial shows the site to be agriculturally developed. Several structures are visible on the south side of the site. Their configuration suggests a farming residence and associated out buildings. The vast majority of the site has been cleared and the site appears to be utilized for agricultural purposes. A small creek or drainage is visible traversing the site from northeast to southwest, in the central portion of the site. Two (2) small groves of trees are visible in the southeast corner of the site. The site is bounded on the north by a densely treed drainage (Calico Creek), followed by more agricultural development. The site is bounded on the south by rural residential development, on the east by agricultural and rural residential development and on the west by agricultural development with rural residential development interspersed.
1942	The site and surrounding area appear similar to that observed in the 1938 aerial.
1957	The site and surrounding area appear similar to that observed in the 1942 aerial.

Date	Description
1964	The site and surrounding area appear similar to that observed in the 1957 aerial, with the exception that several residential structures (manufactured homes) are visible on the south portion of the site.
1970	The site and surrounding area appear similar to that observed in the 1964 aerial, with the exception that several additional residential structures (manufactured homes) are visible on the south portion of the site and new structures are visible on the adjacent property, northeast of the site.
1982	<p>The site and surrounding area appear similar to that observed in the 1970 aerial, with the following exceptions;</p> <ul style="list-style-type: none"> • The site and surrounding area no longer appear to be utilized for agricultural purposes. • Bare, graded areas are visible on the northeast portion of the site. • Structures, which were visible east of the northeast portion of the site, in the previous aerial, are no longer visible. • A small body of water is visible on the adjoining parcel, east of the northeastern portion of the site. • The land east of the center portion of the site appears to be undergoing residential development. • A small body of water is visible, west of the northwestern site boundary. • The parcel west of the site has been graded.
1993	<p>The site and surrounding area appear similar to that observed in the 1982 aerial, with the following exceptions;</p> <ul style="list-style-type: none"> • Several structures are visible on the northern portion of the site. • A large structure and numerous smaller residential structures are visible, east of the site on the adjoining parcel to the east. • The small water body, previously visible northwest of the site, is no longer visible. • The small water body previously visible, east of the northeast portion of the site, is no longer visible. • Commercial and residential development is visible in all directions, encompassing the site.
1998	<p>The site and surrounding area appear similar to that observed in the 1993 aerial, with the following exceptions;</p> <ul style="list-style-type: none"> • An additional large structure is visible on the northern portion of the adjoining property to the east. • The small water body northwest of the site, visible in previous aerials, is again visible.
2002	<p>The site and surrounding area appear similar to that observed in the 1998 aerial, with the following exceptions;</p> <ul style="list-style-type: none"> • The majority of the structures, previously visible on the northern portion of the site, are no longer visible. Only one (1) larger structure remains visible. • Dirt piles and an area of land disturbance are visible in the area of the previous structures. • Numerous commercial and multi-family residential structures are visible on the adjoining parcel to the west.
2003	The site and surrounding area appear similar to that observed in the 2002 aerial.
2005	The site and surrounding area appear similar to that observed in the 2003 aerial.
2006	The site and surrounding area appear similar to that observed in the 2005 aerial.
2008	The site and surrounding area appear similar to that observed in the 2006 aerial, with the exception that all the structures (manufactured homes), previously visible on the southern portion of the site, are no longer visible.
2009	The site and surrounding area appear similar to that observed in the 2008 aerial.
2010	The site and surrounding area appear similar to that observed in the 2009 aerial.
2011	The site and surrounding area appear similar to that observed in the 2010 aerial, with the exception that a small body of water is visible on the northcentral portion of the site, in the in the previously mentioned area of disturbed land.
2012	The site and surrounding area appear similar to that observed in the 2011 aerial.
2013	The site and surrounding area appear similar to that observed in the 2012 aerial.
2014	The site and surrounding area appear similar to that observed in the 2013 aerial.

Date	Description
2015	The site and surrounding area appear similar to that observed in the 2014 aerial.
2016	The site and surrounding area appear similar to that observed in 2015, with the exception that the small body of water, previously visible in the northcentral portion of the site, is no longer visible.
2017	The site and surrounding area appear similar to that observed in the 2016 aerial, with the exception that a latticework of roads is now visible on the land previously cleared north of the site.
2018	The site and surrounding area appear similar to that observed in the 2017 aerial.
2019	The site and surrounding area appear similar to that observed in the 2018 aerial.

5.4.2 Sanborn Fire Insurance Map Review

The Sanborn map collection consists of a uniform series of large-scale maps, dating from 1867 to the 1970's and depicting the commercial, industrial, and residential sections of approximately twelve thousand cities and towns in the United States, Canada, and Mexico. The maps were designed to assist fire insurance agents in determining the degree of hazard associated with a particular property and therefore show the size, shape, and construction of dwellings, commercial buildings, and factories as well as fire walls, locations of windows and doors, sprinkler systems, and types of roofs. The maps also indicate widths and names of streets, property boundaries, building use, and house and block numbers. They show the locations of water mains, giving their dimensions, and of fire alarm boxes and hydrants as well as the locations of underground gasoline tanks and above ground petroleum storage tanks.

Most of the maps' limitations derive from the limited purpose for which they were produced: underwriters have no interest in open space, so no land use information is given for land without buildings; activities which pose no special fire risk are frequently left unmentioned, so that a building may be used in both a commercial and an industrial capacity but be designated for only one or the other; residential subdivisions are rarely mapped because of their homogeneity, with the result that major portions of most urban areas have no coverage.

ASE contacted EDR to provide copies of readily available Sanborn maps for the site. According to the Certified Sanborn Map Report, dated November 30, 2022, provided by EDR, Sanborn map coverage for the site was not available. This property is unmapped. The Certified Sanborn Map Report is included in Appendix IV.

5.4.3 Property Tax Files

Property tax files were obtained from the Carteret County GIS and Tax Assessor website.

Table 2 – Property Tax Files

Property Owner	Elijah's Landing of MHC LLC
County	Carteret
PIN Number	637615648235000
Parcel Size	11.64 Acres
City/Town	Morehead City

Land Use	Single Family Residential – Conditional Zoning
Zoning	R 15-CZ
Legal Description	T1 Lois Willis Matthews

5.4.4 Recorded Land Title Records

The land title records were obtained from the Carteret County Register of Deeds website. The following lists the deeds reviewed for the site. Copies of the reviewed documents are included in Appendix IV.

Table 3 - Site Deeds

Book	Page(s)	Date	Grantor	Grantee
33	993	6/2/2020	Elijah's Landing Housing of Morehead City, Inc.	Elijah's Landing of Morehead City, LLC

5.4.5 USGS Topographic Maps

ASE reviewed historical USGS topographical maps of the site and immediately surrounding properties for evidence of former usage, which may constitute a potential for environmental concern. The maps were obtained from EDR and included the Garner, North Carolina Quadrangle dated 1949, 1971, 1983, 1987, 1994, 2013, 2016, and 2019. Copies of the maps are included in Appendix IV.

Multiple five-year or more interval data gaps were encountered during the map review. The following is a description of the maps that ASE reviewed for this Phase I ESA:

Table 4 – Historic Topographic Maps

Date	Description
1949	The 1949 topographic map reviewed depicts the subject site as mostly vacant. A small stream is depicted crossing near the center of the site from northeast to southwest. Four (4) structures are depicted on or near the southwest corner of the subject site. One (1) structure is depicted near the southeast corner of the subject site. Bridges Street is depicted along the south site boundary. Several structures are depicted along Bridges Street to the east and west of the site. An overhead transmission line is depicted north of the site, aligned from northwest to southeast.
1971	This topographic map illustrated the site and area similar to that observed in the previous map, with the exception that Commerce Avenue is now depicted west of the site, a small water body is depicted near the north site boundary, and more development is depicted in the areas surrounding the site.
1983	This topographic map illustrated the site and area similar to that observed in the previous map.
1987	This topographic map illustrated the site and area similar to that observed in the previous map.
1994	The subject site is unmapped in the 1994 Topographic map provided.
2013	This topographic map illustrated this site and area similar to that observed in the 1987 map, with the exception that individual structures are no longer depicted on the map,
2016	This topographic map illustrated the site and area similar to that observed in the previous map.
2019	This topographic map illustrated the site and area similar to that observed in the previous map.

5.4.6 City Directory Review

City Directories for the site area were obtained from EDR. City Directories were searched for Bridges Street and Commerce Avenue. EDR identified City Directory coverage for the following years: 1963, 1966, 1970, 1975, 1980, 1985, 1992, 1995, 2000, 2005, 2010, 2014, and 2017.

The site was listed as a residential listing in the 1963, 1966, 1970, 1975, 1980, 1992, 2000, 2005, 2010, 2014, and 2017 City Directories, and is summarized in Table 5, below.

Table 5 – City Directory Listings for The Subject Site

Subject Site		
Address	Occupant Information	Dates
3200 Bridges Street	Single Residential Listing	2005 - 2017
	Not Listed	1995 - 2000
	Multiple Residential Listings	1992
	Not Listed	1985
	Multiple Residential Listings	1963 – 1980**
3118 Bridges Street	Willis R E Jr. Septic Tanks	2000
3110 Bridges Street	Willis Malcom Jr. Landscaping & Construction	1963-1980

**Believed to be off site (Address numbers changes over the years)

The remaining nearby listings were a combination of commercial and residential listings. Table 6 summarizes the directory listings identified in the surrounding area that may have potential for the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property.

Table 6 – City Directory Listings for The Surrounding Area

Surrounding Area		
Address	Occupant Information	Dates
3301 Bridges Street	Commercial Listing (McCabe's Garage)	2010 - 2014
	Commercial Listings (McCabe's Garage/TJs Automotive, Inc.)	2005
	Commercial Listings (McCabe's Garage/Jeffs Motors)	2000
	Commercial Listing (McCabe's Garage)	1995
3201 Bridges Street	Commercial Listing (McCabe's Garage)	1963 - 1992

McCabes Garage, JTs Automotive and Jeffs Motors were not identified in the databases researched by ASE. Copies of the City Directory listings can be found in the EDR report in Appendix III.

5.4.7 Prior Site Reports

1. Revised Phase II Subsurface Investigation June 15, 2018, Partner Engineering North Carolina, PLLC (Partner).

The project scope of Partner's Phase II Subsurface Investigation included a geophysical survey, advancement of five (5) soil borings and six (6) test pits to facilitate the collection and analysis of representative soil and groundwater samples from the north and central portions of the subject site, and the collection of a surface water sample from the creek, traversing the northern portion of the subject site. Additionally, one (1) composite soil sample was collected from a soil debris pile, observed within a wooded area on the northern portion of the subject site. The Phase II scope was generated from the findings of a January 31, 2018 Phase I ESA performed by Land Management Group. However, ASE did not have access to this 2018 Phase Report. A map with the test and sampling locations is included in the Partner Report in the Appendices.

According to the LMG Phase I, the site was previously developed with a single-family residence and associated storage shed on the south portion of the property with the remainder utilized as agricultural land between 1938 until 1964. From 1964 through 1971, the south portion of the subject property was redeveloped with a mobile home park. The north and central portions of the subject property were heavily vegetated with scattered piles of debris visible in the 1981 aerial. The northern portion of the site was developed with the current structure in 1982. The central and northern portions of the site were utilized for construction debris dumping and/or storage associated with Carteret Septic and Construction, which occupied a portion of the subject property and east adjacent property. The mobile home park on the south portion of the subject property was removed between 2006 and 2010.

The 2018 Phase I ESA and a subsequent 2018 Phase II by Partners, identified the following concerns:

- An on-site septic system associated with the garage.
- The former site owner was cited by the Carteret County Health Department for operating an unpermitted disposal site.
- A suspect petroleum sheen and odor, and dead animals were observed in and around the tributary leading to a creek to the north of the property near debris piles identified on the northern portion of the site.
- An approximately 250-gallon waste oil AST and visible surface staining were observed along the west side of the on-site building.
- A sink was observed on the interior of the on-site workshop building and appeared to be attached to an open drain pipe that discharges directly to the ground surface beneath the metal canopy on the south side of the building.

Summary of Geophysical Ground Penetrating Radar (GPR) Activities

The GPR activities were conducted in the on-site septic system area, overturned debris piles, and each of the proposed boring locations.

Results of the GPR survey identified an anomaly indicative of a septic tank approximately 10 feet south of the on-site workshop beneath the metal canopy. The geophysical data indicated the septic tank appears to be at least 500-gallons in capacity and the leach field was inferred to be situated immediately south of the septic tank. Anomalies indicative of USTs, buried 55-gallon drums, or other subsurface features of concern were not identified in or around the overturned debris piles in the central portion of the subject property. Additionally, subsurface utilities were not identified in the proposed boring locations.

Summary of Soil Boring and Sampling Activities

Five (5) soil borings were advanced on the site. Boring B-1 was advanced on the southeast side of the storage building, within an apparent soil-stained area. Boring B-2 was advanced to the south of the storage building, near the identified septic tank and associated leach field location. Boring B-3 was advanced on the west exterior of the storage building, near the waste-oil AST and associated soil staining. Boring B-4 was advanced on the southwest corner of the storage building, near the shop sink and associated discharge pipe. Boring B-5 was advanced on the northwest portion of the subject property, near the debris piles, adjacent to the creek traversing the property.

Borings B-1 through B-4 were advanced to a terminal depth of 10 feet below ground surface (bgs) and boring B-5 was advanced to a terminal depth of 5 feet bgs. Boring B-5 is located north of the subject site.

Based on photoionization detector (PID) readings and field observations, soil samples were collected from borings B-1 through B-4 at 4 feet bgs and from boring B-5 at 1-foot bgs. The samples were analyzed for the presence of volatile organic compounds (VOCs) by EPA Method 8260 and for poly aromatic hydrocarbons (PAHs) by EPA Method 8270.

Soil Analytical Results

The VOCs p-isopropyltoluene, naphthalene, 1,2,4- trimethylbenzene, 1,3,5-trimethylbenzene, and the PAH pyrene were identified above the laboratory method detection limit (MDL) in the soil sample analyzed from boring B-2. However, these concentrations were below State action levels. For residential property and protection of groundwater. Other target VOCs or PAHs were not identified above the laboratory MDLs in the other analyzed soil samples.

Summary of Groundwater Sampling Activities

Groundwater samples from borings B-1 through B-5 were collected by installing, a 1-inch diameter temporary monitoring well within each borehole. The temporary monitoring wells installed in borings B-1 through B-4 were screened from approximately 0 to 10 feet bgs and the temporary well in boring B-5 was screened from approximately 0 to 5 feet bgs. Prior to groundwater sample collection, the depth to groundwater was measured in each temporary well using an electronic water level indicator. Based on depth to water measurements, groundwater beneath the subject property ranged from 2.35 feet bgs in boring B-5, to 5.65 feet bgs in boring B-3. Following groundwater measurements, a groundwater sample was retrieved from each temporary monitoring well using new, dedicated polyethylene tubing fed through a peristaltic pump and conveyed into laboratory provided sample containers. The samples were analyzed for the presence of volatile organic compounds (VOCs) by EPA Method 8260 and for poly aromatic hydrocarbons (PAHs) by EPA Method 8270.

Groundwater Analytical Results

Neither VOCs nor PAHs were identified above the laboratory MDLs in the groundwater samples analyzed during the investigation.

Summary of Surface Water Sampling Activities

Once surface water sample was collected from the tributary north of the site. To collect a surface water sample, a decontaminated stainless-steel cup was dipped into the creek tributary in the north portion of the subject property and the collected sample was poured directly into laboratory-provided sampling vials and jars. The sample was analyzed for the presence of volatile organic compounds (VOCs) by EPA Method 8260 and for poly aromatic hydrocarbons (PAHs) by EPA Method 8270. This surface water sample was collected off of the subject site.

Surface Water Analytical Results

Neither VOCs nor PAHs were identified above the laboratory MDLs in the surface water sample analyzed during the investigation.

Summary of Excavation/Test Pit and Soil Pile Activities

Test pit TP-1 was completed to the northwest of the on-site storage building, within an area of apparent stressed vegetation. Based on visual observations, the final excavation measured approximately 10 feet long, 8 feet wide, and 5 feet deep. Potentially hazardous contents were not observed within the excavation. However, due to the presence of stressed vegetation, one (1) soil sample (TP-1) was collected from the base of the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

Test pit TP-2 was completed to the northeast of the storage building, within an area containing household trash and suspected buried debris. Based on visual observations, the household debris appeared to extend less than 4 inches below the ground surface. The final excavation measured approximately 9 feet long, 7 feet wide, and 5 feet deep. Potentially hazardous contents were not observed within the excavation. Given the lack of evidence of buried debris, a soil sample was not collected from the base of the excavation. Groundwater was not encountered within the excavation.

Test pit TP-3 was completed to the north of the on-site storage building, within a buried construction debris area in a wooded area of the subject property. Based on visual observations, the excavation appeared to contain remnants of a concrete slab, masonry brick, polyvinyl chloride (PVC) piping, and lumber. Due to access limitations and quantity of debris present, the horizontal extent of the buried debris in this area could not be determined; however, the debris appeared to extend vertically to a depth of approximately 4 feet bgs. Potentially hazardous contents were not observed within the excavation. The final excavation measured approximately 8 feet long, 5 feet wide, and 5 feet deep. Given the presence of buried debris, one (1) soil sample (TP-3) was collected from the base of the excavation for laboratory analysis. Further, apparent groundwater was observed entering the base of the test pit during excavation activities and, as such, a groundwater sample (TP-3GW) was also collected from the excavation for laboratory analysis.

Test pit TP-4 was completed to the north of the on-site storage building, within a buried construction debris area in a wooded area of the subject property. Based on visual observations, the excavation appeared to contain a remnant concrete slab, masonry brick, and lumber. Due to access limitations

and quantity of debris present, the horizontal extent of the buried debris in this area could not be determined; however, the debris appeared to extend vertically to a depth of approximately 4 feet bgs. Potentially hazardous contents were not observed within the excavation. The final excavation measured approximately 8 feet long, 5 feet wide, and 5 feet deep. No soil sample was collected from the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

Test Pit TP-5 was completed to the north of the on-site storage building, within a buried construction debris area, in a grassed area of the subject property. Based on visual observations, the excavation appeared to contain primarily concrete slab; however, remnant automotive tires, railroad ties, and masonry brick were noted within the excavation. The buried debris in this area appeared to extend vertically to the north and west to 8 feet and 10 feet, respectively. However, due to the quantity of debris present, the horizontal extent could not be determined to the south and east. Buried debris in this area appeared to extend horizontally to a depth of approximately 8 feet bgs. The final excavation measured approximately 12 feet long, 10 feet wide, and 10 feet deep. Potentially hazardous contents were observed within the excavation. Given the presence of buried debris, one (1) soil sample (TP-5) was collected from the base of the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

Test pit TP-6 was completed to the north of the on-site storage building, within a buried construction debris area in a wooded area of the subject property. Based on visual observations, the excavation appeared to contain solely remnant concrete slab and masonry brick. Due to access limitations and quantity of debris present, the horizontal extent of the buried debris in this area could not be determined; however, the debris appeared to extend vertically to a depth of approximately 7 feet bgs. The final excavation measured approximately 14 feet long, 10 feet wide, and 8 feet deep. Potentially hazardous contents were not observed within the excavation. Given the presence of buried debris, one (1) soil sample (TP6) was collected from the base of the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

A soil debris pile was observed within a wooded area to the north of the on-site storage building. Based on visual observations, the soil pile measured approximately 10 feet long, 8 feet wide, and 6 feet high. Construction debris and/or other potentially hazardous contents were not observed in or around the soil debris pile. One (1) composite soil sample (SP-1) was collected from the soil pile.

Soil samples TP-1 through TP-6 were collected from the base of the on-site test pits using the track-hoe bucket. To collect the composite sample (SP-1), four (4) grab soil samples were obtained from select areas of the soil debris pile at depths of approximately 2 feet below the surface of the soil pile, mixed in a stainless-steel bowl, and composited into a single sample. The samples were analyzed for the presence of volatile organic compounds (VOCs) by EPA Method 8260 and for poly aromatic hydrocarbons (PAHs) by EPA Method 8270.

Excavation/Test Pit and Soil Pile Analytical Results

Neither VOCs nor PAHs were identified above the laboratory MDLs in the soil samples analyzed from the test pits during the investigation.

The VOC chloroform was detected in the groundwater sample collected from test pit TP-3 at a

reported concentration of 1.2 micrograms per liter. Other target VOCs or PAHs were not detected in the groundwater sample above their laboratory MDLs.

Neither VOCs, or PAHs were identified above the laboratory MDLs in the composite soil sample analyzed from the soil pile during the investigation.

2. Phase I Environmental Site Assessment (ESA), December 28, 2020, performed by Partner.

Partner's December 2020 Phase I ESA report identified the following :

The subject site is identified as US Army Reserve Center – Site #2 Willis Property at Tootle Road. The site is listed as a leaking above ground storage tank property due to the placement of petroleum impacted soil from an off-site source in 1995.

According to records reviewed from the NCDEQ in 1995 a new Army Reserve Center was being constructed on “Fisher Street between 4th and 5th Streets”. Soil excavated from the new reserve center property was taken to the Willis property (subject property) to be used as fill. According to a March 2001 Corps' report, approximately 1,100 cubic yards of soil were disposed of onsite, which was later found to be contaminated with fuel products. Initial screening in 1995 indicated the stockpiled soil was contaminated with petroleum products above the state action levels; which prompted sampling in 2001. The 2001 report sampled the property stockpiled areas utilizing a grid, taking roughly 19 soil samples which were analyzed for total petroleum hydrocarbons (TPH), diesel range organics (DRO), and oil and grease (O&G).

According to the 2001 report, five of the samples collected contained DRO's above the laboratory detection limit, but below regulatory action levels. The detection of DROs was suspected to be laboratory contamination due to control samples testing positive for DROs. Seven of the soil samples contained O&G concentrations, six of which exceeded the state action level of 250 mg/Kg. The Corp's report stated that comparing the 2001 report to the 1995 sampling event, that petroleum contaminated soils exist at the subject property, and that natural attenuation has occurred. Soil stockpiled at grid locations WA1, WB2, WB6, WC1, WC3 and WE4 were still identified as above the state action levels in the 2001 report; Corps' recommended the soils remaining above action levels be excavated and disposed of in accordance with state regulations.

In the summer of 2001, a contract to remove the soils was approved, with excavation of soils in September of 2001. Soil was removed in the areas noted above until native, undisturbed soil was reached (approximately 200 tons removed). An NFA letter was issued by the NCDEQ June 4, 2004 (ASE has not been able to identify a copy of this NFA in the on line records) Based on the removal of petroleum-impacted soil and confirmatory sampling, and the regulatory status, this listing is considered a historic recognized environmental condition.

Partner did not identify Recognized Environmental Conditions (RECs) in connection with the site. However, Partner did identify the following Areas of Concern in connection with the site,

- The LMG Phase I ESA identified a septic system related to the on-site building structure.

According to the LMG report, the septic system and associated leach field are located along the south side of the building structure.

- The LMG report indicated that the former subject site property owner, Mr. Willis, was in violation of the “Solid Waste Management Rules” (10 NCAC 10 Section .0201 and .0502) by operating an unpermitted disposal site on the subject property. According to the LMG report numerous debris piles, consisting partially of construction debris were observed throughout the north and central portions of the subject site. At that time, however buried 55-gallon drums and/or other potentially hazardous materials were not observed in the debris piles.
- The January 2018 LMG report indicated that an approximately 250-gallon waste oil Aboveground Storage Tank (AST) was observed along the exterior of the on-site building structure. Partner, in their December 28, 2020, report noted that surficial staining of the soil in the vicinity of the AST was observed during their site reconnaissance.
- Partner observed a sink in the on-site building structure that was not connected to the septic system, and drained directly to the ground surface.
- Partner’s review of available records revealed that approximately 200 tons of previously imported fill was excavated and removed from the site in September 2001. A No Further Action (NFA) letter related to the excavation and removal of the contaminated fill was issued by the North Carolina Department of Environmental Quality (NCDEQ) on June 4, 2004.
- Partner’s December 2020 report indicated that based on historical agricultural activity on the subject site, past use of pesticides on-site is presumed.

Based on the conclusions drawn in their December 2020 Phase I ESA, Partner recommended the following actions:

- Removal of the septic system in accordance with all local, state, and federal regulations.
 - Removal of the construction debris in accordance with all local, state, and federal regulations.
3. **US ARMY Corps of Engineers Notification of Jurisdictional Determination-** date July 24, 2018.
 4. **General Permit – US Army Corps of Engineers** – The site has been issued a permit to impact 0.698 acres of on-site wetland through Section 404.

5.4.8 Local Sources and FOIA Requests

ASE requested information regarding the site from the Morehead City Fire Department (MCFD). Assistant Chief and Fire Marshal Dykeman Baily, responded to ASE’s request, indicating that the MCFD has responded to an undetermined number of mobile home fires on the subject site, which was formally known as Willis Mobile Home Park, over the last 45 years. Assistant Chief Baily also indicated that, generally speaking, if any manufactured homes were damaged beyond the feasibility of repair, the damaged homes were removed from the property, the site of fire was cleaned, and new manufactured homes were moved onto the vacant lot. Assistant Chief Baily also indicated that there have been no known hazardous materials spills of reportable quantities at this location nor “other” environmental issues for the subject site.

ASE contacted the Carteret County Environmental Health Division. Ms. Brenda Blevins, with the Environmental Health Division indicated that the office had did not have information regarding the subject site. Ms. Blevins did indicate that the subject site has access to public utilities, including sewer service.

6.0 SITE AND AREA RECONNAISSANCE

6.1 On-Site Features

ASE conducted the field reconnaissance of the site on December 14, 2022. The weather on the day of the reconnaissance was sunny with a temperature of approximately 55° F. Observations were made from a walking reconnaissance around accessible areas of the site and within the site structure. The site is primarily undeveloped with derelict approximate 4,944 square-foot garage located on the north central portion of the site. The garage is constructed on a concrete slab foundation and has a sub grade concrete lines service pit. Photographs of the site have been included in Appendix V.

Aboveground Storage Tanks

Aboveground storage tanks (AST) were not observed on the day of the site visit.

Underground Storage Tanks

Indications of underground storage tanks (USTs), such as fill or vent pipes were not observed on the day of the site reconnaissance.

Strong, pungent or noxious odors

Strong, pungent or noxious odors were not evident at the site on the day of the site reconnaissance.

Surface waters

Surface waters were not observed on the day of the site visit.

Standing pools of liquid likely containing petroleum or hazardous substances

Standing pools of liquid, likely containing petroleum or hazardous substances were not observed on the site on the day of the site reconnaissance.

Drums or containers of petroleum or hazardous substances greater than five-gallons

Drums or containers of petroleum or hazardous substances greater than 5 gallons were not observed at the site on the day of the site reconnaissance.

Hazardous substance or petroleum product containers

Four five gallon buckets of petroleum products (oil and grease) were observed in the garage. One of the buckets is located at the entrance of the garage. A release from the bucket was noted as described below.

Unidentified opened or damaged containers of hazardous substances or petroleum products

Unidentified, opened or damaged containers were not observed on the site.

Known or suspect PCB-containing equipment (excluding light ballasts)

Known or suspect PCB-containing equipment was not observed during the site reconnaissance. However, a pole mounted transformer was observed northwest of the structure. A blue dot signifying that it was PCB-free from the utility company was not visible from the ground. Evidence of past releases of dielectric fluid from the unit was not observed during the site reconnaissance.

Stains or corrosion to floors, walls or ceilings

Stains typically seen on the concrete of maintenance garages were observed within the building, observed on the site on the day of the site reconnaissance. These stains are not considered RECs.

Floor drains and sump pump

Floor drains and sump pumps were not observed on the site, however, significant debris was present on the floor of the garage impeding observations of the floor.

Pits, ponds or lagoons

Pits, ponds, or lagoons were not observed on-site on the day of the site reconnaissance, with the exception of the aforementioned concrete maintenance pit located within the garage building.

Stained soil or pavement

Stained soil and/or pavement was not observed on the site on the day of the site reconnaissance with the exception of an approximate 16 square-foot oil stain on the concrete apron at the entrance to the eastern side of the building. The staining appears to be from an open 5 gallon bucket of oil that has overflowed due to rainwater entering the bucket. A small area of soil staining extends off of the concrete (Photograph No. 13). This release is considered and REC.

Stressed vegetation

Stressed vegetation was not observed on the site on the day of the site reconnaissance.

Solid waste mounds or non-natural fill materials

Solid waste mounds or non-natural fill materials were observed on-site on the day of the site reconnaissance. Numerous piles of debris consisting of construction material, rocks, and soil were identified just south of and north of the on-site structure. The areas were heavily overgrown with

vegetation which obscured a significant amount of the site in these areas. Four pallets of corrugated transite roofing was observed along the western property boundary north of the building.

Wastewater discharges into drains, ditches or streams

Wastewater discharges into drains, ditches, or streams were not observed on the site on the day of the site reconnaissance.

Groundwater wells, including potable, monitoring, dry, irrigation, injection, and/or abandoned

Groundwater wells, including potable, monitoring, dry, irrigation, injection, and/or abandoned were not observed on the day of the site visit.

Septic systems or cesspools

Nether septic systems nor cesspools were identified during the site visit. However, the site structure reportedly has a septic system. A 2018 ground penetrating survey conducted by KCI Associates identified what appeared to be a septic tank along southern side of the on-site building, approximately 10 feet off of the structure. The tank appeared to be approximately 500 gallons in volume.

6.2 Adjoining and Nearby Properties

Contiguous and nearby properties were observed during a walking and vehicular reconnaissance of the site parcel. The following occupants were identified on adjacent properties.

Table 7 – Contiguous and Nearby Properties

Location relative to the site	Occupant
North	Undeveloped wooded land then residential property.
West	Multifamily residential, commercially office space, Bridges Animal Hospital , and undeveloped land
South	Bridges Street and single family residential.
East	A small commercial/industrial building complex occupied by The Wood Yard. The occupants of the remaining structures is not known Willis Mobile Home park, single family residential and the Food Bank (formerly Riptides Bar and Grill)

7.0 ADDITIONAL SERVICES

ASTM guidelines identify non-scope issues, which are beyond the scope of this practice. Some of these non-scope issues include asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands, and mold. These non-scope issues were not addressed in this report with the exception of the collection of a sample for the corrugated transite roofing material observed along the western site boundary , north of the site. An accredited North Carolina asbestos inspector (Cheryl

Moody No. 12067) collected as sample of the material and submitted the sample to EMSL Laboratories in Mooresville North Carolina for asbestos analysis. The roofing material was identified as having 10% chrysotile asbestos. A copy of the laboratory data sheets have been included in Appendix III. The identified material was in fair to poor condition at the time of sampling. ASE estimates approximately 500 cubic feet of transite roofing is present on the site. The presence of this material is considered a business environmental risk.

8.0 INTERVIEWS

Mr. Keith Walker with East Carolina Community Development was interviewed. Mr. Walker was aware of environmental testing conducted at the site and the removal of some impacted soils. According to Mr. Walker, to his knowledge, the identified impacts had been remediated. He dis state that there is construction debris buried on the site.

Danny May, owner of The Wood Yard (eastern adjoining property) indicated that he has been present at this location for 15 years. He indicated that the site had been vacant during that time. The former owner passed away and his trucking business was closed.

9.0 FINDINGS AND OPINION

The site referred to as “subject property”, “site” or “the property” is located in Morehead City, Carteret County, North Carolina and consists of Carteret County PIN number: 637615648235000. The site is located on the north side of Bridges Street and is currently addressed of 3200 Bridges Street.

The site consists of approximately 11.64 acres of primarily vacant land. A derelict garage is situated on the northern portion of the site. Several 5 gallon bucket of petroleum products remain in the structure. One of these buckets has an open top and is exposed to the elements. Rainwater has forced oil out of the bucket onto the concrete. A small area of soil has been impacted by this. The structure was formerly serviced by a septic system. The southern portion of the site is an open grassy area. The remaining areas of the site are vegetated with thick vegetation. Indications of non-native piles were observed on the northern portion of the site. The visible piles appeared to contain, soil, rocks, constructure debris and miscellaneous garbage. The site is currently zoned Single Family Residential – Conditional Zoning (R15-CZ).

The site is bounded by undeveloped land, including Calico Creek to the north, followed by residential development. The site is bounded by Bridges Street to the south, followed by mixed residential and commercial development. The site is bounded by residential development, consisting of manufactured homes to the east, followed by mixed single family residential, multi-family residential, and commercial development. The site is bounded to the west by multi-family residential and commercial development. A more detailed description of the adjoining properties is included in Section 6.2 of this report.

Research of readily available historical data, including aerial photographs, topographical maps, city directories, property deeds and historic reports indicate that the subject site was agriculturally developed in 1938 with what appears to be residential structures along Bridges Street (based on the earliest available data record reviewed, a 1938 aerial photograph). It is likely that herbicides and

pesticides have been used on the site. However, application of these chemicals in accordance with manufacturer approved application rates is considered a de minimus condition.

The site appears to have been addressed as 3110, 3118, and 3200 Bridges Road during its documented history reviewed as part of this ESA. Sometime between 1957 and 1964 the southern portion of the site was developed into a mobile home park. The site use remained the same until sometime between 1970 and 1982 when the central and northern portions of the site ceased to be farmed and areas of the site were disturbed. The on-site structure was reportedly constructed in 1982 and was utilized by Willis Landscaping and Construction, then Willis Septic Tanks. Mr. Willis (former owner) was cited by Carteret County Environmental Health Department for operating an unpermitted landfill on the site in July of 1983. This dumping appears to have continued through at least 1998. Historical assessments of the site have identified waste consisting of construction debris to be buried as deep as 10 feet below grade in some areas of the site. The presence of this debris is considered a business environmental risk. Sometime between 2006 and 2009, the mobile home park on the south side of the site was removed. The site has been vacant for at least 15 years.

Property north of the site appears to have been undeveloped since at least 1936 with the agricultural land north of the undeveloped land becoming residential in the early 1980's. Property immediately south of the site appears to have been residential and remains residential today. The adjoining property to the east and west of the site was agricultural in 1936, with the exception of what appears to be residential property adjacent to the on-site residential area. The area slowly became developed beginning in the early 1970's.

The Standard Environmental Records (SER) search was prepared by Environmental Data Resources, Inc. (EDR). EDR identified the site in the standard environmental records NPDES, LAST and IMD.

- The site is reported to have an active NPDES State Stormwater permit (Permit number SW8201102) which was issued on February 3, 2021, and is scheduled to expire on February 3, 2029.
- **US Army Reserve Center Site #2, Willis Property** – (LAST and IMD) Approximately 1,100 cubic yards of petroleum contaminated fill, was imported to the site from another location in 1996. This material was removed from the site by the Army Corps of Engineers in September 2001. Approximately 200 tons of contaminated soil was excavated and removed from the site. A no further action (NFA) letter was issued for this incident by NCDEQ on June 4, 2004. However, a copy of this NFA was not located by ASE. This incident is considered a historic REC.

Several properties within their respective search distances were identified in the SER search prepared by EDR. However, based on the property location, distance from the site and/or the closure status, release from these properties would not be expected to impact the site.

Historical assessment of the site identified the following:

- The site structure was used for vehicle maintenance. The structure has a septic system. the septic system and associated leach field are located along the south side of the building structure.
- A sink in the on-site building structure drained directly to the ground surface.

- A suspect petroleum sheen and odor, and dead animals were observed in and around the tributary leading to a creek to the north of the property near debris piles identified on the northern portion of the site.
- An approximately 250-gallon waste oil AST and visible surface staining were observed along the west side of the on-site building.

In 2018 Subsurface Investigation included a geophysical survey, advancement of five (5) soil borings and six (6) test pits to facilitate the collection and analysis of representative soil and groundwater samples from the north and central portions of the subject site, and the collection of a surface water sample from the creek, traversing the northern portion of the subject site. The sampling location were designed to address the items listed above.

Soil and groundwater samples were collected from the site and were analyzed for VOCs and PAHs. . The VOCs p-isopropyltoluene, naphthalene, 1,2,4- trimethylbenzene, 1,3,5-trimethylbenzene, and the PAH pyrene were identified above the laboratory method detection limit (MDL) in one of five soil samples. However, these concentrations were below State action levels. For residential property and protection of groundwater.

Neither VOCs nor PAHs were identified in the collected groundwater, surface water or test pit soil samples. Based on the results of this sampling, Partner did not recommend additional assessment of the on-site septic system, AST, sink discharge or buried debris.

10.0 CONCLUSION

We have performed a Phase I Environmental Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of the property located at 3200 Bridges Street, in Morehead City, Carteret County, North Carolina. Any exception to, or deletions from, this practice are described in Section 2.3 of this report.

As documented and qualified by this report, this assessment has revealed the following evidence of RECs in connection with the site.

- A release of oil was observed at the eastern entrance of the on-site garage. This release was from an open top five gallon bucket exposed to the elements. The majority of the oil staining is contained to concrete. However soil staining is present along the concrete.

As documented and qualified by this report, this assessment has revealed the following evidence of a Historic REC.

- US Army Reserve Center Site #2, Willis Property LAST and IMD incident.

As documented and qualified by this report, this assessment has revealed the following evidence of Business Environmental Risks in connection with the site.

- Wetlands are present on the site.
- The presence of the debris is considered a business environmental risk.

- Approximate 500 cubic feet of corrugated transite (asbestos) roofing is present on the site.
- A portion of the site is located in a flood zone.
- Some petroleum products remain on the site that will require proper disposal.

11.0 REFERENCES

ASTM Standard E1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

ASTM E 1527-013 User Questionnaire, Completed by Keith Walker, November 16, 2022.

Certified Sanborn Map Report, prepared by Environmental Data Resources, Inc. dated November 30, 2022.

The EDR Aerial Photo Decade Package (years 1938, 1942, 1957, 1964, 1970, 1982, 1993, 1998, 2006, 2009, 2012, and 2016) prepared by Environmental Data Resources, Inc., dated November 30, 2022.

Google Earth aerial photos (2002, 2003, 2005, 2006, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019) online review December 2022, <https://earth.google.com>

The EDR City Directory Image Report (years 1963, 1966, 1970, 1975, 1980, 1985, 1992, 1995, 2000, 2005, 2010, 2014, and 2017) prepared by Environmental Data Resources, Inc., dated December 2, 2022.

EDR Historical Topo Map Report (Beaufort, North Carolina Quadrangle dated 1949, 1971, 1983, 1987, 1994, 2013, 2016, and 2019 prepared by Environmental Data Resources, Inc. dated November 30, 2022.

The EDR Radius Map Report with Geocode, prepared by Environmental Data Resources, Inc. dated November 30, 2022.

FEMA, FIRM Map Community Panel No. 3720637600J effective on July 16, 2003. <http://www.fema.gov/hazard/map/flood.shtml>

U.S. Fish and Wildlife Service, National Wetlands Inventory, National Wetlands Inventory Mapper, December 2022. [Wetlands Mapper | U.S. Fish & Wildlife Service \(fws.gov\)](https://wetlands.fws.gov/)

Physiography of North Carolina, compiled by the North Carolina Geological Society, dated 2004.

Revised Phase II Subsurface Investigation Report, Elijah's Landing, 1300 Bridges Street, Morehead City, North Carolina 28557, June 15, 2018, Partner Engineering North Carolina, PLLC.

Phase I Environmental Site Assessment Report, Elijah's Landing, 3200 Bridges Street, Morehead City, North Carolina 28557, December 28, 2020, Partner Engineering North Carolina, PLLC.

NCDEQ on-line records.

Carteret County Assessor's Office online review.

Carteret County Registry of Deeds online review.

Carteret County Environmental Health Division, Brenda Blevins, email correspondence, December 2022.

Morehead City Fire and EMS, Assistant Chief and Fire Marshal Dykeman Bailly, email correspondence, December 2022.

Interviews:

Mr. Keith Walker with East Carolina Community Development

Danny May, owner of The Wood Yard

APPENDIX I

FIGURES

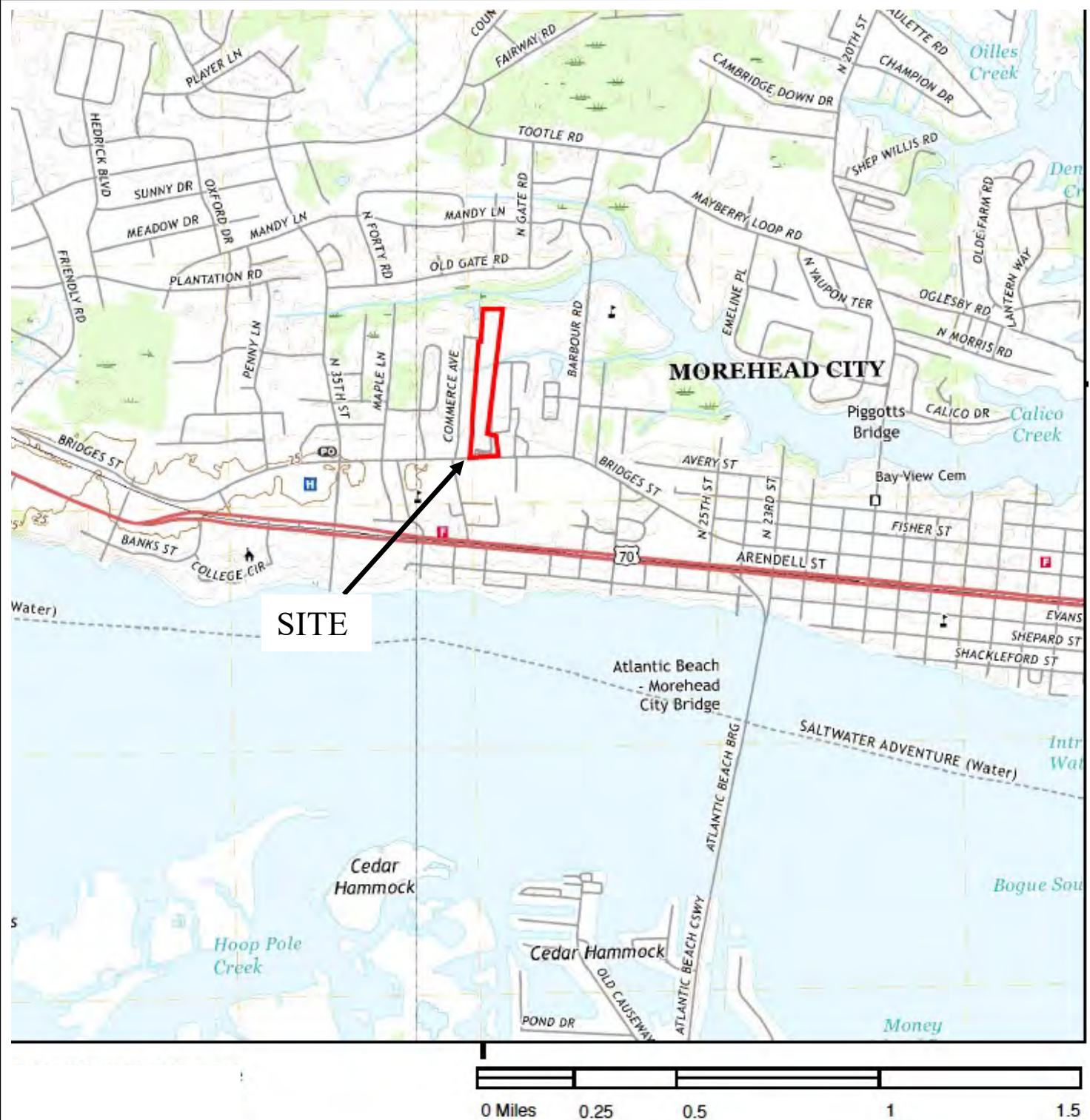


FIGURE 1: TOPOGRAPHIC MAP

Source: USGS Beaufort North Carolina 2019

Phase I Environmental Site Assessment
5 North 12th Street
Morehead City, North Carolina



ASE Project No. 1591
December 2022





Approximate Scale (Ft)
0 375

FIGURE 2: AERIAL MAP

Source: New Hanover County GIS 2021 Aerial



Phase I Environmental Site Assessment
3200 Bridges Street
Morehead City, North Carolina



ASE Project No. 1591
December 2022

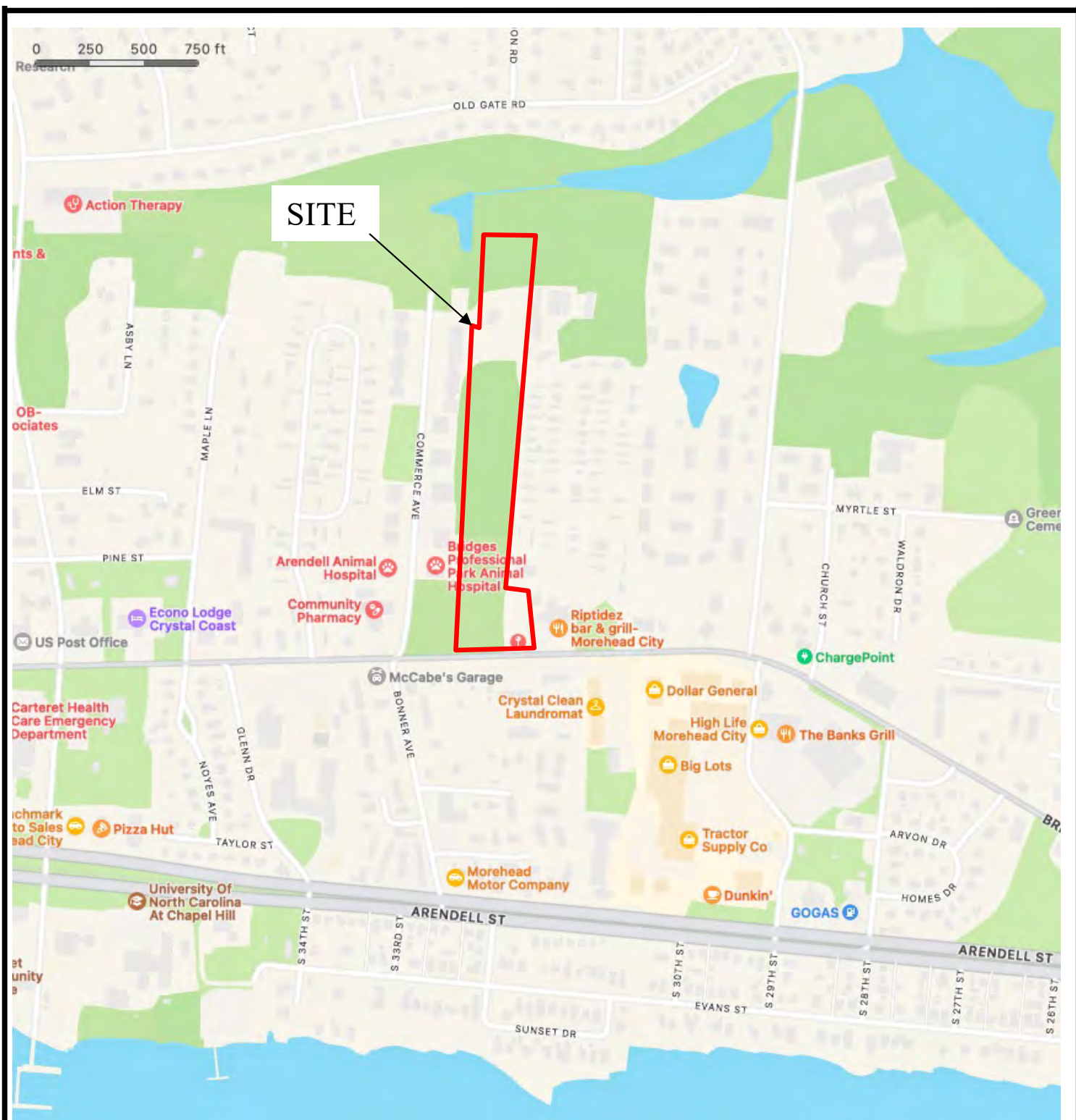


FIGURE 3: STREET MAP

Source: Maps



**Phase I Environmental Site Assessment
3200 Bridges Street
Morehead City, North Carolina**



**ASE Project No. 1591
December 2022**

APPENDIX II

USER PROVIDED INFORMATION

ASTM E 1527-013 USER QUESTIONNAIRE

In order to qualify for one of the *Landowner Liability Protections (LLPs)*¹ offered by the Small Business Liability Relief and Brownfield Revitalization Act of 2001 (the "*Brownfield Amendments*"), the *user* (user of report) must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in determination that "*all appropriate inquiry*" is not complete.

1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

None

2. Activity and land use limitation that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of any AULs such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

None

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the *user* of this ESA do you have any specialized knowledge or experience relating to the *property* or nearby properties? For example, are you involved in the same line of businesses the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and process used by this type of business?

I'm unaware of any b'ys.

4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present on the *property*?

Yes

5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30).

Are you aware of commonly or reasonably ascertainable information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as a user,

a. Do you know the past uses of the *property*?

Yes mobile home park.

¹ *Landowner Liability Protection*, or *LLPs*, is the term used to describe three types of potential defenses to Superfund liability in EPA's *Interim, Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability* ("Common Elements" Guide) issued March 6, 2003.

November 11, 2022

- b. Do you know of specific chemicals that are present or once present at the *property*?

No

- c. Do you know of spills or other chemical releases that have taken place on the *property*?

None

- d. Do you know of any environmental cleanups that have taken place on the *property*?

No

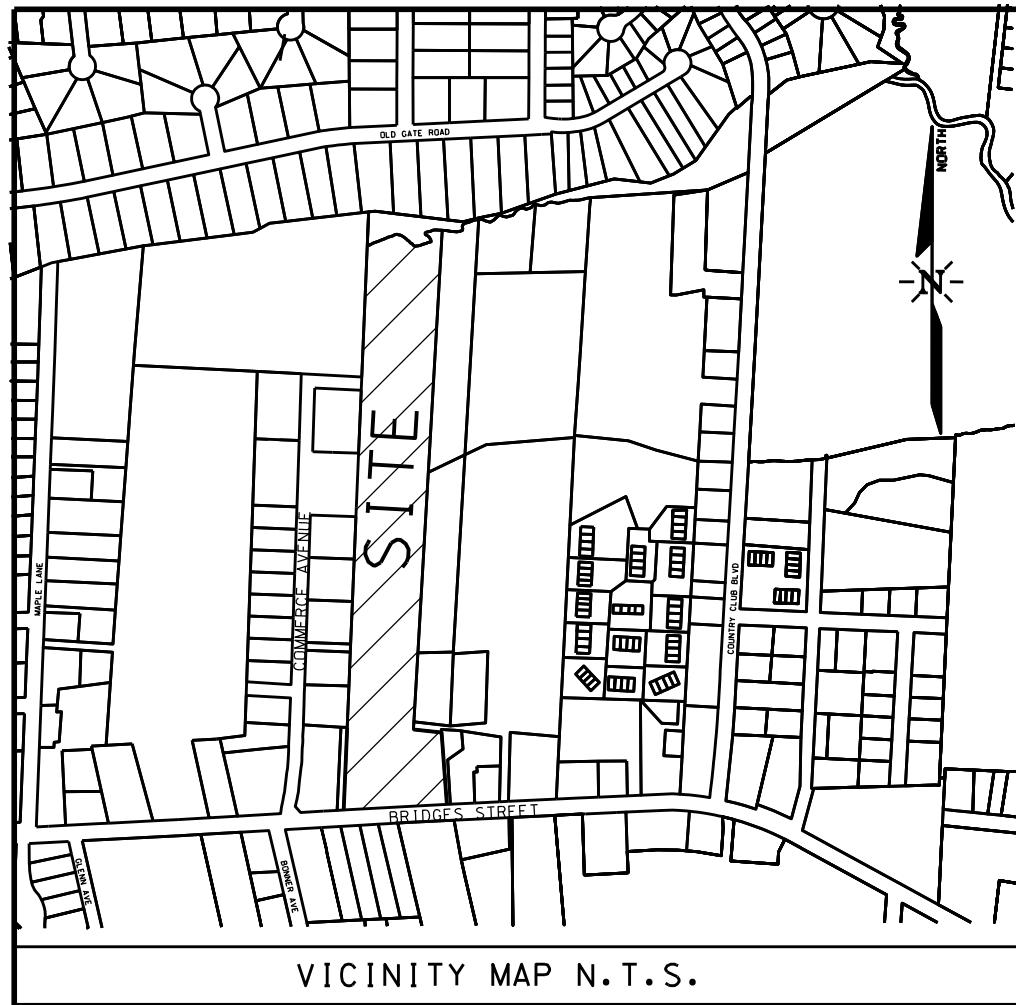
6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the *user* of this *ESA*, based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*?

Prepared by: Keith D. Walker
Pres./CEO for ECCOI
Print Name, Title

Prepared by: [Signature]
Signature

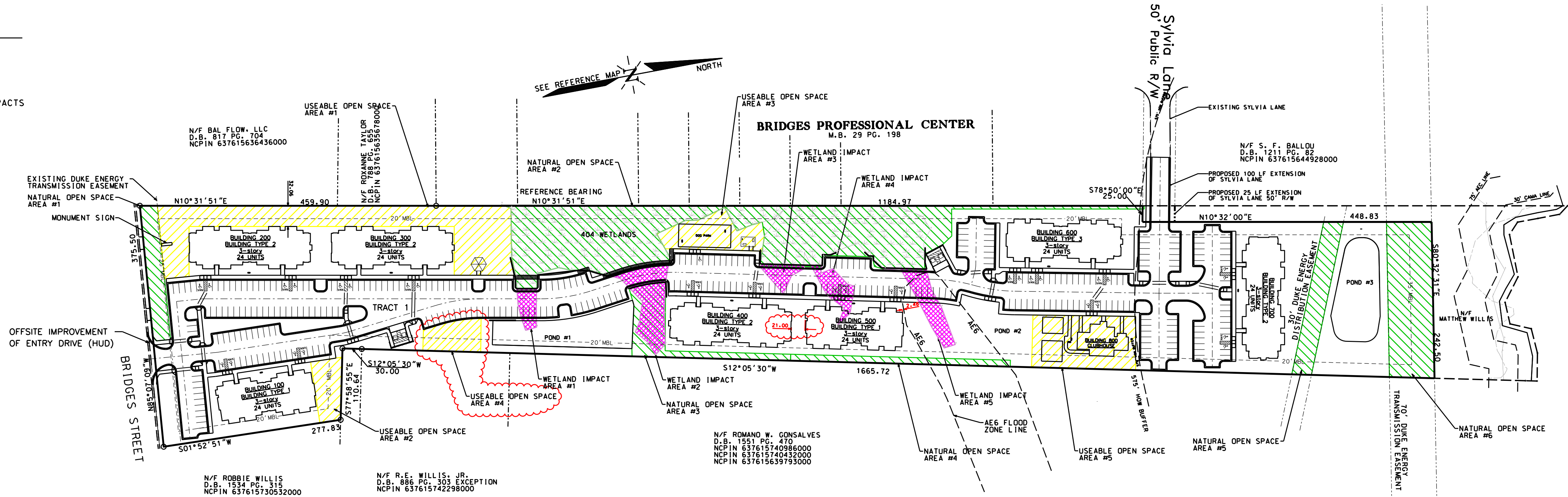
Date: 11/16/22



VICINITY MAP N.T.S.

LEGEND

- EXISTING WETLANDS
- PROPOSED WETLAND IMPACTS
- USEABLE OPEN SPACE
- NATURAL OPEN SPACE
- REVISIONS REQUESTED FOR REVIEW



AREA TABULATIONS

USEABLE OPEN SPACE AREAS		NATURAL OPEN SPACE AREAS		WETLAND IMPACT AREAS	
AREA #	AREA (SF)	AREA #	AREA (SF)	AREA #	AREA (AC)
1	27,686.83	1	5,561.79	1	0.037
2	3,933.28	2	54,784.37	2	0.139
3	7,045.84	3	1,711.15	3	0.055
4	4,020.67	4	3,110.77	4	0.055
5	55,858.03	5	16,913.42	5	0.083
TOTAL AREA = 55,858.03 SF		TOTAL AREA = 95,341.48 SF		TOTAL AREA = 0.349 AC	

SITE DATA

TRACT AREA = 11.74 AC = 506,966.36 SF
MAXIMUM BUILDING COVERAGE ALLOWED IS 40% OF TRACT AREA = 202,786.54 SF
PROPOSED BUILDING COVERAGE (BUILDINGS 100 THRU 700, CLUBHOUSE, GAZEBO & COVERED PICNIC AREA) = 64,755.28 SF
MINIMUM LOT SIZE PER UNITS = 5,000 SF FOR FIRST UNIT, EACH 2+ BEDROOM UNIT REQUIRES 3,000 SF PER UNIT AND EACH 1 BEDROOM UNIT REQUIRES 2,500 SF PER UNIT.
PROPOSED (30) 1 BEDROOM UNITS, (78) 2 BEDROOM UNITS AND (60) 3 BEDROOM UNITS
REQUIRED AREA = 5,000 SF + [138 UNITS X 3,000 SF] + [29 X 2,500 SF] = 491,500 SF = 11.28 AC
TRACT AREA IS GREATER THAN MINIMUM LOT AREA REQUIRED

OPEN SPACE REQUIREMENTS = 18% OF TRACT MUST BE NATURAL OPEN SPACE AND 10% USEABLE OPEN SPACE
NATURAL OPEN SPACE REQUIRES (18% OF TRACT) = 91,253.94 SF
USEABLE OPEN SPACE REQUIRED (10% OF TRACT) = 50,696.64 SF
NATURAL OPEN SPACE PROVIDED = 94,261.85 SF
USEABLE OPEN SPACE PROVIDED = 55,858.03 SF

MINIMUM SETBACK REQUIREMENTS
FRONT = 25'; 25' PROVIDED
REAR = 25' + 5' PER ADDITIONAL STORY = 35'; 35' PROVIDED
SIDE = 20' AGGREGATE = 5' PER ADDITIONAL STORY = 40' AGGREGATE
SIDE SETBACKS ARE 20' FOR ENTIRE PROPERTY

MAXIMUM BUILDING HEIGHT ALLOWED = 50' ABOVE AVERAGE GRADE
MAXIMUM BUILDING HEIGHT PROPOSED = 34' 3"

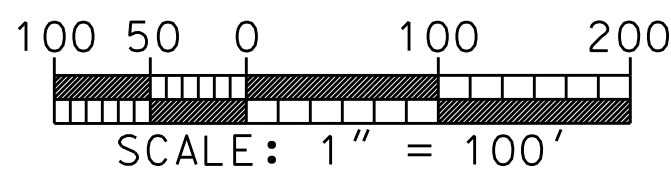
PARKING DATA

PARKING SPACES REQ'D = 1.75 PARKING SPACES PER RESIDENTIAL UNIT (NCHFA 2020 OAP)
PARKING SPACES REQ'D = 168 UNITS X 1.75 SPACES PER UNIT = 294 SPACES TOTAL

PARKING REQ'D (MOREHEAD CITY) = 2 SPACES PER UNIT PLUS 1 ADDITIONAL SPACE PER 6 UNITS
PARKING SPACES REQ'D = 336 SPACES + 28 SPACES = 364 TOTAL SPACES
PARKING SPACES PROVIDED = 348 SPACES - PLEASE SEE REQUEST FOR 4.4% PARKING REDUCTION PER ORDINANCE SECTION 20-1.4.

HANDICAP(H/C) PARKING REQ'D (NORTH CAROLINA) = 2% OF 364 = 8 SPACES REQ'D

HANDICAP(H/C) PARKING REQ'D (NCHFA) = 1 PER TYPE 'A' UNITS, 2% OF TYPE 'B' UNITS,
1 PER LOCATIONS OF AMENITIES, VAN ACCESSIBLE SPACES REQ'D AT EACH AMENITIES LOCATION AND THE 1ST HANDICAP SPACE PER TYPE 'A' UNIT
TYPE 'A' UNITS = 18, 18 HANDICAP SPACES REQ'D
TYPE 'B' UNITS = 38, 1 HANDICAP SPACES REQ'D
AMENITIES LOCATION = 3, 3 HANDICAP SPACES REQ'D
HANDICAP(H/C) PARKING REQ'D = 21 VAN SPACES + 1 SPACES = 22 HANDICAP SPACES TOTAL
HANDICAP PARKING SPACES PROVIDED = 33 SPACES

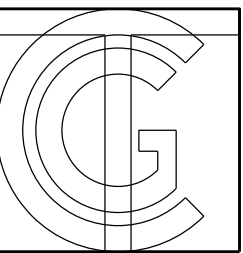


SCALE: 1" = 100'

SHEET INDEX	
SHEET NO.	DESCRIPTION
C1.0	OVERALL SITE PLAN
C2.0	EXISTING CONDITIONS SURVEY
C3.0	ENLARGED SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING & DRAINAGE PLAN
C6.0	UTILITY PLAN
C6.1-6.3	UTILITY PLAN & PROFILES
C7.0	LANDSCAPE PLAN
C8.0	STORMWATER POND #1 DETAILS
C8.1	STORMWATER POND #2 DETAILS
C8.2	STORMWATER POND #3 DETAILS
C8.3	STORMWATER PONDS PLANTING PLAN
C9.0	SITE DETAILS
C10.0	SITE DETAILS
C11.0	EROSION CONTROL DETAILS
C12.0	UTILITY DETAILS
C13.0	BMP DELINEATION PLAN
C14.0	GROUND STABILIZATION
C15.0	SELF INSPECTION

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing
Overall
Site Plan



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
C-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080



100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	CMC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

OVERALL
SITE PLAN

C1.0

- LEGEND
- EIR EXISTING IRON ROD
EIP EXISTING IRON PIPE
EPK EXISTING PK NATL
ECM EXISTING CONC. MON.
ERRS EXISTING R/R SPIKE
E4 EXISTING
EOP EDGE OF PAVEMENT
SIR SET IRON ROD
CP CALCULATED POINT
MWH MEAN HIGH WATER
NWF NOW OR FORMERLY
MB MAP BOOK
DB DEED BOOK
PG PAGE
OP OVERHEAD POLE
LP LIGHT POLE
DE OVERHEAD ELECTRIC
LEC ELECTRICAL PEDESTAL
ELCC ELCC TRANSFORMER
TEL TELEPHONE PEDESTAL
TV CABLE TV PEDESTAL
WM WATER METER
CD CLEAN OUT
SWMH SINGLE WIDE MOBILE HOME
SD SHED
DS DANCE STUDIO
SSMH SANITARY SEWER MANHOLE
EXCEPTION ITEMS IDENTIFICATION NUMBER
- EASEMENT
--- EXISTING IMPROVEMENTS
--- UNDERGROUND SEWER
--- ADJACENT PROPERTY BOUNDARY
--- FLOOD ZONE
--- DITCH CENTERLINE
WETLAND
ADJOINING PROPERTY LOT NUMBER

RECORD LEGAL DESCRIPTION

BEGINNING AT A SET IRON ROD IN THE NORTHERN RIGHT OF WAY OF BRIDGES STREET, SAID POINT ALSO BEING LOCATED 577°15'43"E 179.39 FEET AND 585°07'09"E 375.50 FEET FROM AN EXISTING IRON ROD LOCATED IN THE EASTERN RIGHT OF WAY OF COMMERCE AVENUE, THENCE FROM SAID BEGINNING POINT AND ALONG BRIDGES STREET RIGHT OF WAY N85°07'09"W 375.50 FEET TO AN EXISTING IRON ROD, THENCE LEAVING SAID RIGHT OF WAY N10°31'51"E 459.90 FEET TO AN EXISTING IRON LOCATED AT THE NORTHEAST CORNER OF THAT PROPERTY OWNED BY ROXANNE TAYLOR AS RECORDED IN DEED BOOK 188 PAGE 655 OF THE CARTERET COUNTY REGISTRY, THENCE FROM SAID POINT AND CONTINUING ON THE SAME LINE N10°31'51"E 1096.61 FEET TO AN EXISTING IRON ROD, SAID LINE BEING THE EASTERN LINE OF BRIDGES PROFESSIONAL CENTER AS RECORDED IN MAP BOOK 29 PAGE 157.02, SAID POINT ALSO BEING NEAR THE SOUTHERN RIGHT OF WAY OF SYLVIA LANE, THENCE LEAVING SAID EASTERN LINE AND AN EXTENSION OF THE SOUTHERN LINE OF SYLVIA LANE S78°50'00"E 25.00 FEET TO AN EXISTING IRON ROD, THENCE N10°32'00"E 448.83 FEET TO AN EXISTING IRON ROD NEAR THE NORTHERN RIGHT OF WAY OF A 70 FOOT DUKE ENERGY UTILITY EASEMENT, THENCE WITH SAID NORTH LINE S80°32'31"E 242.50 FEET TO AN EXISTING IRON ROD, THENCE LEAVING SAID NORTHERN LINE S12°05'30"W 1665.72 FEET TO A SET IRON ROD, THENCE S12°05'30"W 30.00 FEET TO A SET IRON ROD, THENCE S77°58'54"E 110.64 FEET TO A SET IRON ROD, THENCE S01°52'51"W 277.83 FEET TO THE POINT AND PLACE OF BEGINNING, BEING ALL OF TRACT 1, MAP BOOK 33, PAGE 993, AND CONTAINING 11.64 ACRES.

ENCROACHMENT/SIGNIFICANT OBSERVATION

THE FOLLOWING ITEMS CONSTITUTE ENCROACHMENTS:

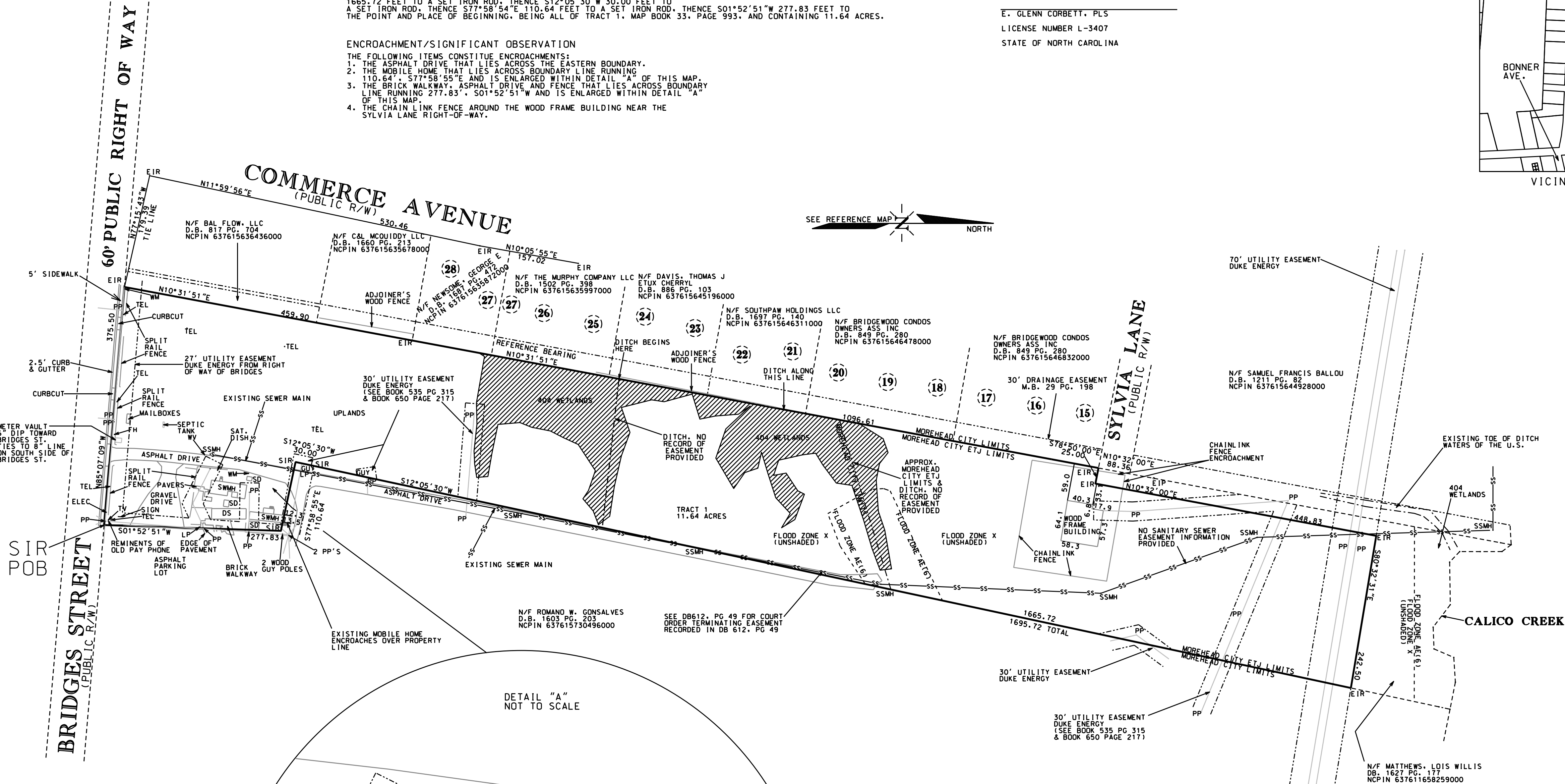
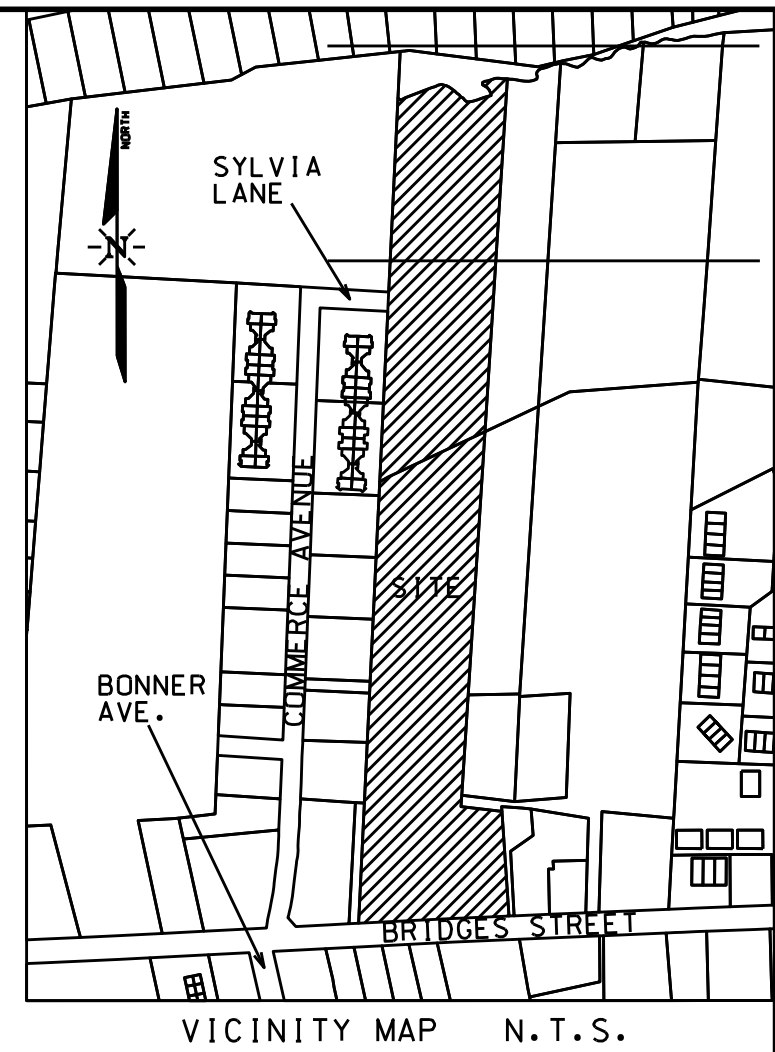
1. THE ASPHALT DRIVE THAT LIES ACROSS THE EASTERN BOUNDARY.
2. THE MOBILE HOME THAT LIES ACROSS BOUNDARY LINE RUNNING 110.64' S77°58'55"E AND IS ENLARGED WITHIN DETAIL "A" OF THIS MAP.
3. THE BRICK WALKWAY, ASPHALT DRIVE AND FENCE THAT LIES ACROSS BOUNDARY LINE RUNNING 277.83' S01°52'51"W AND IS ENLARGED WITHIN DETAIL "A" OF THIS MAP.
4. THE CHAIN LINK FENCE AROUND THE WOOD FRAME BUILDING NEAR THE SYLVIA LANE RIGHT-OF-WAY.

E. GLENN CORBETT, PLS
LICENSE NUMBER L-3407
STATE OF NORTH CAROLINA

REFERENCE MAP
SEE SURVEY FOR WILLIS MOBILE HOME PARK #1
FOR LOIS MATTHEWS C/O HARVEY L. AND COLLEEN
P.A. BY PRESTIGE LAND SURVEYING, P.A. DATED
JUNE 29, 2016.

TO, ELIJAH'S LANDING OF MOREHEAD CITY, LLC, CHURCHILL MORTGAGE INVESTMENT LLC, A FLORIDA LIMITED LIABILITY COMPANY, CHURCHILL MORTGAGE CONSTRUCTION, LLC, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD), CHICAGO TITLE INSURANCE COMPANY AND, COMMUNITY EQUITY FUND XXV LIMITED PARTNERSHIP:

DATE OF PLAT OR MAP: 10/8/2021 AND LAST REVISED: 12/1/21



SURVEYOR'S COMMENTS - SCHEDULE B, PART II
RELATIVE TO CHICAGO TITLE INSURANCE COMPANY
COMMITMENT NUMBER: 21-20231NB
COMMITMENT DATE: 9/16/211 REVISED 11/23/21

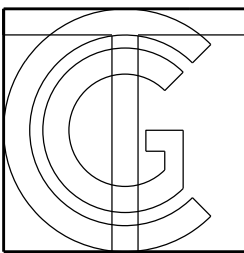
1. TAXES OR ASSESSMENTS FOR THE YEAR 2022, AND SUBSEQUENT YEARS, A LIEN NOT YET DUE OR PAYABLE
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
2. ANY RIGHT, EASEMENT, SETBACK, INTEREST, CLAIM, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATIONS OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE DISCLOSED BY PLAT(S) RECORDED IN MAP BOOK 33, PAGE 993, NOTWITHSTANDING THE FOREGOING, THE POLICY INSURES AGAINST LOSS OR DAMAGE RESULTING FROM A FINAL DETERMINATION BY A COURT OF COMPETENT JURISDICTION THAT PARTIES OTHER THAN THE INSURED, AND THOSE CLAIMING BY THROUGH AND UNDER THE INSURED, HAVE RIGHTS IN AND TO THE USE OF THE PORTION OF THE ASPHALT DRIVE LOCATED ON THE LAND AND SHOWN THEREON, (LOAN POLICY ONLY)
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
3. ANY DISCREPANCY, CONFLICT, MATTERS REGARDING ACCESS, SHORTAGE IN AREA OR BOUNDARY LINES, ENCROACHMENT, ENCUMBRANCE, VIOLATION, OVERLAP, SETBACK, EASEMENT OR CLAIMS OF EASEMENT, RIPARIAN RIGHT, AND TITLE TO LAND WITHIN ROADS, WAYS, RAILROADS, WATERCOURSES, BURIAL GROUNDS, MARSHES, DREDGED OR FILLED AREAS OR LAND BELOW THE MEAN HIGHWATER MARK OR WITHIN THE BOUNDS OF ANY ADJOINING BODY OF WATER, OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY A CURRENT INSPECTION AND ACCURATE AND COMPLETE LAND SURVEY OF THE LAND, UPON RECEIPT OF A CURRENT LAND SURVEY AND SURVEYOR'S REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS SHOWN THEREBY.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
4. RIGHTS OF WAY TO CAROLINA POWER AND LIGHT COMPANY RECORDED IN BOOK 535, PAGE 315; BOOK 650, PAGE 217.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
5. TITLE TO ANY PORTION OF THE LAND LYING WITHIN THE RIGHT OF WAY OF BRIDGES STREET.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
6. RIPARIAN AND/OR LITTORAL RIGHTS INCIDENT TO THE LAND; RIGHTS OF OTHERS IN AND TO THE CONTINUOUS AND UNINTERRUPTED FLOW OF THE WATERS OVER CROSSING THE LAND; AND TITLE TO ANY PORTION OF THE LAND OWNED BY ANY GOVERNMENTAL ENTITY INCLUDING, BUT NOT LIMITED TO, MARSH, DREDGED AND/OR FILLED AREAS AND LAND BELOW THE MEAN HIGH-WATER MARK.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
7. THE LAND SHALL NOT BE DEEMED TO INCLUDE ANY HOUSE TRAILER, MANUFACTURED HOME, MOBILE HOME, OR MOBILE DWELLING ON THE LAND.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
8. ORDINANCE FOR ANNEXATION RECORDED IN BOOK 1671, PAGE 120.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
9. EASEMENT FROM ELIJAH'S LANDING OF MOREHEAD CITY, LLC TO DUKE ENERGY PROGRESS, LLC RECORDED JUNE 2, 2021, IN FILE #1724386, CARTERET COUNTY REGISTRY.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.

NOTES:

1. THIS SURVEY IS OF AN EXISTING PARCEL OF LAND
2. AREA BY COORDINATES
3. THIS MAP IS NOT FOR RECORDING.
4. TRACT AREA = 11.64 ACRES ± 506,964.36 SF
5. NO POINTS SET IN CALICO CREEK.
6. NO TREES LOCATED OR SHOWN.
7. NO EASEMENTS FOR WATER, SEWER, TELEPHONE OR DRAINAGE PROVIDED.
8. FLOOD ZONE LINES SCALED FROM FIRM NUMBER 3720637600J DATED 7/16/03.
9. NO PARKING SPACES OR STRIPING EXIST ON PROPERTY.
10. NO PARTY OR DIVISION WALLS EXIST ON PROPERTY.
11. WETLANDS LINES FIELD APPROVED BY TOM CHARLES OF USACE ON 3/18/18.
12. PROPERTY IS ZONED: RWF (RESIDENTIAL MULTI-FAMILY) ACCORDING TO THE ZONING VERIFICATION LETTER PROVIDED BY THE TOWN OF MOREHEAD CITY, DATED 10/27/2021.
13. AT TIME OF FIELD WORK, THERE WAS NO EVIDENCE OF EARTH MOVING, CONSTRUCTION, ETC.
14. AT TIME OF FIELD WORK, THERE WAS NO EVIDENCE OF STREET OR RIGHT-OF-WAY CHANGES.
15. PARCEL HAS TWO ADDRESS NUMBERS DUE TO OLD TAX NUMBERS.
16. THE SURVEY CORRECTLY SHOWS THE LOCATION OF ALL BUILDINGS, STRUCTURES, AND OTHER IMPROVEMENTS SITUATED ON THE PROPERTY.
17. EXCEPT AS SHOWN, ALL UTILITIES SERVING THE PROPERTY ENTER THROUGH ADJOINING PUBLIC STREETS AND OR EASEMENTS OF RECORD; THAT, EXCEPT AS SHOWN, THERE ARE NO VISIBLE EASEMENTS OR RIGHTS OF WAY ACROSS SAID PROPERTY; THAT THE PROPERTY IS THE SAME AS THE PROPERTY DESCRIBED IN INVESTORS TITLE INSURANCE COMPANY, COMMITMENT NO. 21-20231NB WITH AN EFFECTIVE DATE OF 09/16/2021 AND A DATE OF SECOND REVISION OF 11/23/2021; AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT, OR EASEMENTS OF WHICH THE UNDERSIGNED HAS BEEN ADVISED OR HAS KNOWLEDGE, HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR AFFECT ON THE PROPERTY.
18. EXCEPT AS SHOWN, THERE ARE NO ENCROACHMENTS ONTO ADJOINING PREMISES, STREETS OR ALLEYS BY ANY BUILDING, STRUCTURES OR OTHER IMPROVEMENTS, AND NO ENCROACHMENTS ONTO SAID PROPERTY BY BUILDINGS, STRUCTURES OR OTHER IMPROVEMENTS SITUATED ON ADJOINING PREMISES.
19. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN ZONE X (UNSHADED) AND AE(6) OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 3720637600J, WHICH BEARS AN EFFECTIVE DATE OF 07/16/03, AND A PORTION OF THE PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA. THIS COMMUNITY DOES PARTICIPATE IN THE PROGRAM. NO FIELD SURVEYING PERFORMED TO DETERMINE BASE FLOOD ELEVATION OR ESTABLISH BENCHMARK.
20. THE PROPERTY HAS DIRECT PHYSICAL ACCESS TO A PUBLICLY DEDICATED STEET OR HIGHWAY KNOWN AS BRIDGES STREET AND IS A 60' PUBLIC RIGHT OF WAY.
21. THE NUMBER OF DRIVEWAY PARKING SPACES LOCATED ON THE PROPERTY IS INCLUDING HANDICAPPED SPACES AND TO THE EXTENT POSSIBLE ARE GRAPHICALLY SHOWN HEREON. N/A
22. THIS PROPERTY IS A SINGLE TAX PARCEL.

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
15400 N. HIGWAY 94
101-A NC HIGHWAY 94
101-A NC HIGHWAY 94
101-A NC HIGHWAY 94
(252) 773-0080

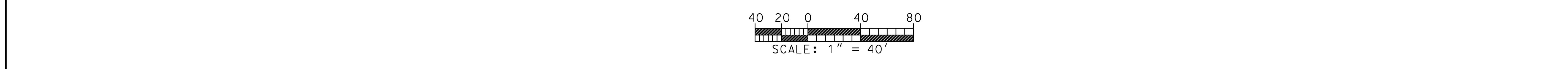
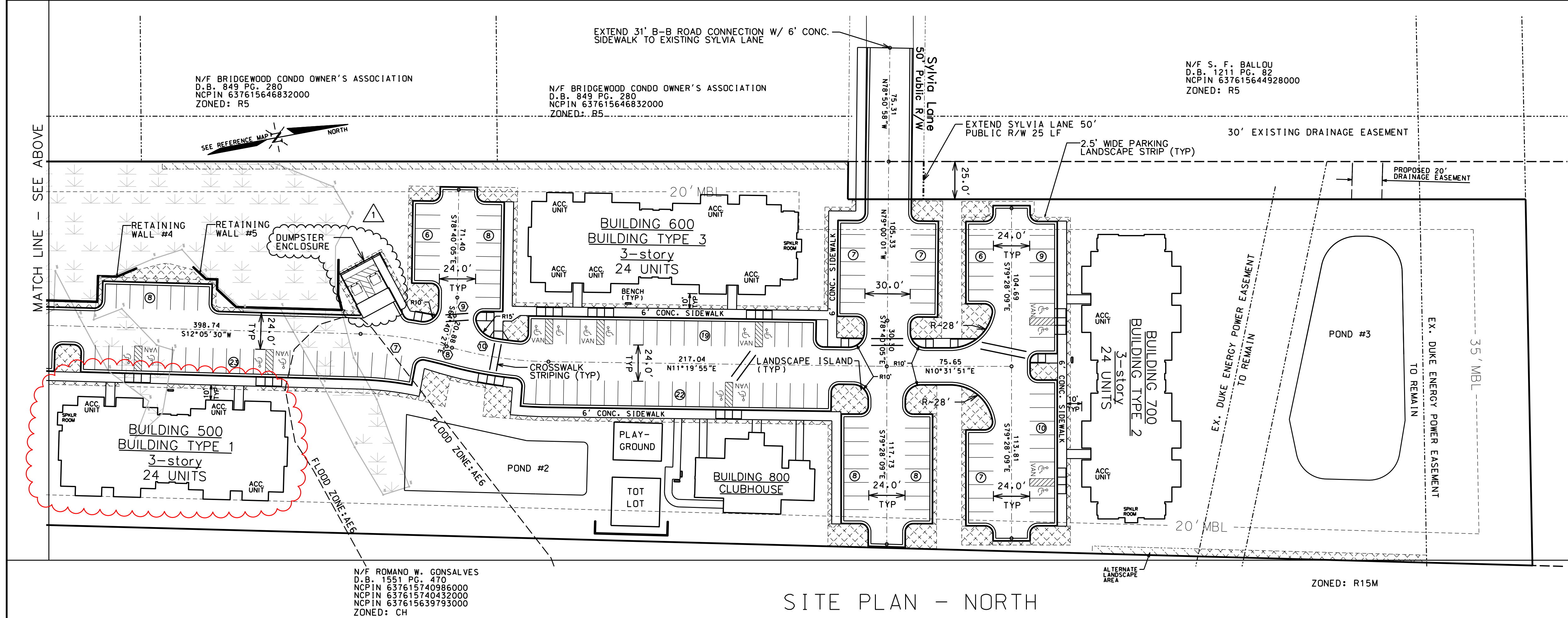
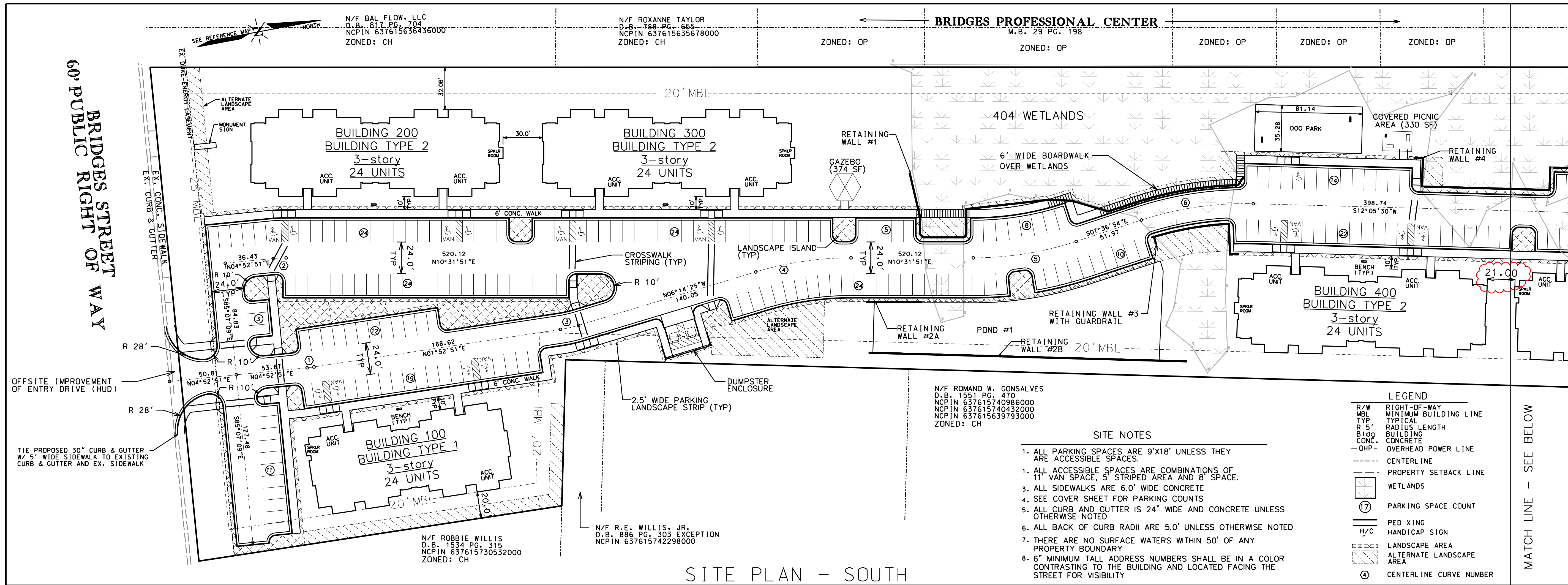
PRELIMINARY PLAT
NOT FOR RECORDATION,
CONVEYANCE OR SALE.
FOR REVIEW ONLY!

100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	EGC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

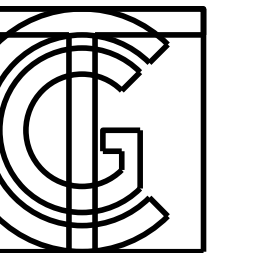
ALTA / NSPS
LAND TITLE
SURVEY

C2.0



Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

**Elijah's
Landing**



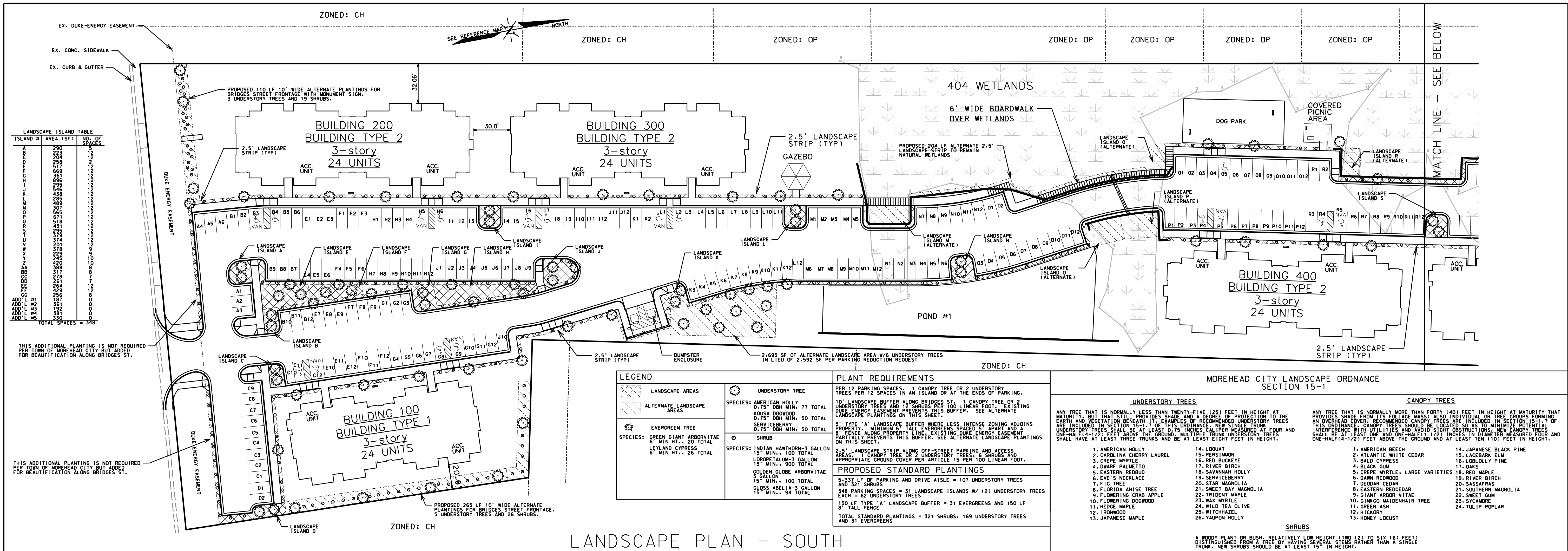
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101-A NC HIGHWAY 24
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(252) 773-0080

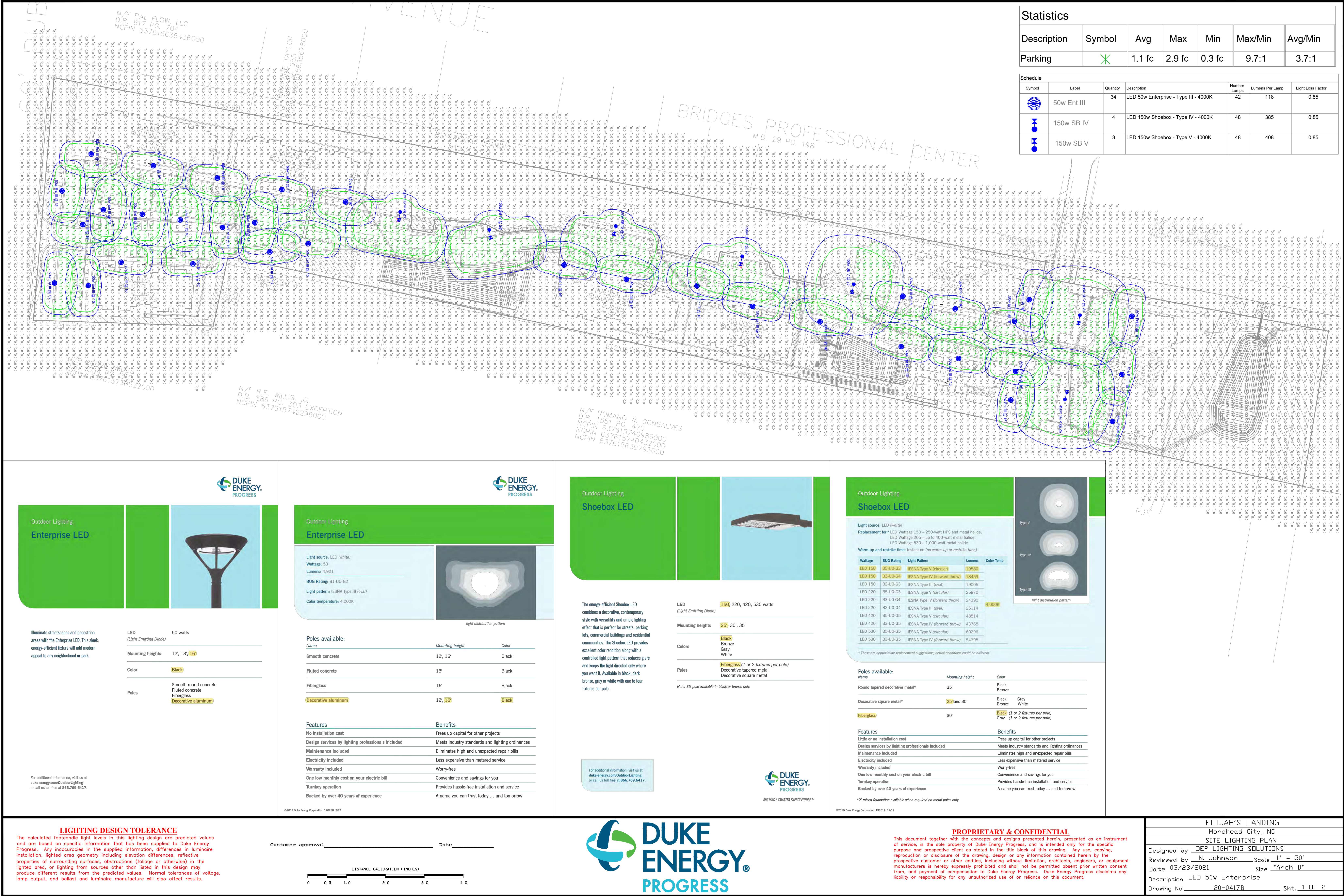


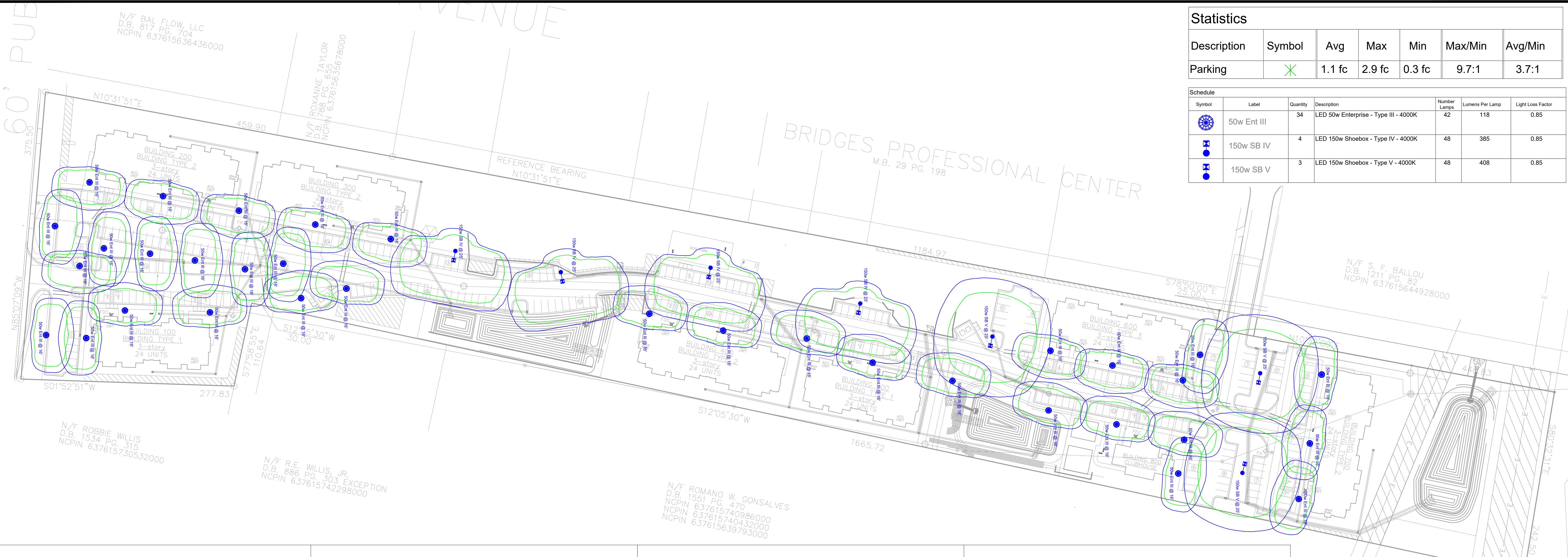
**100%
CONSTRUCTION
DRAWINGS**

date 9/28/22
drafter CMC
checked by CMC
proj. no. PM858-29
revisions
1 PER NCFHA
2 PER TOWN
3 PER TITLE/LENDER
4 PER NCDPS

**SITE
PLAN**
C3.0







Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	✕	1.1 fc	2.9 fc	0.3 fc	9.7:1	3.7:1
Schedule						
Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
⊙	50w Ent III	34	LED 50w Enterprise - Type III - 4000K	42	118	0.85
⊕	150w SB IV	4	LED 150w Shoebox - Type IV - 4000K	48	385	0.85
⊖	150w SB V	3	LED 150w Shoebox - Type V - 4000K	48	408	0.85

Outdoor Lighting

Enterprise LED

Illuminate streetscapes and pedestrian areas with the Enterprise LED. This sleek, energy-efficient fixture will add modern appeal to any neighborhood or park.

LED	50 watts
<i>(Light Emitting Diode)</i>	
Mounting heights	12', 13', 16'
Color	Black
Poles	Smooth round concrete Fluted concrete Fiberglass Decorative aluminum

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.

Outdoor Lighting

Enterprise LED

Light source: LED (white)
Wattage: 50
Lumens: 4,921
BUG Rating: B1-U0-G2
Light pattern: IESNA Type III (oval)
Color temperature: 4,000K

light distribution pattern

Poles available:		
Name	Mounting height	Color
Smooth concrete	12', 16'	Black
Fluted concrete	13'	Black
Fiberglass	16'	Black
Decorative aluminum	12', 16'	Black

Features	Benefits
No installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

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Outdoor Lighting

Shoebox LED

The energy-efficient Shoebox LED combines a decorative, contemporary style with versatility and ample lighting effect that is perfect for streets, parking lots, commercial buildings and residential communities. The Shoebox LED provides excellent color rendition along with a controlled light pattern that reduces glare and keeps the light directed only where you want it. Available in black, dark bronze, gray or white with one to four fixtures per pole.

LED	150, 220, 420, 530 watts
<i>(Light Emitting Diode)</i>	
Mounting heights	25', 30', 35'
Colors	Black Bronze Gray White
Poles	Fiberglass (1 or 2 fixtures per pole) Decorative tapered metal Decorative square metal

Note: 35' pole available in black or bronze only.

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.

Outdoor Lighting

Shoebox LED

Light source: LED (white)
Replacement for* LED Wattage 150 – 250-watt HPS and metal halide;
LED Wattage 205 – up to 400-watt metal halide;
LED Wattage 530 – 1,000-watt metal halide.
Warm-up and restrike time: Instant on (no warm-up or restrike time).

Wattage	BUG Rating	Light Pattern	Lumens	Color Temp
LED 150	B5-U0-G3	IESNA Type V (circular)	19580	4,000K
LED 150	B3-U0-G4	IESNA Type IV (forward throw)	18459	
LED 150	B2-U0-G3	IESNA Type III (oval)	19006	
LED 220	B5-U0-G3	IESNA Type V (circular)	25870	
LED 220	B3-U0-G4	IESNA Type IV (forward throw)	24390	
LED 220	B2-U0-G4	IESNA Type III (oval)	25114	
LED 420	B5-U0-G5	IESNA Type V (circular)	48514	
LED 420	B3-U0-G5	IESNA Type IV (forward throw)	43765	
LED 530	B5-U0-G5	IESNA Type V (circular)	60296	
LED 530	B3-U0-G5	IESNA Type IV (forward throw)	54395	

* These are approximate replacement suggestions; actual conditions could be different.

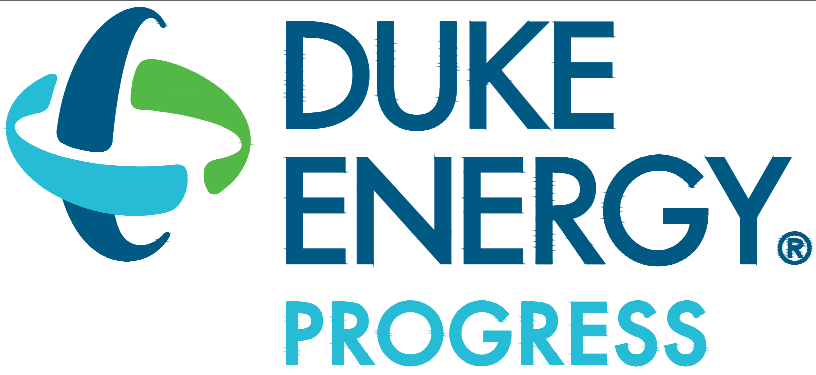
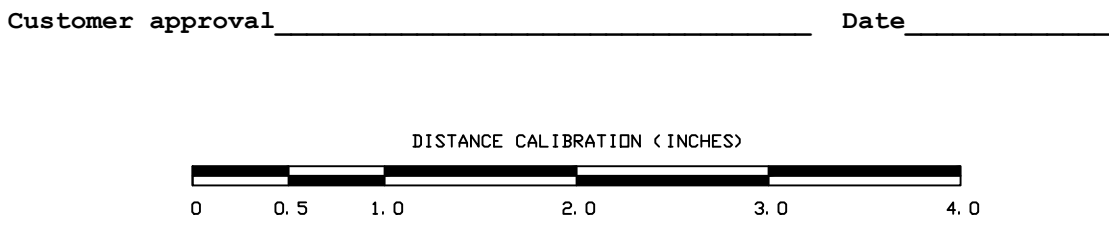
Poles available:		
Name	Mounting height	Color
Round tapered decorative metal*	35'	Black Bronze
Decorative square metal*	25' and 30'	Black Bronze Gray White
Fiberglass	30'	Black (1 or 2 fixtures per pole) Gray (1 or 2 fixtures per pole)

Features	Benefits
Little or no installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

*2' raised foundation available when required on metal poles only.

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LIGHTING DESIGN TOLERANCE
The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy Progress. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.



PROPRIETARY & CONFIDENTIAL
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ELIJAH'S LANDING	
Morehead City, NC	
SITE LIGHTING PLAN	
Designed by	DEP LIGHTING SOLUTIONS
Reviewed by	N. Johnson Scale 1" = 50'
Date	03/23/2021 Size Arch D
Description	LED 50w Enterprise
Drawing No.	20-0417B Sht. 2 OF 2



REVISED PHASE II SUBSURFACE INVESTIGATION REPORT

Elijah's Landing
1300 Bridges Street
Morehead City, North Carolina 28557

June 15, 2018
Partner Project Number: 17-204146.4

Prepared for:
Churchill Stateside Group, LLC
601 Cleveland Street, Suite 850
Clearwater, Florida 33755



June 15, 2018

Ms. Bonnie Self
Churchill Stateside Group, LLC
601 Cleveland Street, Suite 850
Clearwater, Florida 33755

Subject: Revised Phase II Subsurface Investigation Report
Elijah's Landing
1300 Bridges Street
Morehead City, North Carolina 28557
Partner Project Number: 17-204146.4

Dear Ms. Self:

Partner Engineering North Carolina, PLLC (Partner) is pleased to provide the results of the assessment performed on the above-referenced property. The following report describes the field activities, methods, and findings of the Phase II Subsurface Investigation conducted at the above-referenced property.

This assessment was performed utilizing methods and procedures consistent with good commercial or customary practices designed to conform to acceptable industry standards. The independent conclusions represent Partner's best professional judgment based upon existing conditions and the information and data available to us during the course of this assignment.

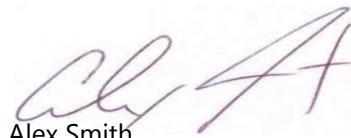
We appreciate the opportunity to provide these services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact Brad Fountain at (443) 455-1637.

Sincerely,

Partner Engineering North Carolina, PLLC



Wendell K. Johnson
Senior Project Manager



Alex Smith
Project Manager



Brad Fountain
Relationship Manager

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ATTACHMENTS

Tables	<ol style="list-style-type: none">1. Summary of Investigation Scope (April 12, 2018)2. Summary of Investigation Scope (May 24, 2018)3. Summary of Soil Sample Laboratory Results (April 12, 2018)4. Summary of Groundwater Sample Laboratory Results (May 24, 2018)
Figures	<ol style="list-style-type: none">1. Site Vicinity Map2. Topographic Map3. Sample Location Map
Appendices	<ol style="list-style-type: none">A. Boring LogsB. Laboratory Analytical Reports

1.0 INTRODUCTION

1.1 Purpose

The purpose of the investigation was to evaluate the potential impact of volatile organic compounds (VOCs) and/or polycyclic aromatic hydrocarbons (PAHs) to soil and/or groundwater as a consequence of a release or releases from on-site dumping activities, septic system, aboveground storage tank (AST), and improper sink discharge. Churchill Stateside Group, LLC provided project authorization of Partner Proposal Numbers P17-204146.2 and P17-204146.8.

1.2 Limitations

This report presents a summary of work conducted by Partner. The work includes observations of site conditions encountered and the analytical results provided by an independent third-party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. However, it cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were accomplished in accordance with generally-accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

1.3 User Reliance

Partner was engaged by Churchill Stateside Group, LLC (the Addressee), or their authorized representative, to perform this investigation. The engagement agreement specifically states the scope and purpose of the investigation, as well as the contractual obligations and limitations of both parties. This report and the information therein, are for the exclusive use of the Addressee. This report has no other purpose and may not be relied upon, or used, by any other person or entity without the written consent of Partner. Third parties that obtain this report, or the information therein, shall have no rights of recourse or recovery against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, the Addressee and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such use. Unauthorized use of this report shall constitute acceptance of, and commitment to, these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on

this report. Any parties relying on this report do so having accepted Partner's standard Terms and Conditions, a copy of which can be found at <http://www.partneresi.com/terms-and-conditions.php>

2.0 SITE BACKGROUND

2.1 Site Description

Partner reviewed a *Phase I Environmental Site Assessment Report* (Phase I), dated January 31, 2018, prepared by Land Management Group, Inc. (LMG) on behalf of East Carolina Community Development, Inc. Additionally, Partner is concurrently performing a *Phase I Environmental Site Assessment Report* (Phase I) on behalf of Churchill Stateside Group. According to the LMG Phase I and revised site plan documents for the proposed residential development, the subject property consists of two parcels of land totaling 11.71-acres located along the north side of Bridges Street within a mixed residential and commercial area of Morehead City, Carteret County, North Carolina. The north portion of the subject property is currently improved with a vacant one-story workshop building with an attached metal canopy totaling approximately 4,500 square feet for commercial use. The central and southern portions of the subject property consist of wooded and undeveloped land, respectively. In addition to existing structure, the subject property is also improved with security fencing, unpaved parking areas, and associated landscaping.

The immediately surrounding properties consist of undeveloped wooded land followed by single-family residences to the north; Bridges Street followed by single-family residences to the south; an asphalt-paved access road followed by single-family residences, a commercial building, and vacant land to the east; and a multi-tenant residential apartment complex and vacant land to the west. Refer to Figure 1 for a site vicinity map showing site features and surrounding properties.

2.2 Site History

According to the LMG Phase I, the subject property was previously developed with a single-family residence and associated storage shed on the south portion of the property with the remainder utilized as agricultural land between 1938 until 1964. From 1964 through 1971, the south portion of the subject property was redeveloped with a mobile home park. The north and central portions of the subject property were heavily vegetated with scattered piles of debris visible by 1981 and north portion was developed with the current structure in 1982. The central and northern portions continued to be utilized for construction debris dumping and/or storage associated with Carteret Septic and Construction, which occupied a portion of the subject property and east adjacent property. The mobile home park on the south portion of the subject property was removed between 2006 and 2010.

The concurrent Partner Phase I identified the following recognized environmental conditions (RECs) in connection with the subject property:

- The subject property is equipped with a septic system that services an interior bathroom of the on-site building. The system is comprised of a septic tank and associated leach field located along the south side of the building. No permits regarding this septic system were on-file with the Carteret County Environmental Health Division (EHD). Given the presence of the septic system, the potential exists that petroleum products and other chemicals were discharged to the septic tank and the associated leachate system resulting in adverse impacts to soil and/or groundwater. As such, the on-site septic system was identified as a REC.

- According to the current property owner Mr. Robbie Willis, the central and northern portions of the subject property were previously utilized by Carteret Septic and Construction (a former tenant) for construction debris dumping and/or storage as early as the 1980s. The LMG Phase I included a letter obtained from the Carteret County EHD, dated July 26, 1983, which stated that the property was inspected and that Mr. Willis was in violation of the "Solid Waste Management Rules" 10 NCAC 10 Section .0201 and .0502 by operating an unpermitted disposal site. LMG observed several debris piles throughout the central and north portions of the subject property but were unable to observe the buried contents of the debris piles during the January 2018 Phase I. During the Partner Phase I site reconnaissance conducted on April 10, 2018, an excavating subcontractor was on site to overturn the debris piles in the central portion of the subject property. However, due to access limitations, the debris piles in the north portion of the subject property could not be overturned for inspection. Based on visual observations, the piles in the central portion contained construction debris such as masonry brick, remnant concrete slab, polyvinyl chloride (PVC) piping, and lumber. No apparent buried 55-gallon drums and/or other potentially hazardous contents were observed within the debris piles. However, a suspect petroleum sheen and odor and dead animals were observed in and around the tributary leading to a creek to the north of the property near the northern debris piles. Therefore, given the extent, unknown contents, and the presence of a suspect petroleum spill, the debris piles in the north portion of the subject property were identified as a REC.
- An approximately 250-gallon waste oil AST and visible surface staining were observed along the west side of the on-site building. The AST and staining was also observed by LMG during their January 2018 Phase I. Given the presence of an apparent spill, the waste oil AST and associated staining were identified as a REC.
- A sink was observed on the interior of the on-site workshop building and appeared to be attached to an open drain pipe that discharges directly to the ground surface beneath the metal canopy on the south side of the building. Given the former use of the workshop, the potential exists that petroleum hydrocarbons, degreasing solvents, and/or other chemicals have been disposed of via the sink and discharged onto the ground surface. As such, Partner identified the shop sink and its associated discharge pipe as a REC.

2.3 Geology and Hydrogeology

Based on a review of the United States Geological Survey (USGS) *Beaufort, North Carolina* Quadrangle 7.5-minute series topographic map, the subject property is situated at elevations ranging from 5 to 20 feet above mean sea level (MSL) and the local topography slopes to the north-northeast towards a tributary of Calico Creek on the north portion of the subject property. Refer to Figure 2 for a topographic map of the site vicinity.

The subject property is situated within the Coastal Plain Physiographic Province of the State of North Carolina. According to Geological Survey of North Carolina, the Coastal Plain Province consists of stair-step-like planar terraces that dip gently towards the ocean. At higher elevations, the land is dissected to form gently rolling hills and valley. Elevations range from about 600 feet to 25 feet above MSL. The

Coastal Plain sediments are a relatively thin veneer overlying deeply weathered to competent Paleozoic granite and metamorphic bedrock of the Piedmont Terrane. The boundary between the Piedmont and Coastal Plain is the Fall Zone. This zone represents the elevational break between the resistant rocks of the Piedmont and more easily eroded sediments of the Coastal Plain.

The United States Department of Agriculture (USDA) Natural Resources Conservation Service Web Soil Survey online database maps the subsurface soil as Altavista loamy fine sand, Deloss fine sandy loam, State loamy fine sand, Leon sand, and Mandarin Urban Land. The Altavista soil series consists of very deep, moderately well drained, moderately high to highly permeable soils that form on marine terraces with slopes ranging from 0 to 2 percent. The Deloss soil series consists of very deep, poorly drained, moderately high to highly permeable soils that form in depressions from loamy fluviomarine deposits with slopes ranging from 0 to 2 percent. The State soil series consists of deep, well drained, moderately high to highly permeable soils that form on ridges of marine terraces with slopes ranging from 0 to 2 percent. The Leon soil series consists of poorly drained, moderately high to highly permeable soils that form on flats of marine terraces with slopes ranging from 0 to 2 percent. The Mandarin Urban Land complex consists of soils that have been altered to the extent that they can no longer be separated into individual soil units and include small areas of soils that have been covered by fill material.

Based on borings advanced during this investigation, the underlying subsurface consists predominantly of light brown to brown fill material from the ground surface to approximately 2 feet bgs. From 2 feet bgs to approximately 5 feet bgs, the subsurface consists of light brown to brown, slightly clayey to sandy silt (ML). From 5 feet bgs to the terminal depth of each boring, the subsurface consists predominantly of light brown to brown, slightly silty, slightly sandy, medium stiff clay (CL). Groundwater was encountered during this investigation at depths ranging from approximately 2.35 to 5.65 feet bgs. Refer to Appendix A for boring logs from this investigation.

3.0 FIELD ACTIVITIES

The scope of the Phase II subsurface investigation included a geophysical survey, advancement of five borings to facilitate the collection and analysis of representative soil and/or groundwater samples, and the collection of a surface water sample from a creek traversing the northern portion of the subject property. The original scope of the subsurface investigation included the advancement of up to seven borings with four borings proposed to be advanced within the debris piles identified by LMG in the central portion of the subject property. However, given the lack of hazardous materials identified within these debris piles, no borings were advanced on the central portion of the subject property. Further, given the observed significant trash and debris piles on the north portion of the property, inaccessibility with the excavator, and a suspect petroleum hydrocarbon sheen and dead animals observed in and around the creek, the scope of the investigation was modified to include advancing a boring near the creek tributary and trash/debris piles and collection of a surface water sample near the suspect petroleum hydrocarbon sheen. Refer to Table 1 for a summary of the borings, sampling schedule, and laboratory analyses for the investigation completed on April 11 and 12, 2018.

The scope of the subsequent excavation oversight activities included the completion of test pits in the north portion of the subject property to assess the contents of debris piles and collection of confirmation soil and/or groundwater samples. Although not a part of the original scope, the scope also included collection of a confirmatory soil sample from a soil debris pile observed in the northern portion of the subject property during excavation oversight activities. Refer to Table 2 for a summary of the summary of the test pit and soil debris pile locations, sampling schedule, and laboratory analyses for the investigation completed on May 24, 2018.

3.1 Preparatory Activities

Prior to the initiation of fieldwork, Partner completed the following activities.

3.1.1 *Utility Clearance*

Partner notified North Carolina 811 to clear public utility lines as required by law at least two business days prior to drilling and excavation activities. North Carolina 811 issued ticket number A180941611 for the project.

3.1.2 *Health and Safety Plan*

Partner reviewed the site-specific Health and Safety Plan with on-site personnel involved in the project prior to the commencement of drilling activities.

3.2 Geophysical Survey

On April 11, 2018, KCI Associates of North Carolina, Inc. (KCI) of Raleigh, North Carolina, under the direction of Partner conducted a geophysical survey at the subject property to confirm the layout of the septic system and further clear boring locations of subsurface utilities. As part of the survey, KCI systematically free-traversed the on-site septic system area, overturned debris piles, and each of the proposed boring locations with electromagnetic induction equipment, a ground penetrating radar (GPR)

unit, and utility locator with line-tracing capabilities. The equipment data was interpreted in real-time and compiled to identify piping trenches, utility lines, and/or other subsurface conduits/features.

Based on the findings of the GPR survey, an anomaly indicative of a septic tank was identified along the south side of the on-site building beneath the metal canopy. The geophysical data indicated the septic tank is situated approximately 10 feet from the building and appears to be at least 500-gallons in capacity. Given the layout, the leach field was inferred to be situated immediately south of the septic tank. No anomalies indicative of underground storage tanks (USTs), buried 55-gallon drums, or other subsurface features of concern were identified near the overturned debris piles in the central portion of the subject property. Additionally, no subsurface utilities were identified in the proposed boring locations.

3.3 Drilling Equipment

On April 12, 2018, Partner subcontracted with Regional Probing Services, Inc. (RPS) to provide and operate drilling equipment. Under the direction of Partner, RPS advanced borings B-1 through B-4 with a track-mounted GeoProbe Model 6712DT drill rig. Due to access limitations, boring B-5 was advanced using a stainless-steel hand auger. The drilling rods and sampling equipment were decontaminated between each boring location to prevent cross-contamination.

3.4 Sample Locations

Boring B-1 was advanced on the southeast side of the building within an apparent soil-stained area. Boring B-2 was advanced to the south of the building near the septic tank and the associated leach field. Boring B-3 was advanced on the west exterior of the workshop near the waste-oil AST and associated soil staining. Boring B-4 was advanced on the southwest corner of the building near the shop sink and associated discharge pipe. Boring B-5 was advanced in the northwest portion of the subject property near the debris piles adjacent to the creek tributary. Surface water sample SW-1 was collected where the suspect petroleum sheen was observed entering the creek. Refer to Figure 3 for a sample location map.

3.5 Soil Sampling

Borings B-1 through B-5 were overlain with topsoil and penetrated using the percussion of the drill rig or the hand auger. Borings B-1 through B-4 were advanced to a terminal depth of 10 feet bgs and boring B-5 was advanced to a terminal depth of 5 feet bgs.

Soil samples were collected from borings B-1 through B-4 using a 4-foot long by 2.25-inch diameter DualTube™ MacroCore® sampler equipped with a 4-foot long PVC liner. To collect soil samples from these borings, the sampler was driven into the subsurface using the percussion of the direct-push drill rig. Once at the target depth, the inner rods and sample sleeve with soils inside were removed from the ground. A new sleeve was placed on the inner rods and the sampler was lowered inside the DualTube™ sampler to the last depth of penetration. Once at that depth, an additional 1.25-inch drive rod and outer large rod were added and the sampler advanced into the subsurface again using the percussion of the direct-push drill rig. This process was completed until reaching the target depth. Soil samples were collected from boring B-5 by manually removing the soil from the hand auger bucket, which was driven into the subsurface by manual rotation until reaching the target depth of 5 feet bgs.

To inspect soil samples from borings B-1 through B-4, a lengthwise section of each PVC liner was removed with a splitting tool to expose the soil. The soil column was visually inspected for discoloration, monitored for odors, and classified in accordance with the Unified Soil Classification System (USCS). Soil samples collected from boring B-5 were obtained directly from the stainless-steel hand auger bucket. The soil collected in the sample bucket was also visually inspected for discoloration, monitored for odors, and classified in accordance with the USCS. Soil samples were collected at 2-foot intervals, placed in 16-ounce glass mason jars sealed with tin foil, and field-screened using a photoionization detector (PID) calibrated to isobutylene. The PID readings ranged from 0.0 parts per million (ppm) to 120 ppm. Refer to Appendix A for specific boring details. Soil samples collected for laboratory analysis were placed into laboratory-provided sampling vials and jars, labeled for identification, and stored in an iced cooler.

Based on PID readings and field observations, soil samples were collected from borings B-1 through B-4 at 4 feet bgs and from boring B-5 at 1-foot bgs.

3.6 Groundwater Sampling

To facilitate groundwater sample collection from borings B-1 through B-5, a 1-inch diameter temporary monitoring well was installed within each borehole. The temporary monitoring wells consisted of either a 5- or 10-foot long 0.010-inch factory-slotted PVC screen extending from the terminal depth of each boring to the ground surface. Following screen placement, clean filter sand was installed within the annular space surrounding the PVC screens to the ground surface.

Prior to groundwater sample collection, the depth to groundwater was measured in each temporary well using an electronic water level indicator. Based on depth to water (DTW) measurements, groundwater beneath the subject property ranged from 2.35 feet bgs in boring B-5 to 5.65 feet bgs in boring B-3. Following DTW measurements, a groundwater sample was retrieved from each temporary monitoring well using new, dedicated polyethylene tubing fed through a peristaltic pump and conveyed into laboratory-provided sampling vials and jars. Each sample vial and jar was filled with no observable headspace or air bubbles to minimize the potential for volatilization, labeled for identification, and stored in the iced cooler.

Groundwater samples were collected from the temporary monitoring wells installed in borings B-1 through B-4 screened from approximately 0 to 10 feet bgs and in boring B-5 screened from approximately 0 to 5 feet bgs.

3.7 Surface Water Sampling

To collect a surface water sample, a decontaminated stainless-steel cup was dipped into the creek tributary in the north portion of the subject property and the collected sample was poured directly into laboratory-provided sampling vials and jars. Each sample vial and jar was filled with no observable headspace or air bubbles to minimize the potential for volatilization, labeled for identification, and stored in the iced cooler.

3.8 Excavation/Test Pit Activities

On May 24, 2018, Partner visited the subject property to provide oversight of excavation activities conducted by East Carolina Community Development, who provided and operated a track hoe to

complete the excavation test pits. The test pits were completed within surface debris piles observed in the north portion of the subject property during the previous Phase I investigation as well as areas suspected to contain buried debris due to the presence of stressed vegetation or evidence of debris outcropping at the ground surface. A total of six test pits (TP-1 through TP-6) were completed in the north portion of the subject property.

3.9 Test Pit Locations and Observations

Test pit and soil pile locations and observations noted during excavation activities are described below. Refer to Figure 3 for a map of the test pits, soil pile, and sample locations.

TP-1

Test pit TP-1 was completed to the northwest of the on-site building within an area of apparent stressed vegetation. Based on visual observations, the final excavation measured approximately 10 feet long, 8 feet wide, and 5 feet deep. No apparent potentially hazardous contents were observed within the excavation. However, due to the presence of stressed vegetation, one soil sample (TP-1) was collected from the base of the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

TP-2

Test pit TP-2 was completed to the northeast of the building within an area containing household trash and suspected buried debris. Based on visual observations, the household debris appeared to extend less than 4-inches into the ground surface. The final excavation measured approximately 9 feet long, 7 feet wide, and 5 feet deep. No other apparent potentially hazardous contents were observed within the excavation. Given the lack of evidence of buried debris, a soil sample was not collected from the base of the excavation. Groundwater was not encountered within the excavation.

TP-3

Test pit TP-3 was completed to the north of the on-site building within a buried construction debris area in a wooded area of the subject property. Based on visual observations, the excavation appeared to contain remnant concrete slab, masonry brick, PVC piping, and lumber. Due to access limitations and quantity of debris present, the horizontal extent of the buried debris in this area could not be determined; however, the debris appeared to extend vertically to a depth of approximately 4 feet bgs. No apparent potentially hazardous contents were observed within the excavation. The final excavation measured approximately 8 feet long, 5 feet wide, and 5 feet deep. Given the presence of buried debris, one soil sample (TP-3) was collected from the base of the excavation for laboratory analysis. Further, apparent groundwater was observed entering the base of the test pit during excavation activities and, as such, a groundwater sample (TP-3GW) was also collected from the excavation for laboratory analysis.

TP-4

Test pit TP-4 was completed to the north of the on-site building within a buried construction debris area in a wooded area of the subject property. Based on visual observations, the excavation appeared to contain remnant concrete slab, masonry brick, and lumber. Due to access limitations and quantity of

debris present, the horizontal extent of the buried debris in this area could not be determined; however, the debris appeared to extend vertically to a depth of approximately 4 feet bgs. No apparent potentially hazardous contents were observed within the excavation. The final excavation measured approximately 8 feet long, 5 feet wide, and 5 feet deep. No soil sample was collected from the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

TP-5

Test Pit TP-5 was completed to the north of the on-site building within a buried construction debris area in a grassed area of the subject property. Based on visual observations, the excavation appeared to contain primarily concrete slab; however, remnant automotive tires, railroad ties, and masonry brick were noted within the excavation. The buried debris in this area appeared to extend vertically to the north and west to 8 feet and 10 feet, respectively. However, due to the quantity of debris present, the horizontal extent could not be determined to the south and east. Buried debris in this area appeared to extend horizontally to a depth of approximately 8 feet bgs. The final excavation measured approximately 12 feet long, 10 feet wide, and 10 feet deep. No apparent potentially hazardous contents were observed within the excavation. Given the presence of buried debris, one soil sample (TP-5) was collected from the base of the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

TP-6

Test pit TP-6 was completed to the north of the on-site building within a buried construction debris area in a wooded area of the subject property. Based on visual observations, the excavation appeared to contain solely remnant concrete slab and masonry brick. Due to access limitations and quantity of debris present, the horizontal extent of the buried debris in this area could not be determined; however, the debris appeared to extend vertically to a depth of approximately 7 feet bgs. The final excavation measured approximately 14 feet long, 10 feet wide, and 8 feet deep. No apparent potentially hazardous contents were observed within the excavation. Given the presence of buried debris, one soil sample (TP-6) was collected from the base of the excavation for laboratory analysis. Groundwater was not encountered within the excavation.

SP-1

A soil debris pile was observed within a wooded area to the north of the on-site building. Based on visual observations, the soil pile measured approximately 10 feet long, 8 feet wide, and 6 feet high. No apparent construction debris and/or other potentially hazardous contents were observed in or around the soil debris pile. Although not a part of the original scope, one composite soil sample (SP-1) was collected from the soil pile for future off-site disposal considerations.

3.10 Test Pit and Soil Pile Soil Sampling

Soil samples TP-1 through TP-6 were collected from the base of on-site test pits using the track-hoe bucket. To collect the composite sample (SP-1), four grab soil samples were obtained from select areas of the soil debris pile at depths of approximately 2 feet below the surface of the soil pile, mixed in a stainless-steel bowl, and composited into a single sample.

During excavation activities, subsurface soil within each test pit area was visually inspected for discoloration and monitored for odors. In addition, soil collected from the soil debris pile was visually inspected for discoloration and monitored for odors. Collected soil samples were placed in 16-ounce glass mason jars sealed with tin foil, and field-screened using a PID calibrated to isobutylene. No elevated PID readings above 0.0 ppm were observed in the collected soil samples. Each soil sample collected for laboratory analysis was placed into laboratory-provided sampling vials and jars, labeled for identification, and stored in an iced cooler.

3.11 Groundwater Sampling

The collected groundwater sample (TP-3GW) was obtained directly from the track hoe bucket and conveyed into laboratory-provided sampling vials and jars. Each sample vial and jar was filled with no observable headspace or air bubbles to minimize the potential for volatilization, labeled for identification, and stored in the iced cooler.

3.12 Post-Sampling Activities

Following sampling activities, each boring was backfilled with hydrated bentonite chips and capped with topsoil to match the existing ground cover; the test pits were backfilled with the excavated soil. No significant amounts of derived wastes were generated during this investigation.

4.0 LABORATORY ANALYSIS

4.1 Laboratory Analysis

Partner collected five soil samples, five groundwater samples, and one surface water sample on April 11, 2018, which were transported in an iced cooler under chain-of-custody protocol to Pace Analytical Services, Inc. (Pace), a state-certified laboratory in the City of Huntersville, North Carolina for analysis on April 12, 2018. Based on field-screening results, field observations, and/or olfactory observations, five soil samples, five groundwater samples, and one surface water sample were analyzed for VOCs in accordance with Environmental Protection Agency (EPA) Method 8260B and PAHs in accordance with EPA Method 8270.

Partner collected four soil samples, one composite soil sample, and one groundwater sample on May 24, 2018, which were transported in an iced cooler under chain-of-custody protocol to Pace in the City of Huntersville, North Carolina for analysis on May 25, 2018. Based on field-screening results, field observations, and/or olfactory observations, four soil samples, one composite soil sample, and one groundwater sample were analyzed for VOCs in accordance with EPA Method 8260B and PAHs in accordance with EPA Method 8270.

4.2 Laboratory Analytical Results

Laboratory analytical results are included in Appendix B and discussed below.

4.2.1 Soil Sample Analytical Results

The VOCs p-isopropyltoluene (0.019 milligrams per kilogram [mg/kg]), naphthalene (0.020 mg/kg), 1,2,4-trimethylbenzene (0.014 mg/kg), 1,3,5-trimethylbenzene (0.023 mg/kg), and the PAH pyrene (0.45 mg/kg) were identified above the laboratory method detection limit (MDL) in the soil sample analyzed from boring B-2. No other VOCs or PAHs were identified above the laboratory MDLs in the analyzed soil samples.

Refer to Table 3 for a summary of the soil sample laboratory results.

4.2.2 Groundwater Sample Analytical Results

No VOCs or PAHs were identified above the laboratory MDLs in the groundwater samples analyzed during this investigation.

4.2.3 Surface Water Sample Analytical Results

No VOCs or PAHs were identified above the laboratory MDLs in the surface water sample analyzed during this investigation.

4.2.4 Test Pit Soil Sample Analytical Results

No VOCs or PAHs were identified above the laboratory MDLs in the soil samples analyzed from the test pits during this investigation.

4.2.5 Test Pit Groundwater Sample Analytical Results

The VOC chloroform was detected in the groundwater sample collected from test pit TP-3 at a reported concentration of 1.2 micrograms per liter (µg/L). No other VOCs or PAHs were detected in the groundwater sample above their laboratory MDLs.

Refer to Table 4 for a summary of the test pit groundwater sample laboratory results.

4.2.6 Soil Pile Composite Soil Sample Analytical Results

No VOCs or PAHs were identified above the laboratory MDLs in the composite soil sample analyzed from the soil pile during this investigation.

5.0 DISCUSSION AND CONCLUSIONS

5.1 Regulatory Agency Guidance

The North Carolina Department of Environmental Quality (NCDEQ) - Inactive Hazardous Sites Branch (IHSB) has established guidelines that outline the minimal technical and administrative procedures for all site assessments and corrective actions conducted pursuant to the Inactive Hazardous Response Act of 1987 (NCGS 130A-134, et al.). The purpose of these guidelines is to provide remediating parties guidance in performing successful remedial actions at sites under jurisdiction of the IHSB. The guidelines also establish remedial goals for unrestricted land use at sites with confirmed releases. The agency has two preliminary soil remediation goals (PSRGs): "health-based" remediation goals for total concentration of contaminants and "protective of groundwater" remediation goals for leachable concentrations of contaminants. According to the IHSB, remedial actions performed at hazardous substance-impacted sites must attain both soil remediation goals. Based on the proposed future residential redevelopment of the subject property, the soil laboratory analytical results were compared to the Residential and Protection of Groundwater PSRGs.

The NCDEQ-Division of Water Quality has also established guidelines for the initial response and abatement, assessment, and corrective action of non-UST releases. The purpose of these guidelines is to provide guidance for the implementation of assessment and corrective action measures in response to confirmed releases from non-UST sources. The guidelines also establish cleanup goals for sites with confirmed petroleum releases based on the land use classification (residential or commercial/industrial) and risk posed by non-UST petroleum releases. According to the NCDEQ, petroleum releases for non-UST sources must be remediated to the Soil-to-Water Maximum Soil Contaminant Concentrations (SG-MSCCs). Therefore, the soil analytical results were also compared to the SG-MSCCs and Residential Soil Cleanup Levels.

The 15A North Carolina Administrative Code (NCAC) 2L Groundwater Standards have been established by the NCDEQ to protect groundwater quality of the State of North Carolina. The agency has also established Gross Contaminant Levels (GCLs) for the protection of groundwater. The 2L standards and GCLs are applicable to residential, commercial, and industrial sites. The 15A NCAC 2B Surface Water and Wetland Standards have been established by the NCDEQ for the purposes of classifying and assigning standards of water quality to surface waters of the State of North Carolina. The standards have also been implemented to maintain, protect, and enhance wetlands of the State. The 2B standards are applicable to residential, commercial, and industrial sites.

5.2 Discussion

5.2.1 Soil and Groundwater Sample Analytical Results

The reported concentrations of p-isopropyltoluene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and the PAH pyrene identified in the soil sample analyzed from boring B-2 did not exceed their respective Protection of Groundwater or Residential PSRGs, SG-MSCCs, or Residential Cleanup Standards. As such, no further investigation with respect to the septic system, AST, and improper sink discharge is necessary.

5.2.2 Test Pit Soil and Groundwater Sample Analytical Results – May 24, 2018

The reported concentration of chloroform in the groundwater sample collected from test pit TP-3 did not exceed the 2L Groundwater Standard of 70 µg/L or the GCL of 70,000 µg/L. Although chloroform can occur naturally in the environment, this analyte is also manufactured commercially and typically utilized by research laboratories as an extraction reagent. Given its use as a laboratory reagent, chloroform in the collected groundwater sample likely a laboratory artifact and not indicative a significant release. As such, no evidence exists that hazardous materials have been buried or dumped on the subject property nor has subsurface soil and/or groundwater in the north portion of the subject property has been adversely impacted by buried construction debris in this area and no further investigation is necessary.

5.3 Summary and Conclusions

Partner conducted a Phase II Subsurface Investigation at the subject property to evaluate the potential impact of VOCs and/or PAHs to soil and/or groundwater as a consequence of a release or releases from on-site dumping activities, septic system, AST, and improper sink discharge. The initial scope of the Phase II Subsurface Investigation included a geophysical survey, advancement of five borings to facilitate the collection and analysis of representative soil and groundwater samples, and collection and analysis of a surface water sample from a creek traversing the north portion of the property. Subsequent Phase II field activities included the oversight of test pit excavations, collection of four soil samples and one groundwater sample from six test pits, and the collection of one composite soil sample from a soil pile on the subject property. Five soil samples, five groundwater samples, and one surface water sample collected on April 12, 2018 were analyzed for VOCs and PAHs. Four soil samples, one composite soil sample, and one groundwater sample collected on May 24, 2018 were analyzed for VOCs and PAHs.

Results of the GPR survey identified an anomaly indicative of a septic tank approximately 10 feet south of the on-site workshop beneath the metal canopy. The geophysical data indicated the septic tank appears to be at least 500-gallons in capacity and the leach field was inferred to be situated immediately south of the septic tank. No anomalies indicative of USTs, buried 55-gallon drums, or other subsurface features of concern were identified in or around the overturned debris piles in the central portion of the subject property. Additionally, no subsurface utilities were identified in the proposed boring locations.

During the GPR survey and Phase I site reconnaissance on April 11, 2018, an excavating subcontractor overturned the debris piles in the central portion of the subject property. However, due to access limitations, the debris piles in the north portion of the subject property could not be overturned for inspection. Based on visual observations, the piles in the central portion contained construction debris such as masonry brick, remnant concrete slab, PVC piping, and lumber. No apparent buried drums and/or other potentially hazardous contents were observed near the debris piles. However, a suspect petroleum sheen and odor were observed in the tributary leading to a creek to the north of the property near the northern debris piles. Dead animals were noted near the creek and debris piles on the subject property. As such, the original Phase II scope was modified to include the advancement of a boring near the northern debris piles and the collection of a surface water sample near the suspect sheen.

A total of six test pits were completed at the subject property during excavation oversight activities on May 24, 2018. Based on visual observations, excavation test pits primarily contained remnant concrete

slab, masonry brick, PVC piping, and lumber. No apparent potentially hazardous contents were observed within the test pits or the soil pile.

Laboratory analytical results performed on the soil, groundwater, and surface water samples collected on April 12, 2018 identified the VOCs p-isopropyltoluene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and the PAH pyrene above the laboratory MDL in the soil sample analyzed from boring B-2. None of the reported VOC or PAH concentrations exceeded their respective Protection of Groundwater or Residential PSRGs, SG-MSCCs, or Residential Cleanup Standards.

Laboratory analytical results performed on the soil and groundwater samples collected on May 24, 2018 identified the VOC chloroform in the groundwater sample analyzed from test pit TP-3. The reported chloroform concentration did not exceed its 2L groundwater standard or GCL. No other VOCs or PAHs were identified above laboratory MDLs in the analyzed samples.

Based on the findings of this Subsurface Investigation, there is no evidence of a significant release of hazardous materials from the subject property and Partner recommends no further investigation with respect to the septic system, AST, improper sink discharge, and buried/dumped debris at this time. However, in the event suspect hazardous materials are encountered during redevelopment activities, the hazardous materials should be segregated and transported off-site for proper disposal in accordance with local and State regulations.

TABLES

Table 1: Summary of Investigation Scope
Elijah's Landing
1300 Bridges Street
Morehead City, North Carolina 278557
Partner Project Number 18-204146.4
April 12, 2018

Boring Identification	Location	Terminal Depth (feet bgs)	Matrix Sampled	Sampling Depths (feet bgs)	Target Contaminants
B-1	Southeast exterior of the on-site building within apparent soil-stained area	10	Soil	4	VOCs, PAHs
			Groundwater	5.55	
B-2	South exterior of the on-site building near the septic tank and associated leach field	10	Soil	4	VOCs, PAHs
			Groundwater	5.56	
B-3	West exterior of the on-site building in the vicinity of a waste oil AST and associated soil staining	10	Soil	4	VOCs, PAHs
			Groundwater	5.65	
B-4	Southwest exterior of the on-site building near the shop sink and associated discharge pipe	10	Soil	4	VOCs, PAHs
			Groundwater	5.63	
B-5	Northwest portion of the subject property near the trash/debris piles adjacent to the creek tributary	5	Soil	1	VOCs, PAHs
			Groundwater	2.35	
SW-1	From the creek tributary on the Northwest portion of the subject property in the vicinity of trash/debris piles	N/A	N/A	N/A	VOCs, PAHs

Notes:

bgs = below ground surface

VOCs = Volatile Organic Compounds

PAHs = Polycyclic Aromatic Hydrocarbons

N/A = Not Applicable

Table 2: Summary of Investigation Scope
Elijah's Landing
1300 Bridges Street
Morehead City, North Carolina 278557
Partner Project Number 18-204146.4
May 24, 2018

Test Pit Identification	Location	Terminal Depth (feet bgs)	Matrix Sampled	Sampling Depths (feet bgs)	Target Contaminants
TP-1	Northwest of on-site building within apparent stressed vegetation area	5	Soil	5	VOCs, PAHs
TP-2	Northeast of on-site building within area containing household trash and suspected buried debris	5	NS	NS	NS
TP-3	North of on-site building within a buried construction debris pile in a wooded area	5	Soil	5	VOCs, PAHs
			Groundwater	5	
TP-4	North of on-site building within a buried construction debris pile in a wooded area	5	NS	NS	NS
TP-5	North of on-site building within a buried construction debris pile in a grassed area	10	Soil	10	VOCs, PAHs
TP-6	North of on-site building within a buried construction debris pile in a wooded area	8	Soil	8	VOCs, PAHs
SP-1	North of on-site building within a wooded area	N/A	Soil	N/A	VOCs, PAHs

Notes:

bgs = below ground surface

VOCs = Volatile Organic Compounds

PAHs = Polycyclic Aromatic Hydrocarbons

N/A = Not Applicable

NS = Not sampled; no soil or groundwater samples collected from test pit for analysis

Table 3: Summary of Soil Sample Laboratory Results
 Elijah's Landing
 1300 Bridges Street
 Morehead City, North Carolina 28557
 Partner Project Number 18-204146.4
 April 12, 2018

Chemical of Concern	Soil to Groundwater MSCCs	Residential Soil Cleanup Levels	Protection of Groundwater PSRG	Residential PSRG	B-1	B-2	B-3	B-4	B-5
VOCs via EPA Method 8260B (mg/kg)									
p-Isopropyltoluene	0.12	100	1.24	NS	<0.0015	0.019	<0.0014	<0.0016	<0.0014
Naphthalene	0.16	313	0.21	4.1	<0.0011	0.020	<0.0010	<0.0012	<0.00097
1,2,4-Trimethylbenzene	8.5	782	6.7	6.3	<0.0018	0.014	<0.0017	<0.0019	<0.0016
1,3,5-Trimethylbenzene	8.3	782	6.7	5.6	<0.0016	0.023	<0.0015	<0.0017	<0.0015
Other VOCs	Various	Various	Various	Various	<MDL	<MDL	<MDL	<MDL	<MDL
PAHs via EPA Method 8270 (mg/kg)									
Pyrene	270	469	220	360	<0.069	0.45	<0.066	<0.069	<0.066
Other PAHs	Various	Various	Various	Various	<MDL	<MDL	<MDL	<MDL	<MDL

Notes:

VOCs = Volatile Organic Compounds

PAHs = Polycyclic Aromatic Hydrocarbons

EPA = Environmental Protection Agency

mg/kg = micrograms per kilogram

MSCCs = Maximum Soil Contaminant Concentrations

PSRG = Preliminary Soil Remediation Goal

NS = No Standard

< = not identified above the indicated laboratory method detection limit (MDL)

< MDL = not identified above the laboratory MDL

Table 4: Summary of Test Pit Groundwater Sample Laboratory Results

Elijah's Landing
 1300 Bridges Street
 Morehead City, North Carolina 28557
 Partner Project Number 18-204146.4
 May 24, 2018

Chemical of Concern	2L Standard	GCLs	SP-1
VOCs via EPA Method 8260B (µg/L)			
Chloroform	70	70,000	1.2
Other VOCs	Various	Various	<MDL
PAHs via EPA Method 8270 (µg/L)			
PAHs	Various	Various	<MDL

Notes:

VOCs = Volatile Organic Compounds

PAHs = Polycyclic Aromatic Hydrocarbons

2L Standard = 15A NCAC 2L Groundwater Standard

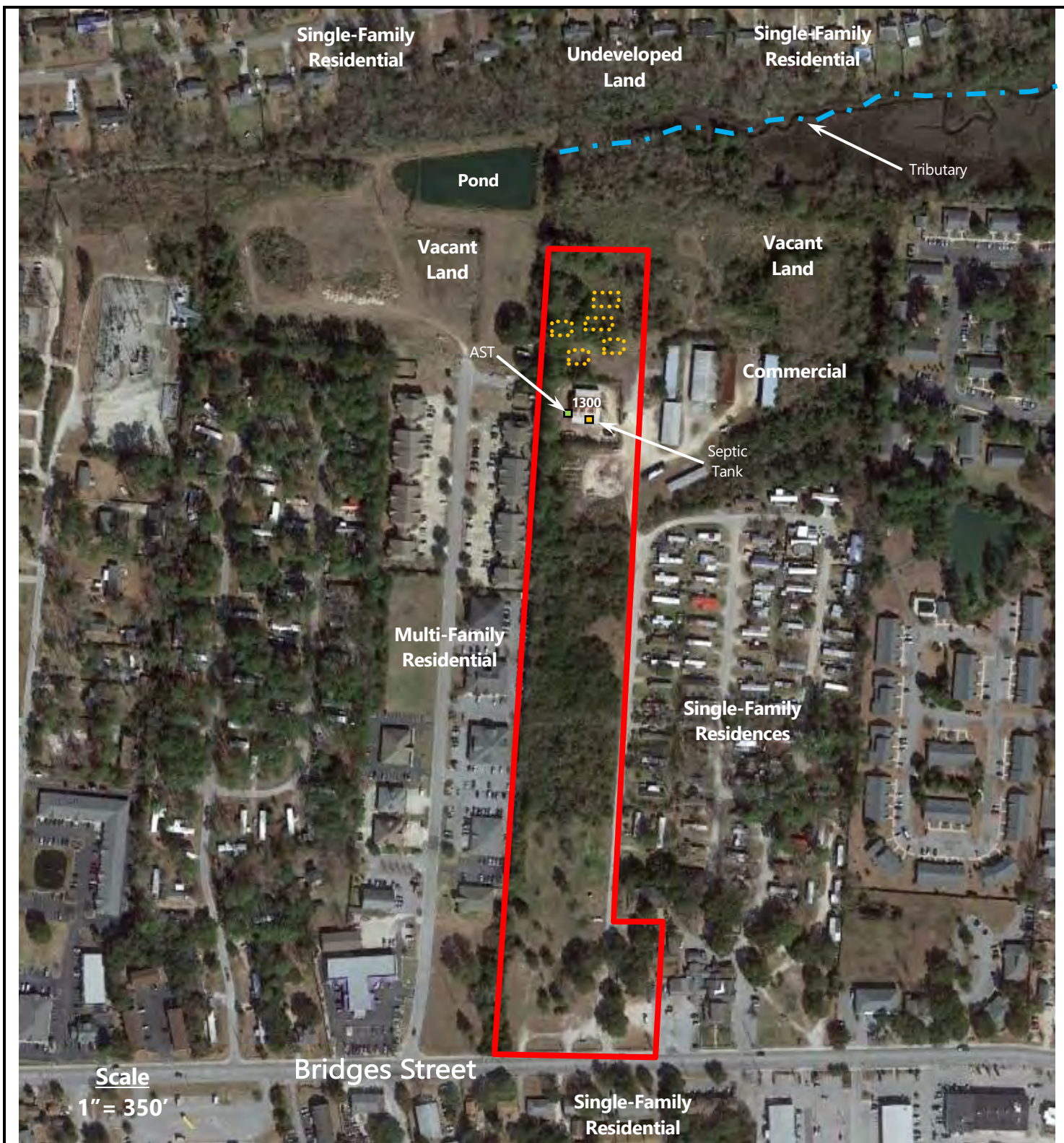
GCLs = Gross Contaminant Levels

µg/L = micrograms per liter

< MDL = not identified above the laboratory method detection limit (MDL)

FIGURES

PARTNER



PARTNER

Engineering North Carolina, PLLC

8720 Red Oak Boulevard, Suite 102

Charlotte, North Carolina 28217

Project Number: 17-204146.4



LEGEND

Subject Property	
Septic Tank Area	
Waste Oil AST	
Test Pit Areas (Approx.)	⋯

SITE VICINITY MAP

Figure	Prepared By	Date
1	WKJ	June 2018
Elijah's Landing 3200 Bridges Street Morehead City, North Carolina 28557		



USGS Beaufort, North Carolina Quadrangle, 7.5-Minute Series; Version 2016

PARTNER

Engineering North Carolina, PLLC

8720 Red Oak Boulevard, Suite 102
Charlotte, North Carolina 28217

Project Number: 18-204146.4

LEGEND

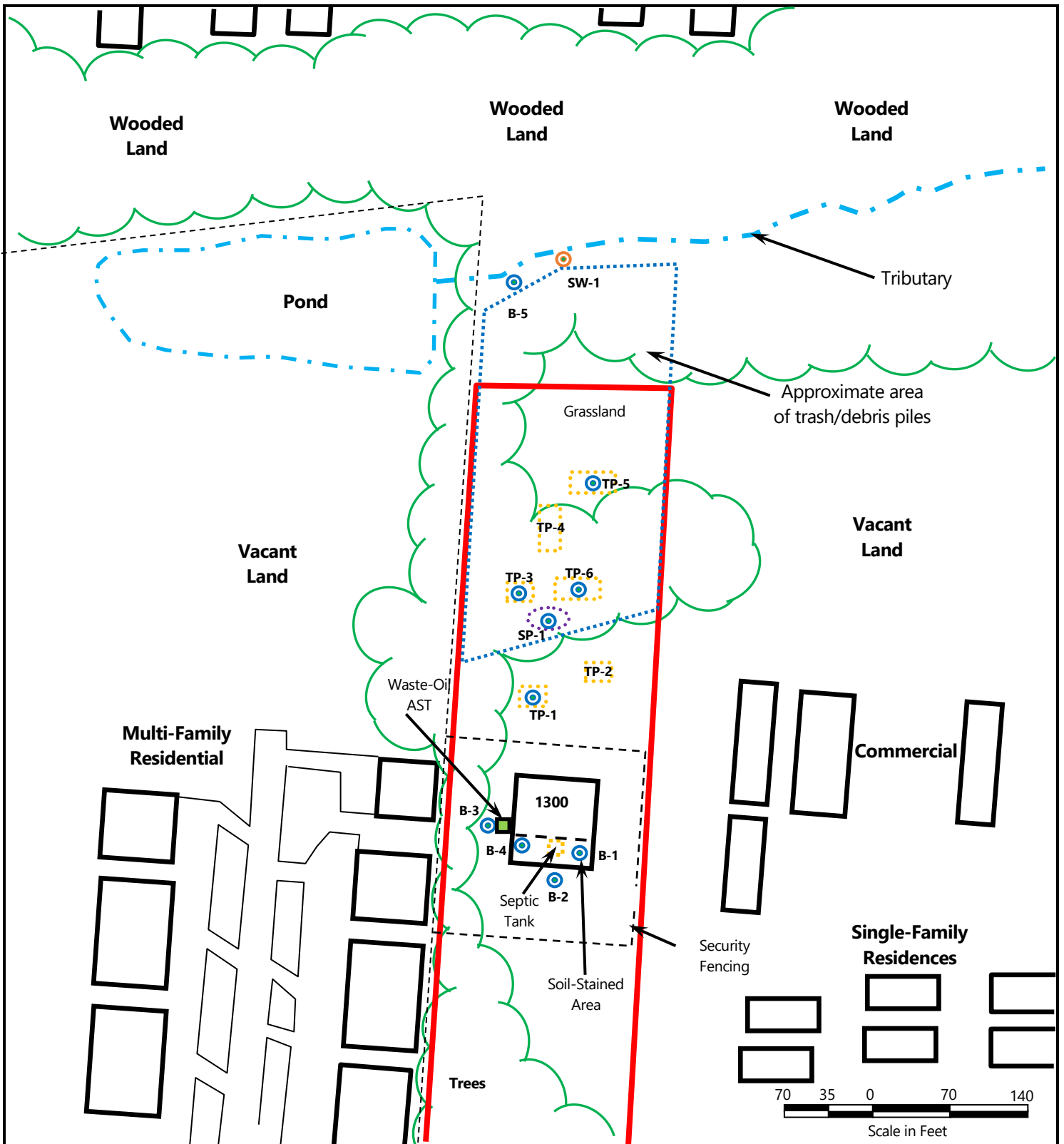
Subject Property



TOPOGRAPHIC MAP

Figure	Prepared By	Date
2	WKJ	June 2018

Elijah's Landing
1300 Bridges Street
Morehead City, North Carolina 28557



PARTNER

Engineering North Carolina, PLLC
8720 Red Oak Boulevard, Suite 102
Charlotte, North Carolina 28217

Project Number: 18-204146.4



LEGEND

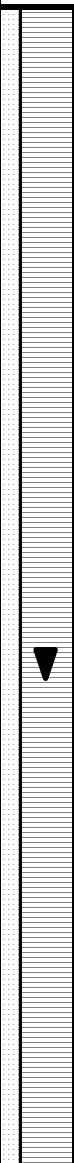
- Subject Property □
- Sample Location ●
- Test Pits (Approx.) ⋯
- Soil Pile ⋯

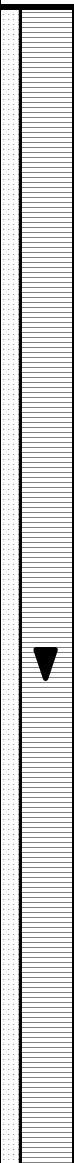
SAMPLE LOCATION MAP


Figure	Prepared By	Date
3	WKJ	June 2018

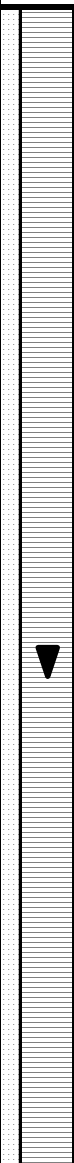
Elijah's Landing
1300 Bridges Street
Morehead City, North Carolina 28557

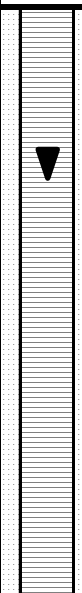
APPENDIX A: BORING LOGS

Soil Boring:		B-1			Page 1 of 1	
Location:		Southeast exterior of the on-site building within the apparent soil-stained area			Date Started:	4/12/2018
Site Address:		Elijah's Landing 3200 Bridges Street Morehead City, NC 28557			Date Completed:	4/12/2018
					Depth to Groundwater:	5.55
Project Number:		18-204146.4			Field Technician:	W. Johnson
Drill Rig Type:		GeoProbe 6712DT			Partner Engineering North Carolina, PLLC	
Sampling Equipment:		PVC Liners, Peristaltic Pump			8720 Red Oak Boulevard, Suite 102	
Borehole Diameter:		2.25 inch			Charlotte, North Carolina 28217	
Depth	Well Diagram	Soil Sample	PID	USCS	Description	Notes
0					Top 2" Topsoil	2-inches of topsoil @ surface
1			20.0	ML	medium-brown to dark-brown silty fill material. No odor	
2		-2 ft.	50.0	ML	medium-brown to dark-brown silty fill material. No odor	
3			80.0	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	
4		-4 ft.	120.0	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	Soil sample B-1 collected at 4 feet bgs
5			60.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	Groundwater sample B-1 GW collected at 5.55 feet bgs
6		-6 ft.	50.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
7			20.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
8		-8 ft.	10.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
9			5.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
10		-10 ft.	1.0	CL	light-brown to medium-brown, slightly sandy, slightly silty, medium stiff clay. No odor	Terminus of boring at 10 feet bgs

Soil Boring:		B-2			Page 1 of 1	
Location:		South exterior of on-site building in vicinity of the septic tank and associated leach field			Date Started:	4/12/2018
Site Address:		Elijah's Landing 3200 Bridges Street Morehead City, NC 28557			Date Completed:	4/12/2018
					Depth to Groundwater:	5.56
Project Number:		18-204146.4			Field Technician:	W. Johnson
Drill Rig Type:		GeoProbe 6712DT			Partner Engineering North Carolina, PLLC	
Sampling Equipment:		PVC Liners, Peristaltic Pump			8720 Red Oak Boulevard, Suite 102	
Borehole Diameter:		2.25 inch			Charlotte, North Carolina 28217	
Depth	Well Diagram	Soil Sample	PID	USCS	Description	Notes
0					Top 2" Topsoil	2-inches of topsoil @ surface
1			0.0	ML	medium-brown to dark-brown silty fill material. No odor	
2		-2 ft.	0.5	ML	medium-brown to dark-brown silty fill material. No odor	
3			0.5	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	
4		-4 ft.	0.5	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	Soil sample B-2 collected at 4 feet bgs
5			0.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	Groundwater sampled B-2 GW collected at 5.56 feet bgs
6		-6 ft.	0.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
7			0.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
8		-8 ft.	0.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
9			0.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
10		-10 ft.	0.0	CL	light-brown to medium-brown, slightly sandy, slightly silty, medium stiff clay. No odor	Terminus of boring at 10 feet bgs

Soil Boring:		B-3			Page 1 of 1	
Location:		West exterior of on-site building in vicinity of the waste-oil AST and associated soil staining			Date Started:	4/12/2018
Site Address:		Elijah's Landing 3200 Bridges Street Morehead City, NC 28557			Date Completed:	4/12/2018
					Depth to Groundwater:	5.65
Project Number:		18-204146.4			Field Technician:	W. Johnson
Drill Rig Type:		GeoProbe 6712DT			Partner Engineering North Carolina, PLLC	
Sampling Equipment:		PVC Liners, Peristaltic Pump			8720 Red Oak Boulevard, Suite 102	
Borehole Diameter:		2.25 inch			Charlotte, North Carolina 28217	
Depth	Well Diagram	Soil Sample	PID	USCS	Description	Notes
0					Top 2" Topsoil	2-inches of topsoil @ surface
1			2.0	ML	medium-brown to dark-brown silty fill material. No odor	
2		-2 ft.	10.0	ML	medium-brown to dark-brown silty fill material. No odor	
3			10.0	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	
4		-4 ft.	15.0	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	Soil sample B-3 collected at 4 feet bgs
5			5.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	Groundwater sample B-3 GW collected at 5.65 feet bgs
6		-6 ft.	3.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
7			1.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
8		-8 ft.	1.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
9			0.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
10		-10 ft.	0.0	CL	light-brown to medium-brown, slightly sandy, slightly silty, medium stiff clay. No odor	Terminus of boring at 10 feet bgs

Soil Boring:		B-4			Page 1 of 1	
Location:		Southwest exterior of on-site building in vicinity of the shop sink and associated discharge pipe			Date Started:	4/12/2018
Site Address:		Elijah's Landing 3200 Bridges Street Morehead City, NC 28557			Date Completed:	4/12/2018
					Depth to Groundwater:	5.63
Project Number:		18-204146.4			Field Technician:	W. Johnson
Drill Rig Type:		GeoProbe 6712DT			Partner Engineering North Carolina, PLLC	
Sampling Equipment:		PVC Liners, Peristaltic Pump			8720 Red Oak Boulevard, Suite 102	
Borehole Diameter:		2.25 inch			Charlotte, North Carolina 28217	
Depth	Well Diagram	Soil Sample	PID	USCS	Description	Notes
0					Top 2" Topsoil	2-inches of topsoil @ surface
1			0.5	ML	medium-brown to dark-brown silty fill material. No odor	
2		-2 ft.	5.0	ML	medium-brown to dark-brown silty fill material. No odor	
3			5.0	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	
4		-4 ft.	5.0	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	Soil sample B-4 collected at 4 feet bgs
5			3.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	Groundwater sample B-4 GW collected at 5.63 feet bgs
6		-6 ft.	1.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
7			1.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
8		-8 ft.	1.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
9			1.0	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
10		-10 ft.	0.0	CL	light-brown to medium-brown, slightly sandy, slightly silty, medium stiff clay. No odor	Terminus of boring at 10 feet bgs

Soil Boring:		B-5			Page 1 of 1	
Location:		Northwest portion of the subject property in vicinity of debris piles adjacent to the creek tributary			Date Started:	4/12/2018
Site Address:		Elijah's Landing 3200 Bridges Street Morehead City, NC 28557			Date Completed:	4/12/2018
					Depth to Groundwater:	2.35
Project Number:		18-204146.4			Field Technician:	W. Johnson
Drill Rig Type:		Stainless-Steel Hand-Auger			Partner Engineering North Carolina, PLLC	
Sampling Equipment:		Hand Auger Bucket, Peristaltic Pump			8720 Red Oak Boulevard, Suite 102	
Borehole Diameter:		2.25 inch			Charlotte, North Carolina 28217	
Depth	Well Diagram	Soil Sample	PID	USCS	Description	Notes
0					Top 2" Topsoil	2-inches of topsoil @ surface
1			0.0	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	Soil sample B-5 collected at 1 feet bgs
2		-2 ft.	0.5	ML	light-brown to medium brown, slightly clayey, slightly sandy, silt. No odor	Groundwater sample B-5 GW collected at 2.35 feet bgs
3			0.5	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
4		-4 ft.	0.5	CL	light-brown to medium brown, slightly sandy, slightly silty, medium stiff clay. No odor	
5		-5 ft.	0.0	CL	light-brown to medium-brown, slightly sandy, slightly silty, medium stiff clay. No odor	Terminus of boring at 5 feet bgs
6						
7						
8						
9						
10						

APPENDIX B: LABORATORY ANALYTICAL REPORTS

April 20, 2018

Wendell Johnson
Partner Engineering

,

RE: Project: ELIJAH LANDING
Pace Project No.: 92380503

Dear Wendell Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on April 12, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Charlotte Certification IDs

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ELIJAH LANDING

Pace Project No.: 92380503

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92380503001	B-1	Solid	04/11/18 09:00	04/12/18 09:20
92380503002	B-2	Solid	04/11/18 09:40	04/12/18 09:20
92380503003	B-3	Solid	04/11/18 10:20	04/12/18 09:20
92380503004	B-4	Solid	04/11/18 10:50	04/12/18 09:20
92380503005	B-5	Solid	04/11/18 12:00	04/12/18 09:20
92380503006	B-1 GW	Water	04/11/18 09:20	04/12/18 09:20
92380503007	B-2 GW	Water	04/11/18 10:00	04/12/18 09:20
92380503008	B-3 GW	Water	04/11/18 10:40	04/12/18 09:20
92380503009	B-4 GW	Water	04/11/18 11:10	04/12/18 09:20
92380503010	B-5 GW	Water	04/11/18 12:30	04/12/18 09:20
92380503011	SW-1	Water	04/11/18 12:50	04/12/18 09:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ELIJAH LANDING

Pace Project No.: 92380503

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92380503001	B-1	EPA 8270	BPJ	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92380503002	B-2	EPA 8270	BPJ	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92380503003	B-3	EPA 8270	BPJ	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92380503004	B-4	EPA 8270	BPJ	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92380503005	B-5	EPA 8270	BPJ	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92380503006	B-1 GW	EPA 8270	RES	21	PASI-C
		EPA 8260	GAW	63	PASI-C
92380503007	B-2 GW	EPA 8270	RES	21	PASI-C
		EPA 8260	GAW	63	PASI-C
92380503008	B-3 GW	EPA 8270	RES	21	PASI-C
		EPA 8260	GAW	63	PASI-C
92380503009	B-4 GW	EPA 8270	RES	21	PASI-C
		EPA 8260	GAW	63	PASI-C
92380503010	B-5 GW	EPA 8270	RES	21	PASI-C
		EPA 8260	GAW	63	PASI-C
92380503011	SW-1	EPA 8270	RES	21	PASI-C
		EPA 8260	GAW	63	PASI-C

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-1 **Lab ID: 92380503001** Collected: 04/11/18 09:00 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.40	0.093	1	04/13/18 14:27	04/16/18 17:42	83-32-9	
Acenaphthylene	ND	mg/kg	0.40	0.095	1	04/13/18 14:27	04/16/18 17:42	208-96-8	
Anthracene	ND	mg/kg	0.40	0.091	1	04/13/18 14:27	04/16/18 17:42	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.40	0.075	1	04/13/18 14:27	04/16/18 17:42	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.40	0.077	1	04/13/18 14:27	04/16/18 17:42	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.40	0.070	1	04/13/18 14:27	04/16/18 17:42	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.40	0.10	1	04/13/18 14:27	04/16/18 17:42	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.40	0.080	1	04/13/18 14:27	04/16/18 17:42	207-08-9	
Chrysene	ND	mg/kg	0.40	0.054	1	04/13/18 14:27	04/16/18 17:42	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.40	0.086	1	04/13/18 14:27	04/16/18 17:42	53-70-3	
Fluoranthene	ND	mg/kg	0.40	0.059	1	04/13/18 14:27	04/16/18 17:42	206-44-0	
Fluorene	ND	mg/kg	0.40	0.083	1	04/13/18 14:27	04/16/18 17:42	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.40	0.083	1	04/13/18 14:27	04/16/18 17:42	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.40	0.11	1	04/13/18 14:27	04/16/18 17:42	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.40	0.087	1	04/13/18 14:27	04/16/18 17:42	91-57-6	
Naphthalene	ND	mg/kg	0.40	0.099	1	04/13/18 14:27	04/16/18 17:42	91-20-3	
Phenanthrene	ND	mg/kg	0.40	0.067	1	04/13/18 14:27	04/16/18 17:42	85-01-8	
Pyrene	ND	mg/kg	0.40	0.069	1	04/13/18 14:27	04/16/18 17:42	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	62	%	23-110		1	04/13/18 14:27	04/16/18 17:42	4165-60-0	
2-Fluorobiphenyl (S)	64	%	30-110		1	04/13/18 14:27	04/16/18 17:42	321-60-8	
Terphenyl-d14 (S)	47	%	28-110		1	04/13/18 14:27	04/16/18 17:42	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.088	0.0088	1		04/13/18 18:48	67-64-1	M1
Benzene	ND	mg/kg	0.0044	0.0014	1		04/13/18 18:48	71-43-2	
Bromobenzene	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	108-86-1	
Bromochloromethane	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	75-27-4	
Bromoform	ND	mg/kg	0.0044	0.0020	1		04/13/18 18:48	75-25-2	
Bromomethane	ND	mg/kg	0.0088	0.0022	1		04/13/18 18:48	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.088	0.0025	1		04/13/18 18:48	78-93-3	M1
n-Butylbenzene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0044	0.0014	1		04/13/18 18:48	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0044	0.0023	1		04/13/18 18:48	56-23-5	
Chlorobenzene	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	108-90-7	
Chloroethane	ND	mg/kg	0.0088	0.0021	1		04/13/18 18:48	75-00-3	
Chloroform	ND	mg/kg	0.0044	0.0014	1		04/13/18 18:48	67-66-3	
Chloromethane	ND	mg/kg	0.0088	0.0021	1		04/13/18 18:48	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0044	0.0032	1		04/13/18 18:48	96-12-8	M1
Dibromochloromethane	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	106-93-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-1 **Lab ID: 92380503001** Collected: 04/11/18 09:00 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0044	0.0022	1		04/13/18 18:48	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0088	0.0032	1		04/13/18 18:48	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0044	0.0013	1		04/13/18 18:48	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0044	0.0019	1		04/13/18 18:48	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0044	0.0012	1		04/13/18 18:48	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0044	0.0013	1		04/13/18 18:48	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0044	0.0013	1		04/13/18 18:48	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	108-20-3	
Ethylbenzene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	87-68-3	
2-Hexanone	ND	mg/kg	0.044	0.0034	1		04/13/18 18:48	591-78-6	M1
Isopropylbenzene (Cumene)	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	99-87-6	
Methylene Chloride	ND	mg/kg	0.018	0.0026	1		04/13/18 18:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.044	0.0032	1		04/13/18 18:48	108-10-1	M1
Methyl-tert-butyl ether	ND	mg/kg	0.0044	0.0013	1		04/13/18 18:48	1634-04-4	
Naphthalene	ND	mg/kg	0.0044	0.0011	1		04/13/18 18:48	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	103-65-1	
Styrene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0044	0.0015	1		04/13/18 18:48	127-18-4	
Toluene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0044	0.0019	1		04/13/18 18:48	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0044	0.0014	1		04/13/18 18:48	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	79-00-5	
Trichloroethene	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0044	0.0019	1		04/13/18 18:48	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0044	0.0014	1		04/13/18 18:48	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0044	0.0018	1		04/13/18 18:48	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0044	0.0016	1		04/13/18 18:48	108-67-8	
Vinyl acetate	ND	mg/kg	0.044	0.0077	1		04/13/18 18:48	108-05-4	L2
Vinyl chloride	ND	mg/kg	0.0088	0.0016	1		04/13/18 18:48	75-01-4	
Xylene (Total)	ND	mg/kg	0.0088	0.0032	1		04/13/18 18:48	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0088	0.0032	1		04/13/18 18:48	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-1 **Lab ID: 92380503001** Collected: 04/11/18 09:00 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics									
Analytical Method: EPA 8260									
o-Xylene	ND	mg/kg	0.0044	0.0017	1		04/13/18 18:48	95-47-6	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		04/13/18 18:48	2037-26-5	
4-Bromofluorobenzene (S)	98	%	70-130		1		04/13/18 18:48	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-132		1		04/13/18 18:48	17060-07-0	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	19.1	%	0.10	0.10	1		04/13/18 11:49		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-2 **Lab ID: 92380503002** Collected: 04/11/18 09:40 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.39	0.091	1	04/13/18 14:27	04/16/18 18:11	83-32-9	
Acenaphthylene	ND	mg/kg	0.39	0.093	1	04/13/18 14:27	04/16/18 18:11	208-96-8	
Anthracene	ND	mg/kg	0.39	0.088	1	04/13/18 14:27	04/16/18 18:11	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.39	0.073	1	04/13/18 14:27	04/16/18 18:11	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.39	0.075	1	04/13/18 14:27	04/16/18 18:11	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.39	0.068	1	04/13/18 14:27	04/16/18 18:11	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.39	0.10	1	04/13/18 14:27	04/16/18 18:11	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.39	0.077	1	04/13/18 14:27	04/16/18 18:11	207-08-9	
Chrysene	ND	mg/kg	0.39	0.052	1	04/13/18 14:27	04/16/18 18:11	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.39	0.083	1	04/13/18 14:27	04/16/18 18:11	53-70-3	
Fluoranthene	ND	mg/kg	0.39	0.057	1	04/13/18 14:27	04/16/18 18:11	206-44-0	
Fluorene	ND	mg/kg	0.39	0.081	1	04/13/18 14:27	04/16/18 18:11	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.39	0.081	1	04/13/18 14:27	04/16/18 18:11	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.39	0.10	1	04/13/18 14:27	04/16/18 18:11	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.39	0.085	1	04/13/18 14:27	04/16/18 18:11	91-57-6	
Naphthalene	ND	mg/kg	0.39	0.097	1	04/13/18 14:27	04/16/18 18:11	91-20-3	
Phenanthrene	ND	mg/kg	0.39	0.066	1	04/13/18 14:27	04/16/18 18:11	85-01-8	
Pyrene	0.45	mg/kg	0.39	0.067	1	04/13/18 14:27	04/16/18 18:11	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	79	%	23-110		1	04/13/18 14:27	04/16/18 18:11	4165-60-0	
2-Fluorobiphenyl (S)	69	%	30-110		1	04/13/18 14:27	04/16/18 18:11	321-60-8	
Terphenyl-d14 (S)	52	%	28-110		1	04/13/18 14:27	04/16/18 18:11	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.081	0.0081	1		04/12/18 18:35	67-64-1	
Benzene	ND	mg/kg	0.0041	0.0013	1		04/12/18 18:35	71-43-2	
Bromobenzene	ND	mg/kg	0.0041	0.0016	1		04/12/18 18:35	108-86-1	
Bromochloromethane	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	75-27-4	
Bromoform	ND	mg/kg	0.0041	0.0019	1		04/12/18 18:35	75-25-2	
Bromomethane	ND	mg/kg	0.0081	0.0020	1		04/12/18 18:35	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.081	0.0024	1		04/12/18 18:35	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0041	0.0013	1		04/12/18 18:35	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0041	0.0016	1		04/12/18 18:35	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0041	0.0021	1		04/12/18 18:35	56-23-5	
Chlorobenzene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	108-90-7	
Chloroethane	ND	mg/kg	0.0081	0.0019	1		04/12/18 18:35	75-00-3	
Chloroform	ND	mg/kg	0.0041	0.0013	1		04/12/18 18:35	67-66-3	
Chloromethane	ND	mg/kg	0.0081	0.0019	1		04/12/18 18:35	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0041	0.0029	1		04/12/18 18:35	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	106-93-4	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-2 **Lab ID: 92380503002** Collected: 04/11/18 09:40 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0041	0.0020	1		04/12/18 18:35	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0041	0.0016	1		04/12/18 18:35	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0081	0.0029	1		04/12/18 18:35	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0041	0.0012	1		04/12/18 18:35	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0041	0.0018	1		04/12/18 18:35	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0041	0.0011	1		04/12/18 18:35	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0041	0.0012	1		04/12/18 18:35	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0041	0.0012	1		04/12/18 18:35	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	108-20-3	
Ethylbenzene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0041	0.0016	1		04/12/18 18:35	87-68-3	
2-Hexanone	ND	mg/kg	0.041	0.0032	1		04/12/18 18:35	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	98-82-8	
p-Isopropyltoluene	0.019	mg/kg	0.0041	0.0014	1		04/12/18 18:35	99-87-6	
Methylene Chloride	ND	mg/kg	0.016	0.0024	1		04/12/18 18:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.041	0.0030	1		04/12/18 18:35	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0041	0.0012	1		04/12/18 18:35	1634-04-4	
Naphthalene	0.020	mg/kg	0.0041	0.00097	1		04/12/18 18:35	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	103-65-1	
Styrene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0041	0.0017	1		04/12/18 18:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0041	0.0014	1		04/12/18 18:35	127-18-4	
Toluene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0041	0.0018	1		04/12/18 18:35	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0041	0.0013	1		04/12/18 18:35	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0041	0.0017	1		04/12/18 18:35	79-00-5	
Trichloroethene	ND	mg/kg	0.0041	0.0017	1		04/12/18 18:35	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0041	0.0018	1		04/12/18 18:35	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0041	0.0013	1		04/12/18 18:35	96-18-4	
1,2,4-Trimethylbenzene	0.014	mg/kg	0.0041	0.0016	1		04/12/18 18:35	95-63-6	
1,3,5-Trimethylbenzene	0.023	mg/kg	0.0041	0.0015	1		04/12/18 18:35	108-67-8	
Vinyl acetate	ND	mg/kg	0.041	0.0071	1		04/12/18 18:35	108-05-4	L2
Vinyl chloride	ND	mg/kg	0.0081	0.0015	1		04/12/18 18:35	75-01-4	
Xylene (Total)	ND	mg/kg	0.0081	0.0029	1		04/12/18 18:35	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0081	0.0029	1		04/12/18 18:35	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-2 **Lab ID: 92380503002** Collected: 04/11/18 09:40 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics Analytical Method: EPA 8260									
o-Xylene	ND	mg/kg	0.0041	0.0015	1		04/12/18 18:35	95-47-6	
Surrogates									
Toluene-d8 (S)	90	%	70-130		1		04/12/18 18:35	2037-26-5	IO
4-Bromofluorobenzene (S)	110	%	70-130		1		04/12/18 18:35	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-132		1		04/12/18 18:35	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	15.3	%	0.10	0.10	1		04/13/18 11:49		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-3 **Lab ID: 92380503003** Collected: 04/11/18 10:20 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.39	0.090	1	04/13/18 14:27	04/16/18 18:39	83-32-9	
Acenaphthylene	ND	mg/kg	0.39	0.093	1	04/13/18 14:27	04/16/18 18:39	208-96-8	
Anthracene	ND	mg/kg	0.39	0.088	1	04/13/18 14:27	04/16/18 18:39	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.39	0.072	1	04/13/18 14:27	04/16/18 18:39	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.39	0.075	1	04/13/18 14:27	04/16/18 18:39	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.39	0.068	1	04/13/18 14:27	04/16/18 18:39	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.39	0.10	1	04/13/18 14:27	04/16/18 18:39	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.39	0.077	1	04/13/18 14:27	04/16/18 18:39	207-08-9	
Chrysene	ND	mg/kg	0.39	0.052	1	04/13/18 14:27	04/16/18 18:39	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.39	0.083	1	04/13/18 14:27	04/16/18 18:39	53-70-3	
Fluoranthene	ND	mg/kg	0.39	0.057	1	04/13/18 14:27	04/16/18 18:39	206-44-0	
Fluorene	ND	mg/kg	0.39	0.081	1	04/13/18 14:27	04/16/18 18:39	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.39	0.081	1	04/13/18 14:27	04/16/18 18:39	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.39	0.10	1	04/13/18 14:27	04/16/18 18:39	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.39	0.084	1	04/13/18 14:27	04/16/18 18:39	91-57-6	
Naphthalene	ND	mg/kg	0.39	0.096	1	04/13/18 14:27	04/16/18 18:39	91-20-3	
Phenanthrene	ND	mg/kg	0.39	0.065	1	04/13/18 14:27	04/16/18 18:39	85-01-8	
Pyrene	ND	mg/kg	0.39	0.066	1	04/13/18 14:27	04/16/18 18:39	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	61	%	23-110		1	04/13/18 14:27	04/16/18 18:39	4165-60-0	
2-Fluorobiphenyl (S)	62	%	30-110		1	04/13/18 14:27	04/16/18 18:39	321-60-8	
Terphenyl-d14 (S)	53	%	28-110		1	04/13/18 14:27	04/16/18 18:39	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.083	0.0083	1		04/12/18 18:54	67-64-1	
Benzene	ND	mg/kg	0.0042	0.0013	1		04/12/18 18:54	71-43-2	
Bromobenzene	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	108-86-1	
Bromochloromethane	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	75-27-4	
Bromoform	ND	mg/kg	0.0042	0.0019	1		04/12/18 18:54	75-25-2	
Bromomethane	ND	mg/kg	0.0083	0.0021	1		04/12/18 18:54	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.083	0.0024	1		04/12/18 18:54	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0042	0.0013	1		04/12/18 18:54	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0042	0.0022	1		04/12/18 18:54	56-23-5	
Chlorobenzene	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	108-90-7	
Chloroethane	ND	mg/kg	0.0083	0.0020	1		04/12/18 18:54	75-00-3	
Chloroform	ND	mg/kg	0.0042	0.0013	1		04/12/18 18:54	67-66-3	
Chloromethane	ND	mg/kg	0.0083	0.0020	1		04/12/18 18:54	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0042	0.0030	1		04/12/18 18:54	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	106-93-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-3 Lab ID: 92380503003 Collected: 04/11/18 10:20 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0042	0.0021	1		04/12/18 18:54	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0083	0.0030	1		04/12/18 18:54	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0042	0.0012	1		04/12/18 18:54	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0042	0.0018	1		04/12/18 18:54	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0042	0.0012	1		04/12/18 18:54	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0042	0.0012	1		04/12/18 18:54	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0042	0.0012	1		04/12/18 18:54	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	108-20-3	
Ethylbenzene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	87-68-3	
2-Hexanone	ND	mg/kg	0.042	0.0032	1		04/12/18 18:54	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	99-87-6	
Methylene Chloride	ND	mg/kg	0.017	0.0025	1		04/12/18 18:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.042	0.0031	1		04/12/18 18:54	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0042	0.0012	1		04/12/18 18:54	1634-04-4	
Naphthalene	ND	mg/kg	0.0042	0.0010	1		04/12/18 18:54	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	103-65-1	
Styrene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0042	0.0014	1		04/12/18 18:54	127-18-4	
Toluene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0042	0.0018	1		04/12/18 18:54	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0042	0.0013	1		04/12/18 18:54	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	79-00-5	
Trichloroethene	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0042	0.0018	1		04/12/18 18:54	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0042	0.0013	1		04/12/18 18:54	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0042	0.0017	1		04/12/18 18:54	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0042	0.0015	1		04/12/18 18:54	108-67-8	
Vinyl acetate	ND	mg/kg	0.042	0.0073	1		04/12/18 18:54	108-05-4	L2
Vinyl chloride	ND	mg/kg	0.0083	0.0015	1		04/12/18 18:54	75-01-4	
Xylene (Total)	ND	mg/kg	0.0083	0.0030	1		04/12/18 18:54	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0083	0.0030	1		04/12/18 18:54	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-3 **Lab ID: 92380503003** Collected: 04/11/18 10:20 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics Analytical Method: EPA 8260									
o-Xylene	ND	mg/kg	0.0042	0.0016	1		04/12/18 18:54	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		04/12/18 18:54	2037-26-5	
4-Bromofluorobenzene (S)	96	%	70-130		1		04/12/18 18:54	460-00-4	
1,2-Dichloroethane-d4 (S)	86	%	70-132		1		04/12/18 18:54	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	16.3	%	0.10	0.10	1		04/13/18 11:49		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-4 **Lab ID: 92380503004** Collected: 04/11/18 10:50 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.41	0.094	1	04/13/18 14:27	04/16/18 19:08	83-32-9	
Acenaphthylene	ND	mg/kg	0.41	0.097	1	04/13/18 14:27	04/16/18 19:08	208-96-8	
Anthracene	ND	mg/kg	0.41	0.092	1	04/13/18 14:27	04/16/18 19:08	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.41	0.076	1	04/13/18 14:27	04/16/18 19:08	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.41	0.078	1	04/13/18 14:27	04/16/18 19:08	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.41	0.071	1	04/13/18 14:27	04/16/18 19:08	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.41	0.10	1	04/13/18 14:27	04/16/18 19:08	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.41	0.081	1	04/13/18 14:27	04/16/18 19:08	207-08-9	
Chrysene	ND	mg/kg	0.41	0.055	1	04/13/18 14:27	04/16/18 19:08	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.41	0.087	1	04/13/18 14:27	04/16/18 19:08	53-70-3	
Fluoranthene	ND	mg/kg	0.41	0.059	1	04/13/18 14:27	04/16/18 19:08	206-44-0	
Fluorene	ND	mg/kg	0.41	0.084	1	04/13/18 14:27	04/16/18 19:08	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.41	0.084	1	04/13/18 14:27	04/16/18 19:08	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.41	0.11	1	04/13/18 14:27	04/16/18 19:08	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.41	0.088	1	04/13/18 14:27	04/16/18 19:08	91-57-6	
Naphthalene	ND	mg/kg	0.41	0.10	1	04/13/18 14:27	04/16/18 19:08	91-20-3	
Phenanthrene	ND	mg/kg	0.41	0.068	1	04/13/18 14:27	04/16/18 19:08	85-01-8	
Pyrene	ND	mg/kg	0.41	0.069	1	04/13/18 14:27	04/16/18 19:08	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	60	%	23-110		1	04/13/18 14:27	04/16/18 19:08	4165-60-0	
2-Fluorobiphenyl (S)	58	%	30-110		1	04/13/18 14:27	04/16/18 19:08	321-60-8	
Terphenyl-d14 (S)	27	%	28-110		1	04/13/18 14:27	04/16/18 19:08	1718-51-0	S0

8260/5035A Volatile Organics

Analytical Method: EPA 8260

Acetone	ND	mg/kg	0.097	0.0097	1		04/12/18 19:14	67-64-1	
Benzene	ND	mg/kg	0.0048	0.0015	1		04/12/18 19:14	71-43-2	
Bromobenzene	ND	mg/kg	0.0048	0.0019	1		04/12/18 19:14	108-86-1	
Bromochloromethane	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	75-27-4	
Bromoform	ND	mg/kg	0.0048	0.0022	1		04/12/18 19:14	75-25-2	
Bromomethane	ND	mg/kg	0.0097	0.0024	1		04/12/18 19:14	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.097	0.0028	1		04/12/18 19:14	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0048	0.0015	1		04/12/18 19:14	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0048	0.0019	1		04/12/18 19:14	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0048	0.0025	1		04/12/18 19:14	56-23-5	
Chlorobenzene	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	108-90-7	
Chloroethane	ND	mg/kg	0.0097	0.0023	1		04/12/18 19:14	75-00-3	
Chloroform	ND	mg/kg	0.0048	0.0015	1		04/12/18 19:14	67-66-3	
Chloromethane	ND	mg/kg	0.0097	0.0023	1		04/12/18 19:14	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0048	0.0035	1		04/12/18 19:14	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	106-93-4	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-4 **Lab ID: 92380503004** Collected: 04/11/18 10:50 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0048	0.0024	1		04/12/18 19:14	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0048	0.0019	1		04/12/18 19:14	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0097	0.0035	1		04/12/18 19:14	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0048	0.0014	1		04/12/18 19:14	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0048	0.0021	1		04/12/18 19:14	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0048	0.0014	1		04/12/18 19:14	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0048	0.0014	1		04/12/18 19:14	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0048	0.0014	1		04/12/18 19:14	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	108-20-3	
Ethylbenzene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0048	0.0019	1		04/12/18 19:14	87-68-3	
2-Hexanone	ND	mg/kg	0.048	0.0038	1		04/12/18 19:14	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	99-87-6	
Methylene Chloride	ND	mg/kg	0.019	0.0029	1		04/12/18 19:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.048	0.0036	1		04/12/18 19:14	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0048	0.0014	1		04/12/18 19:14	1634-04-4	
Naphthalene	ND	mg/kg	0.0048	0.0012	1		04/12/18 19:14	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	103-65-1	
Styrene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0048	0.0020	1		04/12/18 19:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0048	0.0016	1		04/12/18 19:14	127-18-4	
Toluene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0048	0.0021	1		04/12/18 19:14	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0048	0.0015	1		04/12/18 19:14	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0048	0.0020	1		04/12/18 19:14	79-00-5	
Trichloroethene	ND	mg/kg	0.0048	0.0020	1		04/12/18 19:14	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0048	0.0021	1		04/12/18 19:14	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0048	0.0015	1		04/12/18 19:14	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0048	0.0019	1		04/12/18 19:14	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0048	0.0017	1		04/12/18 19:14	108-67-8	
Vinyl acetate	ND	mg/kg	0.048	0.0085	1		04/12/18 19:14	108-05-4	L2
Vinyl chloride	ND	mg/kg	0.0097	0.0017	1		04/12/18 19:14	75-01-4	
Xylene (Total)	ND	mg/kg	0.0097	0.0035	1		04/12/18 19:14	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0097	0.0035	1		04/12/18 19:14	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-4 **Lab ID: 92380503004** Collected: 04/11/18 10:50 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics Analytical Method: EPA 8260									
o-Xylene	ND	mg/kg	0.0048	0.0018	1		04/12/18 19:14	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		04/12/18 19:14	2037-26-5	
4-Bromofluorobenzene (S)	97	%	70-130		1		04/12/18 19:14	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	70-132		1		04/12/18 19:14	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	19.0	%	0.10	0.10	1		04/13/18 11:57		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-5 **Lab ID: 92380503005** Collected: 04/11/18 12:00 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.39	0.090	1	04/13/18 14:27	04/16/18 19:36	83-32-9	
Acenaphthylene	ND	mg/kg	0.39	0.092	1	04/13/18 14:27	04/16/18 19:36	208-96-8	
Anthracene	ND	mg/kg	0.39	0.087	1	04/13/18 14:27	04/16/18 19:36	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.39	0.072	1	04/13/18 14:27	04/16/18 19:36	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.39	0.074	1	04/13/18 14:27	04/16/18 19:36	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.39	0.067	1	04/13/18 14:27	04/16/18 19:36	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.39	0.099	1	04/13/18 14:27	04/16/18 19:36	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.39	0.077	1	04/13/18 14:27	04/16/18 19:36	207-08-9	
Chrysene	ND	mg/kg	0.39	0.052	1	04/13/18 14:27	04/16/18 19:36	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.39	0.083	1	04/13/18 14:27	04/16/18 19:36	53-70-3	
Fluoranthene	ND	mg/kg	0.39	0.057	1	04/13/18 14:27	04/16/18 19:36	206-44-0	
Fluorene	ND	mg/kg	0.39	0.080	1	04/13/18 14:27	04/16/18 19:36	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.39	0.080	1	04/13/18 14:27	04/16/18 19:36	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.39	0.10	1	04/13/18 14:27	04/16/18 19:36	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.39	0.084	1	04/13/18 14:27	04/16/18 19:36	91-57-6	
Naphthalene	ND	mg/kg	0.39	0.096	1	04/13/18 14:27	04/16/18 19:36	91-20-3	
Phenanthrene	ND	mg/kg	0.39	0.065	1	04/13/18 14:27	04/16/18 19:36	85-01-8	
Pyrene	ND	mg/kg	0.39	0.066	1	04/13/18 14:27	04/16/18 19:36	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	64	%	23-110		1	04/13/18 14:27	04/16/18 19:36	4165-60-0	
2-Fluorobiphenyl (S)	67	%	30-110		1	04/13/18 14:27	04/16/18 19:36	321-60-8	
Terphenyl-d14 (S)	54	%	28-110		1	04/13/18 14:27	04/16/18 19:36	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.081	0.0081	1		04/12/18 19:34	67-64-1	
Benzene	ND	mg/kg	0.0040	0.0013	1		04/12/18 19:34	71-43-2	
Bromobenzene	ND	mg/kg	0.0040	0.0016	1		04/12/18 19:34	108-86-1	
Bromochloromethane	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	75-27-4	
Bromoform	ND	mg/kg	0.0040	0.0019	1		04/12/18 19:34	75-25-2	
Bromomethane	ND	mg/kg	0.0081	0.0020	1		04/12/18 19:34	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.081	0.0023	1		04/12/18 19:34	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0040	0.0013	1		04/12/18 19:34	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0040	0.0016	1		04/12/18 19:34	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0040	0.0021	1		04/12/18 19:34	56-23-5	
Chlorobenzene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	108-90-7	
Chloroethane	ND	mg/kg	0.0081	0.0019	1		04/12/18 19:34	75-00-3	
Chloroform	ND	mg/kg	0.0040	0.0013	1		04/12/18 19:34	67-66-3	
Chloromethane	ND	mg/kg	0.0081	0.0019	1		04/12/18 19:34	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0040	0.0029	1		04/12/18 19:34	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	106-93-4	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-5 **Lab ID: 92380503005** Collected: 04/11/18 12:00 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0040	0.0020	1		04/12/18 19:34	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0040	0.0016	1		04/12/18 19:34	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0081	0.0029	1		04/12/18 19:34	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0040	0.0012	1		04/12/18 19:34	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0040	0.0018	1		04/12/18 19:34	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0040	0.0011	1		04/12/18 19:34	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0040	0.0012	1		04/12/18 19:34	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0040	0.0012	1		04/12/18 19:34	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	108-20-3	
Ethylbenzene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0040	0.0016	1		04/12/18 19:34	87-68-3	
2-Hexanone	ND	mg/kg	0.040	0.0032	1		04/12/18 19:34	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	99-87-6	
Methylene Chloride	ND	mg/kg	0.016	0.0024	1		04/12/18 19:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.040	0.0030	1		04/12/18 19:34	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0040	0.0012	1		04/12/18 19:34	1634-04-4	
Naphthalene	ND	mg/kg	0.0040	0.00097	1		04/12/18 19:34	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	103-65-1	
Styrene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0040	0.0017	1		04/12/18 19:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0040	0.0014	1		04/12/18 19:34	127-18-4	
Toluene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0040	0.0018	1		04/12/18 19:34	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0040	0.0013	1		04/12/18 19:34	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0040	0.0017	1		04/12/18 19:34	79-00-5	
Trichloroethene	ND	mg/kg	0.0040	0.0017	1		04/12/18 19:34	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0040	0.0018	1		04/12/18 19:34	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0040	0.0013	1		04/12/18 19:34	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0040	0.0016	1		04/12/18 19:34	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	108-67-8	
Vinyl acetate	ND	mg/kg	0.040	0.0071	1		04/12/18 19:34	108-05-4	L2
Vinyl chloride	ND	mg/kg	0.0081	0.0015	1		04/12/18 19:34	75-01-4	
Xylene (Total)	ND	mg/kg	0.0081	0.0029	1		04/12/18 19:34	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0081	0.0029	1		04/12/18 19:34	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-5 **Lab ID: 92380503005** Collected: 04/11/18 12:00 Received: 04/12/18 09:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics Analytical Method: EPA 8260									
o-Xylene	ND	mg/kg	0.0040	0.0015	1		04/12/18 19:34	95-47-6	
Surrogates									
Toluene-d8 (S)	100	%	70-130		1		04/12/18 19:34	2037-26-5	
4-Bromofluorobenzene (S)	99	%	70-130		1		04/12/18 19:34	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	70-132		1		04/12/18 19:34	17060-07-0	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	15.3	%	0.10	0.10	1		04/13/18 11:52		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-1 GW		Lab ID: 92380503006		Collected: 04/11/18 09:20		Received: 04/12/18 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivol Organic RVE Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Acenaphthene	ND	ug/L	8.3	2.8	1	04/16/18 03:08	04/17/18 16:36	83-32-9	
Acenaphthylene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 16:36	208-96-8	
Anthracene	ND	ug/L	8.3	1.7	1	04/16/18 03:08	04/17/18 16:36	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 16:36	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 16:36	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	1.2	1	04/16/18 03:08	04/17/18 16:36	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 16:36	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 16:36	207-08-9	
Chrysene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 16:36	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	1.6	1	04/16/18 03:08	04/17/18 16:36	53-70-3	
Fluoranthene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 16:36	206-44-0	
Fluorene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 16:36	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 16:36	193-39-5	
1-Methylnaphthalene	ND	ug/L	8.3	2.3	1	04/16/18 03:08	04/17/18 16:36	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	2.4	1	04/16/18 03:08	04/17/18 16:36	91-57-6	
Naphthalene	ND	ug/L	8.3	2.7	1	04/16/18 03:08	04/17/18 16:36	91-20-3	
Phenanthrene	ND	ug/L	8.3	2.0	1	04/16/18 03:08	04/17/18 16:36	85-01-8	
Pyrene	ND	ug/L	8.3	1.0	1	04/16/18 03:08	04/17/18 16:36	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	69	%	40-121		1	04/16/18 03:08	04/17/18 16:36	4165-60-0	
2-Fluorobiphenyl (S)	77	%	45-139		1	04/16/18 03:08	04/17/18 16:36	321-60-8	
Terphenyl-d14 (S)	66	%	48-146		1	04/16/18 03:08	04/17/18 16:36	1718-51-0	
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND	ug/L	25.0	10.0	1		04/18/18 01:13	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		04/18/18 01:13	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:13	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/18/18 01:13	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/18/18 01:13	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/18/18 01:13	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/18/18 01:13	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/18/18 01:13	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/18/18 01:13	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/18/18 01:13	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/18/18 01:13	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/18/18 01:13	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/18/18 01:13	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		04/18/18 01:13	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		04/18/18 01:13	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		04/18/18 01:13	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/18/18 01:13	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/18/18 01:13	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/18/18 01:13	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		04/18/18 01:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 01:13	106-46-7	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-1 GW **Lab ID: 92380503006** Collected: 04/11/18 09:20 Received: 04/12/18 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Analytical Method: EPA 8260									
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		04/18/18 01:13	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/18/18 01:13	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/18/18 01:13	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/18/18 01:13	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		04/18/18 01:13	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/18/18 01:13	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/18/18 01:13	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/18/18 01:13	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		04/18/18 01:13	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		04/18/18 01:13	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/18/18 01:13	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/18/18 01:13	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		04/18/18 01:13	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:13	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		04/18/18 01:13	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/18/18 01:13	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		04/18/18 01:13	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		04/18/18 01:13	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/18/18 01:13	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		04/18/18 01:13	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/18/18 01:13	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		04/18/18 01:13	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/18/18 01:13	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/18/18 01:13	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/18/18 01:13	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/18/18 01:13	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 01:13	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		04/18/18 01:13	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/18/18 01:13	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/18/18 01:13	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/18/18 01:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/18/18 01:13	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/18/18 01:13	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/18/18 01:13	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/18/18 01:13	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1.0	1		04/18/18 01:13	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		04/18/18 01:13	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		04/18/18 01:13	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		04/18/18 01:13	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/18/18 01:13	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		04/18/18 01:13	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-2 GW Lab ID: 92380503007 Collected: 04/11/18 10:00 Received: 04/12/18 09:20 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivol Organic RVE Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Acenaphthene	ND	ug/L	8.3	2.8	1	04/16/18 03:08	04/17/18 17:39	83-32-9	
Acenaphthylene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 17:39	208-96-8	
Anthracene	ND	ug/L	8.3	1.7	1	04/16/18 03:08	04/17/18 17:39	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 17:39	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 17:39	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	1.2	1	04/16/18 03:08	04/17/18 17:39	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 17:39	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 17:39	207-08-9	
Chrysene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 17:39	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	1.6	1	04/16/18 03:08	04/17/18 17:39	53-70-3	
Fluoranthene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 17:39	206-44-0	
Fluorene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 17:39	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 17:39	193-39-5	
1-Methylnaphthalene	ND	ug/L	8.3	2.3	1	04/16/18 03:08	04/17/18 17:39	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	2.4	1	04/16/18 03:08	04/17/18 17:39	91-57-6	
Naphthalene	ND	ug/L	8.3	2.7	1	04/16/18 03:08	04/17/18 17:39	91-20-3	
Phenanthrene	ND	ug/L	8.3	2.0	1	04/16/18 03:08	04/17/18 17:39	85-01-8	
Pyrene	ND	ug/L	8.3	1.0	1	04/16/18 03:08	04/17/18 17:39	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	74	%	40-121		1	04/16/18 03:08	04/17/18 17:39	4165-60-0	
2-Fluorobiphenyl (S)	79	%	45-139		1	04/16/18 03:08	04/17/18 17:39	321-60-8	
Terphenyl-d14 (S)	70	%	48-146		1	04/16/18 03:08	04/17/18 17:39	1718-51-0	
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND	ug/L	25.0	10.0	1		04/19/18 04:27	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		04/19/18 04:27	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		04/19/18 04:27	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/19/18 04:27	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/19/18 04:27	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/19/18 04:27	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/19/18 04:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/19/18 04:27	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/19/18 04:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/19/18 04:27	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/19/18 04:27	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/19/18 04:27	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/19/18 04:27	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		04/19/18 04:27	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		04/19/18 04:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		04/19/18 04:27	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/19/18 04:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/19/18 04:27	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/19/18 04:27	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/19/18 04:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		04/19/18 04:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/19/18 04:27	106-46-7	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-2 GW **Lab ID: 92380503007** Collected: 04/11/18 10:00 Received: 04/12/18 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Analytical Method: EPA 8260									
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		04/19/18 04:27	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/18 04:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/19/18 04:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/19/18 04:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		04/19/18 04:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/19/18 04:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/19/18 04:27	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/19/18 04:27	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		04/19/18 04:27	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		04/19/18 04:27	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/19/18 04:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/19/18 04:27	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		04/19/18 04:27	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/18 04:27	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		04/19/18 04:27	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/19/18 04:27	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		04/19/18 04:27	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		04/19/18 04:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/19/18 04:27	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		04/19/18 04:27	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/19/18 04:27	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		04/19/18 04:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/19/18 04:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/19/18 04:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/19/18 04:27	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/19/18 04:27	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		04/19/18 04:27	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		04/19/18 04:27	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/19/18 04:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/19/18 04:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/19/18 04:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/19/18 04:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/19/18 04:27	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/19/18 04:27	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/19/18 04:27	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1.0	1		04/19/18 04:27	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		04/19/18 04:27	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		04/19/18 04:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		04/19/18 04:27	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130		1		04/19/18 04:27	17060-07-0	
Toluene-d8 (S)	105	%	70-130		1		04/19/18 04:27	2037-26-5	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-3 GW Lab ID: 92380503008 Collected: 04/11/18 10:40 Received: 04/12/18 09:20 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivol Organic RVE Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Acenaphthene	ND	ug/L	8.3	2.8	1	04/16/18 03:08	04/17/18 18:43	83-32-9	
Acenaphthylene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 18:43	208-96-8	
Anthracene	ND	ug/L	8.3	1.7	1	04/16/18 03:08	04/17/18 18:43	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 18:43	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 18:43	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	1.2	1	04/16/18 03:08	04/17/18 18:43	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 18:43	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 18:43	207-08-9	
Chrysene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 18:43	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	1.6	1	04/16/18 03:08	04/17/18 18:43	53-70-3	
Fluoranthene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 18:43	206-44-0	
Fluorene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 18:43	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 18:43	193-39-5	
1-Methylnaphthalene	ND	ug/L	8.3	2.3	1	04/16/18 03:08	04/17/18 18:43	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	2.4	1	04/16/18 03:08	04/17/18 18:43	91-57-6	
Naphthalene	ND	ug/L	8.3	2.7	1	04/16/18 03:08	04/17/18 18:43	91-20-3	
Phenanthrene	ND	ug/L	8.3	2.0	1	04/16/18 03:08	04/17/18 18:43	85-01-8	
Pyrene	ND	ug/L	8.3	1.0	1	04/16/18 03:08	04/17/18 18:43	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	65	%	40-121		1	04/16/18 03:08	04/17/18 18:43	4165-60-0	
2-Fluorobiphenyl (S)	62	%	45-139		1	04/16/18 03:08	04/17/18 18:43	321-60-8	
Terphenyl-d14 (S)	60	%	48-146		1	04/16/18 03:08	04/17/18 18:43	1718-51-0	
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND	ug/L	25.0	10.0	1		04/18/18 01:29	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		04/18/18 01:29	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:29	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/18/18 01:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/18/18 01:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/18/18 01:29	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/18/18 01:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/18/18 01:29	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/18/18 01:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/18/18 01:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/18/18 01:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/18/18 01:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/18/18 01:29	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		04/18/18 01:29	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		04/18/18 01:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		04/18/18 01:29	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/18/18 01:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/18/18 01:29	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/18/18 01:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		04/18/18 01:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 01:29	106-46-7	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-3 GW Lab ID: 92380503008 Collected: 04/11/18 10:40 Received: 04/12/18 09:20 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Analytical Method: EPA 8260									
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		04/18/18 01:29	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/18/18 01:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/18/18 01:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/18/18 01:29	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		04/18/18 01:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/18/18 01:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/18/18 01:29	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/18/18 01:29	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		04/18/18 01:29	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		04/18/18 01:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/18/18 01:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/18/18 01:29	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		04/18/18 01:29	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		04/18/18 01:29	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/18/18 01:29	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		04/18/18 01:29	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		04/18/18 01:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/18/18 01:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		04/18/18 01:29	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/18/18 01:29	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		04/18/18 01:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/18/18 01:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/18/18 01:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/18/18 01:29	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/18/18 01:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 01:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		04/18/18 01:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/18/18 01:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/18/18 01:29	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/18/18 01:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/18/18 01:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/18/18 01:29	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/18/18 01:29	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/18/18 01:29	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1.0	1		04/18/18 01:29	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		04/18/18 01:29	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		04/18/18 01:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/18/18 01:29	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		04/18/18 01:29	17060-07-0	
Toluene-d8 (S)	104	%	70-130		1		04/18/18 01:29	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-4 GW		Lab ID: 92380503009		Collected: 04/11/18 11:10		Received: 04/12/18 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivol Organic RVE Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Acenaphthene	ND	ug/L	8.3	2.8	1	04/16/18 03:08	04/17/18 19:15	83-32-9	
Acenaphthylene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 19:15	208-96-8	
Anthracene	ND	ug/L	8.3	1.7	1	04/16/18 03:08	04/17/18 19:15	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 19:15	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 19:15	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	1.2	1	04/16/18 03:08	04/17/18 19:15	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 19:15	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 19:15	207-08-9	
Chrysene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 19:15	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	1.6	1	04/16/18 03:08	04/17/18 19:15	53-70-3	
Fluoranthene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 19:15	206-44-0	
Fluorene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 19:15	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 19:15	193-39-5	
1-Methylnaphthalene	ND	ug/L	8.3	2.3	1	04/16/18 03:08	04/17/18 19:15	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	2.4	1	04/16/18 03:08	04/17/18 19:15	91-57-6	
Naphthalene	ND	ug/L	8.3	2.7	1	04/16/18 03:08	04/17/18 19:15	91-20-3	
Phenanthrene	ND	ug/L	8.3	2.0	1	04/16/18 03:08	04/17/18 19:15	85-01-8	
Pyrene	ND	ug/L	8.3	1.0	1	04/16/18 03:08	04/17/18 19:15	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	69	%	40-121		1	04/16/18 03:08	04/17/18 19:15	4165-60-0	
2-Fluorobiphenyl (S)	68	%	45-139		1	04/16/18 03:08	04/17/18 19:15	321-60-8	
Terphenyl-d14 (S)	67	%	48-146		1	04/16/18 03:08	04/17/18 19:15	1718-51-0	
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND	ug/L	25.0	10.0	1		04/18/18 01:46	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		04/18/18 01:46	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:46	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/18/18 01:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/18/18 01:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/18/18 01:46	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/18/18 01:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/18/18 01:46	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/18/18 01:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/18/18 01:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/18/18 01:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/18/18 01:46	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/18/18 01:46	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		04/18/18 01:46	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		04/18/18 01:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		04/18/18 01:46	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/18/18 01:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/18/18 01:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/18/18 01:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		04/18/18 01:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 01:46	106-46-7	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-4 GW **Lab ID: 92380503009** Collected: 04/11/18 11:10 Received: 04/12/18 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Analytical Method: EPA 8260									
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		04/18/18 01:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/18/18 01:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/18/18 01:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/18/18 01:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		04/18/18 01:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/18/18 01:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/18/18 01:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/18/18 01:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		04/18/18 01:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		04/18/18 01:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/18/18 01:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/18/18 01:46	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		04/18/18 01:46	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/18/18 01:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		04/18/18 01:46	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/18/18 01:46	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		04/18/18 01:46	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		04/18/18 01:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/18/18 01:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		04/18/18 01:46	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/18/18 01:46	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		04/18/18 01:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/18/18 01:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/18/18 01:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/18/18 01:46	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/18/18 01:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 01:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		04/18/18 01:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/18/18 01:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/18/18 01:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/18/18 01:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/18/18 01:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/18/18 01:46	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/18/18 01:46	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/18/18 01:46	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1.0	1		04/18/18 01:46	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		04/18/18 01:46	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		04/18/18 01:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/18/18 01:46	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130		1		04/18/18 01:46	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		04/18/18 01:46	2037-26-5	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-5 GW		Lab ID: 92380503010		Collected: 04/11/18 12:30		Received: 04/12/18 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivol Organic RVE Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Acenaphthene	ND	ug/L	8.3	2.8	1	04/16/18 03:08	04/17/18 19:47	83-32-9	
Acenaphthylene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 19:47	208-96-8	
Anthracene	ND	ug/L	8.3	1.7	1	04/16/18 03:08	04/17/18 19:47	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 19:47	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 19:47	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	1.2	1	04/16/18 03:08	04/17/18 19:47	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 19:47	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	1.5	1	04/16/18 03:08	04/17/18 19:47	207-08-9	
Chrysene	ND	ug/L	8.3	1.1	1	04/16/18 03:08	04/17/18 19:47	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	1.6	1	04/16/18 03:08	04/17/18 19:47	53-70-3	
Fluoranthene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 19:47	206-44-0	
Fluorene	ND	ug/L	8.3	2.5	1	04/16/18 03:08	04/17/18 19:47	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	1.4	1	04/16/18 03:08	04/17/18 19:47	193-39-5	
1-Methylnaphthalene	ND	ug/L	8.3	2.3	1	04/16/18 03:08	04/17/18 19:47	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	2.4	1	04/16/18 03:08	04/17/18 19:47	91-57-6	
Naphthalene	ND	ug/L	8.3	2.7	1	04/16/18 03:08	04/17/18 19:47	91-20-3	
Phenanthrene	ND	ug/L	8.3	2.0	1	04/16/18 03:08	04/17/18 19:47	85-01-8	
Pyrene	ND	ug/L	8.3	1.0	1	04/16/18 03:08	04/17/18 19:47	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	70	%	40-121		1	04/16/18 03:08	04/17/18 19:47	4165-60-0	
2-Fluorobiphenyl (S)	69	%	45-139		1	04/16/18 03:08	04/17/18 19:47	321-60-8	
Terphenyl-d14 (S)	67	%	48-146		1	04/16/18 03:08	04/17/18 19:47	1718-51-0	
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND	ug/L	25.0	10.0	1		04/19/18 03:19	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		04/19/18 03:19	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		04/19/18 03:19	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/19/18 03:19	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/19/18 03:19	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/19/18 03:19	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/19/18 03:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/19/18 03:19	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/19/18 03:19	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/19/18 03:19	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/19/18 03:19	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/19/18 03:19	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/19/18 03:19	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		04/19/18 03:19	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		04/19/18 03:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		04/19/18 03:19	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/19/18 03:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/19/18 03:19	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/19/18 03:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/19/18 03:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		04/19/18 03:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/19/18 03:19	106-46-7	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: B-5 GW **Lab ID: 92380503010** Collected: 04/11/18 12:30 Received: 04/12/18 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Analytical Method: EPA 8260									
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		04/19/18 03:19	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/19/18 03:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/19/18 03:19	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/19/18 03:19	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		04/19/18 03:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/19/18 03:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/19/18 03:19	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/19/18 03:19	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		04/19/18 03:19	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		04/19/18 03:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/19/18 03:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/19/18 03:19	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		04/19/18 03:19	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/19/18 03:19	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		04/19/18 03:19	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/19/18 03:19	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		04/19/18 03:19	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		04/19/18 03:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/19/18 03:19	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		04/19/18 03:19	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/19/18 03:19	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		04/19/18 03:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/19/18 03:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/19/18 03:19	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/19/18 03:19	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/19/18 03:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		04/19/18 03:19	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		04/19/18 03:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/19/18 03:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/19/18 03:19	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/19/18 03:19	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/19/18 03:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/19/18 03:19	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/19/18 03:19	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/19/18 03:19	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1.0	1		04/19/18 03:19	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		04/19/18 03:19	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		04/19/18 03:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/19/18 03:19	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/19/18 03:19	17060-07-0	
Toluene-d8 (S)	103	%	70-130		1		04/19/18 03:19	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: SW-1		Lab ID: 92380503011		Collected: 04/11/18 12:50		Received: 04/12/18 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivol Organic RVE Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Acenaphthene	ND	ug/L	10.0	3.4	1	04/16/18 03:08	04/17/18 20:19	83-32-9	
Acenaphthylene	ND	ug/L	10.0	3.0	1	04/16/18 03:08	04/17/18 20:19	208-96-8	
Anthracene	ND	ug/L	10.0	2.0	1	04/16/18 03:08	04/17/18 20:19	120-12-7	
Benzo(a)anthracene	ND	ug/L	10.0	1.3	1	04/16/18 03:08	04/17/18 20:19	56-55-3	
Benzo(a)pyrene	ND	ug/L	10.0	1.3	1	04/16/18 03:08	04/17/18 20:19	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	10.0	1.5	1	04/16/18 03:08	04/17/18 20:19	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	10.0	1.8	1	04/16/18 03:08	04/17/18 20:19	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1.8	1	04/16/18 03:08	04/17/18 20:19	207-08-9	
Chrysene	ND	ug/L	10.0	1.3	1	04/16/18 03:08	04/17/18 20:19	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	10.0	1.9	1	04/16/18 03:08	04/17/18 20:19	53-70-3	
Fluoranthene	ND	ug/L	10.0	1.7	1	04/16/18 03:08	04/17/18 20:19	206-44-0	
Fluorene	ND	ug/L	10.0	3.0	1	04/16/18 03:08	04/17/18 20:19	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10.0	1.7	1	04/16/18 03:08	04/17/18 20:19	193-39-5	
1-Methylnaphthalene	ND	ug/L	10.0	2.8	1	04/16/18 03:08	04/17/18 20:19	90-12-0	
2-Methylnaphthalene	ND	ug/L	10.0	2.8	1	04/16/18 03:08	04/17/18 20:19	91-57-6	
Naphthalene	ND	ug/L	10.0	3.2	1	04/16/18 03:08	04/17/18 20:19	91-20-3	
Phenanthrene	ND	ug/L	10.0	2.4	1	04/16/18 03:08	04/17/18 20:19	85-01-8	
Pyrene	ND	ug/L	10.0	1.2	1	04/16/18 03:08	04/17/18 20:19	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	74	%	40-121		1	04/16/18 03:08	04/17/18 20:19	4165-60-0	
2-Fluorobiphenyl (S)	76	%	45-139		1	04/16/18 03:08	04/17/18 20:19	321-60-8	
Terphenyl-d14 (S)	77	%	48-146		1	04/16/18 03:08	04/17/18 20:19	1718-51-0	
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND	ug/L	25.0	10.0	1		04/18/18 10:11	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		04/18/18 10:11	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		04/18/18 10:11	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/18/18 10:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/18/18 10:11	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/18/18 10:11	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/18/18 10:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/18/18 10:11	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/18/18 10:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/18/18 10:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/18/18 10:11	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/18/18 10:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/18/18 10:11	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		04/18/18 10:11	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		04/18/18 10:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		04/18/18 10:11	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/18/18 10:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/18/18 10:11	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/18/18 10:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/18/18 10:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		04/18/18 10:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 10:11	106-46-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92380503

Sample: SW-1		Lab ID: 92380503011		Collected: 04/11/18 12:50		Received: 04/12/18 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level		Analytical Method: EPA 8260							
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		04/18/18 10:11	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/18/18 10:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		04/18/18 10:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/18/18 10:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		04/18/18 10:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/18/18 10:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/18/18 10:11	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/18/18 10:11	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		04/18/18 10:11	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		04/18/18 10:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/18/18 10:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/18/18 10:11	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		04/18/18 10:11	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/18/18 10:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		04/18/18 10:11	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/18/18 10:11	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		04/18/18 10:11	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		04/18/18 10:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/18/18 10:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		04/18/18 10:11	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		04/18/18 10:11	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		04/18/18 10:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/18/18 10:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/18/18 10:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/18/18 10:11	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/18/18 10:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		04/18/18 10:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		04/18/18 10:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/18/18 10:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/18/18 10:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/18/18 10:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/18/18 10:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/18/18 10:11	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/18/18 10:11	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/18/18 10:11	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1.0	1		04/18/18 10:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		04/18/18 10:11	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		04/18/18 10:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/18/18 10:11	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130		1		04/18/18 10:11	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		04/18/18 10:11	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406633 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 92380503006, 92380503008, 92380503009

METHOD BLANK: 2256131 Matrix: Water

Associated Lab Samples: 92380503006, 92380503008, 92380503009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	04/17/18 18:46	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	04/17/18 18:46	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	04/17/18 18:46	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	04/17/18 18:46	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	04/17/18 18:46	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	04/17/18 18:46	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	04/17/18 18:46	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	04/17/18 18:46	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	04/17/18 18:46	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	04/17/18 18:46	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	04/17/18 18:46	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	04/17/18 18:46	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	04/17/18 18:46	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	04/17/18 18:46	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	04/17/18 18:46	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	04/17/18 18:46	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	04/17/18 18:46	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	04/17/18 18:46	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	04/17/18 18:46	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	04/17/18 18:46	
2-Chlorotoluene	ug/L	ND	1.0	0.35	04/17/18 18:46	
2-Hexanone	ug/L	ND	5.0	0.46	04/17/18 18:46	
4-Chlorotoluene	ug/L	ND	1.0	0.31	04/17/18 18:46	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	04/17/18 18:46	
Acetone	ug/L	ND	25.0	10.0	04/17/18 18:46	
Benzene	ug/L	ND	1.0	0.25	04/17/18 18:46	
Bromobenzene	ug/L	ND	1.0	0.30	04/17/18 18:46	
Bromochloromethane	ug/L	ND	1.0	0.17	04/17/18 18:46	
Bromodichloromethane	ug/L	ND	1.0	0.18	04/17/18 18:46	
Bromoform	ug/L	ND	1.0	0.26	04/17/18 18:46	
Bromomethane	ug/L	ND	2.0	0.29	04/17/18 18:46	
Carbon tetrachloride	ug/L	ND	1.0	0.25	04/17/18 18:46	
Chlorobenzene	ug/L	ND	1.0	0.23	04/17/18 18:46	
Chloroethane	ug/L	ND	1.0	0.54	04/17/18 18:46	
Chloroform	ug/L	ND	1.0	0.14	04/17/18 18:46	
Chloromethane	ug/L	ND	1.0	0.11	04/17/18 18:46	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	04/17/18 18:46	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	04/17/18 18:46	
Dibromochloromethane	ug/L	ND	1.0	0.21	04/17/18 18:46	
Dibromomethane	ug/L	ND	1.0	0.21	04/17/18 18:46	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	04/17/18 18:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

METHOD BLANK: 2256131

Matrix: Water

Associated Lab Samples: 92380503006, 92380503008, 92380503009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	04/17/18 18:46	
Ethylbenzene	ug/L	ND	1.0	0.30	04/17/18 18:46	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	04/17/18 18:46	
m&p-Xylene	ug/L	ND	2.0	0.66	04/17/18 18:46	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	04/17/18 18:46	
Methylene Chloride	ug/L	ND	2.0	0.97	04/17/18 18:46	
Naphthalene	ug/L	ND	1.0	0.24	04/17/18 18:46	
o-Xylene	ug/L	ND	1.0	0.23	04/17/18 18:46	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	04/17/18 18:46	
Styrene	ug/L	ND	1.0	0.26	04/17/18 18:46	
Tetrachloroethene	ug/L	ND	1.0	0.46	04/17/18 18:46	
Toluene	ug/L	ND	1.0	0.26	04/17/18 18:46	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	04/17/18 18:46	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	04/17/18 18:46	
Trichloroethene	ug/L	ND	1.0	0.47	04/17/18 18:46	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	04/17/18 18:46	
Vinyl acetate	ug/L	ND	2.0	0.35	04/17/18 18:46	
Vinyl chloride	ug/L	ND	1.0	0.62	04/17/18 18:46	
Xylene (Total)	ug/L	ND	1.0	1.0	04/17/18 18:46	
1,2-Dichloroethane-d4 (S)	%	98	70-130		04/17/18 18:46	
4-Bromofluorobenzene (S)	%	102	70-130		04/17/18 18:46	
Toluene-d8 (S)	%	102	70-130		04/17/18 18:46	

LABORATORY CONTROL SAMPLE: 2256132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.2	104	80-125	
1,1,1-Trichloroethane	ug/L	50	48.6	97	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	55.0	110	79-124	
1,1,2-Trichloroethane	ug/L	50	53.2	106	85-125	
1,1-Dichloroethane	ug/L	50	43.1	86	73-126	
1,1-Dichloroethene	ug/L	50	47.0	94	66-135	
1,1-Dichloropropene	ug/L	50	51.5	103	74-135	
1,2,3-Trichlorobenzene	ug/L	50	56.9	114	73-135	
1,2,3-Trichloropropane	ug/L	50	54.8	110	75-130	
1,2,4-Trichlorobenzene	ug/L	50	56.4	113	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	57.9	116	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	56.7	113	83-124	
1,2-Dichlorobenzene	ug/L	50	54.0	108	80-133	
1,2-Dichloroethane	ug/L	50	45.1	90	67-128	
1,2-Dichloropropane	ug/L	50	52.3	105	75-132	
1,3-Dichlorobenzene	ug/L	50	55.2	110	77-130	
1,3-Dichloropropane	ug/L	50	56.9	114	76-131	
1,4-Dichlorobenzene	ug/L	50	54.0	108	78-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2256132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	48.2	96	40-160	
2-Butanone (MEK)	ug/L	100	111	111	61-144	
2-Chlorotoluene	ug/L	50	53.5	107	74-132	
2-Hexanone	ug/L	100	122	122	68-143	
4-Chlorotoluene	ug/L	50	53.6	107	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	110	110	72-135	
Acetone	ug/L	100	117	117	48-146	F3
Benzene	ug/L	50	53.1	106	80-125	
Bromobenzene	ug/L	50	56.0	112	75-125	
Bromochloromethane	ug/L	50	46.2	92	71-125	
Bromodichloromethane	ug/L	50	52.3	105	78-124	
Bromoform	ug/L	50	51.7	103	71-128	
Bromomethane	ug/L	50	42.0	84	40-160	
Carbon tetrachloride	ug/L	50	51.7	103	69-131	
Chlorobenzene	ug/L	50	53.5	107	81-122	
Chloroethane	ug/L	50	31.9	64	39-148	
Chloroform	ug/L	50	47.4	95	73-127	
Chloromethane	ug/L	50	45.9	92	44-146	
cis-1,2-Dichloroethene	ug/L	50	47.1	94	74-124	
cis-1,3-Dichloropropene	ug/L	50	56.0	112	72-132	
Dibromochloromethane	ug/L	50	53.3	107	78-125	
Dibromomethane	ug/L	50	53.2	106	82-120	
Dichlorodifluoromethane	ug/L	50	40.5	81	34-157	
Diisopropyl ether	ug/L	50	50.5	101	69-135	
Ethylbenzene	ug/L	50	53.7	107	79-121	
Hexachloro-1,3-butadiene	ug/L	50	57.1	114	72-131	
m&p-Xylene	ug/L	100	108	108	81-124	
Methyl-tert-butyl ether	ug/L	50	49.0	98	74-131	
Methylene Chloride	ug/L	50	43.0	86	64-133	
Naphthalene	ug/L	50	58.4	117	73-133	
o-Xylene	ug/L	50	56.0	112	79-131	
p-Isopropyltoluene	ug/L	50	56.1	112	80-131	
Styrene	ug/L	50	55.1	110	84-126	
Tetrachloroethene	ug/L	50	44.8	90	78-122	
Toluene	ug/L	50	50.9	102	80-121	
trans-1,2-Dichloroethene	ug/L	50	46.8	94	71-127	
trans-1,3-Dichloropropene	ug/L	50	50.1	100	69-141	
Trichloroethene	ug/L	50	54.0	108	78-122	
Trichlorofluoromethane	ug/L	50	39.8	80	53-137	
Vinyl acetate	ug/L	100	88.1	88	40-160	
Vinyl chloride	ug/L	50	48.0	96	50-150	
Xylene (Total)	ug/L	150	164	109	81-126	
1,2-Dichloroethane-d4 (S)	%			82	70-130	
4-Bromofluorobenzene (S)	%			95	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2256133 2256134											
Parameter	Units	92380331002		MS	MSD	MS		MSD	% Rec		Max
		Result	Conc.	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD
1,1,1,2-Tetrachloroethane	ug/L	ND	1000	1000	1000	1080	1120	108	112	70-130	3
1,1,1-Trichloroethane	ug/L	ND	1000	1000	1000	1090	1110	109	111	70-130	1
1,1,2,2-Tetrachloroethane	ug/L	ND	1000	1000	1000	1140	1170	114	117	70-130	2
1,1,2-Trichloroethane	ug/L	ND	1000	1000	1000	1110	1140	111	114	70-130	2
1,1-Dichloroethane	ug/L	ND	1000	1000	1000	1050	1000	105	100	70-130	5
1,1-Dichloroethene	ug/L	ND	1000	1000	1000	1120	1120	112	112	70-166	0
1,1-Dichloropropene	ug/L	ND	1000	1000	1000	1170	1210	117	121	70-130	3
1,2,3-Trichlorobenzene	ug/L	ND	1000	1000	1000	1190	1260	119	126	70-130	6
1,2,3-Trichloropropane	ug/L	ND	1000	1000	1000	1130	1150	113	115	70-130	2
1,2,4-Trichlorobenzene	ug/L	ND	1000	1000	1000	1190	1260	119	126	70-130	6
1,2-Dibromo-3-chloropropane	ug/L	ND	1000	1000	1000	1180	1160	118	116	70-130	2
1,2-Dibromoethane (EDB)	ug/L	ND	1000	1000	1000	1160	1170	116	117	70-130	1
1,2-Dichlorobenzene	ug/L	ND	1000	1000	1000	1160	1220	116	122	70-130	5
1,2-Dichloroethane	ug/L	ND	1000	1000	1000	1020	1010	102	101	70-130	0
1,2-Dichloropropane	ug/L	ND	1000	1000	1000	1150	1180	115	118	70-130	2
1,3-Dichlorobenzene	ug/L	ND	1000	1000	1000	1200	1240	120	124	70-130	3
1,3-Dichloropropane	ug/L	ND	1000	1000	1000	1220	1220	122	122	70-130	0
1,4-Dichlorobenzene	ug/L	ND	1000	1000	1000	1160	1220	116	122	70-130	5
2,2-Dichloropropane	ug/L	ND	1000	1000	1000	987	988	99	99	70-130	0
2-Butanone (MEK)	ug/L	ND	2000	2000	2000	2130	2110	106	105	70-130	1
2-Chlorotoluene	ug/L	ND	1000	1000	1000	1310	1380	131	138	70-130	5
2-Hexanone	ug/L	ND	2000	2000	2000	2400	2350	120	118	70-130	2
4-Chlorotoluene	ug/L	ND	1000	1000	1000	1170	1210	117	121	70-130	3
4-Methyl-2-pentanone (MIBK)	ug/L	ND	2000	2000	2000	2160	2190	108	109	70-130	1
Acetone	ug/L	ND	2000	2000	2000	1930	1950	96	97	70-130	1
Benzene	ug/L	261	1000	1000	1000	1480	1490	122	123	70-148	1
Bromobenzene	ug/L	ND	1000	1000	1000	1230	1290	123	129	70-130	5
Bromochloromethane	ug/L	ND	1000	1000	1000	1100	1090	110	109	70-130	1
Bromodichloromethane	ug/L	ND	1000	1000	1000	1140	1160	114	116	70-130	2
Bromoform	ug/L	ND	1000	1000	1000	1050	1080	105	108	70-130	3
Bromomethane	ug/L	ND	1000	1000	1000	965	1050	96	105	70-130	8
Carbon tetrachloride	ug/L	ND	1000	1000	1000	1170	1190	117	119	70-130	2
Chlorobenzene	ug/L	ND	1000	1000	1000	1180	1190	118	119	70-146	1
Chloroethane	ug/L	ND	1000	1000	1000	846	808	85	81	70-130	5
Chloroform	ug/L	ND	1000	1000	1000	1070	1080	107	108	70-130	1
Chloromethane	ug/L	22.3J	1000	1000	1000	995	1030	97	101	70-130	4
cis-1,2-Dichloroethene	ug/L	ND	1000	1000	1000	1100	1090	110	109	70-130	0
cis-1,3-Dichloropropene	ug/L	ND	1000	1000	1000	1150	1170	115	117	70-130	2
Dibromochloromethane	ug/L	ND	1000	1000	1000	1110	1110	111	111	70-130	0
Dibromomethane	ug/L	ND	1000	1000	1000	1190	1170	119	117	70-130	1
Dichlorodifluoromethane	ug/L	ND	1000	1000	1000	958	938	96	94	70-130	2
Diisopropyl ether	ug/L	244	1000	1000	1000	1370	1380	113	114	70-130	1
Ethylbenzene	ug/L	359	1000	1000	1000	1580	1600	122	124	70-130	2
Hexachloro-1,3-butadiene	ug/L	ND	1000	1000	1000	1260	1290	126	129	70-130	2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2256133 2256134											
Parameter	Units	92380331002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max	
			Spike Conc.	MS Conc.	MSD Conc.	MS Result				RPD	RPD
m&p-Xylene	ug/L	1630	2000	2000	2000	4100	124	122	70-130	1	30
Methyl-tert-butyl ether	ug/L	8580	1000	1000	1000	11100	253	245	70-130	1	30 E
Methylene Chloride	ug/L	ND	1000	1000	1000	792	79	75	70-130	6	30
Naphthalene	ug/L	300	1000	1000	1000	1540	124	132	70-130	5	30 M1
o-Xylene	ug/L	739	1000	1000	1000	2090	135	128	70-130	3	30 M1
p-Isopropyltoluene	ug/L	ND	1000	1000	1000	1260	126	132	70-130	4	30 M1
Styrene	ug/L	ND	1000	1000	1000	1240	124	122	70-130	2	30
Tetrachloroethene	ug/L	ND	1000	1000	1000	965	96	99	70-130	2	30
Toluene	ug/L	188	1000	1000	1000	1310	112	115	70-155	2	30
trans-1,2-Dichloroethene	ug/L	ND	1000	1000	1000	1110	111	111	70-130	0	30
trans-1,3-Dichloropropene	ug/L	ND	1000	1000	1000	1030	103	107	70-130	3	30
Trichloroethene	ug/L	ND	1000	1000	1000	1190	119	118	69-151	1	30
Trichlorofluoromethane	ug/L	ND	1000	1000	1000	997	100	102	70-130	2	30
Vinyl acetate	ug/L	ND	2000	2000	2000	2040	102	104	70-130	2	30
Vinyl chloride	ug/L	ND	1000	1000	1000	1190	119	117	70-130	1	30
Xylene (Total)	ug/L	2370	3000	3000	3000	6200	128	124	70-130	2	30 MS
1,2-Dichloroethane-d4 (S)	%						95	86	70-130		
4-Bromofluorobenzene (S)	%						99	96	70-130		
Toluene-d8 (S)	%						96	97	70-130		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406755

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92380503011

METHOD BLANK: 2256626

Matrix: Water

Associated Lab Samples: 92380503011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	04/18/18 09:20	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	04/18/18 09:20	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	04/18/18 09:20	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	04/18/18 09:20	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	04/18/18 09:20	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	04/18/18 09:20	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	04/18/18 09:20	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	04/18/18 09:20	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	04/18/18 09:20	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	04/18/18 09:20	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	04/18/18 09:20	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	04/18/18 09:20	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	04/18/18 09:20	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	04/18/18 09:20	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	04/18/18 09:20	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	04/18/18 09:20	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	04/18/18 09:20	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	04/18/18 09:20	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	04/18/18 09:20	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	04/18/18 09:20	
2-Chlorotoluene	ug/L	ND	1.0	0.35	04/18/18 09:20	
2-Hexanone	ug/L	ND	5.0	0.46	04/18/18 09:20	
4-Chlorotoluene	ug/L	ND	1.0	0.31	04/18/18 09:20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	04/18/18 09:20	
Acetone	ug/L	ND	25.0	10.0	04/18/18 09:20	
Benzene	ug/L	ND	1.0	0.25	04/18/18 09:20	
Bromobenzene	ug/L	ND	1.0	0.30	04/18/18 09:20	
Bromochloromethane	ug/L	ND	1.0	0.17	04/18/18 09:20	
Bromodichloromethane	ug/L	ND	1.0	0.18	04/18/18 09:20	
Bromoform	ug/L	ND	1.0	0.26	04/18/18 09:20	
Bromomethane	ug/L	ND	2.0	0.29	04/18/18 09:20	
Carbon tetrachloride	ug/L	ND	1.0	0.25	04/18/18 09:20	
Chlorobenzene	ug/L	ND	1.0	0.23	04/18/18 09:20	
Chloroethane	ug/L	ND	1.0	0.54	04/18/18 09:20	
Chloroform	ug/L	ND	1.0	0.14	04/18/18 09:20	
Chloromethane	ug/L	ND	1.0	0.11	04/18/18 09:20	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	04/18/18 09:20	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	04/18/18 09:20	
Dibromochloromethane	ug/L	ND	1.0	0.21	04/18/18 09:20	
Dibromomethane	ug/L	ND	1.0	0.21	04/18/18 09:20	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	04/18/18 09:20	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

METHOD BLANK: 2256626

Matrix: Water

Associated Lab Samples: 92380503011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	04/18/18 09:20	
Ethylbenzene	ug/L	ND	1.0	0.30	04/18/18 09:20	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	04/18/18 09:20	
m&p-Xylene	ug/L	ND	2.0	0.66	04/18/18 09:20	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	04/18/18 09:20	
Methylene Chloride	ug/L	ND	2.0	0.97	04/18/18 09:20	
Naphthalene	ug/L	ND	1.0	0.24	04/18/18 09:20	
o-Xylene	ug/L	ND	1.0	0.23	04/18/18 09:20	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	04/18/18 09:20	
Styrene	ug/L	ND	1.0	0.26	04/18/18 09:20	
Tetrachloroethene	ug/L	ND	1.0	0.46	04/18/18 09:20	
Toluene	ug/L	ND	1.0	0.26	04/18/18 09:20	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	04/18/18 09:20	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	04/18/18 09:20	
Trichloroethene	ug/L	ND	1.0	0.47	04/18/18 09:20	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	04/18/18 09:20	
Vinyl acetate	ug/L	ND	2.0	0.35	04/18/18 09:20	
Vinyl chloride	ug/L	ND	1.0	0.62	04/18/18 09:20	
Xylene (Total)	ug/L	ND	1.0	1.0	04/18/18 09:20	
1,2-Dichloroethane-d4 (S)	%	93	70-130		04/18/18 09:20	
4-Bromofluorobenzene (S)	%	99	70-130		04/18/18 09:20	
Toluene-d8 (S)	%	103	70-130		04/18/18 09:20	

LABORATORY CONTROL SAMPLE: 2256627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.7	105	80-125	
1,1,1-Trichloroethane	ug/L	50	50.6	101	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	55.2	110	79-124	
1,1,2-Trichloroethane	ug/L	50	53.0	106	85-125	
1,1-Dichloroethane	ug/L	50	48.5	97	73-126	
1,1-Dichloroethene	ug/L	50	48.8	98	66-135	
1,1-Dichloropropene	ug/L	50	54.1	108	74-135	
1,2,3-Trichlorobenzene	ug/L	50	58.6	117	73-135	
1,2,3-Trichloropropane	ug/L	50	54.0	108	75-130	
1,2,4-Trichlorobenzene	ug/L	50	60.4	121	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	59.5	119	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	57.9	116	83-124	
1,2-Dichlorobenzene	ug/L	50	56.2	112	80-133	
1,2-Dichloroethane	ug/L	50	47.5	95	67-128	
1,2-Dichloropropane	ug/L	50	54.7	109	75-132	
1,3-Dichlorobenzene	ug/L	50	56.7	113	77-130	
1,3-Dichloropropane	ug/L	50	57.4	115	76-131	
1,4-Dichlorobenzene	ug/L	50	55.3	111	78-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2256627

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	50.4	101	40-160	
2-Butanone (MEK)	ug/L	100	116	116	61-144	
2-Chlorotoluene	ug/L	50	55.4	111	74-132	
2-Hexanone	ug/L	100	121	121	68-143	
4-Chlorotoluene	ug/L	50	55.0	110	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	108	108	72-135	
Acetone	ug/L	100	129	129	48-146	F3
Benzene	ug/L	50	54.9	110	80-125	
Bromobenzene	ug/L	50	56.3	113	75-125	
Bromochloromethane	ug/L	50	50.9	102	71-125	
Bromodichloromethane	ug/L	50	55.2	110	78-124	
Bromoform	ug/L	50	52.9	106	71-128	
Bromomethane	ug/L	50	42.5	85	40-160	
Carbon tetrachloride	ug/L	50	53.9	108	69-131	
Chlorobenzene	ug/L	50	54.1	108	81-122	
Chloroethane	ug/L	50	33.0	66	39-148	
Chloroform	ug/L	50	50.4	101	73-127	
Chloromethane	ug/L	50	41.6	83	44-146	
cis-1,2-Dichloroethene	ug/L	50	50.4	101	74-124	
cis-1,3-Dichloropropene	ug/L	50	58.4	117	72-132	
Dibromochloromethane	ug/L	50	54.3	109	78-125	
Dibromomethane	ug/L	50	55.9	112	82-120	
Dichlorodifluoromethane	ug/L	50	45.1	90	34-157	
Diisopropyl ether	ug/L	50	52.0	104	69-135	
Ethylbenzene	ug/L	50	54.8	110	79-121	
Hexachloro-1,3-butadiene	ug/L	50	63.3	127	72-131	
m&p-Xylene	ug/L	100	111	111	81-124	
Methyl-tert-butyl ether	ug/L	50	51.4	103	74-131	
Methylene Chloride	ug/L	50	45.8	92	64-133	
Naphthalene	ug/L	50	59.8	120	73-133	
o-Xylene	ug/L	50	58.9	118	79-131	
p-Isopropyltoluene	ug/L	50	57.9	116	80-131	
Styrene	ug/L	50	56.8	114	84-126	
Tetrachloroethene	ug/L	50	45.8	92	78-122	
Toluene	ug/L	50	51.7	103	80-121	
trans-1,2-Dichloroethene	ug/L	50	49.3	99	71-127	
trans-1,3-Dichloropropene	ug/L	50	51.6	103	69-141	
Trichloroethene	ug/L	50	55.3	111	78-122	
Trichlorofluoromethane	ug/L	50	41.8	84	53-137	
Vinyl acetate	ug/L	100	96.4	96	40-160	
Vinyl chloride	ug/L	50	52.1	104	50-150	
Xylene (Total)	ug/L	150	170	113	81-126	
1,2-Dichloroethane-d4 (S)	%			85	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			97	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE:		2257690	92380372003	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers	
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.6	98	70-130		
1,1,1-Trichloroethane	ug/L	ND	20	22.2	111	70-130		
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.3	101	70-130		
1,1,2-Trichloroethane	ug/L	ND	20	20.4	102	70-130		
1,1-Dichloroethane	ug/L	ND	20	22.2	111	70-130		
1,1-Dichloroethene	ug/L	ND	20	24.5	123	70-166		
1,1-Dichloropropene	ug/L	ND	20	19.3	97	70-130		
1,2,3-Trichlorobenzene	ug/L	ND	20	22.5	112	70-130		
1,2,3-Trichloropropane	ug/L	ND	20	19.6	98	70-130		
1,2,4-Trichlorobenzene	ug/L	ND	20	23.9	119	70-130		
1,2-Dibromo-3-chloropropane	ug/L	ND	20	18.5	92	70-130		
1,2-Dibromoethane (EDB)	ug/L	ND	20	19.8	99	70-130		
1,2-Dichlorobenzene	ug/L	ND	20	22.1	110	70-130		
1,2-Dichloroethane	ug/L	ND	20	23.3	117	70-130		
1,2-Dichloropropane	ug/L	ND	20	22.9	115	70-130		
1,3-Dichlorobenzene	ug/L	ND	20	22.7	113	70-130		
1,3-Dichloropropane	ug/L	ND	20	19.7	98	70-130		
1,4-Dichlorobenzene	ug/L	ND	20	22.5	113	70-130		
2,2-Dichloropropane	ug/L	ND	20	23.0	115	70-130		
2-Butanone (MEK)	ug/L	ND	40	32.4	81	70-130		
2-Chlorotoluene	ug/L	ND	20	21.9	110	70-130		
2-Hexanone	ug/L	ND	40	33.6	84	70-130		
4-Chlorotoluene	ug/L	ND	20	21.0	105	70-130		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	36.3	91	70-130		
Acetone	ug/L	ND	40	35.9	90	70-130		
Benzene	ug/L	ND	20	22.2	111	70-148		
Bromobenzene	ug/L	ND	20	21.5	107	70-130		
Bromochloromethane	ug/L	ND	20	24.1	120	70-130		
Bromodichloromethane	ug/L	ND	20	22.1	111	70-130		
Bromoform	ug/L	ND	20	17.4	87	70-130		
Bromomethane	ug/L	ND	20	18.6	93	70-130		
Carbon tetrachloride	ug/L	ND	20	25.7	128	70-130		
Chlorobenzene	ug/L	ND	20	22.9	115	70-146		
Chloroethane	ug/L	ND	20	25.1	126	70-130		
Chloroform	ug/L	ND	20	22.5	113	70-130		
Chloromethane	ug/L	0.22J	20	18.6	92	70-130		
cis-1,2-Dichloroethene	ug/L	ND	20	23.3	116	70-130		
cis-1,3-Dichloropropene	ug/L	ND	20	21.2	106	70-130		
Dibromochloromethane	ug/L	ND	20	18.6	93	70-130		
Dibromomethane	ug/L	ND	20	25.0	125	70-130		
Dichlorodifluoromethane	ug/L	ND	20	25.7	128	70-130		
Diisopropyl ether	ug/L	ND	20	17.1	86	70-130		
Ethylbenzene	ug/L	ND	20	21.5	107	70-130		
Hexachloro-1,3-butadiene	ug/L	ND	20	22.6	113	70-130		
m&p-Xylene	ug/L	ND	40	45.2	113	70-130		
Methyl-tert-butyl ether	ug/L	ND	20	17.2	86	70-130		
Methylene Chloride	ug/L	ND	20	22.5	112	70-130		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE: 2257690		92380372003	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	ug/L	0.32J	20	21.4	105	70-130	
o-Xylene	ug/L	ND	20	23.7	119	70-130	
p-Isopropyltoluene	ug/L	ND	20	22.0	110	70-130	
Styrene	ug/L	ND	20	22.7	114	70-130	
Tetrachloroethene	ug/L	ND	20	17.1	86	70-130	
Toluene	ug/L	ND	20	23.2	116	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.2	116	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.2	101	70-130	
Trichloroethene	ug/L	ND	20	24.8	124	69-151	
Trichlorofluoromethane	ug/L	ND	20	25.1	125	70-130	
Vinyl acetate	ug/L	ND	40	32.9	82	70-130	
Vinyl chloride	ug/L	ND	20	26.6	133	70-130	M1
Xylene (Total)	ug/L	ND	60	68.9	115	70-130	
1,2-Dichloroethane-d4 (S)	%				97	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				103	70-130	

SAMPLE DUPLICATE: 2257689

Parameter	Units	92380372002	Dup	RPD	Max	
		Result	Result		RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2257689

Parameter	Units	92380372002 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	0.16J	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	95	84	12		
4-Bromofluorobenzene (S)	%	101	111	10		
Toluene-d8 (S)	%	103	122	17		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406796

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92380503010

METHOD BLANK: 2256970

Matrix: Water

Associated Lab Samples: 92380503010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	04/18/18 21:27	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	04/18/18 21:27	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	04/18/18 21:27	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	04/18/18 21:27	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	04/18/18 21:27	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	04/18/18 21:27	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	04/18/18 21:27	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	04/18/18 21:27	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	04/18/18 21:27	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	04/18/18 21:27	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	04/18/18 21:27	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	04/18/18 21:27	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	04/18/18 21:27	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	04/18/18 21:27	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	04/18/18 21:27	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	04/18/18 21:27	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	04/18/18 21:27	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	04/18/18 21:27	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	04/18/18 21:27	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	04/18/18 21:27	
2-Chlorotoluene	ug/L	ND	1.0	0.35	04/18/18 21:27	
2-Hexanone	ug/L	ND	5.0	0.46	04/18/18 21:27	
4-Chlorotoluene	ug/L	ND	1.0	0.31	04/18/18 21:27	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	04/18/18 21:27	
Acetone	ug/L	ND	25.0	10.0	04/18/18 21:27	
Benzene	ug/L	ND	1.0	0.25	04/18/18 21:27	
Bromobenzene	ug/L	ND	1.0	0.30	04/18/18 21:27	
Bromochloromethane	ug/L	ND	1.0	0.17	04/18/18 21:27	
Bromodichloromethane	ug/L	ND	1.0	0.18	04/18/18 21:27	
Bromoform	ug/L	ND	1.0	0.26	04/18/18 21:27	
Bromomethane	ug/L	ND	2.0	0.29	04/18/18 21:27	
Carbon tetrachloride	ug/L	ND	1.0	0.25	04/18/18 21:27	
Chlorobenzene	ug/L	ND	1.0	0.23	04/18/18 21:27	
Chloroethane	ug/L	ND	1.0	0.54	04/18/18 21:27	
Chloroform	ug/L	ND	1.0	0.14	04/18/18 21:27	
Chloromethane	ug/L	ND	1.0	0.11	04/18/18 21:27	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	04/18/18 21:27	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	04/18/18 21:27	
Dibromochloromethane	ug/L	ND	1.0	0.21	04/18/18 21:27	
Dibromomethane	ug/L	ND	1.0	0.21	04/18/18 21:27	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	04/18/18 21:27	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

METHOD BLANK: 2256970

Matrix: Water

Associated Lab Samples: 92380503010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	04/18/18 21:27	
Ethylbenzene	ug/L	ND	1.0	0.30	04/18/18 21:27	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	04/18/18 21:27	
m&p-Xylene	ug/L	ND	2.0	0.66	04/18/18 21:27	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	04/18/18 21:27	
Methylene Chloride	ug/L	ND	2.0	0.97	04/18/18 21:27	
Naphthalene	ug/L	ND	1.0	0.24	04/18/18 21:27	
o-Xylene	ug/L	ND	1.0	0.23	04/18/18 21:27	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	04/18/18 21:27	
Styrene	ug/L	ND	1.0	0.26	04/18/18 21:27	
Tetrachloroethene	ug/L	ND	1.0	0.46	04/18/18 21:27	
Toluene	ug/L	ND	1.0	0.26	04/18/18 21:27	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	04/18/18 21:27	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	04/18/18 21:27	
Trichloroethene	ug/L	ND	1.0	0.47	04/18/18 21:27	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	04/18/18 21:27	
Vinyl acetate	ug/L	ND	2.0	0.35	04/18/18 21:27	
Vinyl chloride	ug/L	ND	1.0	0.62	04/18/18 21:27	
Xylene (Total)	ug/L	ND	1.0	1.0	04/18/18 21:27	
1,2-Dichloroethane-d4 (S)	%	94	70-130		04/18/18 21:27	
4-Bromofluorobenzene (S)	%	104	70-130		04/18/18 21:27	
Toluene-d8 (S)	%	107	70-130		04/18/18 21:27	

LABORATORY CONTROL SAMPLE: 2256971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.1	108	80-125	
1,1,1-Trichloroethane	ug/L	50	51.8	104	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	52.4	105	79-124	
1,1,2-Trichloroethane	ug/L	50	54.9	110	85-125	
1,1-Dichloroethane	ug/L	50	47.0	94	73-126	
1,1-Dichloroethene	ug/L	50	48.9	98	66-135	
1,1-Dichloropropene	ug/L	50	54.6	109	74-135	
1,2,3-Trichlorobenzene	ug/L	50	57.6	115	73-135	
1,2,3-Trichloropropane	ug/L	50	54.1	108	75-130	
1,2,4-Trichlorobenzene	ug/L	50	58.2	116	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	59.4	119	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	57.1	114	83-124	
1,2-Dichlorobenzene	ug/L	50	55.0	110	80-133	
1,2-Dichloroethane	ug/L	50	47.5	95	67-128	
1,2-Dichloropropane	ug/L	50	54.4	109	75-132	
1,3-Dichlorobenzene	ug/L	50	55.9	112	77-130	
1,3-Dichloropropane	ug/L	50	57.3	115	76-131	
1,4-Dichlorobenzene	ug/L	50	54.6	109	78-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2256971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	46.0	92	40-160	
2-Butanone (MEK)	ug/L	100	114	114	61-144	
2-Chlorotoluene	ug/L	50	55.1	110	74-132	
2-Hexanone	ug/L	100	117	117	68-143	
4-Chlorotoluene	ug/L	50	54.5	109	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	109	109	72-135	
Acetone	ug/L	100	127	127	48-146	F3
Benzene	ug/L	50	54.2	108	80-125	
Bromobenzene	ug/L	50	57.4	115	75-125	
Bromochloromethane	ug/L	50	48.3	97	71-125	
Bromodichloromethane	ug/L	50	54.8	110	78-124	
Bromoform	ug/L	50	53.3	107	71-128	
Bromomethane	ug/L	50	42.7	85	40-160	
Carbon tetrachloride	ug/L	50	55.3	111	69-131	
Chlorobenzene	ug/L	50	54.8	110	81-122	
Chloroethane	ug/L	50	32.9	66	39-148	
Chloroform	ug/L	50	50.2	100	73-127	
Chloromethane	ug/L	50	44.8	90	44-146	
cis-1,2-Dichloroethene	ug/L	50	49.6	99	74-124	
cis-1,3-Dichloropropene	ug/L	50	56.7	113	72-132	
Dibromochloromethane	ug/L	50	53.9	108	78-125	
Dibromomethane	ug/L	50	56.0	112	82-120	
Dichlorodifluoromethane	ug/L	50	44.9	90	34-157	
Diisopropyl ether	ug/L	50	52.2	104	69-135	
Ethylbenzene	ug/L	50	54.9	110	79-121	
Hexachloro-1,3-butadiene	ug/L	50	58.8	118	72-131	
m&p-Xylene	ug/L	100	110	110	81-124	
Methyl-tert-butyl ether	ug/L	50	50.4	101	74-131	
Methylene Chloride	ug/L	50	46.0	92	64-133	
Naphthalene	ug/L	50	59.7	119	73-133	
o-Xylene	ug/L	50	56.6	113	79-131	
p-Isopropyltoluene	ug/L	50	57.2	114	80-131	
Styrene	ug/L	50	55.4	111	84-126	
Tetrachloroethene	ug/L	50	45.4	91	78-122	
Toluene	ug/L	50	52.3	105	80-121	
trans-1,2-Dichloroethene	ug/L	50	49.6	99	71-127	
trans-1,3-Dichloropropene	ug/L	50	50.7	101	69-141	
Trichloroethene	ug/L	50	58.3	117	78-122	
Trichlorofluoromethane	ug/L	50	41.7	83	53-137	
Vinyl acetate	ug/L	100	71.6	72	40-160	
Vinyl chloride	ug/L	50	52.1	104	50-150	
Xylene (Total)	ug/L	150	166	111	81-126	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			97	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE:		2256973	92380325005	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers	
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.4	97	70-130		
1,1,1-Trichloroethane	ug/L	ND	20	22.8	114	70-130		
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.4	97	70-130		
1,1,2-Trichloroethane	ug/L	ND	20	20.4	102	70-130		
1,1-Dichloroethane	ug/L	ND	20	21.2	106	70-130		
1,1-Dichloroethene	ug/L	ND	20	24.0	120	70-166		
1,1-Dichloropropene	ug/L	ND	20	20.0	100	70-130		
1,2,3-Trichlorobenzene	ug/L	ND	20	21.1	106	70-130		
1,2,3-Trichloropropane	ug/L	ND	20	19.6	98	70-130		
1,2,4-Trichlorobenzene	ug/L	ND	20	21.1	106	70-130		
1,2-Dibromo-3-chloropropane	ug/L	ND	20	18.2	91	70-130		
1,2-Dibromoethane (EDB)	ug/L	ND	20	19.1	95	70-130		
1,2-Dichlorobenzene	ug/L	ND	20	21.4	107	70-130		
1,2-Dichloroethane	ug/L	ND	20	23.3	116	70-130		
1,2-Dichloropropane	ug/L	ND	20	23.2	116	70-130		
1,3-Dichlorobenzene	ug/L	ND	20	21.7	109	70-130		
1,3-Dichloropropane	ug/L	ND	20	19.0	95	70-130		
1,4-Dichlorobenzene	ug/L	ND	20	21.4	107	70-130		
2,2-Dichloropropane	ug/L	ND	20	22.5	112	70-130		
2-Butanone (MEK)	ug/L	ND	40	34.4	86	70-130		
2-Chlorotoluene	ug/L	ND	20	21.5	107	70-130		
2-Hexanone	ug/L	ND	40	34.6	87	70-130		
4-Chlorotoluene	ug/L	ND	20	20.0	100	70-130		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	36.8	92	70-130		
Acetone	ug/L	ND	40	38.7	97	70-130		
Benzene	ug/L	ND	20	22.8	114	70-148		
Bromobenzene	ug/L	ND	20	21.2	106	70-130		
Bromochloromethane	ug/L	ND	20	24.2	121	70-130		
Bromodichloromethane	ug/L	ND	20	22.0	110	70-130		
Bromoform	ug/L	ND	20	17.6	88	70-130		
Bromomethane	ug/L	ND	20	24.4	122	70-130		
Carbon tetrachloride	ug/L	ND	20	24.9	125	70-130		
Chlorobenzene	ug/L	ND	20	21.1	106	70-146		
Chloroethane	ug/L	ND	20	24.5	122	70-130		
Chloroform	ug/L	ND	20	21.2	106	70-130		
Chloromethane	ug/L	0.29J	20	18.0	89	70-130		
cis-1,2-Dichloroethene	ug/L	ND	20	23.1	115	70-130		
cis-1,3-Dichloropropene	ug/L	ND	20	21.4	107	70-130		
Dibromochloromethane	ug/L	ND	20	18.7	93	70-130		
Dibromomethane	ug/L	ND	20	24.7	124	70-130		
Dichlorodifluoromethane	ug/L	ND	20	25.3	126	70-130		
Diisopropyl ether	ug/L	ND	20	17.2	86	70-130		
Ethylbenzene	ug/L	ND	20	21.6	108	70-130		
Hexachloro-1,3-butadiene	ug/L	ND	20	22.4	112	70-130		
m&p-Xylene	ug/L	ND	40	44.0	110	70-130		
Methyl-tert-butyl ether	ug/L	ND	20	17.2	86	70-130		
Methylene Chloride	ug/L	ND	20	21.0	105	70-130		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE: 2256973		92380325005	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	ug/L	ND	20	20.3	102	70-130	
o-Xylene	ug/L	ND	20	22.9	114	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.8	109	70-130	
Styrene	ug/L	ND	20	21.9	109	70-130	
Tetrachloroethene	ug/L	ND	20	17.1	86	70-130	
Toluene	ug/L	ND	20	23.1	115	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	23.6	118	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.6	103	70-130	
Trichloroethene	ug/L	ND	20	24.0	120	69-151	
Trichlorofluoromethane	ug/L	ND	20	25.2	126	70-130	
Vinyl acetate	ug/L	ND	40	34.0	85	70-130	
Vinyl chloride	ug/L	ND	20	25.5	128	70-130	
Xylene (Total)	ug/L	ND	60	66.8	111	70-130	
1,2-Dichloroethane-d4 (S)	%				96	70-130	
4-Bromofluorobenzene (S)	%				100	70-130	
Toluene-d8 (S)	%				104	70-130	

SAMPLE DUPLICATE: 2256972

Parameter	Units	92380325003	Dup	RPD	Max	
		Result	Result		RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2256972

Parameter	Units	92380325003 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	0.30J	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	94	80	16		
4-Bromofluorobenzene (S)	%	99	106	7		
Toluene-d8 (S)	%	104	117	12		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406835

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92380503007

METHOD BLANK: 2257263

Matrix: Water

Associated Lab Samples: 92380503007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	04/18/18 21:44	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	04/18/18 21:44	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	04/18/18 21:44	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	04/18/18 21:44	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	04/18/18 21:44	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	04/18/18 21:44	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	04/18/18 21:44	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	04/18/18 21:44	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	04/18/18 21:44	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	04/18/18 21:44	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	04/18/18 21:44	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	04/18/18 21:44	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	04/18/18 21:44	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	04/18/18 21:44	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	04/18/18 21:44	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	04/18/18 21:44	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	04/18/18 21:44	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	04/18/18 21:44	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	04/18/18 21:44	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	04/18/18 21:44	
2-Chlorotoluene	ug/L	ND	1.0	0.35	04/18/18 21:44	
2-Hexanone	ug/L	ND	5.0	0.46	04/18/18 21:44	
4-Chlorotoluene	ug/L	ND	1.0	0.31	04/18/18 21:44	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	04/18/18 21:44	
Acetone	ug/L	ND	25.0	10.0	04/18/18 21:44	
Benzene	ug/L	ND	1.0	0.25	04/18/18 21:44	
Bromobenzene	ug/L	ND	1.0	0.30	04/18/18 21:44	
Bromochloromethane	ug/L	ND	1.0	0.17	04/18/18 21:44	
Bromodichloromethane	ug/L	ND	1.0	0.18	04/18/18 21:44	
Bromoform	ug/L	ND	1.0	0.26	04/18/18 21:44	
Bromomethane	ug/L	ND	2.0	0.29	04/18/18 21:44	
Carbon tetrachloride	ug/L	ND	1.0	0.25	04/18/18 21:44	
Chlorobenzene	ug/L	ND	1.0	0.23	04/18/18 21:44	
Chloroethane	ug/L	ND	1.0	0.54	04/18/18 21:44	
Chloroform	ug/L	ND	1.0	0.14	04/18/18 21:44	
Chloromethane	ug/L	ND	1.0	0.11	04/18/18 21:44	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	04/18/18 21:44	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	04/18/18 21:44	
Dibromochloromethane	ug/L	ND	1.0	0.21	04/18/18 21:44	
Dibromomethane	ug/L	ND	1.0	0.21	04/18/18 21:44	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	04/18/18 21:44	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

METHOD BLANK: 2257263

Matrix: Water

Associated Lab Samples: 92380503007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	04/18/18 21:44	
Ethylbenzene	ug/L	ND	1.0	0.30	04/18/18 21:44	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	04/18/18 21:44	
m&p-Xylene	ug/L	ND	2.0	0.66	04/18/18 21:44	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	04/18/18 21:44	
Methylene Chloride	ug/L	ND	2.0	0.97	04/18/18 21:44	
Naphthalene	ug/L	ND	1.0	0.24	04/18/18 21:44	
o-Xylene	ug/L	ND	1.0	0.23	04/18/18 21:44	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	04/18/18 21:44	
Styrene	ug/L	ND	1.0	0.26	04/18/18 21:44	
Tetrachloroethene	ug/L	ND	1.0	0.46	04/18/18 21:44	
Toluene	ug/L	ND	1.0	0.26	04/18/18 21:44	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	04/18/18 21:44	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	04/18/18 21:44	
Trichloroethene	ug/L	ND	1.0	0.47	04/18/18 21:44	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	04/18/18 21:44	
Vinyl acetate	ug/L	ND	2.0	0.35	04/18/18 21:44	
Vinyl chloride	ug/L	ND	1.0	0.62	04/18/18 21:44	
Xylene (Total)	ug/L	ND	1.0	1.0	04/18/18 21:44	
1,2-Dichloroethane-d4 (S)	%	91	70-130		04/18/18 21:44	
4-Bromofluorobenzene (S)	%	102	70-130		04/18/18 21:44	
Toluene-d8 (S)	%	104	70-130		04/18/18 21:44	

LABORATORY CONTROL SAMPLE: 2257264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.4	107	80-125	
1,1,1-Trichloroethane	ug/L	50	49.8	100	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	52.2	104	79-124	
1,1,2-Trichloroethane	ug/L	50	53.0	106	85-125	
1,1-Dichloroethane	ug/L	50	46.7	93	73-126	
1,1-Dichloroethene	ug/L	50	47.4	95	66-135	
1,1-Dichloropropene	ug/L	50	51.1	102	74-135	
1,2,3-Trichlorobenzene	ug/L	50	56.0	112	73-135	
1,2,3-Trichloropropane	ug/L	50	53.1	106	75-130	
1,2,4-Trichlorobenzene	ug/L	50	55.9	112	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	57.4	115	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	57.3	115	83-124	
1,2-Dichlorobenzene	ug/L	50	53.0	106	80-133	
1,2-Dichloroethane	ug/L	50	46.0	92	67-128	
1,2-Dichloropropane	ug/L	50	52.9	106	75-132	
1,3-Dichlorobenzene	ug/L	50	54.0	108	77-130	
1,3-Dichloropropane	ug/L	50	58.1	116	76-131	
1,4-Dichlorobenzene	ug/L	50	53.0	106	78-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2257264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	44.3	89	40-160	
2-Butanone (MEK)	ug/L	100	107	107	61-144	
2-Chlorotoluene	ug/L	50	52.5	105	74-132	
2-Hexanone	ug/L	100	113	113	68-143	
4-Chlorotoluene	ug/L	50	52.2	104	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	102	102	72-135	
Acetone	ug/L	100	123	123	48-146	F3
Benzene	ug/L	50	53.2	106	80-125	
Bromobenzene	ug/L	50	55.6	111	75-125	
Bromochloromethane	ug/L	50	49.6	99	71-125	
Bromodichloromethane	ug/L	50	53.3	107	78-124	
Bromoform	ug/L	50	52.5	105	71-128	
Bromomethane	ug/L	50	44.2	88	40-160	
Carbon tetrachloride	ug/L	50	54.2	108	69-131	
Chlorobenzene	ug/L	50	53.7	107	81-122	
Chloroethane	ug/L	50	31.3	63	39-148	
Chloroform	ug/L	50	47.6	95	73-127	
Chloromethane	ug/L	50	43.9	88	44-146	
cis-1,2-Dichloroethene	ug/L	50	47.4	95	74-124	
cis-1,3-Dichloropropene	ug/L	50	55.7	111	72-132	
Dibromochloromethane	ug/L	50	54.4	109	78-125	
Dibromomethane	ug/L	50	54.2	108	82-120	
Dichlorodifluoromethane	ug/L	50	43.6	87	34-157	
Diisopropyl ether	ug/L	50	50.1	100	69-135	
Ethylbenzene	ug/L	50	53.3	107	79-121	
Hexachloro-1,3-butadiene	ug/L	50	57.1	114	72-131	
m&p-Xylene	ug/L	100	109	109	81-124	
Methyl-tert-butyl ether	ug/L	50	49.3	99	74-131	
Methylene Chloride	ug/L	50	45.4	91	64-133	
Naphthalene	ug/L	50	57.1	114	73-133	
o-Xylene	ug/L	50	57.3	115	79-131	
p-Isopropyltoluene	ug/L	50	53.6	107	80-131	
Styrene	ug/L	50	55.2	110	84-126	
Tetrachloroethene	ug/L	50	45.3	91	78-122	
Toluene	ug/L	50	49.6	99	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.4	95	71-127	
trans-1,3-Dichloropropene	ug/L	50	50.0	100	69-141	
Trichloroethene	ug/L	50	56.2	112	78-122	
Trichlorofluoromethane	ug/L	50	40.8	82	53-137	
Vinyl acetate	ug/L	100	68.7	69	40-160	
Vinyl chloride	ug/L	50	49.3	99	50-150	
Xylene (Total)	ug/L	150	167	111	81-126	
1,2-Dichloroethane-d4 (S)	%			83	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			95	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE:		2257266	92380862020	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers	
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20.4	102	70-130		
1,1,1-Trichloroethane	ug/L	ND	20	22.0	110	70-130		
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20.4	102	70-130		
1,1,2-Trichloroethane	ug/L	ND	20	19.8	99	70-130		
1,1-Dichloroethane	ug/L	ND	20	21.4	107	70-130		
1,1-Dichloroethene	ug/L	ND	20	24.2	121	70-166		
1,1-Dichloropropene	ug/L	ND	20	19.7	99	70-130		
1,2,3-Trichlorobenzene	ug/L	ND	20	21.8	109	70-130		
1,2,3-Trichloropropane	ug/L	ND	20	20.1	100	70-130		
1,2,4-Trichlorobenzene	ug/L	ND	20	22.4	112	70-130		
1,2-Dibromo-3-chloropropane	ug/L	ND	20	18.1	90	70-130		
1,2-Dibromoethane (EDB)	ug/L	ND	20	20.3	101	70-130		
1,2-Dichlorobenzene	ug/L	ND	20	21.2	106	70-130		
1,2-Dichloroethane	ug/L	ND	20	22.3	111	70-130		
1,2-Dichloropropane	ug/L	ND	20	22.4	112	70-130		
1,3-Dichlorobenzene	ug/L	ND	20	22.1	111	70-130		
1,3-Dichloropropane	ug/L	ND	20	20.5	102	70-130		
1,4-Dichlorobenzene	ug/L	ND	20	21.6	108	70-130		
2,2-Dichloropropane	ug/L	ND	20	22.3	111	70-130		
2-Butanone (MEK)	ug/L	ND	40	32.7	82	70-130		
2-Chlorotoluene	ug/L	ND	20	21.7	108	70-130		
2-Hexanone	ug/L	ND	40	34.6	86	70-130		
4-Chlorotoluene	ug/L	ND	20	20.1	101	70-130		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	35.0	88	70-130		
Acetone	ug/L	ND	40	39.3	98	70-130		
Benzene	ug/L	ND	20	21.7	109	70-148		
Bromobenzene	ug/L	ND	20	21.4	107	70-130		
Bromochloromethane	ug/L	ND	20	24.1	120	70-130		
Bromodichloromethane	ug/L	ND	20	21.6	108	70-130		
Bromoform	ug/L	ND	20	17.9	89	70-130		
Bromomethane	ug/L	ND	20	26.2	131	70-130 M1		
Carbon tetrachloride	ug/L	ND	20	24.5	123	70-130		
Chlorobenzene	ug/L	ND	20	22.3	112	70-146		
Chloroethane	ug/L	ND	20	24.5	123	70-130		
Chloroform	ug/L	ND	20	21.9	110	70-130		
Chloromethane	ug/L	0.13J	20	18.2	90	70-130		
cis-1,2-Dichloroethene	ug/L	ND	20	21.7	109	70-130		
cis-1,3-Dichloropropene	ug/L	ND	20	20.6	103	70-130		
Dibromochloromethane	ug/L	ND	20	19.3	97	70-130		
Dibromomethane	ug/L	ND	20	24.0	120	70-130		
Dichlorodifluoromethane	ug/L	ND	20	24.7	124	70-130		
Diisopropyl ether	ug/L	ND	20	16.8	84	70-130		
Ethylbenzene	ug/L	ND	20	22.3	111	70-130		
Hexachloro-1,3-butadiene	ug/L	ND	20	22.2	111	70-130		
m&p-Xylene	ug/L	ND	40	45.4	114	70-130		
Methyl-tert-butyl ether	ug/L	ND	20	16.8	84	70-130		
Methylene Chloride	ug/L	ND	20	21.2	106	70-130		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE: 2257266		92380862020	Spike	MS	MS	% Rec	Qualifiers
Parameter	Units	Result	Conc.	Result	% Rec	Limits	
Naphthalene	ug/L	ND	20	20.6	103	70-130	
o-Xylene	ug/L	ND	20	23.8	119	70-130	
p-Isopropyltoluene	ug/L	ND	20	21.9	110	70-130	
Styrene	ug/L	ND	20	22.0	110	70-130	
Tetrachloroethene	ug/L	ND	20	17.9	90	70-130	
Toluene	ug/L	ND	20	22.3	112	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	24.3	122	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	20.1	101	70-130	
Trichloroethene	ug/L	ND	20	24.0	120	69-151	
Trichlorofluoromethane	ug/L	ND	20	24.9	124	70-130	
Vinyl acetate	ug/L	ND	40	32.4	81	70-130	
Vinyl chloride	ug/L	ND	20	25.0	125	70-130	
Xylene (Total)	ug/L	ND	60	69.2	115	70-130	
1,2-Dichloroethane-d4 (S)	%				96	70-130	
4-Bromofluorobenzene (S)	%				105	70-130	
Toluene-d8 (S)	%				100	70-130	

SAMPLE DUPLICATE: 2257265

Parameter	Units	92380862019	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2257265

Parameter	Units	92380862019 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	0.12J	.26J		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
o-Xylene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	95	85	11		
4-Bromofluorobenzene (S)	%	103	106	2		
Toluene-d8 (S)	%	103	120	15		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch:	406005	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	92380503002, 92380503003, 92380503004, 92380503005		

METHOD BLANK:	2252303	Matrix:	Solid
Associated Lab Samples:	92380503002, 92380503003, 92380503004, 92380503005		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0046	0.0019	04/12/18 12:39	
1,1,1-Trichloroethane	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
1,1,2-Trichloroethane	mg/kg	ND	0.0046	0.0019	04/12/18 12:39	
1,1-Dichloroethane	mg/kg	ND	0.0046	0.0014	04/12/18 12:39	
1,1-Dichloroethene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
1,1-Dichloropropene	mg/kg	ND	0.0046	0.0014	04/12/18 12:39	
1,2,3-Trichlorobenzene	mg/kg	ND	0.0046	0.0020	04/12/18 12:39	
1,2,3-Trichloropropane	mg/kg	ND	0.0046	0.0015	04/12/18 12:39	
1,2,4-Trichlorobenzene	mg/kg	ND	0.0046	0.0015	04/12/18 12:39	
1,2,4-Trimethylbenzene	mg/kg	ND	0.0046	0.0018	04/12/18 12:39	
1,2-Dibromo-3-chloropropane	mg/kg	ND	0.0046	0.0033	04/12/18 12:39	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
1,2-Dichlorobenzene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
1,2-Dichloroethane	mg/kg	ND	0.0046	0.0020	04/12/18 12:39	
1,2-Dichloropropane	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
1,3-Dichlorobenzene	mg/kg	ND	0.0046	0.0018	04/12/18 12:39	
1,3-Dichloropropane	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
1,4-Dichlorobenzene	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
2,2-Dichloropropane	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
2-Butanone (MEK)	mg/kg	ND	0.092	0.0027	04/12/18 12:39	
2-Chlorotoluene	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
2-Hexanone	mg/kg	ND	0.046	0.0036	04/12/18 12:39	
4-Chlorotoluene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.046	0.0034	04/12/18 12:39	
Acetone	mg/kg	ND	0.092	0.0092	04/12/18 12:39	
Benzene	mg/kg	ND	0.0046	0.0015	04/12/18 12:39	
Bromobenzene	mg/kg	ND	0.0046	0.0018	04/12/18 12:39	
Bromochloromethane	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
Bromodichloromethane	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
Bromoform	mg/kg	ND	0.0046	0.0021	04/12/18 12:39	
Bromomethane	mg/kg	ND	0.0092	0.0023	04/12/18 12:39	
Carbon tetrachloride	mg/kg	ND	0.0046	0.0024	04/12/18 12:39	
Chlorobenzene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
Chloroethane	mg/kg	ND	0.0092	0.0022	04/12/18 12:39	
Chloroform	mg/kg	ND	0.0046	0.0015	04/12/18 12:39	
Chloromethane	mg/kg	ND	0.0092	0.0022	04/12/18 12:39	
cis-1,2-Dichloroethene	mg/kg	ND	0.0046	0.0013	04/12/18 12:39	
cis-1,3-Dichloropropene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
Dibromochloromethane	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

METHOD BLANK: 2252303

Matrix: Solid

Associated Lab Samples: 92380503002, 92380503003, 92380503004, 92380503005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromomethane	mg/kg	ND	0.0046	0.0023	04/12/18 12:39	
Dichlorodifluoromethane	mg/kg	ND	0.0092	0.0033	04/12/18 12:39	
Diisopropyl ether	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
Ethylbenzene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
Hexachloro-1,3-butadiene	mg/kg	ND	0.0046	0.0018	04/12/18 12:39	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
m&p-Xylene	mg/kg	ND	0.0092	0.0033	04/12/18 12:39	
Methyl-tert-butyl ether	mg/kg	ND	0.0046	0.0014	04/12/18 12:39	
Methylene Chloride	mg/kg	ND	0.018	0.0028	04/12/18 12:39	
n-Butylbenzene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
n-Propylbenzene	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
Naphthalene	mg/kg	ND	0.0046	0.0011	04/12/18 12:39	
o-Xylene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
p-Isopropyltoluene	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
sec-Butylbenzene	mg/kg	ND	0.0046	0.0015	04/12/18 12:39	
Styrene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
tert-Butylbenzene	mg/kg	ND	0.0046	0.0018	04/12/18 12:39	
Tetrachloroethene	mg/kg	ND	0.0046	0.0016	04/12/18 12:39	
Toluene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
trans-1,2-Dichloroethene	mg/kg	ND	0.0046	0.0017	04/12/18 12:39	
trans-1,3-Dichloropropene	mg/kg	ND	0.0046	0.0014	04/12/18 12:39	
Trichloroethene	mg/kg	ND	0.0046	0.0019	04/12/18 12:39	
Trichlorofluoromethane	mg/kg	ND	0.0046	0.0020	04/12/18 12:39	
Vinyl acetate	mg/kg	ND	0.046	0.0081	04/12/18 12:39	
Vinyl chloride	mg/kg	ND	0.0092	0.0017	04/12/18 12:39	
Xylene (Total)	mg/kg	ND	0.0092	0.0033	04/12/18 12:39	
1,2-Dichloroethane-d4 (S)	%	85	70-132		04/12/18 12:39	
4-Bromofluorobenzene (S)	%	96	70-130		04/12/18 12:39	
Toluene-d8 (S)	%	99	70-130		04/12/18 12:39	

LABORATORY CONTROL SAMPLE: 2252304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	.047	0.046	98	74-137	
1,1,1-Trichloroethane	mg/kg	.047	0.044	93	67-140	
1,1,2,2-Tetrachloroethane	mg/kg	.047	0.034	72	72-141	
1,1,2-Trichloroethane	mg/kg	.047	0.043	92	78-138	
1,1-Dichloroethane	mg/kg	.047	0.042	89	69-134	
1,1-Dichloroethene	mg/kg	.047	0.044	93	67-138	
1,1-Dichloropropene	mg/kg	.047	0.043	92	69-139	
1,2,3-Trichlorobenzene	mg/kg	.047	0.049	104	70-146	
1,2,3-Trichloropropane	mg/kg	.047	0.042	90	69-144	
1,2,4-Trichlorobenzene	mg/kg	.047	0.049	104	68-148	
1,2,4-Trimethylbenzene	mg/kg	.047	0.044	94	74-137	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2252304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	mg/kg	.047	0.043	90	65-140	
1,2-Dibromoethane (EDB)	mg/kg	.047	0.044	94	77-135	
1,2-Dichlorobenzene	mg/kg	.047	0.045	96	77-141	
1,2-Dichloroethane	mg/kg	.047	0.041	86	65-137	
1,2-Dichloropropane	mg/kg	.047	0.043	92	72-136	
1,3,5-Trimethylbenzene	mg/kg	.047	0.046	97	76-133	
1,3-Dichlorobenzene	mg/kg	.047	0.045	96	74-138	
1,3-Dichloropropane	mg/kg	.047	0.044	94	71-139	
1,4-Dichlorobenzene	mg/kg	.047	0.045	96	76-138	
2,2-Dichloropropane	mg/kg	.047	0.044	93	68-137	
2-Butanone (MEK)	mg/kg	.094	.082J	87	58-147	
2-Chlorotoluene	mg/kg	.047	0.045	94	73-139	
2-Hexanone	mg/kg	.094	0.084	89	62-145	
4-Chlorotoluene	mg/kg	.047	0.045	94	76-141	
4-Methyl-2-pentanone (MIBK)	mg/kg	.094	0.083	87	64-149	
Acetone	mg/kg	.094	.091J	96	53-153	
Benzene	mg/kg	.047	0.045	95	73-135	
Bromobenzene	mg/kg	.047	0.046	98	75-133	
Bromochloromethane	mg/kg	.047	0.048	102	73-134	
Bromodichloromethane	mg/kg	.047	0.043	91	71-135	
Bromoform	mg/kg	.047	0.046	97	66-141	
Bromomethane	mg/kg	.047	0.052	110	53-160	
Carbon tetrachloride	mg/kg	.047	0.044	94	60-145	
Chlorobenzene	mg/kg	.047	0.045	95	78-130	
Chloroethane	mg/kg	.047	0.045	95	64-149	
Chloroform	mg/kg	.047	0.041	87	70-134	
Chloromethane	mg/kg	.047	0.034	73	52-150	
cis-1,2-Dichloroethene	mg/kg	.047	0.043	91	70-133	
cis-1,3-Dichloropropene	mg/kg	.047	0.045	96	68-134	
Dibromochloromethane	mg/kg	.047	0.045	95	71-138	
Dibromomethane	mg/kg	.047	0.045	96	74-130	
Dichlorodifluoromethane	mg/kg	.047	0.035	74	40-160	
Diisopropyl ether	mg/kg	.047	0.039	84	69-141	
Ethylbenzene	mg/kg	.047	0.045	95	75-133	
Hexachloro-1,3-butadiene	mg/kg	.047	0.050	105	68-143	
Isopropylbenzene (Cumene)	mg/kg	.047	0.047	99	76-143	
m&p-Xylene	mg/kg	.094	0.092	97	75-136	
Methyl-tert-butyl ether	mg/kg	.047	0.040	85	68-144	
Methylene Chloride	mg/kg	.047	0.038	80	45-154	
n-Butylbenzene	mg/kg	.047	0.046	97	72-137	
n-Propylbenzene	mg/kg	.047	0.046	97	76-136	
Naphthalene	mg/kg	.047	0.047	100	68-151	
o-Xylene	mg/kg	.047	0.046	98	76-141	
p-Isopropyltoluene	mg/kg	.047	0.046	97	76-140	
sec-Butylbenzene	mg/kg	.047	0.045	96	79-139	
Styrene	mg/kg	.047	0.046	97	79-137	
tert-Butylbenzene	mg/kg	.047	0.042	90	74-143	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2252304

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	mg/kg	.047	0.041	87	71-138	
Toluene	mg/kg	.047	0.045	95	74-131	
trans-1,2-Dichloroethene	mg/kg	.047	0.043	91	67-135	
trans-1,3-Dichloropropene	mg/kg	.047	0.044	93	65-146	
Trichloroethene	mg/kg	.047	0.054	114	67-135	
Trichlorofluoromethane	mg/kg	.047	0.046	98	59-144	
Vinyl acetate	mg/kg	.094	.029J	30	40-160 L2	
Vinyl chloride	mg/kg	.047	0.046	97	56-141	
Xylene (Total)	mg/kg	.14	0.14	97	76-137	
1,2-Dichloroethane-d4 (S)	%			83	70-132	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 2253063

Parameter	Units	92380448001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg			0.018			
1,1,1-Trichloroethane	mg/kg			0.016			
1,1,2,2-Tetrachloroethane	mg/kg			0.019			
1,1,2-Trichloroethane	mg/kg			0.018			
1,1-Dichloroethane	mg/kg			0.016			
1,1-Dichloroethene	mg/kg			0.016			
1,1-Dichloropropene	mg/kg			0.016			
1,2,3-Trichlorobenzene	mg/kg			0.013			
1,2,3-Trichloropropane	mg/kg			0.018			
1,2,4-Trichlorobenzene	mg/kg			0.013			
1,2,4-Trimethylbenzene	mg/kg			0.016			
1,2-Dibromo-3-chloropropane	mg/kg			0.020			
1,2-Dibromoethane (EDB)	mg/kg			0.018			
1,2-Dichlorobenzene	mg/kg			0.016			
1,2-Dichloroethane	mg/kg			0.016			
1,2-Dichloropropane	mg/kg			0.017			
1,3,5-Trimethylbenzene	mg/kg			0.017			
1,3-Dichlorobenzene	mg/kg			0.015			
1,3-Dichloropropane	mg/kg			0.018			
1,4-Dichlorobenzene	mg/kg			0.015			
2,2-Dichloropropane	mg/kg			0.016			
2-Butanone (MEK)	mg/kg			.034J			
2-Chlorotoluene	mg/kg			0.016			
2-Hexanone	mg/kg			.036J			
4-Chlorotoluene	mg/kg			0.016			
4-Methyl-2-pentanone (MIBK)	mg/kg			.036J			
Acetone	mg/kg			.046J			
Benzene	mg/kg		ND	.021	0.017	80	50-166
Bromobenzene	mg/kg				0.017		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE: 2253063		92380448001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Bromochloromethane	mg/kg			0.019			
Bromodichloromethane	mg/kg			0.017			
Bromoform	mg/kg			0.018			
Bromomethane	mg/kg			0.016			
Carbon tetrachloride	mg/kg			0.017			
Chlorobenzene	mg/kg			0.017			
Chloroethane	mg/kg			0.017			
Chloroform	mg/kg			0.016			
Chloromethane	mg/kg			0.013			
cis-1,2-Dichloroethene	mg/kg			0.016			
cis-1,3-Dichloropropene	mg/kg			0.017			
Dibromochloromethane	mg/kg			0.017			
Dibromomethane	mg/kg			0.018			
Dichlorodifluoromethane	mg/kg			0.014			
Diisopropyl ether	mg/kg			0.016			
Ethylbenzene	mg/kg	ND	.021	0.017	79	70-130	
Hexachloro-1,3-butadiene	mg/kg			0.017			
Isopropylbenzene (Cumene)	mg/kg			0.018			
m&p-Xylene	mg/kg		.044	0.034	79	70-130	
Methyl-tert-butyl ether	mg/kg			0.016			
Methylene Chloride	mg/kg			0.028			
n-Butylbenzene	mg/kg			0.016			
n-Propylbenzene	mg/kg			0.017			
Naphthalene	mg/kg			0.015			
o-Xylene	mg/kg		.021	0.018	83	70-130	
p-Isopropyltoluene	mg/kg			0.017			
sec-Butylbenzene	mg/kg			0.017			
Styrene	mg/kg			0.016			
tert-Butylbenzene	mg/kg			0.016			
Tetrachloroethene	mg/kg			0.015			
Toluene	mg/kg	ND	.021	0.017	80	52-163	
trans-1,2-Dichloroethene	mg/kg			0.016			
trans-1,3-Dichloropropene	mg/kg			0.016			
Trichloroethene	mg/kg			0.018			
Trichlorofluoromethane	mg/kg			0.018			
Vinyl acetate	mg/kg			ND			
Vinyl chloride	mg/kg			0.017			
Xylene (Total)	mg/kg	ND	.065	0.052	80	70-130	
1,2-Dichloroethane-d4 (S)	%				89	70-132	
4-Bromofluorobenzene (S)	%				97	70-130	
Toluene-d8 (S)	%				100	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2253064

Parameter	Units	92380473002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,1-Trichloroethane	mg/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,2-Trichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethene	mg/kg	ND	ND		30	
1,1-Dichloropropene	mg/kg	ND	ND		30	
1,2,3-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,3-Trichloropropane	mg/kg	ND	ND		30	
1,2,4-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,4-Trimethylbenzene	mg/kg	122 ug/kg	0.18	25	30	
1,2-Dibromo-3-chloropropane	mg/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	mg/kg	ND	ND		30	
1,2-Dichlorobenzene	mg/kg	ND	ND		30	
1,2-Dichloroethane	mg/kg	ND	ND		30	
1,2-Dichloropropane	mg/kg	ND	ND		30	
1,3,5-Trimethylbenzene	mg/kg	55.1 ug/kg	0.086	28	30	
1,3-Dichlorobenzene	mg/kg	ND	ND		30	
1,3-Dichloropropane	mg/kg	ND	ND		30	
1,4-Dichlorobenzene	mg/kg	ND	ND		30	
2,2-Dichloropropane	mg/kg	ND	ND		30	
2-Butanone (MEK)	mg/kg	ND	ND		30	
2-Chlorotoluene	mg/kg	ND	ND		30	
2-Hexanone	mg/kg	ND	ND		30	
4-Chlorotoluene	mg/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	ND		30	
Acetone	mg/kg	79.6 ug/kg	ND		30	
Benzene	mg/kg	ND	ND		30	
Bromobenzene	mg/kg	ND	ND		30	
Bromochloromethane	mg/kg	ND	ND		30	
Bromodichloromethane	mg/kg	ND	ND		30	
Bromoform	mg/kg	ND	ND		30	
Bromomethane	mg/kg	ND	ND		30	
Carbon tetrachloride	mg/kg	ND	ND		30	
Chlorobenzene	mg/kg	ND	ND		30	
Chloroethane	mg/kg	ND	ND		30	
Chloroform	mg/kg	ND	ND		30	
Chloromethane	mg/kg	ND	ND		30	
cis-1,2-Dichloroethene	mg/kg	ND	ND		30	
cis-1,3-Dichloropropene	mg/kg	ND	ND		30	
Dibromochloromethane	mg/kg	ND	ND		30	
Dibromomethane	mg/kg	ND	ND		30	
Dichlorodifluoromethane	mg/kg	ND	ND		30	
Diisopropyl ether	mg/kg	ND	ND		30	
Ethylbenzene	mg/kg	ND	.0028J		30	
Hexachloro-1,3-butadiene	mg/kg	ND	ND		30	
Isopropylbenzene (Cumene)	mg/kg	ND	.0029J		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2253064

Parameter	Units	92380473002 Result	Dup Result	RPD	Max RPD	Qualifiers
m&p-Xylene	mg/kg	65.4 ug/kg	0.12	41	30	D6
Methyl-tert-butyl ether	mg/kg	ND	ND		30	
Methylene Chloride	mg/kg	ND	.0089J		30	
n-Butylbenzene	mg/kg	ND	ND		30	
n-Propylbenzene	mg/kg	ND	.0046J		30	
Naphthalene	mg/kg	3.9 ug/kg	0.0056	20	30	
o-Xylene	mg/kg	10.0 ug/kg	0.017	36	30	D6
p-Isopropyltoluene	mg/kg	5.5 ug/kg	0.0089	32	30	D6
sec-Butylbenzene	mg/kg	5.4 ug/kg	0.0073	15	30	
Styrene	mg/kg	ND	ND		30	
tert-Butylbenzene	mg/kg	ND	ND		30	
Tetrachloroethene	mg/kg	ND	ND		30	
Toluene	mg/kg	ND	ND		30	
trans-1,2-Dichloroethene	mg/kg	ND	ND		30	
trans-1,3-Dichloropropene	mg/kg	ND	ND		30	
Trichloroethene	mg/kg	ND	ND		30	
Trichlorofluoromethane	mg/kg	ND	ND		30	
Vinyl acetate	mg/kg	ND	ND		30	
Vinyl chloride	mg/kg	ND	ND		30	
Xylene (Total)	mg/kg	75.4 ug/kg	0.13	41	30	
1,2-Dichloroethane-d4 (S)	%	89	90	21		
4-Bromofluorobenzene (S)	%	96	98	22		
Toluene-d8 (S)	%	91	89	18		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406182

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV 5035A Volatile Organics

Associated Lab Samples: 92380503001

METHOD BLANK: 2253289

Matrix: Solid

Associated Lab Samples: 92380503001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0067	0.0028	04/13/18 15:50	
1,1,1-Trichloroethane	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
1,1,2-Trichloroethane	mg/kg	ND	0.0067	0.0028	04/13/18 15:50	
1,1-Dichloroethane	mg/kg	ND	0.0067	0.0020	04/13/18 15:50	
1,1-Dichloroethene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
1,1-Dichloropropene	mg/kg	ND	0.0067	0.0020	04/13/18 15:50	
1,2,3-Trichlorobenzene	mg/kg	ND	0.0067	0.0029	04/13/18 15:50	
1,2,3-Trichloropropane	mg/kg	ND	0.0067	0.0021	04/13/18 15:50	
1,2,4-Trichlorobenzene	mg/kg	ND	0.0067	0.0021	04/13/18 15:50	
1,2,4-Trimethylbenzene	mg/kg	ND	0.0067	0.0027	04/13/18 15:50	
1,2-Dibromo-3-chloropropane	mg/kg	ND	0.0067	0.0048	04/13/18 15:50	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
1,2-Dichlorobenzene	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
1,2-Dichloroethane	mg/kg	ND	0.0067	0.0029	04/13/18 15:50	
1,2-Dichloropropane	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
1,3-Dichlorobenzene	mg/kg	ND	0.0067	0.0027	04/13/18 15:50	
1,3-Dichloropropane	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
1,4-Dichlorobenzene	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
2,2-Dichloropropane	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
2-Butanone (MEK)	mg/kg	ND	0.13	0.0039	04/13/18 15:50	
2-Chlorotoluene	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
2-Hexanone	mg/kg	ND	0.067	0.0052	04/13/18 15:50	
4-Chlorotoluene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.067	0.0049	04/13/18 15:50	
Acetone	mg/kg	ND	0.13	0.013	04/13/18 15:50	
Benzene	mg/kg	ND	0.0067	0.0021	04/13/18 15:50	
Bromobenzene	mg/kg	ND	0.0067	0.0027	04/13/18 15:50	
Bromochloromethane	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
Bromodichloromethane	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
Bromoform	mg/kg	ND	0.0067	0.0031	04/13/18 15:50	
Bromomethane	mg/kg	ND	0.013	0.0033	04/13/18 15:50	
Carbon tetrachloride	mg/kg	ND	0.0067	0.0035	04/13/18 15:50	
Chlorobenzene	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
Chloroethane	mg/kg	ND	0.013	0.0032	04/13/18 15:50	
Chloroform	mg/kg	ND	0.0067	0.0021	04/13/18 15:50	
Chloromethane	mg/kg	ND	0.013	0.0032	04/13/18 15:50	
cis-1,2-Dichloroethene	mg/kg	ND	0.0067	0.0019	04/13/18 15:50	
cis-1,3-Dichloropropene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
Dibromochloromethane	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

METHOD BLANK: 2253289

Matrix: Solid

Associated Lab Samples: 92380503001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromomethane	mg/kg	ND	0.0067	0.0033	04/13/18 15:50	
Dichlorodifluoromethane	mg/kg	ND	0.013	0.0048	04/13/18 15:50	
Diisopropyl ether	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
Ethylbenzene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
Hexachloro-1,3-butadiene	mg/kg	ND	0.0067	0.0027	04/13/18 15:50	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
m&p-Xylene	mg/kg	ND	0.013	0.0048	04/13/18 15:50	
Methyl-tert-butyl ether	mg/kg	ND	0.0067	0.0020	04/13/18 15:50	
Methylene Chloride	mg/kg	ND	0.027	0.0040	04/13/18 15:50	
n-Butylbenzene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
n-Propylbenzene	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
Naphthalene	mg/kg	ND	0.0067	0.0016	04/13/18 15:50	
o-Xylene	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
p-Isopropyltoluene	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
sec-Butylbenzene	mg/kg	ND	0.0067	0.0021	04/13/18 15:50	
Styrene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
tert-Butylbenzene	mg/kg	ND	0.0067	0.0027	04/13/18 15:50	
Tetrachloroethene	mg/kg	ND	0.0067	0.0023	04/13/18 15:50	
Toluene	mg/kg	ND	0.0067	0.0024	04/13/18 15:50	
trans-1,2-Dichloroethene	mg/kg	ND	0.0067	0.0025	04/13/18 15:50	
trans-1,3-Dichloropropene	mg/kg	ND	0.0067	0.0020	04/13/18 15:50	
Trichloroethene	mg/kg	ND	0.0067	0.0028	04/13/18 15:50	
Trichlorofluoromethane	mg/kg	ND	0.0067	0.0029	04/13/18 15:50	
Vinyl acetate	mg/kg	ND	0.067	0.012	04/13/18 15:50	
Vinyl chloride	mg/kg	ND	0.013	0.0024	04/13/18 15:50	
Xylene (Total)	mg/kg	ND	0.013	0.0048	04/13/18 15:50	
1,2-Dichloroethane-d4 (S)	%	88	70-132		04/13/18 15:50	
4-Bromofluorobenzene (S)	%	98	70-130		04/13/18 15:50	
Toluene-d8 (S)	%	100	70-130		04/13/18 15:50	

LABORATORY CONTROL SAMPLE: 2253290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	.047	0.046	98	74-137	
1,1,1-Trichloroethane	mg/kg	.047	0.043	93	67-140	
1,1,2,2-Tetrachloroethane	mg/kg	.047	0.035	76	72-141	
1,1,2-Trichloroethane	mg/kg	.047	0.044	94	78-138	
1,1-Dichloroethane	mg/kg	.047	0.043	91	69-134	
1,1-Dichloroethene	mg/kg	.047	0.043	91	67-138	
1,1-Dichloropropene	mg/kg	.047	0.043	91	69-139	
1,2,3-Trichlorobenzene	mg/kg	.047	0.048	103	70-146	
1,2,3-Trichloropropane	mg/kg	.047	0.042	90	69-144	
1,2,4-Trichlorobenzene	mg/kg	.047	0.048	102	68-148	
1,2,4-Trimethylbenzene	mg/kg	.047	0.044	95	74-137	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2253290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	mg/kg	.047	0.045	95	65-140	
1,2-Dibromoethane (EDB)	mg/kg	.047	0.044	94	77-135	
1,2-Dichlorobenzene	mg/kg	.047	0.045	96	77-141	
1,2-Dichloroethane	mg/kg	.047	0.041	88	65-137	
1,2-Dichloropropane	mg/kg	.047	0.044	94	72-136	
1,3,5-Trimethylbenzene	mg/kg	.047	0.045	97	76-133	
1,3-Dichlorobenzene	mg/kg	.047	0.045	96	74-138	
1,3-Dichloropropane	mg/kg	.047	0.044	93	71-139	
1,4-Dichlorobenzene	mg/kg	.047	0.045	96	76-138	
2,2-Dichloropropane	mg/kg	.047	0.044	94	68-137	
2-Butanone (MEK)	mg/kg	.094	.084J	89	58-147	
2-Chlorotoluene	mg/kg	.047	0.044	94	73-139	
2-Hexanone	mg/kg	.094	0.086	92	62-145	
4-Chlorotoluene	mg/kg	.047	0.044	94	76-141	
4-Methyl-2-pentanone (MIBK)	mg/kg	.094	0.085	91	64-149	
Acetone	mg/kg	.094	.089J	95	53-153	
Benzene	mg/kg	.047	0.045	96	73-135	
Bromobenzene	mg/kg	.047	0.045	97	75-133	
Bromochloromethane	mg/kg	.047	0.047	100	73-134	
Bromodichloromethane	mg/kg	.047	0.045	95	71-135	
Bromoform	mg/kg	.047	0.046	98	66-141	
Bromomethane	mg/kg	.047	0.049	104	53-160	
Carbon tetrachloride	mg/kg	.047	0.045	96	60-145	
Chlorobenzene	mg/kg	.047	0.045	95	78-130	
Chloroethane	mg/kg	.047	0.043	92	64-149	
Chloroform	mg/kg	.047	0.041	88	70-134	
Chloromethane	mg/kg	.047	0.033	71	52-150	
cis-1,2-Dichloroethene	mg/kg	.047	0.043	91	70-133	
cis-1,3-Dichloropropene	mg/kg	.047	0.046	98	68-134	
Dibromochloromethane	mg/kg	.047	0.045	95	71-138	
Dibromomethane	mg/kg	.047	0.046	97	74-130	
Dichlorodifluoromethane	mg/kg	.047	0.037	78	40-160	
Diisopropyl ether	mg/kg	.047	0.041	87	69-141	
Ethylbenzene	mg/kg	.047	0.044	94	75-133	
Hexachloro-1,3-butadiene	mg/kg	.047	0.049	105	68-143	
Isopropylbenzene (Cumene)	mg/kg	.047	0.046	98	76-143	
m&p-Xylene	mg/kg	.094	0.091	97	75-136	
Methyl-tert-butyl ether	mg/kg	.047	0.041	87	68-144	
Methylene Chloride	mg/kg	.047	0.037	79	45-154	
n-Butylbenzene	mg/kg	.047	0.045	96	72-137	
n-Propylbenzene	mg/kg	.047	0.045	96	76-136	
Naphthalene	mg/kg	.047	0.048	102	68-151	
o-Xylene	mg/kg	.047	0.046	99	76-141	
p-Isopropyltoluene	mg/kg	.047	0.045	97	76-140	
sec-Butylbenzene	mg/kg	.047	0.045	96	79-139	
Styrene	mg/kg	.047	0.046	97	79-137	
tert-Butylbenzene	mg/kg	.047	0.042	89	74-143	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2253290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	mg/kg	.047	0.040	86	71-138	
Toluene	mg/kg	.047	0.045	97	74-131	
trans-1,2-Dichloroethene	mg/kg	.047	0.043	92	67-135	
trans-1,3-Dichloropropene	mg/kg	.047	0.044	95	65-146	
Trichloroethene	mg/kg	.047	0.053	114	67-135	
Trichlorofluoromethane	mg/kg	.047	0.045	96	59-144	
Vinyl acetate	mg/kg	.094	.032J	35	40-160 L2	
Vinyl chloride	mg/kg	.047	0.045	95	56-141	
Xylene (Total)	mg/kg	.14	0.14	98	76-137	
1,2-Dichloroethane-d4 (S)	%			85	70-132	
4-Bromofluorobenzene (S)	%			95	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 2254613

Parameter	Units	92380503001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	.017	0.017	99	70-130	
1,1,1-Trichloroethane	mg/kg	ND	.017	0.018	107	70-130	
1,1,2,2-Tetrachloroethane	mg/kg	ND	.017	0.022	129	70-130	
1,1,2-Trichloroethane	mg/kg	ND	.017	0.020	117	70-130	
1,1-Dichloroethane	mg/kg	ND	.017	0.018	106	70-130	
1,1-Dichloroethene	mg/kg	ND	.017	0.019	108	49-180	
1,1-Dichloropropene	mg/kg	ND	.017	0.018	105	70-130	
1,2,3-Trichlorobenzene	mg/kg	ND	.017	0.016	92	70-130	
1,2,3-Trichloropropane	mg/kg	ND	.017	0.023	130	70-130	
1,2,4-Trichlorobenzene	mg/kg	ND	.017	0.015	87	70-130	
1,2,4-Trimethylbenzene	mg/kg	ND	.017	0.016	92	70-130	
1,2-Dibromo-3-chloropropane	mg/kg	ND	.017	0.023	132	70-130 M1	
1,2-Dibromoethane (EDB)	mg/kg	ND	.017	0.021	119	70-130	
1,2-Dichlorobenzene	mg/kg	ND	.017	0.017	98	70-130	
1,2-Dichloroethane	mg/kg	ND	.017	0.021	124	70-130	
1,2-Dichloropropane	mg/kg	ND	.017	0.018	106	70-130	
1,3,5-Trimethylbenzene	mg/kg	ND	.017	0.016	93	70-130	
1,3-Dichlorobenzene	mg/kg	ND	.017	0.016	91	70-130	
1,3-Dichloropropane	mg/kg	ND	.017	0.020	117	70-130	
1,4-Dichlorobenzene	mg/kg	ND	.017	0.016	93	70-130	
2,2-Dichloropropane	mg/kg	ND	.017	0.018	103	70-130	
2-Butanone (MEK)	mg/kg	ND	.035	.056J	162	70-130 M1	
2-Chlorotoluene	mg/kg	ND	.017	0.016	93	70-130	
2-Hexanone	mg/kg	ND	.035	0.053	153	70-130 M1	
4-Chlorotoluene	mg/kg	ND	.017	0.016	92	70-130	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	.035	0.054	156	70-130 M1	
Acetone	mg/kg	ND	.035	.058J	168	70-130 M1	
Benzene	mg/kg	ND	.017	0.017	100	50-166	
Bromobenzene	mg/kg	ND	.017	0.017	100	70-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

MATRIX SPIKE SAMPLE: 2254613		92380503001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Bromochloromethane	mg/kg	ND	.017	0.020	118	70-130	
Bromodichloromethane	mg/kg	ND	.017	0.018	105	70-130	
Bromoform	mg/kg	ND	.017	0.021	120	70-130	
Bromomethane	mg/kg	ND	.017	0.019	107	70-130	
Carbon tetrachloride	mg/kg	ND	.017	0.017	97	70-130	
Chlorobenzene	mg/kg	ND	.017	0.017	97	43-169	
Chloroethane	mg/kg	ND	.017	0.019	108	70-130	
Chloroform	mg/kg	ND	.017	0.018	106	70-130	
Chloromethane	mg/kg	ND	.017	0.015	86	70-130	
cis-1,2-Dichloroethene	mg/kg	ND	.017	0.019	111	70-130	
cis-1,3-Dichloropropene	mg/kg	ND	.017	0.018	105	70-130	
Dibromochloromethane	mg/kg	ND	.017	0.019	107	70-130	
Dibromomethane	mg/kg	ND	.017	0.020	117	70-130	
Dichlorodifluoromethane	mg/kg	ND	.017	0.015	85	70-130	
Diisopropyl ether	mg/kg	ND	.017	0.020	113	70-130	
Ethylbenzene	mg/kg	ND	.017	0.017	96	70-130	
Hexachloro-1,3-butadiene	mg/kg	ND	.017	0.015	88	70-130	
Isopropylbenzene (Cumene)	mg/kg	ND	.017	0.017	97	70-130	
m&p-Xylene	mg/kg	ND	.035	0.033	97	70-130	
Methyl-tert-butyl ether	mg/kg	ND	.017	0.022	126	70-130	
Methylene Chloride	mg/kg	ND	.017	0.019	109	70-130	
n-Butylbenzene	mg/kg	ND	.017	0.016	90	70-130	
n-Propylbenzene	mg/kg	ND	.017	0.016	94	70-130	
Naphthalene	mg/kg	ND	.017	0.020	118	70-130	
o-Xylene	mg/kg	ND	.017	0.017	97	70-130	
p-Isopropyltoluene	mg/kg	ND	.017	0.016	90	70-130	
sec-Butylbenzene	mg/kg	ND	.017	0.016	91	70-130	
Styrene	mg/kg	ND	.017	0.017	96	70-130	
tert-Butylbenzene	mg/kg	ND	.017	0.015	86	70-130	
Tetrachloroethene	mg/kg	ND	.017	0.014	79	70-130	
Toluene	mg/kg	ND	.017	0.017	100	52-163	
trans-1,2-Dichloroethene	mg/kg	ND	.017	0.019	108	70-130	
trans-1,3-Dichloropropene	mg/kg	ND	.017	0.019	112	70-130	
Trichloroethene	mg/kg	ND	.017	0.017	98	49-167	
Trichlorofluoromethane	mg/kg	ND	.017	0.018	106	70-130	
Vinyl acetate	mg/kg	ND	.035	.041J	118	70-130	
Vinyl chloride	mg/kg	ND	.017	0.018	106	70-130	
Xylene (Total)	mg/kg	ND	.052	0.050	97	70-130	
1,2-Dichloroethane-d4 (S)	%				127	70-132	
4-Bromofluorobenzene (S)	%				102	70-130	
Toluene-d8 (S)	%				101	70-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2254612

Parameter	Units	92380436004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,1-Trichloroethane	mg/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,2-Trichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethene	mg/kg	ND	ND		30	
1,1-Dichloropropene	mg/kg	ND	ND		30	
1,2,3-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,3-Trichloropropane	mg/kg	ND	ND		30	
1,2,4-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,4-Trimethylbenzene	mg/kg	0.029	0.022	28	30	
1,2-Dibromo-3-chloropropane	mg/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	mg/kg	ND	ND		30	
1,2-Dichlorobenzene	mg/kg	ND	ND		30	
1,2-Dichloroethane	mg/kg	ND	ND		30	
1,2-Dichloropropane	mg/kg	ND	ND		30	
1,3,5-Trimethylbenzene	mg/kg	0.030	0.027	9	30	
1,3-Dichlorobenzene	mg/kg	ND	ND		30	
1,3-Dichloropropane	mg/kg	ND	ND		30	
1,4-Dichlorobenzene	mg/kg	ND	ND		30	
2,2-Dichloropropane	mg/kg	ND	ND		30	
2-Butanone (MEK)	mg/kg	0.0074J	.023J		30	
2-Chlorotoluene	mg/kg	ND	ND		30	
2-Hexanone	mg/kg	ND	ND		30	
4-Chlorotoluene	mg/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	ND		30	
Acetone	mg/kg	0.067J	.085J		30	
Benzene	mg/kg	ND	ND		30	
Bromobenzene	mg/kg	ND	ND		30	
Bromochloromethane	mg/kg	ND	ND		30	
Bromodichloromethane	mg/kg	ND	ND		30	
Bromoform	mg/kg	ND	ND		30	
Bromomethane	mg/kg	ND	ND		30	
Carbon tetrachloride	mg/kg	ND	ND		30	
Chlorobenzene	mg/kg	ND	ND		30	
Chloroethane	mg/kg	ND	ND		30	
Chloroform	mg/kg	ND	ND		30	
Chloromethane	mg/kg	ND	ND		30	
cis-1,2-Dichloroethene	mg/kg	0.0041J	0.0099		30	
cis-1,3-Dichloropropene	mg/kg	ND	ND		30	
Dibromochloromethane	mg/kg	ND	ND		30	
Dibromomethane	mg/kg	ND	ND		30	
Dichlorodifluoromethane	mg/kg	ND	ND		30	
Diisopropyl ether	mg/kg	ND	ND		30	
Ethylbenzene	mg/kg	ND	ND		30	
Hexachloro-1,3-butadiene	mg/kg	ND	ND		30	
Isopropylbenzene (Cumene)	mg/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2254612

Parameter	Units	92380436004 Result	Dup Result	RPD	Max RPD	Qualifiers
m&p-Xylene	mg/kg	ND	ND		30	
Methyl-tert-butyl ether	mg/kg	ND	ND		30	
Methylene Chloride	mg/kg	0.016J	ND		30	
n-Butylbenzene	mg/kg	0.0027J	ND		30	
n-Propylbenzene	mg/kg	ND	ND		30	
Naphthalene	mg/kg	0.0041J	.0028J		30	
o-Xylene	mg/kg	0.0025J	ND		30	
p-Isopropyltoluene	mg/kg	0.0053	0.0061	14	30	
sec-Butylbenzene	mg/kg	0.0035J	.0044J		30	
Styrene	mg/kg	ND	ND		30	
tert-Butylbenzene	mg/kg	0.0025J	.0038J		30	
Tetrachloroethene	mg/kg	0.0048J	0.019		30	
Toluene	mg/kg	ND	ND		30	
trans-1,2-Dichloroethene	mg/kg	ND	ND		30	
trans-1,3-Dichloropropene	mg/kg	ND	ND		30	
Trichloroethene	mg/kg	ND	.0031J		30	
Trichlorofluoromethane	mg/kg	ND	ND		30	
Vinyl acetate	mg/kg	ND	ND		30	
Vinyl chloride	mg/kg	ND	ND		30	
Xylene (Total)	mg/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	89	128	41		
4-Bromofluorobenzene (S)	%	142	187	32		S2
Toluene-d8 (S)	%	98	99	6		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406225 Analysis Method: EPA 8270
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave PAH
Associated Lab Samples: 92380503001, 92380503002, 92380503003, 92380503004, 92380503005

METHOD BLANK: 2253636 Matrix: Solid
Associated Lab Samples: 92380503001, 92380503002, 92380503003, 92380503004, 92380503005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	ND	0.32	0.085	04/16/18 11:03	
2-Methylnaphthalene	mg/kg	ND	0.32	0.070	04/16/18 11:03	
Acenaphthene	mg/kg	ND	0.32	0.075	04/16/18 11:03	
Acenaphthylene	mg/kg	ND	0.32	0.077	04/16/18 11:03	
Anthracene	mg/kg	ND	0.32	0.073	04/16/18 11:03	
Benzo(a)anthracene	mg/kg	ND	0.32	0.060	04/16/18 11:03	
Benzo(a)pyrene	mg/kg	ND	0.32	0.062	04/16/18 11:03	
Benzo(b)fluoranthene	mg/kg	ND	0.32	0.056	04/16/18 11:03	
Benzo(g,h,i)perylene	mg/kg	ND	0.32	0.083	04/16/18 11:03	
Benzo(k)fluoranthene	mg/kg	ND	0.32	0.064	04/16/18 11:03	
Chrysene	mg/kg	ND	0.32	0.043	04/16/18 11:03	
Dibenz(a,h)anthracene	mg/kg	ND	0.32	0.069	04/16/18 11:03	
Fluoranthene	mg/kg	ND	0.32	0.047	04/16/18 11:03	
Fluorene	mg/kg	ND	0.32	0.067	04/16/18 11:03	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.32	0.067	04/16/18 11:03	
Naphthalene	mg/kg	ND	0.32	0.080	04/16/18 11:03	
Phenanthrene	mg/kg	ND	0.32	0.054	04/16/18 11:03	
Pyrene	mg/kg	ND	0.32	0.055	04/16/18 11:03	
2-Fluorobiphenyl (S)	%	59	30-110		04/16/18 11:03	
Nitrobenzene-d5 (S)	%	61	23-110		04/16/18 11:03	
Terphenyl-d14 (S)	%	52	28-110		04/16/18 11:03	

LABORATORY CONTROL SAMPLE: 2253637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.1	65	40-120	
2-Methylnaphthalene	mg/kg	1.7	1.1	64	26-120	
Acenaphthene	mg/kg	1.7	1.2	70	46-120	
Acenaphthylene	mg/kg	1.7	1.2	72	46-120	
Anthracene	mg/kg	1.7	1.3	79	63-120	
Benzo(a)anthracene	mg/kg	1.7	1.3	76	61-120	
Benzo(a)pyrene	mg/kg	1.7	1.3	81	59-120	
Benzo(b)fluoranthene	mg/kg	1.7	1.3	80	55-120	
Benzo(g,h,i)perylene	mg/kg	1.7	1.3	80	57-120	
Benzo(k)fluoranthene	mg/kg	1.7	1.3	79	56-120	
Chrysene	mg/kg	1.7	1.2	74	64-120	
Dibenz(a,h)anthracene	mg/kg	1.7	1.4	87	56-120	
Fluoranthene	mg/kg	1.7	1.4	82	61-120	
Fluorene	mg/kg	1.7	1.3	78	51-120	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.4	83	58-120	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2253637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	mg/kg	1.7	1.0	60	38-120	
Phenanthrene	mg/kg	1.7	1.3	77	62-120	
Pyrene	mg/kg	1.7	1.2	73	63-120	
2-Fluorobiphenyl (S)	%			61	30-110	
Nitrobenzene-d5 (S)	%			57	23-110	
Terphenyl-d14 (S)	%			46	28-110	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406357 Analysis Method: EPA 8270
QC Batch Method: EPA 3510 Analysis Description: 8270 Water MSSV
Associated Lab Samples: 92380503006, 92380503007, 92380503008, 92380503009, 92380503010, 92380503011

METHOD BLANK: 2254421 Matrix: Water
Associated Lab Samples: 92380503006, 92380503007, 92380503008, 92380503009, 92380503010, 92380503011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	ND	10.0	2.8	04/17/18 15:32	
2-Methylnaphthalene	ug/L	ND	10.0	2.8	04/17/18 15:32	
Acenaphthene	ug/L	ND	10.0	3.4	04/17/18 15:32	
Acenaphthylene	ug/L	ND	10.0	3.0	04/17/18 15:32	
Anthracene	ug/L	ND	10.0	2.0	04/17/18 15:32	
Benzo(a)anthracene	ug/L	ND	10.0	1.3	04/17/18 15:32	
Benzo(a)pyrene	ug/L	ND	10.0	1.3	04/17/18 15:32	
Benzo(b)fluoranthene	ug/L	ND	10.0	1.5	04/17/18 15:32	
Benzo(g,h,i)perylene	ug/L	ND	10.0	1.8	04/17/18 15:32	
Benzo(k)fluoranthene	ug/L	ND	10.0	1.8	04/17/18 15:32	
Chrysene	ug/L	ND	10.0	1.3	04/17/18 15:32	
Dibenz(a,h)anthracene	ug/L	ND	10.0	1.9	04/17/18 15:32	
Fluoranthene	ug/L	ND	10.0	1.7	04/17/18 15:32	
Fluorene	ug/L	ND	10.0	3.0	04/17/18 15:32	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	1.7	04/17/18 15:32	
Naphthalene	ug/L	ND	10.0	3.2	04/17/18 15:32	
Phenanthrene	ug/L	ND	10.0	2.4	04/17/18 15:32	
Pyrene	ug/L	ND	10.0	1.2	04/17/18 15:32	
2-Fluorobiphenyl (S)	%	87	45-139		04/17/18 15:32	
Nitrobenzene-d5 (S)	%	80	40-121		04/17/18 15:32	
Terphenyl-d14 (S)	%	75	48-146		04/17/18 15:32	

LABORATORY CONTROL SAMPLE: 2254422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	50	35.5	71	34-113	
2-Methylnaphthalene	ug/L	50	35.2	70	33-120	
Acenaphthene	ug/L	50	39.6	79	48-114	
Acenaphthylene	ug/L	50	38.9	78	48-112	
Anthracene	ug/L	50	40.6	81	57-118	
Benzo(a)anthracene	ug/L	50	41.0	82	56-121	
Benzo(a)pyrene	ug/L	50	41.3	83	55-127	
Benzo(b)fluoranthene	ug/L	50	41.2	82	53-128	
Benzo(g,h,i)perylene	ug/L	50	41.0	82	54-125	
Benzo(k)fluoranthene	ug/L	50	41.8	84	51-123	
Chrysene	ug/L	50	40.6	81	58-127	
Dibenz(a,h)anthracene	ug/L	50	41.9	84	53-129	
Fluoranthene	ug/L	50	40.7	81	57-125	
Fluorene	ug/L	50	39.6	79	53-118	
Indeno(1,2,3-cd)pyrene	ug/L	50	41.8	84	55-128	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

LABORATORY CONTROL SAMPLE: 2254422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	50	34.8	70	32-120	
Phenanthrene	ug/L	50	39.4	79	57-117	
Pyrene	ug/L	50	40.2	80	55-122	
2-Fluorobiphenyl (S)	%			77	45-139	
Nitrobenzene-d5 (S)	%			70	40-121	
Terphenyl-d14 (S)	%			54	48-146	

MATRIX SPIKE SAMPLE: 2254423

Parameter	Units	92380503006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	ND	41.7	33.5	80	14-110	
2-Methylnaphthalene	ug/L	ND	41.7	33.8	81	13-110	
Acenaphthene	ug/L	ND	41.7	34.3	82	17-100	
Acenaphthylene	ug/L	ND	41.7	34.5	83	21-100	
Anthracene	ug/L	ND	41.7	35.0	84	24-109	
Benzo(a)anthracene	ug/L	ND	41.7	35.3	85	22-117	
Benzo(a)pyrene	ug/L	ND	41.7	34.8	83	23-104	
Benzo(b)fluoranthene	ug/L	ND	41.7	34.8	83	23-103	
Benzo(g,h,i)perylene	ug/L	ND	41.7	35.2	84	18-111	
Benzo(k)fluoranthene	ug/L	ND	41.7	36.3	87	22-113	
Chrysene	ug/L	ND	41.7	34.8	84	23-115	
Dibenz(a,h)anthracene	ug/L	ND	41.7	36.6	88	21-112	
Fluoranthene	ug/L	ND	41.7	35.8	86	23-112	
Fluorene	ug/L	ND	41.7	34.3	82	22-104	
Indeno(1,2,3-cd)pyrene	ug/L	ND	41.7	35.5	85	20-113	
Naphthalene	ug/L	ND	41.7	33.0	79	10-110	
Phenanthrene	ug/L	ND	41.7	34.1	82	24-106	
Pyrene	ug/L	ND	41.7	35.1	84	24-114	
2-Fluorobiphenyl (S)	%				80	45-139	
Nitrobenzene-d5 (S)	%				75	40-121	
Terphenyl-d14 (S)	%				59	48-146	

SAMPLE DUPLICATE: 2254424

Parameter	Units	92380503007 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/L	ND	ND		30	
2-Methylnaphthalene	ug/L	ND	ND		30	
Acenaphthene	ug/L	ND	ND		30	
Acenaphthylene	ug/L	ND	ND		30	
Anthracene	ug/L	ND	ND		30	
Benzo(a)anthracene	ug/L	ND	ND		30	
Benzo(a)pyrene	ug/L	ND	ND		30	
Benzo(b)fluoranthene	ug/L	ND	ND		30	
Benzo(g,h,i)perylene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

SAMPLE DUPLICATE: 2254424

Parameter	Units	92380503007 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzo(k)fluoranthene	ug/L	ND	ND		30	
Chrysene	ug/L	ND	ND		30	
Dibenz(a,h)anthracene	ug/L	ND	ND		30	
Fluoranthene	ug/L	ND	ND		30	
Fluorene	ug/L	ND	ND		30	
Indeno(1,2,3-cd)pyrene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
Phenanthrene	ug/L	ND	ND		30	
Pyrene	ug/L	ND	ND		30	
2-Fluorobiphenyl (S)	%	79	66	18		
Nitrobenzene-d5 (S)	%	74	67	10		
Terphenyl-d14 (S)	%	70	56	21		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch:	406012	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	92380503001, 92380503002, 92380503003		

SAMPLE DUPLICATE: 2252367

Parameter	Units	92380521001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.2	11.9	10	25	

SAMPLE DUPLICATE: 2252368

Parameter	Units	92380456002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	91.9	92.0	0	25	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406025

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 92380503005

SAMPLE DUPLICATE: 2252496

Parameter	Units	92380503005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.3	16.5	7	25	

SAMPLE DUPLICATE: 2252497

Parameter	Units	92380534002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.3	14.7	10	25	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92380503

QC Batch: 406046

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 92380503004

SAMPLE DUPLICATE: 2252601

Parameter	Units	92380569001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.4	16.8	3	25	

SAMPLE DUPLICATE: 2252602

Parameter	Units	92380534008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.3	15.2	6	25	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: ELIJAH LANDING
Pace Project No.: 92380503

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.
A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.
E Analyte concentration exceeded the calibration range. The reported result is estimated.
F3 The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.
IO The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.
L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
S0 Surrogate recovery outside laboratory control limits.
S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE


Project: ELIJAH LANDING

Pace Project No.: 92380503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92380503001	B-1	EPA 3546	406225	EPA 8270	406381
92380503002	B-2	EPA 3546	406225	EPA 8270	406381
92380503003	B-3	EPA 3546	406225	EPA 8270	406381
92380503004	B-4	EPA 3546	406225	EPA 8270	406381
92380503005	B-5	EPA 3546	406225	EPA 8270	406381
92380503006	B-1 GW	EPA 3510	406357	EPA 8270	406616
92380503007	B-2 GW	EPA 3510	406357	EPA 8270	406616
92380503008	B-3 GW	EPA 3510	406357	EPA 8270	406616
92380503009	B-4 GW	EPA 3510	406357	EPA 8270	406616
92380503010	B-5 GW	EPA 3510	406357	EPA 8270	406616
92380503011	SW-1	EPA 3510	406357	EPA 8270	406616
92380503006	B-1 GW	EPA 8260	406633		
92380503007	B-2 GW	EPA 8260	406835		
92380503008	B-3 GW	EPA 8260	406633		
92380503009	B-4 GW	EPA 8260	406633		
92380503010	B-5 GW	EPA 8260	406796		
92380503011	SW-1	EPA 8260	406755		
92380503001	B-1	EPA 8260	406182		
92380503002	B-2	EPA 8260	406005		
92380503003	B-3	EPA 8260	406005		
92380503004	B-4	EPA 8260	406005		
92380503005	B-5	EPA 8260	406005		
92380503001	B-1	ASTM D2974-87	406012		
92380503002	B-2	ASTM D2974-87	406012		
92380503003	B-3	ASTM D2974-87	406012		
92380503004	B-4	ASTM D2974-87	406046		
92380503005	B-5	ASTM D2974-87	406025		

REPORT OF LABORATORY ANALYSIS

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	Document Name:	Document Revised: February 7, 2018
	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐

Sample Condition
Upon Receipt

Client Name:

Partner

Project #

WO#: 92380503



Courier:

☐ Commercial

☐ Fed Ex

☐ Pace

☐ UPS

☐ USPS

☐ Other:

☒ Client

Custody Seal Present?

☐ Yes

☒ No

Seals Intact?

☐ Yes

☒ No

Date/Initials Person Examining Contents: 4-12-18 SN

Packing Material:

☐ Bubble Wrap

☒ Bubble Bags

☐ None

☐ Other

Thermometer:

☐ IR Gun ID: 92T036

Type of Ice:

☒ Wet

☐ Blue

☐ None

Biological Tissue Frozen?

☐ Yes

☒ No

☐ N/A

Cooler Temp (°C):

5.3

Correction Factor: Add/Subtract (°C)

+0.1

Cooler Temp Corrected (°C):

5.4

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil ☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

☐ Yes

☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?

☐ Yes

☒ No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>9L/W1</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Received no vials for sample SW-1

Lot ID of split containers: DG9H

CLIENT NOTIFICATION/RESOLUTION

Lot # B307101VB

Person contacted: _____

Date/Time: _____

Project Manager SCURF Review:

(F)

Date:


4/12

Project Manager SRF Review:

(F)

Date:

4/12

	Document Name:	Document Revised: February 7, 2018
	Sample Condition Upon Receipt(SCUR)	Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project # **W0# : 92380503**

PM: PTE

Due Date: 04/19/18

CLIENT: 92-PARTNER

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2SO3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1																													
2																													
3																													
4																													
5																													
6																													
7																3											2		
8																3											2		
9																3											2		
10																3											2		
11																													
12																													

pH Adjustment Log for Preserved Samples						
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

81 of 8

Page 81 of 81[illegible]

June 04, 2018

Wendell Johnson
Partner Engineering

,

RE: Project: ELIJAH LANDING
Pace Project No.: 92386223

Dear Wendell Johnson:

Enclosed are the analytical results for sample(s) received by the laboratory on May 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Charlotte Certification IDs

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ELIJAH LANDING

Pace Project No.: 92386223

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92386223001	TP-1	Solid	05/24/18 10:15	05/25/18 11:54
92386223002	TP-3	Solid	05/24/18 11:45	05/25/18 11:54
92386223003	TP-5	Solid	05/24/18 13:20	05/25/18 11:54
92386223004	TP-6	Solid	05/24/18 14:45	05/25/18 11:54
92386223005	SP-1	Solid	05/24/18 14:30	05/25/18 11:54
92386223006	TP-3 GW	Water	05/24/18 11:50	05/25/18 11:54

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ELIJAH LANDING

Pace Project No.: 92386223

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92386223001	TP-1	EPA 8270	RES	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92386223002	TP-3	EPA 8270	RES	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92386223003	TP-5	EPA 8270	RES	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92386223004	TP-6	EPA 8270	RES	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92386223005	SP-1	EPA 8270	RES	21	PASI-C
		EPA 8260	DLK	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C
92386223006	TP-3 GW	EPA 8270	RES	21	PASI-C
		EPA 8260	GAW	63	PASI-C

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-1 **Lab ID: 92386223001** Collected: 05/24/18 10:15 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	4.0	0.91	10	05/26/18 11:18	06/01/18 18:15	83-32-9	
Acenaphthylene	ND	mg/kg	4.0	0.93	10	05/26/18 11:18	06/01/18 18:15	208-96-8	
Anthracene	ND	mg/kg	4.0	0.89	10	05/26/18 11:18	06/01/18 18:15	120-12-7	
Benzo(a)anthracene	ND	mg/kg	4.0	0.73	10	05/26/18 11:18	06/01/18 18:15	56-55-3	
Benzo(a)pyrene	ND	mg/kg	4.0	0.75	10	05/26/18 11:18	06/01/18 18:15	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	4.0	0.68	10	05/26/18 11:18	06/01/18 18:15	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	4.0	1.0	10	05/26/18 11:18	06/01/18 18:15	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	4.0	0.78	10	05/26/18 11:18	06/01/18 18:15	207-08-9	
Chrysene	ND	mg/kg	4.0	0.53	10	05/26/18 11:18	06/01/18 18:15	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	4.0	0.84	10	05/26/18 11:18	06/01/18 18:15	53-70-3	
Fluoranthene	ND	mg/kg	4.0	0.58	10	05/26/18 11:18	06/01/18 18:15	206-44-0	
Fluorene	ND	mg/kg	4.0	0.81	10	05/26/18 11:18	06/01/18 18:15	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	4.0	0.81	10	05/26/18 11:18	06/01/18 18:15	193-39-5	
1-Methylnaphthalene	ND	mg/kg	4.0	1.0	10	05/26/18 11:18	06/01/18 18:15	90-12-0	
2-Methylnaphthalene	ND	mg/kg	4.0	0.85	10	05/26/18 11:18	06/01/18 18:15	91-57-6	
Naphthalene	ND	mg/kg	4.0	0.97	10	05/26/18 11:18	06/01/18 18:15	91-20-3	
Phenanthrene	ND	mg/kg	4.0	0.66	10	05/26/18 11:18	06/01/18 18:15	85-01-8	
Pyrene	ND	mg/kg	4.0	0.67	10	05/26/18 11:18	06/01/18 18:15	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	0	%	23-110		10	05/26/18 11:18	06/01/18 18:15	4165-60-0	D3,S4
2-Fluorobiphenyl (S)	0	%	30-110		10	05/26/18 11:18	06/01/18 18:15	321-60-8	S4
Terphenyl-d14 (S)	0	%	28-110		10	05/26/18 11:18	06/01/18 18:15	1718-51-0	S4
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.092	0.0092	1		05/31/18 18:46	67-64-1	
Benzene	ND	mg/kg	0.0046	0.0015	1		05/31/18 18:46	71-43-2	
Bromobenzene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	108-86-1	M1
Bromochloromethane	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	75-27-4	
Bromoform	ND	mg/kg	0.0046	0.0021	1		05/31/18 18:46	75-25-2	M1
Bromomethane	ND	mg/kg	0.0092	0.0023	1		05/31/18 18:46	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.092	0.0027	1		05/31/18 18:46	78-93-3	M1
n-Butylbenzene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	104-51-8	M1
sec-Butylbenzene	ND	mg/kg	0.0046	0.0015	1		05/31/18 18:46	135-98-8	M1
tert-Butylbenzene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	98-06-6	M1
Carbon tetrachloride	ND	mg/kg	0.0046	0.0024	1		05/31/18 18:46	56-23-5	
Chlorobenzene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	108-90-7	
Chloroethane	ND	mg/kg	0.0092	0.0022	1		05/31/18 18:46	75-00-3	
Chloroform	ND	mg/kg	0.0046	0.0015	1		05/31/18 18:46	67-66-3	
Chloromethane	ND	mg/kg	0.0092	0.0022	1		05/31/18 18:46	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	95-49-8	M1
4-Chlorotoluene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	106-43-4	M1
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0046	0.0033	1		05/31/18 18:46	96-12-8	M1
Dibromochloromethane	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	124-48-1	M1
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	106-93-4	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-1 **Lab ID: 92386223001** Collected: 05/24/18 10:15 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0046	0.0023	1		05/31/18 18:46	74-95-3	M1
1,2-Dichlorobenzene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	95-50-1	M1
1,3-Dichlorobenzene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	541-73-1	M1
1,4-Dichlorobenzene	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	106-46-7	M1
Dichlorodifluoromethane	ND	mg/kg	0.0092	0.0033	1		05/31/18 18:46	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0046	0.0014	1		05/31/18 18:46	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0046	0.0020	1		05/31/18 18:46	107-06-2	M1
1,1-Dichloroethene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0046	0.0013	1		05/31/18 18:46	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	142-28-9	M1
2,2-Dichloropropane	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0046	0.0014	1		05/31/18 18:46	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	10061-01-5	M1
trans-1,3-Dichloropropene	ND	mg/kg	0.0046	0.0014	1		05/31/18 18:46	10061-02-6	M1
Diisopropyl ether	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	108-20-3	
Ethylbenzene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	100-41-4	M1
Hexachloro-1,3-butadiene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	87-68-3	M1
2-Hexanone	ND	mg/kg	0.046	0.0036	1		05/31/18 18:46	591-78-6	M1
Isopropylbenzene (Cumene)	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	98-82-8	M1
p-Isopropyltoluene	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	99-87-6	M1
Methylene Chloride	ND	mg/kg	0.018	0.0028	1		05/31/18 18:46	75-09-2	M1
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.046	0.0034	1		05/31/18 18:46	108-10-1	M1
Methyl-tert-butyl ether	ND	mg/kg	0.0046	0.0014	1		05/31/18 18:46	1634-04-4	M1
Naphthalene	ND	mg/kg	0.0046	0.0011	1		05/31/18 18:46	91-20-3	M1
n-Propylbenzene	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	103-65-1	M1
Styrene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	100-42-5	M1
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0046	0.0019	1		05/31/18 18:46	630-20-6	M1
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	79-34-5	M1
Tetrachloroethene	ND	mg/kg	0.0046	0.0016	1		05/31/18 18:46	127-18-4	M1
Toluene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0046	0.0020	1		05/31/18 18:46	87-61-6	M1
1,2,4-Trichlorobenzene	ND	mg/kg	0.0046	0.0015	1		05/31/18 18:46	120-82-1	M1
1,1,1-Trichloroethane	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0046	0.0019	1		05/31/18 18:46	79-00-5	M1
Trichloroethene	ND	mg/kg	0.0046	0.0019	1		05/31/18 18:46	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0046	0.0020	1		05/31/18 18:46	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0046	0.0015	1		05/31/18 18:46	96-18-4	M1
1,2,4-Trimethylbenzene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	95-63-6	M1
1,3,5-Trimethylbenzene	ND	mg/kg	0.0046	0.0017	1		05/31/18 18:46	108-67-8	M1
Vinyl acetate	ND	mg/kg	0.046	0.0081	1		05/31/18 18:46	108-05-4	M1
Vinyl chloride	ND	mg/kg	0.0092	0.0017	1		05/31/18 18:46	75-01-4	
Xylene (Total)	ND	mg/kg	0.0092	0.0033	1		05/31/18 18:46	1330-20-7	MS
m&p-Xylene	ND	mg/kg	0.0092	0.0033	1		05/31/18 18:46	179601-23-1	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-1 **Lab ID:** 92386223001 Collected: 05/24/18 10:15 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
o-Xylene	ND	mg/kg	0.0046	0.0018	1		05/31/18 18:46	95-47-6	M1
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		05/31/18 18:46	2037-26-5	1g
4-Bromofluorobenzene (S)	82	%	70-130		1		05/31/18 18:46	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-132		1		05/31/18 18:46	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	15.7	%	0.10	0.10	1		05/29/18 13:53		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-3 **Lab ID: 92386223002** Collected: 05/24/18 11:45 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.40	0.092	1	05/26/18 11:18	06/04/18 10:12	83-32-9	
Acenaphthylene	ND	mg/kg	0.40	0.095	1	05/26/18 11:18	06/04/18 10:12	208-96-8	
Anthracene	ND	mg/kg	0.40	0.090	1	05/26/18 11:18	06/04/18 10:12	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.40	0.074	1	05/26/18 11:18	06/04/18 10:12	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.40	0.077	1	05/26/18 11:18	06/04/18 10:12	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.40	0.069	1	05/26/18 11:18	06/04/18 10:12	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.40	0.10	1	05/26/18 11:18	06/04/18 10:12	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.40	0.079	1	05/26/18 11:18	06/04/18 10:12	207-08-9	
Chrysene	ND	mg/kg	0.40	0.053	1	05/26/18 11:18	06/04/18 10:12	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.40	0.085	1	05/26/18 11:18	06/04/18 10:12	53-70-3	
Fluoranthene	ND	mg/kg	0.40	0.058	1	05/26/18 11:18	06/04/18 10:12	206-44-0	
Fluorene	ND	mg/kg	0.40	0.083	1	05/26/18 11:18	06/04/18 10:12	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.40	0.083	1	05/26/18 11:18	06/04/18 10:12	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.40	0.10	1	05/26/18 11:18	06/04/18 10:12	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.40	0.086	1	05/26/18 11:18	06/04/18 10:12	91-57-6	
Naphthalene	ND	mg/kg	0.40	0.098	1	05/26/18 11:18	06/04/18 10:12	91-20-3	
Phenanthrene	ND	mg/kg	0.40	0.067	1	05/26/18 11:18	06/04/18 10:12	85-01-8	
Pyrene	ND	mg/kg	0.40	0.068	1	05/26/18 11:18	06/04/18 10:12	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	61	%	23-110		1	05/26/18 11:18	06/04/18 10:12	4165-60-0	
2-Fluorobiphenyl (S)	70	%	30-110		1	05/26/18 11:18	06/04/18 10:12	321-60-8	
Terphenyl-d14 (S)	54	%	28-110		1	05/26/18 11:18	06/04/18 10:12	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.099	0.0099	1		05/31/18 19:06	67-64-1	
Benzene	ND	mg/kg	0.0049	0.0016	1		05/31/18 19:06	71-43-2	
Bromobenzene	ND	mg/kg	0.0049	0.0020	1		05/31/18 19:06	108-86-1	
Bromochloromethane	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	75-27-4	
Bromoform	ND	mg/kg	0.0049	0.0023	1		05/31/18 19:06	75-25-2	
Bromomethane	ND	mg/kg	0.0099	0.0025	1		05/31/18 19:06	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.099	0.0029	1		05/31/18 19:06	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0049	0.0016	1		05/31/18 19:06	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0049	0.0020	1		05/31/18 19:06	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0049	0.0026	1		05/31/18 19:06	56-23-5	
Chlorobenzene	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	108-90-7	
Chloroethane	ND	mg/kg	0.0099	0.0024	1		05/31/18 19:06	75-00-3	
Chloroform	ND	mg/kg	0.0049	0.0016	1		05/31/18 19:06	67-66-3	
Chloromethane	ND	mg/kg	0.0099	0.0024	1		05/31/18 19:06	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0049	0.0036	1		05/31/18 19:06	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	106-93-4	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-3 **Lab ID: 92386223002** Collected: 05/24/18 11:45 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0049	0.0025	1		05/31/18 19:06	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0049	0.0020	1		05/31/18 19:06	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0099	0.0036	1		05/31/18 19:06	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0049	0.0015	1		05/31/18 19:06	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0049	0.0022	1		05/31/18 19:06	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0049	0.0014	1		05/31/18 19:06	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0049	0.0015	1		05/31/18 19:06	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0049	0.0015	1		05/31/18 19:06	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	108-20-3	
Ethylbenzene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0049	0.0020	1		05/31/18 19:06	87-68-3	
2-Hexanone	ND	mg/kg	0.049	0.0039	1		05/31/18 19:06	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	99-87-6	
Methylene Chloride	ND	mg/kg	0.020	0.0030	1		05/31/18 19:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.049	0.0037	1		05/31/18 19:06	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0049	0.0015	1		05/31/18 19:06	1634-04-4	
Naphthalene	ND	mg/kg	0.0049	0.0012	1		05/31/18 19:06	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	103-65-1	
Styrene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0049	0.0021	1		05/31/18 19:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0049	0.0017	1		05/31/18 19:06	127-18-4	
Toluene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0049	0.0022	1		05/31/18 19:06	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0049	0.0016	1		05/31/18 19:06	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0049	0.0021	1		05/31/18 19:06	79-00-5	
Trichloroethene	ND	mg/kg	0.0049	0.0021	1		05/31/18 19:06	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0049	0.0022	1		05/31/18 19:06	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0049	0.0016	1		05/31/18 19:06	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0049	0.0020	1		05/31/18 19:06	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0049	0.0018	1		05/31/18 19:06	108-67-8	
Vinyl acetate	ND	mg/kg	0.049	0.0087	1		05/31/18 19:06	108-05-4	
Vinyl chloride	ND	mg/kg	0.0099	0.0018	1		05/31/18 19:06	75-01-4	
Xylene (Total)	ND	mg/kg	0.0099	0.0036	1		05/31/18 19:06	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0099	0.0036	1		05/31/18 19:06	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-3 **Lab ID: 92386223002** Collected: 05/24/18 11:45 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
o-Xylene	ND	mg/kg	0.0049	0.0019	1		05/31/18 19:06	95-47-6	
Surrogates									
Toluene-d8 (S)	103	%	70-130		1		05/31/18 19:06	2037-26-5	1g
4-Bromofluorobenzene (S)	80	%	70-130		1		05/31/18 19:06	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-132		1		05/31/18 19:06	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	16.9	%	0.10	0.10	1		05/29/18 13:53		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-5 **Lab ID: 92386223003** Collected: 05/24/18 13:20 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.43	0.099	1	05/29/18 20:10	06/01/18 17:43	83-32-9	
Acenaphthylene	ND	mg/kg	0.43	0.10	1	05/29/18 20:10	06/01/18 17:43	208-96-8	
Anthracene	ND	mg/kg	0.43	0.096	1	05/29/18 20:10	06/01/18 17:43	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.43	0.079	1	05/29/18 20:10	06/01/18 17:43	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.43	0.082	1	05/29/18 20:10	06/01/18 17:43	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.43	0.074	1	05/29/18 20:10	06/01/18 17:43	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.43	0.11	1	05/29/18 20:10	06/01/18 17:43	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.43	0.084	1	05/29/18 20:10	06/01/18 17:43	207-08-9	
Chrysene	ND	mg/kg	0.43	0.057	1	05/29/18 20:10	06/01/18 17:43	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.43	0.091	1	05/29/18 20:10	06/01/18 17:43	53-70-3	
Fluoranthene	ND	mg/kg	0.43	0.062	1	05/29/18 20:10	06/01/18 17:43	206-44-0	
Fluorene	ND	mg/kg	0.43	0.088	1	05/29/18 20:10	06/01/18 17:43	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.43	0.088	1	05/29/18 20:10	06/01/18 17:43	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.43	0.11	1	05/29/18 20:10	06/01/18 17:43	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.43	0.092	1	05/29/18 20:10	06/01/18 17:43	91-57-6	
Naphthalene	ND	mg/kg	0.43	0.11	1	05/29/18 20:10	06/01/18 17:43	91-20-3	
Phenanthrene	ND	mg/kg	0.43	0.071	1	05/29/18 20:10	06/01/18 17:43	85-01-8	
Pyrene	ND	mg/kg	0.43	0.073	1	05/29/18 20:10	06/01/18 17:43	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	73	%	23-110		1	05/29/18 20:10	06/01/18 17:43	4165-60-0	
2-Fluorobiphenyl (S)	66	%	30-110		1	05/29/18 20:10	06/01/18 17:43	321-60-8	
Terphenyl-d14 (S)	43	%	28-110		1	05/29/18 20:10	06/01/18 17:43	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.10	0.010	1		05/31/18 19:27	67-64-1	
Benzene	ND	mg/kg	0.0052	0.0017	1		05/31/18 19:27	71-43-2	
Bromobenzene	ND	mg/kg	0.0052	0.0021	1		05/31/18 19:27	108-86-1	
Bromochloromethane	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	75-27-4	
Bromoform	ND	mg/kg	0.0052	0.0024	1		05/31/18 19:27	75-25-2	
Bromomethane	ND	mg/kg	0.010	0.0026	1		05/31/18 19:27	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.10	0.0030	1		05/31/18 19:27	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0052	0.0017	1		05/31/18 19:27	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0052	0.0021	1		05/31/18 19:27	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0052	0.0027	1		05/31/18 19:27	56-23-5	
Chlorobenzene	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	108-90-7	
Chloroethane	ND	mg/kg	0.010	0.0025	1		05/31/18 19:27	75-00-3	
Chloroform	ND	mg/kg	0.0052	0.0017	1		05/31/18 19:27	67-66-3	
Chloromethane	ND	mg/kg	0.010	0.0025	1		05/31/18 19:27	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0052	0.0038	1		05/31/18 19:27	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	106-93-4	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-5 **Lab ID: 92386223003** Collected: 05/24/18 13:20 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0052	0.0026	1		05/31/18 19:27	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0052	0.0021	1		05/31/18 19:27	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.010	0.0038	1		05/31/18 19:27	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0052	0.0016	1		05/31/18 19:27	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0052	0.0023	1		05/31/18 19:27	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0052	0.0015	1		05/31/18 19:27	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0052	0.0016	1		05/31/18 19:27	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0052	0.0016	1		05/31/18 19:27	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	108-20-3	
Ethylbenzene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0052	0.0021	1		05/31/18 19:27	87-68-3	
2-Hexanone	ND	mg/kg	0.052	0.0041	1		05/31/18 19:27	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	99-87-6	
Methylene Chloride	ND	mg/kg	0.021	0.0031	1		05/31/18 19:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.052	0.0039	1		05/31/18 19:27	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0052	0.0016	1		05/31/18 19:27	1634-04-4	
Naphthalene	ND	mg/kg	0.0052	0.0013	1		05/31/18 19:27	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	103-65-1	
Styrene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0052	0.0022	1		05/31/18 19:27	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0052	0.0018	1		05/31/18 19:27	127-18-4	
Toluene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0052	0.0023	1		05/31/18 19:27	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0052	0.0017	1		05/31/18 19:27	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0052	0.0022	1		05/31/18 19:27	79-00-5	
Trichloroethene	ND	mg/kg	0.0052	0.0022	1		05/31/18 19:27	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0052	0.0023	1		05/31/18 19:27	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0052	0.0017	1		05/31/18 19:27	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0052	0.0021	1		05/31/18 19:27	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0052	0.0019	1		05/31/18 19:27	108-67-8	
Vinyl acetate	ND	mg/kg	0.052	0.0092	1		05/31/18 19:27	108-05-4	
Vinyl chloride	ND	mg/kg	0.010	0.0019	1		05/31/18 19:27	75-01-4	
Xylene (Total)	ND	mg/kg	0.010	0.0038	1		05/31/18 19:27	1330-20-7	
m&p-Xylene	ND	mg/kg	0.010	0.0038	1		05/31/18 19:27	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-5 **Lab ID:** 92386223003 Collected: 05/24/18 13:20 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
o-Xylene	ND	mg/kg	0.0052	0.0020	1		05/31/18 19:27	95-47-6	
Surrogates									
Toluene-d8 (S)	102	%	70-130		1		05/31/18 19:27	2037-26-5	1g
4-Bromofluorobenzene (S)	86	%	70-130		1		05/31/18 19:27	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-132		1		05/31/18 19:27	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	22.5	%	0.10	0.10	1		05/29/18 13:53		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-6 **Lab ID: 92386223004** Collected: 05/24/18 14:45 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.36	0.083	1	05/26/18 11:18	06/01/18 18:45	83-32-9	
Acenaphthylene	ND	mg/kg	0.36	0.085	1	05/26/18 11:18	06/01/18 18:45	208-96-8	
Anthracene	ND	mg/kg	0.36	0.081	1	05/26/18 11:18	06/01/18 18:45	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.36	0.067	1	05/26/18 11:18	06/01/18 18:45	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.36	0.069	1	05/26/18 11:18	06/01/18 18:45	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.36	0.062	1	05/26/18 11:18	06/01/18 18:45	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.36	0.092	1	05/26/18 11:18	06/01/18 18:45	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.36	0.071	1	05/26/18 11:18	06/01/18 18:45	207-08-9	
Chrysene	ND	mg/kg	0.36	0.048	1	05/26/18 11:18	06/01/18 18:45	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.36	0.077	1	05/26/18 11:18	06/01/18 18:45	53-70-3	
Fluoranthene	ND	mg/kg	0.36	0.053	1	05/26/18 11:18	06/01/18 18:45	206-44-0	
Fluorene	ND	mg/kg	0.36	0.074	1	05/26/18 11:18	06/01/18 18:45	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.36	0.074	1	05/26/18 11:18	06/01/18 18:45	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.36	0.094	1	05/26/18 11:18	06/01/18 18:45	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.36	0.078	1	05/26/18 11:18	06/01/18 18:45	91-57-6	
Naphthalene	ND	mg/kg	0.36	0.089	1	05/26/18 11:18	06/01/18 18:45	91-20-3	
Phenanthrene	ND	mg/kg	0.36	0.060	1	05/26/18 11:18	06/01/18 18:45	85-01-8	
Pyrene	ND	mg/kg	0.36	0.061	1	05/26/18 11:18	06/01/18 18:45	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	63	%	23-110		1	05/26/18 11:18	06/01/18 18:45	4165-60-0	
2-Fluorobiphenyl (S)	62	%	30-110		1	05/26/18 11:18	06/01/18 18:45	321-60-8	
Terphenyl-d14 (S)	53	%	28-110		1	05/26/18 11:18	06/01/18 18:45	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.084	0.0084	1		05/31/18 19:47	67-64-1	
Benzene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	71-43-2	
Bromobenzene	ND	mg/kg	0.0042	0.0017	1		05/31/18 19:47	108-86-1	
Bromochloromethane	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	75-27-4	
Bromoform	ND	mg/kg	0.0042	0.0019	1		05/31/18 19:47	75-25-2	
Bromomethane	ND	mg/kg	0.0084	0.0021	1		05/31/18 19:47	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.084	0.0025	1		05/31/18 19:47	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0042	0.0017	1		05/31/18 19:47	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0042	0.0022	1		05/31/18 19:47	56-23-5	
Chlorobenzene	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	108-90-7	
Chloroethane	ND	mg/kg	0.0084	0.0020	1		05/31/18 19:47	75-00-3	
Chloroform	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	67-66-3	
Chloromethane	ND	mg/kg	0.0084	0.0020	1		05/31/18 19:47	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0042	0.0030	1		05/31/18 19:47	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	106-93-4	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-6 **Lab ID: 92386223004** Collected: 05/24/18 14:45 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0042	0.0021	1		05/31/18 19:47	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0042	0.0017	1		05/31/18 19:47	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0084	0.0030	1		05/31/18 19:47	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0042	0.0013	1		05/31/18 19:47	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0042	0.0019	1		05/31/18 19:47	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0042	0.0012	1		05/31/18 19:47	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0042	0.0013	1		05/31/18 19:47	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0042	0.0013	1		05/31/18 19:47	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	108-20-3	
Ethylbenzene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0042	0.0017	1		05/31/18 19:47	87-68-3	
2-Hexanone	ND	mg/kg	0.042	0.0033	1		05/31/18 19:47	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	99-87-6	
Methylene Chloride	ND	mg/kg	0.017	0.0025	1		05/31/18 19:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.042	0.0031	1		05/31/18 19:47	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0042	0.0013	1		05/31/18 19:47	1634-04-4	
Naphthalene	ND	mg/kg	0.0042	0.0010	1		05/31/18 19:47	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	103-65-1	
Styrene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0042	0.0018	1		05/31/18 19:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	127-18-4	
Toluene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0042	0.0019	1		05/31/18 19:47	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0042	0.0018	1		05/31/18 19:47	79-00-5	
Trichloroethene	ND	mg/kg	0.0042	0.0018	1		05/31/18 19:47	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0042	0.0019	1		05/31/18 19:47	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0042	0.0014	1		05/31/18 19:47	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0042	0.0017	1		05/31/18 19:47	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0042	0.0015	1		05/31/18 19:47	108-67-8	
Vinyl acetate	ND	mg/kg	0.042	0.0074	1		05/31/18 19:47	108-05-4	
Vinyl chloride	ND	mg/kg	0.0084	0.0015	1		05/31/18 19:47	75-01-4	
Xylene (Total)	ND	mg/kg	0.0084	0.0030	1		05/31/18 19:47	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0084	0.0030	1		05/31/18 19:47	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-6 **Lab ID: 92386223004** Collected: 05/24/18 14:45 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
o-Xylene	ND	mg/kg	0.0042	0.0016	1		05/31/18 19:47	95-47-6	
Surrogates									
Toluene-d8 (S)	103	%	70-130		1		05/31/18 19:47	2037-26-5	
4-Bromofluorobenzene (S)	92	%	70-130		1		05/31/18 19:47	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	70-132		1		05/31/18 19:47	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	9.9	%	0.10	0.10	1		05/29/18 13:54		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: SP-1 **Lab ID: 92386223005** Collected: 05/24/18 14:30 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH Microwave Analytical Method: EPA 8270 Preparation Method: EPA 3546									
Acenaphthene	ND	mg/kg	0.38	0.087	1	05/26/18 11:18	06/02/18 16:02	83-32-9	
Acenaphthylene	ND	mg/kg	0.38	0.089	1	05/26/18 11:18	06/02/18 16:02	208-96-8	
Anthracene	ND	mg/kg	0.38	0.085	1	05/26/18 11:18	06/02/18 16:02	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.38	0.070	1	05/26/18 11:18	06/02/18 16:02	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.38	0.072	1	05/26/18 11:18	06/02/18 16:02	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.38	0.065	1	05/26/18 11:18	06/02/18 16:02	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.38	0.096	1	05/26/18 11:18	06/02/18 16:02	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.38	0.074	1	05/26/18 11:18	06/02/18 16:02	207-08-9	
Chrysene	ND	mg/kg	0.38	0.050	1	05/26/18 11:18	06/02/18 16:02	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.38	0.080	1	05/26/18 11:18	06/02/18 16:02	53-70-3	
Fluoranthene	ND	mg/kg	0.38	0.055	1	05/26/18 11:18	06/02/18 16:02	206-44-0	
Fluorene	ND	mg/kg	0.38	0.078	1	05/26/18 11:18	06/02/18 16:02	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.38	0.078	1	05/26/18 11:18	06/02/18 16:02	193-39-5	
1-Methylnaphthalene	ND	mg/kg	0.38	0.098	1	05/26/18 11:18	06/02/18 16:02	90-12-0	
2-Methylnaphthalene	ND	mg/kg	0.38	0.081	1	05/26/18 11:18	06/02/18 16:02	91-57-6	
Naphthalene	ND	mg/kg	0.38	0.093	1	05/26/18 11:18	06/02/18 16:02	91-20-3	
Phenanthrene	ND	mg/kg	0.38	0.063	1	05/26/18 11:18	06/02/18 16:02	85-01-8	
Pyrene	ND	mg/kg	0.38	0.064	1	05/26/18 11:18	06/02/18 16:02	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	58	%	23-110		1	05/26/18 11:18	06/02/18 16:02	4165-60-0	
2-Fluorobiphenyl (S)	69	%	30-110		1	05/26/18 11:18	06/02/18 16:02	321-60-8	
Terphenyl-d14 (S)	46	%	28-110		1	05/26/18 11:18	06/02/18 16:02	1718-51-0	
8260/5035A Volatile Organics Analytical Method: EPA 8260									
Acetone	ND	mg/kg	0.094	0.0094	1		05/31/18 20:07	67-64-1	
Benzene	ND	mg/kg	0.0047	0.0015	1		05/31/18 20:07	71-43-2	
Bromobenzene	ND	mg/kg	0.0047	0.0019	1		05/31/18 20:07	108-86-1	
Bromochloromethane	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	74-97-5	
Bromodichloromethane	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	75-27-4	
Bromoform	ND	mg/kg	0.0047	0.0022	1		05/31/18 20:07	75-25-2	
Bromomethane	ND	mg/kg	0.0094	0.0023	1		05/31/18 20:07	74-83-9	
2-Butanone (MEK)	ND	mg/kg	0.094	0.0027	1		05/31/18 20:07	78-93-3	
n-Butylbenzene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	104-51-8	
sec-Butylbenzene	ND	mg/kg	0.0047	0.0015	1		05/31/18 20:07	135-98-8	
tert-Butylbenzene	ND	mg/kg	0.0047	0.0019	1		05/31/18 20:07	98-06-6	
Carbon tetrachloride	ND	mg/kg	0.0047	0.0024	1		05/31/18 20:07	56-23-5	
Chlorobenzene	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	108-90-7	
Chloroethane	ND	mg/kg	0.0094	0.0022	1		05/31/18 20:07	75-00-3	
Chloroform	ND	mg/kg	0.0047	0.0015	1		05/31/18 20:07	67-66-3	
Chloromethane	ND	mg/kg	0.0094	0.0022	1		05/31/18 20:07	74-87-3	
2-Chlorotoluene	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	95-49-8	
4-Chlorotoluene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	mg/kg	0.0047	0.0034	1		05/31/18 20:07	96-12-8	
Dibromochloromethane	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	106-93-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: SP-1 **Lab ID: 92386223005** Collected: 05/24/18 14:30 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
Dibromomethane	ND	mg/kg	0.0047	0.0023	1		05/31/18 20:07	74-95-3	
1,2-Dichlorobenzene	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	95-50-1	
1,3-Dichlorobenzene	ND	mg/kg	0.0047	0.0019	1		05/31/18 20:07	541-73-1	
1,4-Dichlorobenzene	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	106-46-7	
Dichlorodifluoromethane	ND	mg/kg	0.0094	0.0034	1		05/31/18 20:07	75-71-8	
1,1-Dichloroethane	ND	mg/kg	0.0047	0.0014	1		05/31/18 20:07	75-34-3	
1,2-Dichloroethane	ND	mg/kg	0.0047	0.0021	1		05/31/18 20:07	107-06-2	
1,1-Dichloroethene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	75-35-4	
cis-1,2-Dichloroethene	ND	mg/kg	0.0047	0.0013	1		05/31/18 20:07	156-59-2	
trans-1,2-Dichloroethene	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	156-60-5	
1,2-Dichloropropane	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	78-87-5	
1,3-Dichloropropane	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	142-28-9	
2,2-Dichloropropane	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	594-20-7	
1,1-Dichloropropene	ND	mg/kg	0.0047	0.0014	1		05/31/18 20:07	563-58-6	
cis-1,3-Dichloropropene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	10061-01-5	
trans-1,3-Dichloropropene	ND	mg/kg	0.0047	0.0014	1		05/31/18 20:07	10061-02-6	
Diisopropyl ether	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	108-20-3	
Ethylbenzene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	100-41-4	
Hexachloro-1,3-butadiene	ND	mg/kg	0.0047	0.0019	1		05/31/18 20:07	87-68-3	
2-Hexanone	ND	mg/kg	0.047	0.0037	1		05/31/18 20:07	591-78-6	
Isopropylbenzene (Cumene)	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	98-82-8	
p-Isopropyltoluene	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	99-87-6	
Methylene Chloride	ND	mg/kg	0.019	0.0028	1		05/31/18 20:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.047	0.0035	1		05/31/18 20:07	108-10-1	
Methyl-tert-butyl ether	ND	mg/kg	0.0047	0.0014	1		05/31/18 20:07	1634-04-4	
Naphthalene	ND	mg/kg	0.0047	0.0011	1		05/31/18 20:07	91-20-3	
n-Propylbenzene	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	103-65-1	
Styrene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0047	0.0020	1		05/31/18 20:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	79-34-5	
Tetrachloroethene	ND	mg/kg	0.0047	0.0016	1		05/31/18 20:07	127-18-4	
Toluene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	108-88-3	
1,2,3-Trichlorobenzene	ND	mg/kg	0.0047	0.0021	1		05/31/18 20:07	87-61-6	
1,2,4-Trichlorobenzene	ND	mg/kg	0.0047	0.0015	1		05/31/18 20:07	120-82-1	
1,1,1-Trichloroethane	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	71-55-6	
1,1,2-Trichloroethane	ND	mg/kg	0.0047	0.0020	1		05/31/18 20:07	79-00-5	
Trichloroethene	ND	mg/kg	0.0047	0.0020	1		05/31/18 20:07	79-01-6	
Trichlorofluoromethane	ND	mg/kg	0.0047	0.0021	1		05/31/18 20:07	75-69-4	
1,2,3-Trichloropropane	ND	mg/kg	0.0047	0.0015	1		05/31/18 20:07	96-18-4	
1,2,4-Trimethylbenzene	ND	mg/kg	0.0047	0.0019	1		05/31/18 20:07	95-63-6	
1,3,5-Trimethylbenzene	ND	mg/kg	0.0047	0.0017	1		05/31/18 20:07	108-67-8	
Vinyl acetate	ND	mg/kg	0.047	0.0082	1		05/31/18 20:07	108-05-4	
Vinyl chloride	ND	mg/kg	0.0094	0.0017	1		05/31/18 20:07	75-01-4	
Xylene (Total)	ND	mg/kg	0.0094	0.0034	1		05/31/18 20:07	1330-20-7	
m&p-Xylene	ND	mg/kg	0.0094	0.0034	1		05/31/18 20:07	179601-23-1	

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: SP-1 **Lab ID: 92386223005** Collected: 05/24/18 14:30 Received: 05/25/18 11:54 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260/5035A Volatile Organics		Analytical Method: EPA 8260							
o-Xylene	ND	mg/kg	0.0047	0.0018	1		05/31/18 20:07	95-47-6	
Surrogates									
Toluene-d8 (S)	103	%	70-130		1		05/31/18 20:07	2037-26-5	1g
4-Bromofluorobenzene (S)	88	%	70-130		1		05/31/18 20:07	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-132		1		05/31/18 20:07	17060-07-0	
Percent Moisture		Analytical Method: ASTM D2974-87							
Percent Moisture	12.9	%	0.10	0.10	1		05/29/18 13:54		

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-3 GW		Lab ID: 92386223006		Collected: 05/24/18 11:50		Received: 05/25/18 11:54		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivol Organic RVE Analytical Method: EPA 8270 Preparation Method: EPA 3510									
Acenaphthene	ND	ug/L	8.3	2.8	1	05/31/18 00:25	06/04/18 10:20	83-32-9	
Acenaphthylene	ND	ug/L	8.3	2.5	1	05/31/18 00:25	06/04/18 10:20	208-96-8	
Anthracene	ND	ug/L	8.3	1.7	1	05/31/18 00:25	06/04/18 10:20	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.3	1.1	1	05/31/18 00:25	06/04/18 10:20	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.3	1.1	1	05/31/18 00:25	06/04/18 10:20	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.3	1.2	1	05/31/18 00:25	06/04/18 10:20	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.3	1.5	1	05/31/18 00:25	06/04/18 10:20	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.3	1.5	1	05/31/18 00:25	06/04/18 10:20	207-08-9	
Chrysene	ND	ug/L	8.3	1.1	1	05/31/18 00:25	06/04/18 10:20	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.3	1.6	1	05/31/18 00:25	06/04/18 10:20	53-70-3	
Fluoranthene	ND	ug/L	8.3	1.4	1	05/31/18 00:25	06/04/18 10:20	206-44-0	
Fluorene	ND	ug/L	8.3	2.5	1	05/31/18 00:25	06/04/18 10:20	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.3	1.4	1	05/31/18 00:25	06/04/18 10:20	193-39-5	
1-Methylnaphthalene	ND	ug/L	8.3	2.3	1	05/31/18 00:25	06/04/18 10:20	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.3	2.4	1	05/31/18 00:25	06/04/18 10:20	91-57-6	
Naphthalene	ND	ug/L	8.3	2.7	1	05/31/18 00:25	06/04/18 10:20	91-20-3	
Phenanthrene	ND	ug/L	8.3	2.0	1	05/31/18 00:25	06/04/18 10:20	85-01-8	
Pyrene	ND	ug/L	8.3	1.0	1	05/31/18 00:25	06/04/18 10:20	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	56	%	40-121		1	05/31/18 00:25	06/04/18 10:20	4165-60-0	
2-Fluorobiphenyl (S)	52	%	45-139		1	05/31/18 00:25	06/04/18 10:20	321-60-8	
Terphenyl-d14 (S)	41	%	48-146		1	05/31/18 00:25	06/04/18 10:20	1718-51-0	S0
8260 MSV Low Level Analytical Method: EPA 8260									
Acetone	ND	ug/L	25.0	10.0	1		06/02/18 12:07	67-64-1	
Benzene	ND	ug/L	1.0	0.25	1		06/02/18 12:07	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.30	1		06/02/18 12:07	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.17	1		06/02/18 12:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		06/02/18 12:07	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		06/02/18 12:07	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		06/02/18 12:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		06/02/18 12:07	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		06/02/18 12:07	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		06/02/18 12:07	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		06/02/18 12:07	75-00-3	
Chloroform	1.2	ug/L	1.0	0.14	1		06/02/18 12:07	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		06/02/18 12:07	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.35	1		06/02/18 12:07	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.31	1		06/02/18 12:07	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.0	2.0	1		06/02/18 12:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		06/02/18 12:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		06/02/18 12:07	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		06/02/18 12:07	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		06/02/18 12:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		06/02/18 12:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		06/02/18 12:07	106-46-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ELIJAH LANDING

Pace Project No.: 92386223

Sample: TP-3 GW		Lab ID: 92386223006		Collected: 05/24/18 11:50		Received: 05/25/18 11:54		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level		Analytical Method: EPA 8260							
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		06/02/18 12:07	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		06/02/18 12:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.24	1		06/02/18 12:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		06/02/18 12:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		06/02/18 12:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		06/02/18 12:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		06/02/18 12:07	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		06/02/18 12:07	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		06/02/18 12:07	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		06/02/18 12:07	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		06/02/18 12:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		06/02/18 12:07	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	0.12	1		06/02/18 12:07	108-20-3	
Ethylbenzene	ND	ug/L	1.0	0.30	1		06/02/18 12:07	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.71	1		06/02/18 12:07	87-68-3	
2-Hexanone	ND	ug/L	5.0	0.46	1		06/02/18 12:07	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	0.31	1		06/02/18 12:07	99-87-6	
Methylene Chloride	ND	ug/L	2.0	0.97	1		06/02/18 12:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		06/02/18 12:07	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.21	1		06/02/18 12:07	1634-04-4	
Naphthalene	ND	ug/L	1.0	0.24	1		06/02/18 12:07	91-20-3	
Styrene	ND	ug/L	1.0	0.26	1		06/02/18 12:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		06/02/18 12:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		06/02/18 12:07	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		06/02/18 12:07	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		06/02/18 12:07	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.33	1		06/02/18 12:07	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		06/02/18 12:07	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		06/02/18 12:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		06/02/18 12:07	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		06/02/18 12:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		06/02/18 12:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		06/02/18 12:07	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		06/02/18 12:07	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		06/02/18 12:07	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1.0	1		06/02/18 12:07	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		06/02/18 12:07	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		06/02/18 12:07	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		06/02/18 12:07	460-00-4	
1,2-Dichloroethane-d4 (S)	78	%	70-130		1		06/02/18 12:07	17060-07-0	
Toluene-d8 (S)	119	%	70-130		1		06/02/18 12:07	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

QC Batch: 413491

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV Low Level

Associated Lab Samples: 92386223006

METHOD BLANK: 2293132

Matrix: Water

Associated Lab Samples: 92386223006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.33	06/02/18 10:59	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.48	06/02/18 10:59	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.40	06/02/18 10:59	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.29	06/02/18 10:59	
1,1-Dichloroethane	ug/L	ND	1.0	0.32	06/02/18 10:59	
1,1-Dichloroethene	ug/L	ND	1.0	0.56	06/02/18 10:59	
1,1-Dichloropropene	ug/L	ND	1.0	0.49	06/02/18 10:59	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.33	06/02/18 10:59	
1,2,3-Trichloropropane	ug/L	ND	1.0	0.41	06/02/18 10:59	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.35	06/02/18 10:59	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.0	2.0	06/02/18 10:59	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.27	06/02/18 10:59	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.30	06/02/18 10:59	
1,2-Dichloroethane	ug/L	ND	1.0	0.24	06/02/18 10:59	
1,2-Dichloropropane	ug/L	ND	1.0	0.27	06/02/18 10:59	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.24	06/02/18 10:59	
1,3-Dichloropropane	ug/L	ND	1.0	0.28	06/02/18 10:59	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.33	06/02/18 10:59	
2,2-Dichloropropane	ug/L	ND	1.0	0.13	06/02/18 10:59	
2-Butanone (MEK)	ug/L	ND	5.0	0.96	06/02/18 10:59	
2-Chlorotoluene	ug/L	ND	1.0	0.35	06/02/18 10:59	
2-Hexanone	ug/L	ND	5.0	0.46	06/02/18 10:59	
4-Chlorotoluene	ug/L	ND	1.0	0.31	06/02/18 10:59	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	0.33	06/02/18 10:59	
Acetone	ug/L	ND	25.0	10.0	06/02/18 10:59	
Benzene	ug/L	ND	1.0	0.25	06/02/18 10:59	
Bromobenzene	ug/L	ND	1.0	0.30	06/02/18 10:59	
Bromochloromethane	ug/L	ND	1.0	0.17	06/02/18 10:59	
Bromodichloromethane	ug/L	ND	1.0	0.18	06/02/18 10:59	
Bromoform	ug/L	ND	1.0	0.26	06/02/18 10:59	
Bromomethane	ug/L	ND	2.0	0.29	06/02/18 10:59	
Carbon tetrachloride	ug/L	ND	1.0	0.25	06/02/18 10:59	
Chlorobenzene	ug/L	ND	1.0	0.23	06/02/18 10:59	
Chloroethane	ug/L	ND	1.0	0.54	06/02/18 10:59	
Chloroform	ug/L	ND	1.0	0.14	06/02/18 10:59	
Chloromethane	ug/L	ND	1.0	0.11	06/02/18 10:59	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.19	06/02/18 10:59	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.13	06/02/18 10:59	
Dibromochloromethane	ug/L	ND	1.0	0.21	06/02/18 10:59	
Dibromomethane	ug/L	ND	1.0	0.21	06/02/18 10:59	
Dichlorodifluoromethane	ug/L	ND	1.0	0.21	06/02/18 10:59	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

METHOD BLANK: 2293132

Matrix: Water

Associated Lab Samples: 92386223006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Diisopropyl ether	ug/L	ND	1.0	0.12	06/02/18 10:59	
Ethylbenzene	ug/L	ND	1.0	0.30	06/02/18 10:59	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.71	06/02/18 10:59	
m&p-Xylene	ug/L	ND	2.0	0.66	06/02/18 10:59	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.21	06/02/18 10:59	
Methylene Chloride	ug/L	ND	2.0	0.97	06/02/18 10:59	
Naphthalene	ug/L	ND	1.0	0.24	06/02/18 10:59	
o-Xylene	ug/L	ND	1.0	0.23	06/02/18 10:59	
p-Isopropyltoluene	ug/L	ND	1.0	0.31	06/02/18 10:59	
Styrene	ug/L	ND	1.0	0.26	06/02/18 10:59	
Tetrachloroethene	ug/L	ND	1.0	0.46	06/02/18 10:59	
Toluene	ug/L	ND	1.0	0.26	06/02/18 10:59	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.49	06/02/18 10:59	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.26	06/02/18 10:59	
Trichloroethene	ug/L	ND	1.0	0.47	06/02/18 10:59	
Trichlorofluoromethane	ug/L	ND	1.0	0.20	06/02/18 10:59	
Vinyl acetate	ug/L	ND	2.0	0.35	06/02/18 10:59	
Vinyl chloride	ug/L	ND	1.0	0.62	06/02/18 10:59	
Xylene (Total)	ug/L	ND	1.0	1.0	06/02/18 10:59	
1,2-Dichloroethane-d4 (S)	%	81	70-130		06/02/18 10:59	
4-Bromofluorobenzene (S)	%	106	70-130		06/02/18 10:59	
Toluene-d8 (S)	%	117	70-130		06/02/18 10:59	

LABORATORY CONTROL SAMPLE: 2293133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	46.9	94	80-125	
1,1,1-Trichloroethane	ug/L	50	54.2	108	71-129	
1,1,2,2-Tetrachloroethane	ug/L	50	44.0	88	79-124	
1,1,2-Trichloroethane	ug/L	50	48.6	97	85-125	
1,1-Dichloroethane	ug/L	50	45.7	91	73-126	
1,1-Dichloroethene	ug/L	50	51.0	102	66-135	
1,1-Dichloropropene	ug/L	50	46.5	93	74-135	
1,2,3-Trichlorobenzene	ug/L	50	46.0	92	73-135	
1,2,3-Trichloropropane	ug/L	50	45.2	90	75-130	
1,2,4-Trichlorobenzene	ug/L	50	45.9	92	75-134	
1,2-Dibromo-3-chloropropane	ug/L	50	43.6	87	71-133	
1,2-Dibromoethane (EDB)	ug/L	50	47.6	95	83-124	
1,2-Dichlorobenzene	ug/L	50	47.0	94	80-133	
1,2-Dichloroethane	ug/L	50	50.4	101	67-128	
1,2-Dichloropropane	ug/L	50	50.2	100	75-132	
1,3-Dichlorobenzene	ug/L	50	46.3	93	77-130	
1,3-Dichloropropane	ug/L	50	49.8	100	76-131	
1,4-Dichlorobenzene	ug/L	50	46.0	92	78-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

LABORATORY CONTROL SAMPLE: 2293133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	50	47.6	95	40-160	
2-Butanone (MEK)	ug/L	100	83.5	83	61-144	
2-Chlorotoluene	ug/L	50	44.8	90	74-132	
2-Hexanone	ug/L	100	80.7	81	68-143	
4-Chlorotoluene	ug/L	50	45.0	90	76-133	
4-Methyl-2-pentanone (MIBK)	ug/L	100	87.6	88	72-135	
Acetone	ug/L	100	105	105	48-146	
Benzene	ug/L	50	48.6	97	80-125	
Bromobenzene	ug/L	50	45.4	91	75-125	
Bromochloromethane	ug/L	50	50.6	101	71-125	
Bromodichloromethane	ug/L	50	48.6	97	78-124	
Bromoform	ug/L	50	42.2	84	71-128	
Bromomethane	ug/L	50	33.7	67	40-160	
Carbon tetrachloride	ug/L	50	50.0	100	69-131	
Chlorobenzene	ug/L	50	45.1	90	81-122	
Chloroethane	ug/L	50	40.3	81	39-148	
Chloroform	ug/L	50	49.0	98	73-127	
Chloromethane	ug/L	50	39.8	80	44-146	
cis-1,2-Dichloroethene	ug/L	50	47.9	96	74-124	
cis-1,3-Dichloropropene	ug/L	50	50.4	101	72-132	
Dibromochloromethane	ug/L	50	47.0	94	78-125	
Dibromomethane	ug/L	50	47.4	95	82-120	
Dichlorodifluoromethane	ug/L	50	54.4	109	34-157	
Diisopropyl ether	ug/L	50	42.2	84	69-135	
Ethylbenzene	ug/L	50	44.8	90	79-121	
Hexachloro-1,3-butadiene	ug/L	50	41.7	83	72-131	
m&p-Xylene	ug/L	100	92.2	92	81-124	
Methyl-tert-butyl ether	ug/L	50	44.2	88	74-131	
Methylene Chloride	ug/L	50	50.2	100	64-133	
Naphthalene	ug/L	50	46.7	93	73-133	
o-Xylene	ug/L	50	46.0	92	79-131	
p-Isopropyltoluene	ug/L	50	44.8	90	80-131	
Styrene	ug/L	50	45.1	90	84-126	
Tetrachloroethene	ug/L	50	43.6	87	78-122	
Toluene	ug/L	50	49.1	98	80-121	
trans-1,2-Dichloroethene	ug/L	50	47.4	95	71-127	
trans-1,3-Dichloropropene	ug/L	50	49.1	98	69-141	
Trichloroethene	ug/L	50	51.3	103	78-122	
Trichlorofluoromethane	ug/L	50	50.2	100	53-137	
Vinyl acetate	ug/L	100	95.4	95	40-160	
Vinyl chloride	ug/L	50	48.7	97	50-150	
Xylene (Total)	ug/L	150	138	92	81-126	
1,2-Dichloroethane-d4 (S)	%			110	70-130	
4-Bromofluorobenzene (S)	%			97	70-130	
Toluene-d8 (S)	%			99	70-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

MATRIX SPIKE SAMPLE:		2293150	92386168003	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers	
1,1,1,2-Tetrachloroethane	ug/L	ND	20	18.6	93	70-130		
1,1,1-Trichloroethane	ug/L	ND	20	21.8	109	70-130		
1,1,2,2-Tetrachloroethane	ug/L	ND	20	17.7	88	70-130		
1,1,2-Trichloroethane	ug/L	ND	20	19.1	95	70-130		
1,1-Dichloroethane	ug/L	ND	20	19.4	97	70-130		
1,1-Dichloroethene	ug/L	ND	20	23.5	118	70-166		
1,1-Dichloropropene	ug/L	ND	20	21.0	105	70-130		
1,2,3-Trichlorobenzene	ug/L	ND	20	18.4	92	70-130		
1,2,3-Trichloropropene	ug/L	ND	20	19.1	95	70-130		
1,2,4-Trichlorobenzene	ug/L	ND	20	18.2	91	70-130		
1,2-Dibromo-3-chloropropane	ug/L	ND	20	17.4	87	70-130		
1,2-Dibromoethane (EDB)	ug/L	ND	20	18.1	91	70-130		
1,2-Dichlorobenzene	ug/L	ND	20	19.6	98	70-130		
1,2-Dichloroethane	ug/L	ND	20	20.0	100	70-130		
1,2-Dichloropropane	ug/L	ND	20	21.1	106	70-130		
1,3-Dichlorobenzene	ug/L	ND	20	20.1	100	70-130		
1,3-Dichloropropane	ug/L	ND	20	18.9	95	70-130		
1,4-Dichlorobenzene	ug/L	ND	20	20.0	100	70-130		
2,2-Dichloropropane	ug/L	ND	20	20.1	100	70-130		
2-Butanone (MEK)	ug/L	ND	40	32.7	82	70-130		
2-Chlorotoluene	ug/L	ND	20	19.9	99	70-130		
2-Hexanone	ug/L	ND	40	34.5	86	70-130		
4-Chlorotoluene	ug/L	ND	20	20.5	102	70-130		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	40	36.2	91	70-130		
Acetone	ug/L	ND	40	36.1	90	70-130		
Benzene	ug/L	1.8	20	23.5	109	70-148		
Bromobenzene	ug/L	ND	20	20.4	102	70-130		
Bromochloromethane	ug/L	ND	20	20.2	101	70-130		
Bromodichloromethane	ug/L	ND	20	20.1	100	70-130		
Bromoform	ug/L	ND	20	16.3	82	70-130		
Bromomethane	ug/L	ND	20	16.3	81	70-130		
Carbon tetrachloride	ug/L	ND	20	21.7	109	70-130		
Chlorobenzene	ug/L	ND	20	20.2	101	70-146		
Chloroethane	ug/L	ND	20	18.1	91	70-130		
Chloroform	ug/L	ND	20	19.5	97	70-130		
Chloromethane	ug/L	ND	20	17.9	89	70-130		
cis-1,2-Dichloroethene	ug/L	ND	20	20.9	104	70-130		
cis-1,3-Dichloropropene	ug/L	ND	20	20.1	100	70-130		
Dibromochloromethane	ug/L	ND	20	17.3	87	70-130		
Dibromomethane	ug/L	ND	20	20.3	101	70-130		
Dichlorodifluoromethane	ug/L	ND	20	22.9	115	70-130		
Diisopropyl ether	ug/L	ND	20	17.7	88	70-130		
Ethylbenzene	ug/L	ND	20	20.4	102	70-130		
Hexachloro-1,3-butadiene	ug/L	ND	20	16.3	82	70-130		
m&p-Xylene	ug/L	ND	40	42.4	104	70-130		
Methyl-tert-butyl ether	ug/L	5.6	20	22.4	84	70-130		
Methylene Chloride	ug/L	ND	20	18.6	93	70-130		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

MATRIX SPIKE SAMPLE: 2293150

Parameter	Units	92386168003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	1.2	20	19.5	91	70-130	
o-Xylene	ug/L	ND	20	21.4	104	70-130	
p-Isopropyltoluene	ug/L	ND	20	19.3	96	70-130	
Styrene	ug/L	ND	20	20.3	101	70-130	
Tetrachloroethene	ug/L	ND	20	19.2	96	70-130	
Toluene	ug/L	ND	20	22.4	112	70-155	
trans-1,2-Dichloroethene	ug/L	ND	20	19.8	99	70-130	
trans-1,3-Dichloropropene	ug/L	ND	20	18.7	94	70-130	
Trichloroethene	ug/L	ND	20	21.4	107	69-151	
Trichlorofluoromethane	ug/L	ND	20	23.5	117	70-130	
Vinyl acetate	ug/L	ND	40	37.3	93	70-130	
Vinyl chloride	ug/L	ND	20	21.4	107	70-130	
Xylene (Total)	ug/L	ND	60	63.8	106	70-130	
1,2-Dichloroethane-d4 (S)	%				100	70-130	
4-Bromofluorobenzene (S)	%				99	70-130	
Toluene-d8 (S)	%				103	70-130	

SAMPLE DUPLICATE: 2293149

Parameter	Units	92386314004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	2.6J		30	
Acetone	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

SAMPLE DUPLICATE: 2293149

Parameter	Units	92386314004 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	ug/L	2.5	2.3	5	30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Diisopropyl ether	ug/L	ND	ND		30	
Ethylbenzene	ug/L	3.2	2.9	9	30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
m&p-Xylene	ug/L	8.6	6.6	26	30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
Naphthalene	ug/L	22.7	22.5	1	30	
o-Xylene	ug/L	4.0	2.4	51	30	D6
p-Isopropyltoluene	ug/L	ND	3.0		30	
Styrene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Toluene	ug/L	1.2	.37J		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl acetate	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	12.6	9.0	34	30	
1,2-Dichloroethane-d4 (S)	%	77	88	13		
4-Bromofluorobenzene (S)	%	100	99	1		
Toluene-d8 (S)	%	104	101	3		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

QC Batch: 413137 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 92386223001, 92386223002, 92386223003, 92386223004, 92386223005

METHOD BLANK: 2291360 Matrix: Solid
Associated Lab Samples: 92386223001, 92386223002, 92386223003, 92386223004, 92386223005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0065	0.0027	05/31/18 12:18	
1,1,1-Trichloroethane	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
1,1,2-Trichloroethane	mg/kg	ND	0.0065	0.0027	05/31/18 12:18	
1,1-Dichloroethane	mg/kg	ND	0.0065	0.0020	05/31/18 12:18	
1,1-Dichloroethene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
1,1-Dichloropropene	mg/kg	ND	0.0065	0.0020	05/31/18 12:18	
1,2,3-Trichlorobenzene	mg/kg	ND	0.0065	0.0029	05/31/18 12:18	
1,2,3-Trichloropropane	mg/kg	ND	0.0065	0.0021	05/31/18 12:18	
1,2,4-Trichlorobenzene	mg/kg	ND	0.0065	0.0021	05/31/18 12:18	
1,2,4-Trimethylbenzene	mg/kg	ND	0.0065	0.0026	05/31/18 12:18	
1,2-Dibromo-3-chloropropane	mg/kg	ND	0.0065	0.0047	05/31/18 12:18	
1,2-Dibromoethane (EDB)	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
1,2-Dichlorobenzene	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
1,2-Dichloroethane	mg/kg	ND	0.0065	0.0029	05/31/18 12:18	
1,2-Dichloropropane	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
1,3,5-Trimethylbenzene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
1,3-Dichlorobenzene	mg/kg	ND	0.0065	0.0026	05/31/18 12:18	
1,3-Dichloropropane	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
1,4-Dichlorobenzene	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
2,2-Dichloropropane	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
2-Butanone (MEK)	mg/kg	ND	0.13	0.0038	05/31/18 12:18	
2-Chlorotoluene	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
2-Hexanone	mg/kg	ND	0.065	0.0051	05/31/18 12:18	
4-Chlorotoluene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.065	0.0048	05/31/18 12:18	
Acetone	mg/kg	ND	0.13	0.013	05/31/18 12:18	
Benzene	mg/kg	ND	0.0065	0.0021	05/31/18 12:18	
Bromobenzene	mg/kg	ND	0.0065	0.0026	05/31/18 12:18	
Bromochloromethane	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
Bromodichloromethane	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
Bromoform	mg/kg	ND	0.0065	0.0030	05/31/18 12:18	
Bromomethane	mg/kg	ND	0.013	0.0033	05/31/18 12:18	
Carbon tetrachloride	mg/kg	ND	0.0065	0.0034	05/31/18 12:18	
Chlorobenzene	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
Chloroethane	mg/kg	ND	0.013	0.0031	05/31/18 12:18	
Chloroform	mg/kg	ND	0.0065	0.0021	05/31/18 12:18	
Chloromethane	mg/kg	ND	0.013	0.0031	05/31/18 12:18	
cis-1,2-Dichloroethene	mg/kg	ND	0.0065	0.0018	05/31/18 12:18	
cis-1,3-Dichloropropene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
Dibromochloromethane	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

METHOD BLANK: 2291360

Matrix: Solid

Associated Lab Samples: 92386223001, 92386223002, 92386223003, 92386223004, 92386223005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromomethane	mg/kg	ND	0.0065	0.0033	05/31/18 12:18	
Dichlorodifluoromethane	mg/kg	ND	0.013	0.0047	05/31/18 12:18	
Diisopropyl ether	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
Ethylbenzene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
Hexachloro-1,3-butadiene	mg/kg	ND	0.0065	0.0026	05/31/18 12:18	
Isopropylbenzene (Cumene)	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
m&p-Xylene	mg/kg	ND	0.013	0.0047	05/31/18 12:18	
Methyl-tert-butyl ether	mg/kg	ND	0.0065	0.0020	05/31/18 12:18	
Methylene Chloride	mg/kg	ND	0.026	0.0039	05/31/18 12:18	
n-Butylbenzene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
n-Propylbenzene	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
Naphthalene	mg/kg	ND	0.0065	0.0016	05/31/18 12:18	
o-Xylene	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
p-Isopropyltoluene	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
sec-Butylbenzene	mg/kg	ND	0.0065	0.0021	05/31/18 12:18	
Styrene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
tert-Butylbenzene	mg/kg	ND	0.0065	0.0026	05/31/18 12:18	
Tetrachloroethene	mg/kg	ND	0.0065	0.0022	05/31/18 12:18	
Toluene	mg/kg	ND	0.0065	0.0023	05/31/18 12:18	
trans-1,2-Dichloroethene	mg/kg	ND	0.0065	0.0025	05/31/18 12:18	
trans-1,3-Dichloropropene	mg/kg	ND	0.0065	0.0020	05/31/18 12:18	
Trichloroethene	mg/kg	ND	0.0065	0.0027	05/31/18 12:18	
Trichlorofluoromethane	mg/kg	ND	0.0065	0.0029	05/31/18 12:18	
Vinyl acetate	mg/kg	ND	0.065	0.011	05/31/18 12:18	
Vinyl chloride	mg/kg	ND	0.013	0.0023	05/31/18 12:18	
Xylene (Total)	mg/kg	ND	0.013	0.0047	05/31/18 12:18	
1,2-Dichloroethane-d4 (S)	%	96	70-132		05/31/18 12:18	
4-Bromofluorobenzene (S)	%	98	70-130		05/31/18 12:18	
Toluene-d8 (S)	%	106	70-130		05/31/18 12:18	

LABORATORY CONTROL SAMPLE: 2291361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	.066	0.068	102	74-137	
1,1,1-Trichloroethane	mg/kg	.066	0.061	92	67-140	
1,1,2,2-Tetrachloroethane	mg/kg	.066	0.062	94	72-141	F3
1,1,2-Trichloroethane	mg/kg	.066	0.068	103	78-138	
1,1-Dichloroethane	mg/kg	.066	0.059	90	69-134	
1,1-Dichloroethene	mg/kg	.066	0.064	96	67-138	
1,1-Dichloropropene	mg/kg	.066	0.064	97	69-139	
1,2,3-Trichlorobenzene	mg/kg	.066	0.064	97	70-146	
1,2,3-Trichloropropane	mg/kg	.066	0.066	100	69-144	
1,2,4-Trichlorobenzene	mg/kg	.066	0.063	95	68-148	
1,2,4-Trimethylbenzene	mg/kg	.066	0.062	94	74-137	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

LABORATORY CONTROL SAMPLE: 2291361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromo-3-chloropropane	mg/kg	.066	0.066	100	65-140	
1,2-Dibromoethane (EDB)	mg/kg	.066	0.067	101	77-135	
1,2-Dichlorobenzene	mg/kg	.066	0.063	95	77-141	
1,2-Dichloroethane	mg/kg	.066	0.061	92	65-137	
1,2-Dichloropropane	mg/kg	.066	0.067	102	72-136	
1,3,5-Trimethylbenzene	mg/kg	.066	0.061	92	76-133	
1,3-Dichlorobenzene	mg/kg	.066	0.062	94	74-138	
1,3-Dichloropropane	mg/kg	.066	0.067	102	71-139	
1,4-Dichlorobenzene	mg/kg	.066	0.062	93	76-138	
2,2-Dichloropropane	mg/kg	.066	0.062	93	68-137	
2-Butanone (MEK)	mg/kg	.13	ND	99	58-147	
2-Chlorotoluene	mg/kg	.066	0.061	93	73-139	
2-Hexanone	mg/kg	.13	0.12	94	62-145	
4-Chlorotoluene	mg/kg	.066	0.061	93	76-141	
4-Methyl-2-pentanone (MIBK)	mg/kg	.13	0.13	99	64-149	
Acetone	mg/kg	.13	.11J	86	53-153	
Benzene	mg/kg	.066	0.066	99	73-135	
Bromobenzene	mg/kg	.066	0.062	94	75-133	
Bromochloromethane	mg/kg	.066	0.064	96	73-134	
Bromodichloromethane	mg/kg	.066	0.069	104	71-135	
Bromoform	mg/kg	.066	0.061	92	66-141	
Bromomethane	mg/kg	.066	0.066	100	53-160	
Carbon tetrachloride	mg/kg	.066	0.062	94	60-145	
Chlorobenzene	mg/kg	.066	0.063	96	78-130	
Chloroethane	mg/kg	.066	0.055	83	64-149	
Chloroform	mg/kg	.066	0.067	101	70-134	
Chloromethane	mg/kg	.066	0.054	81	52-150	
cis-1,2-Dichloroethene	mg/kg	.066	0.064	97	70-133	
cis-1,3-Dichloropropene	mg/kg	.066	0.069	105	68-134	
Dibromochloromethane	mg/kg	.066	0.069	104	71-138	
Dibromomethane	mg/kg	.066	0.069	104	74-130	
Dichlorodifluoromethane	mg/kg	.066	0.057	87	40-160	
Diisopropyl ether	mg/kg	.066	0.060	91	69-141	
Ethylbenzene	mg/kg	.066	0.063	96	75-133	
Hexachloro-1,3-butadiene	mg/kg	.066	0.060	90	68-143	
Isopropylbenzene (Cumene)	mg/kg	.066	0.062	93	76-143	
m&p-Xylene	mg/kg	.13	0.13	95	75-136	
Methyl-tert-butyl ether	mg/kg	.066	0.058	88	68-144	
Methylene Chloride	mg/kg	.066	0.056	84	45-154	
n-Butylbenzene	mg/kg	.066	0.062	94	72-137	
n-Propylbenzene	mg/kg	.066	0.062	94	76-136	
Naphthalene	mg/kg	.066	0.064	96	68-151	
o-Xylene	mg/kg	.066	0.063	95	76-141	
p-Isopropyltoluene	mg/kg	.066	0.061	92	76-140	
sec-Butylbenzene	mg/kg	.066	0.063	96	79-139	
Styrene	mg/kg	.066	0.062	94	79-137	
tert-Butylbenzene	mg/kg	.066	0.056	84	74-143	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

LABORATORY CONTROL SAMPLE: 2291361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	mg/kg	.066	0.052	79	71-138	
Toluene	mg/kg	.066	0.063	96	74-131	
trans-1,2-Dichloroethene	mg/kg	.066	0.059	90	67-135	
trans-1,3-Dichloropropene	mg/kg	.066	0.070	106	65-146	
Trichloroethene	mg/kg	.066	0.070	105	67-135	
Trichlorofluoromethane	mg/kg	.066	0.061	92	59-144	
Vinyl acetate	mg/kg	.13	0.12	88	40-160 F3	
Vinyl chloride	mg/kg	.066	0.063	95	56-141	
Xylene (Total)	mg/kg	.2	0.19	95	76-137	
1,2-Dichloroethane-d4 (S)	%			104	70-132	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE SAMPLE: 2292324

Parameter	Units	92386223001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	.018	0.0097	55	70-130 M1	
1,1,1-Trichloroethane	mg/kg	ND	.018	0.015	83	70-130	
1,1,2,2-Tetrachloroethane	mg/kg	ND	.018	0.0079	45	70-130 M1	
1,1,2-Trichloroethane	mg/kg	ND	.018	0.011	61	70-130 M1	
1,1-Dichloroethane	mg/kg	ND	.018	0.014	77	70-130	
1,1-Dichloroethene	mg/kg	ND	.018	0.016	91	49-180	
1,1-Dichloropropene	mg/kg	ND	.018	0.015	83	70-130	
1,2,3-Trichlorobenzene	mg/kg	ND	.018	ND	9	70-130 M1	
1,2,3-Trichloropropane	mg/kg	ND	.018	0.0085	48	70-130 M1	
1,2,4-Trichlorobenzene	mg/kg	ND	.018	.0021J	12	70-130 M1	
1,2,4-Trimethylbenzene	mg/kg	ND	.018	0.0075	43	70-130 M1	
1,2-Dibromo-3-chloropropane	mg/kg	ND	.018	0.0071	40	70-130 M1	
1,2-Dibromoethane (EDB)	mg/kg	ND	.018	0.010	57	70-130 M1	
1,2-Dichlorobenzene	mg/kg	ND	.018	0.0046	26	70-130 M1	
1,2-Dichloroethane	mg/kg	ND	.018	0.012	67	70-130 M1	
1,2-Dichloropropane	mg/kg	ND	.018	0.013	75	70-130	
1,3,5-Trimethylbenzene	mg/kg	ND	.018	0.0085	48	70-130 M1	
1,3-Dichlorobenzene	mg/kg	ND	.018	0.0054	31	70-130 M1	
1,3-Dichloropropane	mg/kg	ND	.018	0.011	62	70-130 M1	
1,4-Dichlorobenzene	mg/kg	ND	.018	0.0051	29	70-130 M1	
2,2-Dichloropropane	mg/kg	ND	.018	0.014	81	70-130	
2-Butanone (MEK)	mg/kg	ND	.036	.023J	65	70-130 M1	
2-Chlorotoluene	mg/kg	ND	.018	0.0083	47	70-130 M1	
2-Hexanone	mg/kg	ND	.036	.017J	48	70-130 M1	
4-Chlorotoluene	mg/kg	ND	.018	0.0075	42	70-130 M1	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	.036	.02J	57	70-130 M1	
Acetone	mg/kg	ND	.036	.033J	95	70-130	
Benzene	mg/kg	ND	.018	0.013	77	50-166	
Bromobenzene	mg/kg	ND	.018	0.0073	41	70-130 M1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

MATRIX SPIKE SAMPLE: 2292324		92386223001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Bromochloromethane	mg/kg	ND	.018	0.013	72	70-130	
Bromodichloromethane	mg/kg	ND	.018	0.012	71	70-130	
Bromoform	mg/kg	ND	.018	0.010	57	70-130	M1
Bromomethane	mg/kg	ND	.018	0.013	74	70-130	
Carbon tetrachloride	mg/kg	ND	.018	0.016	88	70-130	
Chlorobenzene	mg/kg	ND	.018	0.0094	54	43-169	
Chloroethane	mg/kg	ND	.018	0.012	71	70-130	
Chloroform	mg/kg	ND	.018	0.017	79	70-130	
Chloromethane	mg/kg	ND	.018	0.013	75	70-130	
cis-1,2-Dichloroethene	mg/kg	ND	.018	0.014	79	70-130	
cis-1,3-Dichloropropene	mg/kg	ND	.018	0.0098	55	70-130	M1
Dibromochloromethane	mg/kg	ND	.018	0.0095	54	70-130	M1
Dibromomethane	mg/kg	ND	.018	0.012	67	70-130	M1
Dichlorodifluoromethane	mg/kg	ND	.018	0.014	80	70-130	
Diisopropyl ether	mg/kg	ND	.018	0.014	77	70-130	
Ethylbenzene	mg/kg	ND	.018	0.011	64	70-130	M1
Hexachloro-1,3-butadiene	mg/kg	ND	.018	0.0062	35	70-130	M1
Isopropylbenzene (Cumene)	mg/kg	ND	.018	0.011	62	70-130	M1
m&p-Xylene	mg/kg	ND	.036	0.021	59	70-130	M1
Methyl-tert-butyl ether	mg/kg	ND	.018	0.012	65	70-130	M1
Methylene Chloride	mg/kg	ND	.018	.0081J	46	70-130	M1
n-Butylbenzene	mg/kg	ND	.018	0.0086	49	70-130	M1
n-Propylbenzene	mg/kg	ND	.018	0.011	63	70-130	M1
Naphthalene	mg/kg	ND	.018	.0021J	12	70-130	M1
o-Xylene	mg/kg	ND	.018	0.0098	55	70-130	M1
p-Isopropyltoluene	mg/kg	ND	.018	0.0096	54	70-130	M1
sec-Butylbenzene	mg/kg	ND	.018	0.011	63	70-130	M1
Styrene	mg/kg	ND	.018	0.0070	40	70-130	M1
tert-Butylbenzene	mg/kg	ND	.018	0.0097	55	70-130	M1
Tetrachloroethene	mg/kg	ND	.018	0.011	62	70-130	M1
Toluene	mg/kg	ND	.018	0.013	71	52-163	
trans-1,2-Dichloroethene	mg/kg	ND	.018	0.014	79	70-130	
trans-1,3-Dichloropropene	mg/kg	ND	.018	0.0086	49	70-130	M1
Trichloroethene	mg/kg	ND	.018	0.013	73	49-167	
Trichlorofluoromethane	mg/kg	ND	.018	0.015	88	70-130	
Vinyl acetate	mg/kg	ND	.036	.012J	35	70-130	M1
Vinyl chloride	mg/kg	ND	.018	0.015	85	70-130	
Xylene (Total)	mg/kg	ND	.053	0.030	58	70-130	MS
1,2-Dichloroethane-d4 (S)	%				95	70-132	
4-Bromofluorobenzene (S)	%				95	70-130	
Toluene-d8 (S)	%				102	70-130	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

SAMPLE DUPLICATE: 2293483

Parameter	Units	92386154010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,1-Trichloroethane	mg/kg	ND	ND		30	
1,1,2,2-Tetrachloroethane	mg/kg	ND	ND		30	
1,1,2-Trichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethane	mg/kg	ND	ND		30	
1,1-Dichloroethene	mg/kg	ND	ND		30	
1,1-Dichloropropene	mg/kg	ND	ND		30	
1,2,3-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,3-Trichloropropane	mg/kg	ND	ND		30	
1,2,4-Trichlorobenzene	mg/kg	ND	ND		30	
1,2,4-Trimethylbenzene	mg/kg	ND	ND		30	
1,2-Dibromo-3-chloropropane	mg/kg	ND	ND		30	
1,2-Dibromoethane (EDB)	mg/kg	ND	ND		30	
1,2-Dichlorobenzene	mg/kg	ND	ND		30	
1,2-Dichloroethane	mg/kg	ND	ND		30	
1,2-Dichloropropane	mg/kg	ND	ND		30	
1,3,5-Trimethylbenzene	mg/kg	ND	ND		30	
1,3-Dichlorobenzene	mg/kg	ND	ND		30	
1,3-Dichloropropane	mg/kg	ND	ND		30	
1,4-Dichlorobenzene	mg/kg	ND	ND		30	
2,2-Dichloropropane	mg/kg	ND	ND		30	
2-Butanone (MEK)	mg/kg	ND	.039J		30	
2-Chlorotoluene	mg/kg	ND	ND		30	
2-Hexanone	mg/kg	ND	ND		30	
4-Chlorotoluene	mg/kg	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	ND		30	
Acetone	mg/kg	ND	0.64		30	E
Benzene	mg/kg	ND	ND		30	
Bromobenzene	mg/kg	ND	ND		30	
Bromochloromethane	mg/kg	ND	ND		30	
Bromodichloromethane	mg/kg	ND	ND		30	
Bromoform	mg/kg	ND	ND		30	
Bromomethane	mg/kg	ND	ND		30	
Carbon tetrachloride	mg/kg	ND	ND		30	
Chlorobenzene	mg/kg	ND	ND		30	
Chloroethane	mg/kg	ND	ND		30	
Chloroform	mg/kg	ND	.0035J		30	
Chloromethane	mg/kg	ND	ND		30	
cis-1,2-Dichloroethene	mg/kg	ND	ND		30	
cis-1,3-Dichloropropene	mg/kg	ND	ND		30	
Dibromochloromethane	mg/kg	ND	ND		30	
Dibromomethane	mg/kg	ND	ND		30	
Dichlorodifluoromethane	mg/kg	ND	ND		30	
Diisopropyl ether	mg/kg	ND	ND		30	
Ethylbenzene	mg/kg	ND	ND		30	
Hexachloro-1,3-butadiene	mg/kg	ND	ND		30	
Isopropylbenzene (Cumene)	mg/kg	ND	ND		30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

SAMPLE DUPLICATE: 2293483

Parameter	Units	92386154010 Result	Dup Result	RPD	Max RPD	Qualifiers
m&p-Xylene	mg/kg	ND	ND		30	
Methyl-tert-butyl ether	mg/kg	ND	ND		30	
Methylene Chloride	mg/kg	ND	ND		30	
n-Butylbenzene	mg/kg	ND	ND		30	
n-Propylbenzene	mg/kg	ND	ND		30	
Naphthalene	mg/kg	ND	ND		30	
o-Xylene	mg/kg	ND	ND		30	
p-Isopropyltoluene	mg/kg	ND	ND		30	
sec-Butylbenzene	mg/kg	ND	ND		30	
Styrene	mg/kg	ND	ND		30	
tert-Butylbenzene	mg/kg	ND	ND		30	
Tetrachloroethene	mg/kg	ND	ND		30	
Toluene	mg/kg	ND	ND		30	
trans-1,2-Dichloroethene	mg/kg	ND	ND		30	
trans-1,3-Dichloropropene	mg/kg	ND	ND		30	
Trichloroethene	mg/kg	ND	ND		30	
Trichlorofluoromethane	mg/kg	ND	ND		30	
Vinyl acetate	mg/kg	ND	ND		30	
Vinyl chloride	mg/kg	ND	ND		30	
Xylene (Total)	mg/kg	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	80	93	13		
4-Bromofluorobenzene (S)	%	95	92	4		
Toluene-d8 (S)	%	104	106	1		

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

QC Batch: 412560 Analysis Method: EPA 8270
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave PAH
Associated Lab Samples: 92386223001, 92386223002, 92386223004, 92386223005

METHOD BLANK: 2288575 Matrix: Solid
Associated Lab Samples: 92386223001, 92386223002, 92386223004, 92386223005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	ND	0.33	0.086	05/31/18 14:29	
2-Methylnaphthalene	mg/kg	ND	0.33	0.071	05/31/18 14:29	
Acenaphthene	mg/kg	ND	0.33	0.076	05/31/18 14:29	
Acenaphthylene	mg/kg	ND	0.33	0.078	05/31/18 14:29	
Anthracene	mg/kg	ND	0.33	0.074	05/31/18 14:29	
Benzo(a)anthracene	mg/kg	ND	0.33	0.061	05/31/18 14:29	
Benzo(a)pyrene	mg/kg	ND	0.33	0.063	05/31/18 14:29	
Benzo(b)fluoranthene	mg/kg	ND	0.33	0.057	05/31/18 14:29	
Benzo(g,h,i)perylene	mg/kg	ND	0.33	0.084	05/31/18 14:29	
Benzo(k)fluoranthene	mg/kg	ND	0.33	0.065	05/31/18 14:29	
Chrysene	mg/kg	ND	0.33	0.044	05/31/18 14:29	
Dibenz(a,h)anthracene	mg/kg	ND	0.33	0.070	05/31/18 14:29	
Fluoranthene	mg/kg	ND	0.33	0.048	05/31/18 14:29	
Fluorene	mg/kg	ND	0.33	0.068	05/31/18 14:29	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.33	0.068	05/31/18 14:29	
Naphthalene	mg/kg	ND	0.33	0.081	05/31/18 14:29	
Phenanthrene	mg/kg	ND	0.33	0.055	05/31/18 14:29	
Pyrene	mg/kg	ND	0.33	0.056	05/31/18 14:29	
2-Fluorobiphenyl (S)	%	76	30-110		05/31/18 14:29	
Nitrobenzene-d5 (S)	%	84	23-110		05/31/18 14:29	
Terphenyl-d14 (S)	%	63	28-110		05/31/18 14:29	

LABORATORY CONTROL SAMPLE & LCSD: 2288576

		2288577								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.4	1.5	82	87	40-120	6	30	
2-Methylnaphthalene	mg/kg	1.7	1.5	1.5	87	88	26-120	2	30	
Acenaphthene	mg/kg	1.7	1.4	1.3	83	80	46-120	3	30	
Acenaphthylene	mg/kg	1.7	1.5	1.5	87	87	46-120	1	30	
Anthracene	mg/kg	1.7	1.4	1.4	86	83	63-120	3	30	
Benzo(a)anthracene	mg/kg	1.7	1.5	1.6	88	93	61-120	5	30	
Benzo(a)pyrene	mg/kg	1.7	1.3	1.4	79	82	59-120	4	30	
Benzo(b)fluoranthene	mg/kg	1.7	1.4	1.4	81	81	55-120	1	30	
Benzo(g,h,i)perylene	mg/kg	1.7	1.4	1.4	85	85	57-120	0	30	
Benzo(k)fluoranthene	mg/kg	1.7	1.3	1.4	77	81	56-120	5	30	
Chrysene	mg/kg	1.7	1.4	1.5	85	91	64-120	7	30	
Dibenz(a,h)anthracene	mg/kg	1.7	1.5	1.4	88	85	56-120	4	30	
Fluoranthene	mg/kg	1.7	1.4	1.5	85	89	61-120	4	30	
Fluorene	mg/kg	1.7	1.4	1.5	85	86	51-120	2	30	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.4	1.4	86	84	58-120	1	30	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

LABORATORY CONTROL SAMPLE & LCSD: 2288576			2288577							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Naphthalene	mg/kg	1.7	1.4	1.4	81	82	38-120	2	30	
Phenanthrene	mg/kg	1.7	1.4	1.4	85	81	62-120	4	30	
Pyrene	mg/kg	1.7	1.5	1.5	89	87	63-120	2	30	
2-Fluorobiphenyl (S)	%				85	83	30-110			
Nitrobenzene-d5 (S)	%				81	80	23-110			
Terphenyl-d14 (S)	%				62	59	28-110			

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

QC Batch: 412809

Analysis Method: EPA 8270

QC Batch Method: EPA 3546

Analysis Description: 8270 Solid MSSV Microwave PAH

Associated Lab Samples: 92386223003

METHOD BLANK: 2289819

Matrix: Solid

Associated Lab Samples: 92386223003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	ND	0.32	0.085	05/30/18 11:58	
2-Methylnaphthalene	mg/kg	ND	0.32	0.070	05/30/18 11:58	
Acenaphthene	mg/kg	ND	0.32	0.075	05/30/18 11:58	
Acenaphthylene	mg/kg	ND	0.32	0.077	05/30/18 11:58	
Anthracene	mg/kg	ND	0.32	0.073	05/30/18 11:58	
Benzo(a)anthracene	mg/kg	ND	0.32	0.060	05/30/18 11:58	
Benzo(a)pyrene	mg/kg	ND	0.32	0.062	05/30/18 11:58	
Benzo(b)fluoranthene	mg/kg	ND	0.32	0.056	05/30/18 11:58	
Benzo(g,h,i)perylene	mg/kg	ND	0.32	0.083	05/30/18 11:58	
Benzo(k)fluoranthene	mg/kg	ND	0.32	0.064	05/30/18 11:58	
Chrysene	mg/kg	ND	0.32	0.043	05/30/18 11:58	
Dibenz(a,h)anthracene	mg/kg	ND	0.32	0.069	05/30/18 11:58	
Fluoranthene	mg/kg	ND	0.32	0.047	05/30/18 11:58	
Fluorene	mg/kg	ND	0.32	0.067	05/30/18 11:58	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.32	0.067	05/30/18 11:58	
Naphthalene	mg/kg	ND	0.32	0.080	05/30/18 11:58	
Phenanthrene	mg/kg	ND	0.32	0.054	05/30/18 11:58	
Pyrene	mg/kg	ND	0.32	0.055	05/30/18 11:58	
2-Fluorobiphenyl (S)	%	68	30-110		05/30/18 11:58	
Nitrobenzene-d5 (S)	%	65	23-110		05/30/18 11:58	
Terphenyl-d14 (S)	%	43	28-110		05/30/18 11:58	

LABORATORY CONTROL SAMPLE & LCSD: 2289820

2289821

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.4	1.2	83	72	40-120	14	30	
2-Methylnaphthalene	mg/kg	1.7	1.4	1.2	84	74	26-120	13	30	
Acenaphthene	mg/kg	1.7	1.3	1.1	77	69	46-120	11	30	
Acenaphthylene	mg/kg	1.7	1.4	1.2	83	75	46-120	11	30	
Anthracene	mg/kg	1.7	1.3	1.3	80	76	63-120	6	30	
Benzo(a)anthracene	mg/kg	1.7	1.4	1.3	82	81	61-120	2	30	
Benzo(a)pyrene	mg/kg	1.7	1.3	1.3	81	77	59-120	6	30	
Benzo(b)fluoranthene	mg/kg	1.7	1.5	1.4	89	82	55-120	8	30	
Benzo(g,h,i)perylene	mg/kg	1.7	1.4	1.3	83	80	57-120	5	30	
Benzo(k)fluoranthene	mg/kg	1.7	1.3	1.3	81	77	56-120	5	30	
Chrysene	mg/kg	1.7	1.4	1.3	82	79	64-120	4	30	
Dibenz(a,h)anthracene	mg/kg	1.7	1.4	1.4	85	83	56-120	3	30	
Fluoranthene	mg/kg	1.7	1.4	1.4	85	85	61-120	1	30	
Fluorene	mg/kg	1.7	1.4	1.2	84	74	51-120	13	30	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.4	1.3	82	78	58-120	6	30	

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

LABORATORY CONTROL SAMPLE & LCSD: 2289820			2289821							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Naphthalene	mg/kg	1.7	1.3	1.1	76	69	38-120	10	30	
Phenanthrene	mg/kg	1.7	1.3	1.3	78	77	62-120	3	30	
Pyrene	mg/kg	1.7	1.3	1.1	77	70	63-120	11	30	
2-Fluorobiphenyl (S)	%				77	67	30-110			
Nitrobenzene-d5 (S)	%				74	67	23-110			
Terphenyl-d14 (S)	%				50	46	28-110			

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

QC Batch: 413063

Analysis Method: EPA 8270

QC Batch Method: EPA 3510

Analysis Description: 8270 Water MSSV

Associated Lab Samples: 92386223006

METHOD BLANK: 2290986

Matrix: Water

Associated Lab Samples: 92386223006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	ND	10.0	2.8	05/31/18 20:43	
2-Methylnaphthalene	ug/L	ND	10.0	2.8	05/31/18 20:43	
Acenaphthene	ug/L	ND	10.0	3.4	05/31/18 20:43	
Acenaphthylene	ug/L	ND	10.0	3.0	05/31/18 20:43	
Anthracene	ug/L	ND	10.0	2.0	05/31/18 20:43	
Benzo(a)anthracene	ug/L	ND	10.0	1.3	05/31/18 20:43	
Benzo(a)pyrene	ug/L	ND	10.0	1.3	05/31/18 20:43	
Benzo(b)fluoranthene	ug/L	ND	10.0	1.5	05/31/18 20:43	
Benzo(g,h,i)perylene	ug/L	ND	10.0	1.8	05/31/18 20:43	
Benzo(k)fluoranthene	ug/L	ND	10.0	1.8	05/31/18 20:43	
Chrysene	ug/L	ND	10.0	1.3	05/31/18 20:43	
Dibenz(a,h)anthracene	ug/L	ND	10.0	1.9	05/31/18 20:43	
Fluoranthene	ug/L	ND	10.0	1.7	05/31/18 20:43	
Fluorene	ug/L	ND	10.0	3.0	05/31/18 20:43	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	1.7	05/31/18 20:43	
Naphthalene	ug/L	ND	10.0	3.2	05/31/18 20:43	
Phenanthrene	ug/L	ND	10.0	2.4	05/31/18 20:43	
Pyrene	ug/L	ND	10.0	1.2	05/31/18 20:43	
2-Fluorobiphenyl (S)	%	66	45-139		05/31/18 20:43	
Nitrobenzene-d5 (S)	%	70	40-121		05/31/18 20:43	
Terphenyl-d14 (S)	%	66	48-146		05/31/18 20:43	

LABORATORY CONTROL SAMPLE & LCSD: 2290987

2290988

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/L	50	29.9	27.6	60	55	34-113	8	30	
2-Methylnaphthalene	ug/L	50	29.9	28.0	60	56	33-120	6	30	
Acenaphthene	ug/L	50	35.8	30.8	72	62	48-114	15	30	
Acenaphthylene	ug/L	50	36.7	32.8	73	66	48-112	11	30	
Anthracene	ug/L	50	41.3	38.4	83	77	57-118	7	30	
Benzo(a)anthracene	ug/L	50	46.2	44.1	92	88	56-121	5	30	
Benzo(a)pyrene	ug/L	50	42.6	41.2	85	82	55-127	3	30	
Benzo(b)fluoranthene	ug/L	50	43.7	42.5	87	85	53-128	3	30	
Benzo(g,h,i)perylene	ug/L	50	44.9	43.6	90	87	54-125	3	30	
Benzo(k)fluoranthene	ug/L	50	44.4	42.3	89	85	51-123	5	30	
Chrysene	ug/L	50	46.5	44.8	93	90	58-127	4	30	
Dibenz(a,h)anthracene	ug/L	50	45.8	44.1	92	88	53-129	4	30	
Fluoranthene	ug/L	50	45.2	44.8	90	90	57-125	1	30	
Fluorene	ug/L	50	40.4	34.5	81	69	53-118	16	30	
Indeno(1,2,3-cd)pyrene	ug/L	50	45.5	43.9	91	88	55-128	4	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

LABORATORY CONTROL SAMPLE & LCSD: 2290987			2290988							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Naphthalene	ug/L	50	27.6	26.2	55	52	32-120	5	30	
Phenanthrene	ug/L	50	41.2	37.8	82	76	57-117	9	30	
Pyrene	ug/L	50	47.4	44.1	95	88	55-122	7	30	
2-Fluorobiphenyl (S)	%				74	66	45-139			
Nitrobenzene-d5 (S)	%				67	66	40-121			
Terphenyl-d14 (S)	%				60	57	48-146			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ELIJAH LANDING

Pace Project No.: 92386223

QC Batch:	412532	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	92386223001, 92386223002, 92386223003, 92386223004, 92386223005		

SAMPLE DUPLICATE: 2288484

Parameter	Units	92386203001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.0	14.2	1	25	

SAMPLE DUPLICATE: 2288485

Parameter	Units	92386218004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.1	10.8	11	25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: ELIJAH LANDING

Pace Project No.: 92386223

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

1g	The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
F3	The recovery of the second source standard used to verify the initial calibration curve for this analyte is outside the laboratory's control limits. The result is estimated.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
MS	Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.
S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ELIJAH LANDING

Pace Project No.: 92386223

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92386223001	TP-1	EPA 3546	412560	EPA 8270	413169
92386223002	TP-3	EPA 3546	412560	EPA 8270	413169
92386223003	TP-5	EPA 3546	412809	EPA 8270	412914
92386223004	TP-6	EPA 3546	412560	EPA 8270	413169
92386223005	SP-1	EPA 3546	412560	EPA 8270	413169
92386223006	TP-3 GW	EPA 3510	413063	EPA 8270	413300
92386223006	TP-3 GW	EPA 8260	413491		
92386223001	TP-1	EPA 8260	413137		
92386223002	TP-3	EPA 8260	413137		
92386223003	TP-5	EPA 8260	413137		
92386223004	TP-6	EPA 8260	413137		
92386223005	SP-1	EPA 8260	413137		
92386223001	TP-1	ASTM D2974-87	412532		
92386223002	TP-3	ASTM D2974-87	412532		
92386223003	TP-5	ASTM D2974-87	412532		
92386223004	TP-6	ASTM D2974-87	412532		
92386223005	SP-1	ASTM D2974-87	412532		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐

Sample Condition Upon Receipt
Client Name:
Project #:
WO# : 92386223


Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client
☒ Commercial ☒ Pace ☐ Other:

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: MD 5/25/11

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen?
☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: 92T040 **Type of Ice:** ☒ Wet ☐ Blue ☐ None

Cooler Temp (°C): 5.3 **Correction Factor: Add/Subtract (°C)** +0.4

Cooler Temp Corrected (°C): 5.8

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil ☐ N/A, water sample

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: SL & WT			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review:

Date: 5/29

Project Manager SRF Review:

Date: 5/29

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Pr **WO#: 92386223**

PM: PTE

Due Date: 06/04/18

CLIENT: 92-PARTNER

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1									—											6									
2									—											6									
3									—											6									
4									—											6									
5									—											6									
6																3											2		
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples						
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

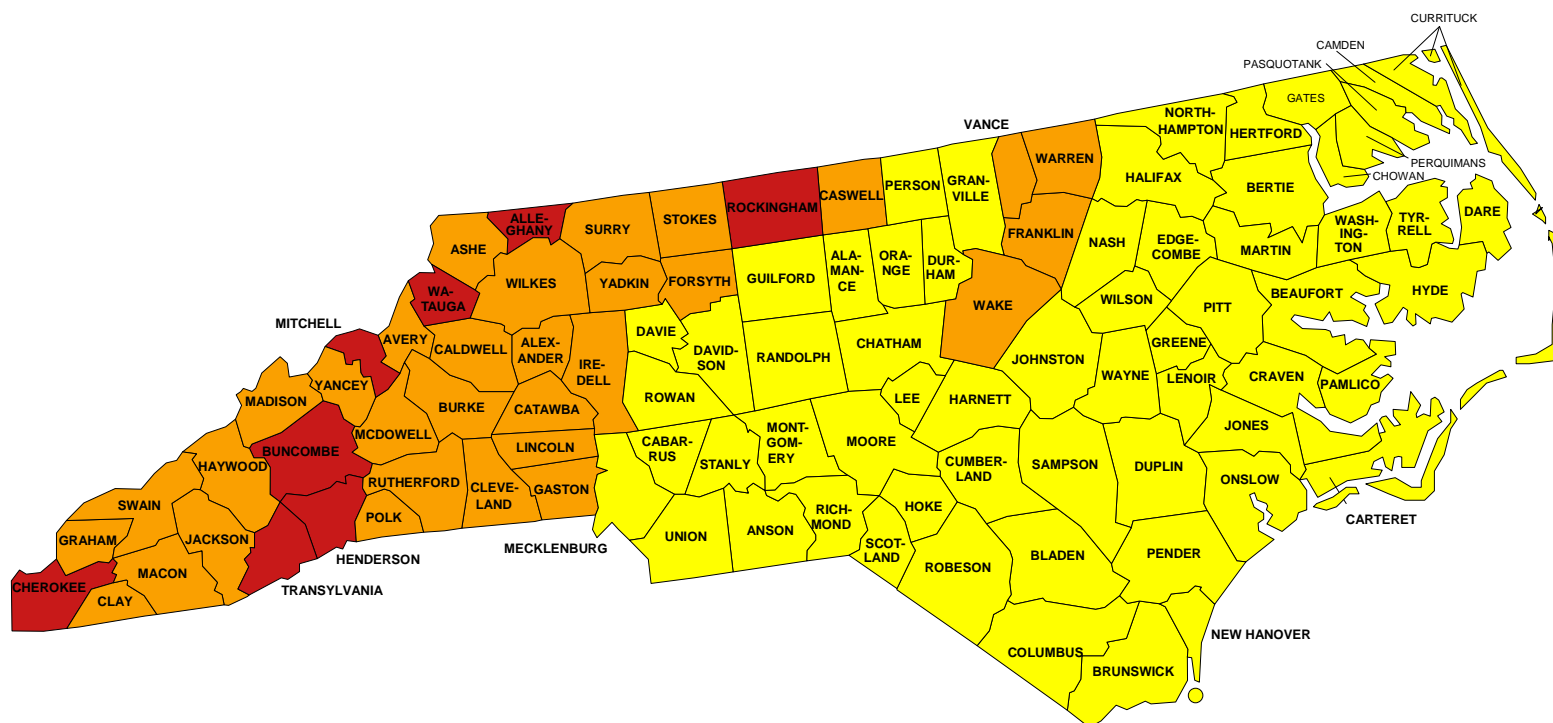
NORTH CAROLINA - EPA Map of Radon Zones

<http://www.epa.gov/radon/zonemap.html>

The purpose of this map is to assist National, State and local organizations to target their resources and to implement radon-resistant building codes.

This map is not intended to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones.

All homes should be tested, regardless of zone designation.



Zone 1



Zone 2



Zone 3

IMPORTANT: Consult the publication entitled "Preliminary Geologic Radon Potential Assessment of North Carolina" (USGS Open-file Report 93-292-D) before using this map. <http://energy.cr.usgs.gov/radon/grpinfo.html> This document contains information on radon potential variations within counties. EPA also recommends that this map be supplemented with any available local data in order to further understand and predict the radon potential of a specific area.

ATTACHMENT 8:

Endangered Species

USFWS Raleigh FO 10-step Package and
USFWS, NCNHP and NCORR Correspondence

Gievers, Andrea

From: Gievers, Andrea
Sent: Friday, April 28, 2023 9:44 AM
To: Raleigh, FW4
Cc: Mann, Leigh
Subject: Self-Certification - Elijah's Landing Apartments
Attachments: NCORR USFWS Self-Cert Elijahs Landing Apts pkg rdcd.pdf

Hello:

Please accept the Self-Certification Letter and supporting documentation for your records for the **Elijah's Landing Apartments Project** located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557. The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is partially funding this proposed Affordable Housing Development Fund project. The Elijah's Landing Apartments Project involves new construction of a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access, and infrastructure.

We have reviewed the proposed project using the USFWS Raleigh Ecological Services' online 10-step project review process and made "No Effect" determinations for proposed/listed species and/or proposed/designated critical habitat, except for the Monarch Butterfly and Rough-leaved Loosestrife which are "May Affect, Not Likely to Adversely Affect," and a "no Eagle Act permit required" determination for eagles. The proposed project was reviewed using the new USFWS Determination Key for the Northern Long-eared Bat which resulted in a "No Effect" determination. The proposed project will likely remove all trees prior to the Tricolored Bat listing, and the environmental consultants did not find suitable habitat. Please find attached the Self-certification Letter, 10-step Project Review Package, and NLEB Determination Key prepared by Atlantic Shores Environmental Services, Ltd. for the proposed project in accordance with all instructions provided, using the best available information to reach our conclusions. Please feel free to contact me if you have any questions. Thank you for your time and assistance!

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700



North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Laura H. Hogshead, Director

April 28, 2023

Mr. John Ellis
U.S. Fish and Wildlife Service
Raleigh ES Field Office
P.O. Box 33726
Raleigh, NC 27636-3726

Sent Via Email: Raleigh@fws.gov
Leigh_Mann@fws.gov

RE: Section 7 Project Review - No Effect/Not Likely to Adversely Affect Determination
NCORR - HUD CDBG-DR Program
Elijah's Landing Apartments
3200 Bridges Street
Morehead City, NC 28557
Parcel #637615648235000

Dear Mr. Ellis:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed affordable housing project, Elijah's Landing Apartments located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 (Subject Property). The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low- and moderate-income families. Therefore, funding for the proposed project will be provided in part by the HUD CDBG-DR North Carolina Affordable Housing Development Fund Program for Hurricane Florence storm recovery activities in North Carolina.

Mailing Address:
Post Office Box 110465
Durham, NC 27709



Phone: (984) 833-5350
www.ncdps.gov
www.rebuild.nc.gov

An Equal Opportunity Employer

The purpose of this letter is to provide the U.S. Fish and Wildlife Service – Raleigh ES Field Office (USFWS) notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as well as the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703–712) and the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668c, 54 Stat. 250), as amended.

We have reviewed the proposed project using the USFWS Raleigh Ecological Services’ online 10-step project review process and made “**No Effect**” determinations for proposed/listed species and/or proposed/designated critical habitat, *except for the **Monarch Butterfly and Rough-leaved Loosestrife** which is a “May Affect, Not Likely to Adversely Affect,”* and a “**no Eagle Act permit required**” determination for eagles. Please find attached the Self-certification Letter and 10-step Project Review Package prepared by Atlantic Shores Environmental Services, Ltd. for the proposed project in accordance with all instructions provided, using the best available information to reach our conclusions. The proposed project was reviewed using the new USFWS Determination Key for the Northern Long-eared Bat which resulted in a “**No Effect**” determination. The proposed project will likely remove all trees prior to the Tricolored Bat listing, and the environmental consultants did not find suitable habitat. Please find attached the Self-certification Letter, 10-step Project Review Package, and NLEB Determination Key for the proposed project in accordance with all instructions provided, using the best available information to reach our conclusions.

Proposed Project Location:

The proposed project site is located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 (Subject Property). The approximately 11.64-acre site is identified as Carteret County Parcel ID number 637615648235000, and owned by Elijah’s Landing of MHC LLC. The Subject Property has frontage along Bridges Road to the south.

The Subject Property is currently vacant land, with a dilapidated storage building constructed in 1982 (See attached Site Visit Photographs). The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. Commercial and residential properties surround the Subject Property. The Subject Property and a portion of the eastern adjoining and western adjoining properties appear to have been initially developed as agricultural property some time prior to 1938. A single-wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. The southern part of the Subject Property has been vacant since that time. The northern portion of the Subject Property was historically used as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in other areas.

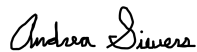
Proposed Project Activities:

Elijah's Landing Apartments ("proposed project") involves new construction of a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. (See attached Site Plans.)

NCORR is submitting the above information as notification of its determination and requests *acknowledgement* that they have received this determination for species under USFWS jurisdiction.

If you have any questions or require additional information regarding this request, please feel free to contact Andrea Gievers at (845) 682-1700 or via email at Andrea.L.Gievers@Rebuild.NC.gov. Thank you for your time and assistance.

Sincerely,



Andrea Gievers, JD, MSEL, ERM
NCORR Environmental Subject Matter Expert

Attachments:

- Self-certification Letter
- 10-step Project Review Package including NLEB Determination Key



United States Department of the Interior

FISH AND WILDLIFE SERVICE



Raleigh Field Office
P.O. Box 33726
Raleigh, NC 27636-3726

Date: 4/27/23

Self-Certification Letter

Project Name Elijah's Landing Apts

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Raleigh Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. Based on your analysis, mark all the determinations that apply:

- ☒ “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☒ “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☐ “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016, Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat;
- ☒ “no Eagle Act permit required” determinations for eagles.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed. Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species. Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year. Information about the online project review process including instructions, species information, and other information regarding project reviews within North Carolina is available at our website <http://www.fws.gov>. If you have any questions, you can write to us at Raleigh@fws.gov or please contact Leigh Mann of this office at 919-856-4520, ext. 10.

Sincerely,

/s/Pete Benjamin

Pete Benjamin
Field Supervisor
Raleigh Ecological Services

Enclosures - project review package



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To:
Project Code: 2023-0024148
Project Name: Elijahs's Landing

April 26, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). If your project area contains suitable habitat for any of the federally-listed species on this species list, the proposed action has the potential to adversely affect those species. If suitable habitat is present, surveys should be conducted to determine the species' presence or absence within the project area. The use of this species list and/or North Carolina Natural Heritage program data should not be substituted for actual field surveys.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - Migratory Birds
 - Marine Mammals
-

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Raleigh Ecological Services Field Office

Post Office Box 33726

Raleigh, NC 27636-3726

(919) 856-4520

ENDANGERED SPECIES ACT SPECIES

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered
West Indian Manatee <i>Trichechus manatus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. <i>This species is also protected by the Marine Mammal Protection Act, and may have additional consultation requirements.</i> Species profile: https://ecos.fws.gov/ecp/species/4469	Threatened

BIRDS

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10477	Threatened
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

REPTILES

NAME	STATUS
American Alligator <i>Alligator mississippiensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/776	Similarity of Appearance (Threatened)
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6199	Threatened
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is proposed critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/5523	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1110	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Rough-leaved Loosestrife <i>Lysimachia asperulaefolia</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2747	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

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1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
American Oystercatcher <i>Haematopus palliatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31

NAME	BREEDING SEASON
Bachman's Sparrow <i>Aimophila aestivalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6177	Breeds May 1 to Sep 30
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
Black Skimmer <i>Rynchops niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jul 15
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Gull-billed Tern <i>Gelochelidon nilotica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9501	Breeds May 1 to Jul 31
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere

NAME	BREEDING SEASON
Painted Bunting <i>Passerina ciris</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 25 to Aug 15
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Purple Sandpiper <i>Calidris maritima</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Ruddy Turnstone <i>Arenaria interpres morinella</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8938	Breeds Mar 10 to Jun 30
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5
Wilson's Plover <i>Charadrius wilsonia</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Aug 20
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

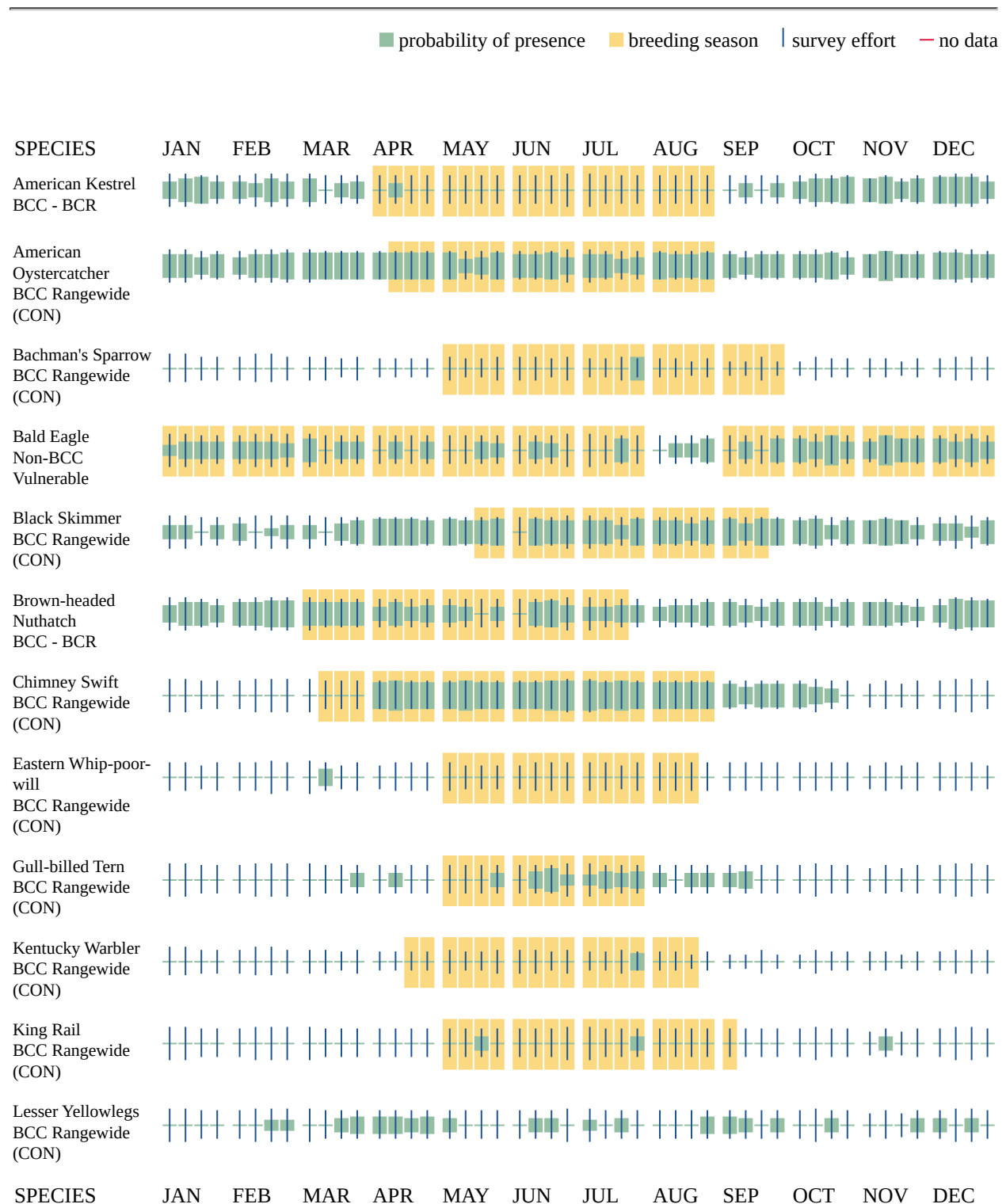
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

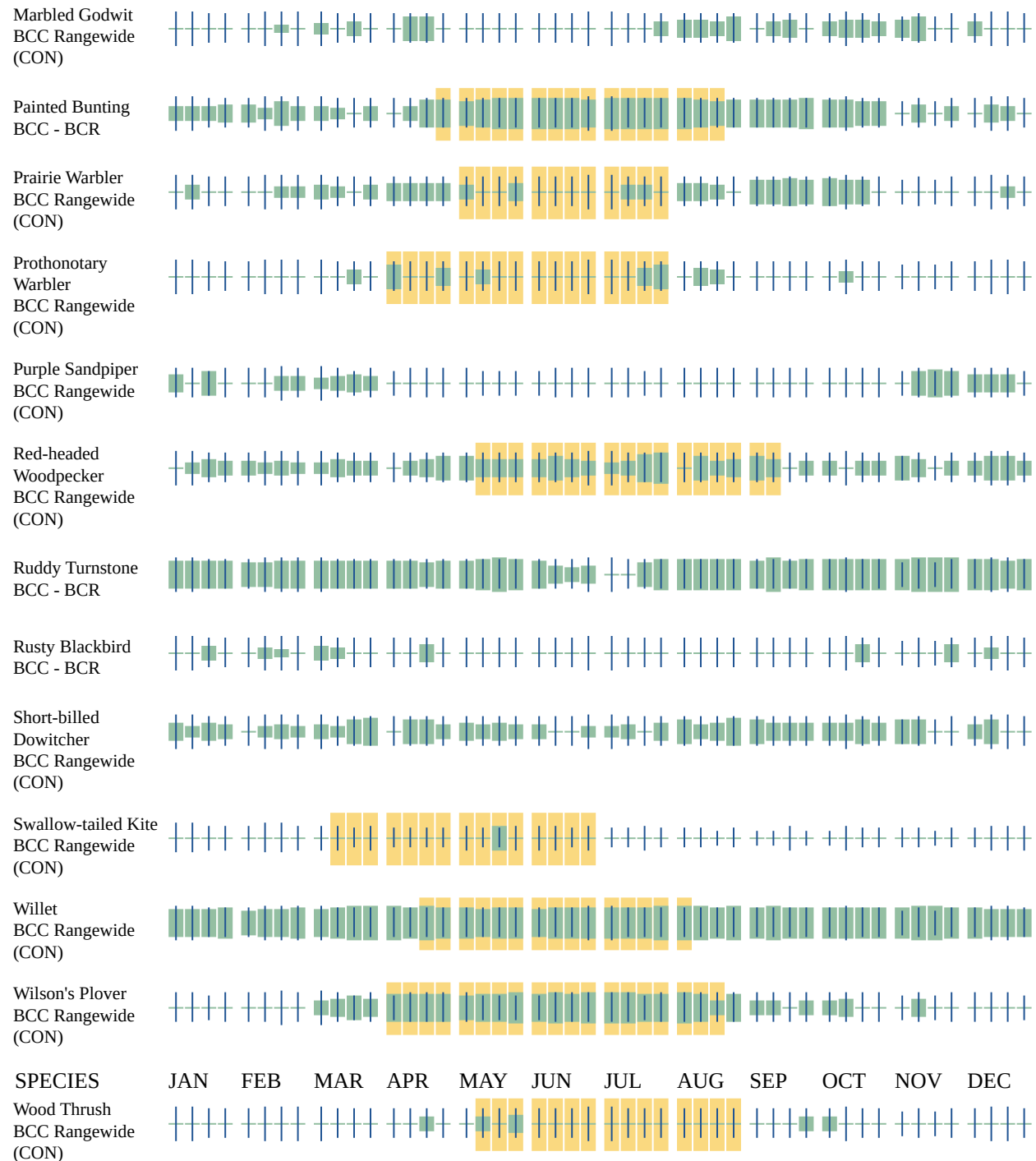
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>

- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look

at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be

aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

MARINE MAMMALS

Marine mammals are protected under the [Marine Mammal Protection Act](#). Some are also protected under the Endangered Species Act¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the [Marine Mammals](#) page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

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1. The [Endangered Species Act](#) (ESA) of 1973.
 2. The [Convention on International Trade in Endangered Species of Wild Fauna and Flora](#) (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
 3. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NAME

West Indian Manatee *Trichechus manatus*

Species profile: <https://ecos.fws.gov/ecp/species/4469>

IPAC USER CONTACT INFORMATION

Agency: Atlantic Shores Environmental Services Ltd

Name: Cheryl Moody

Address: 175-1 Venture Drive

City: Belville

State: NC

Zip: 28451

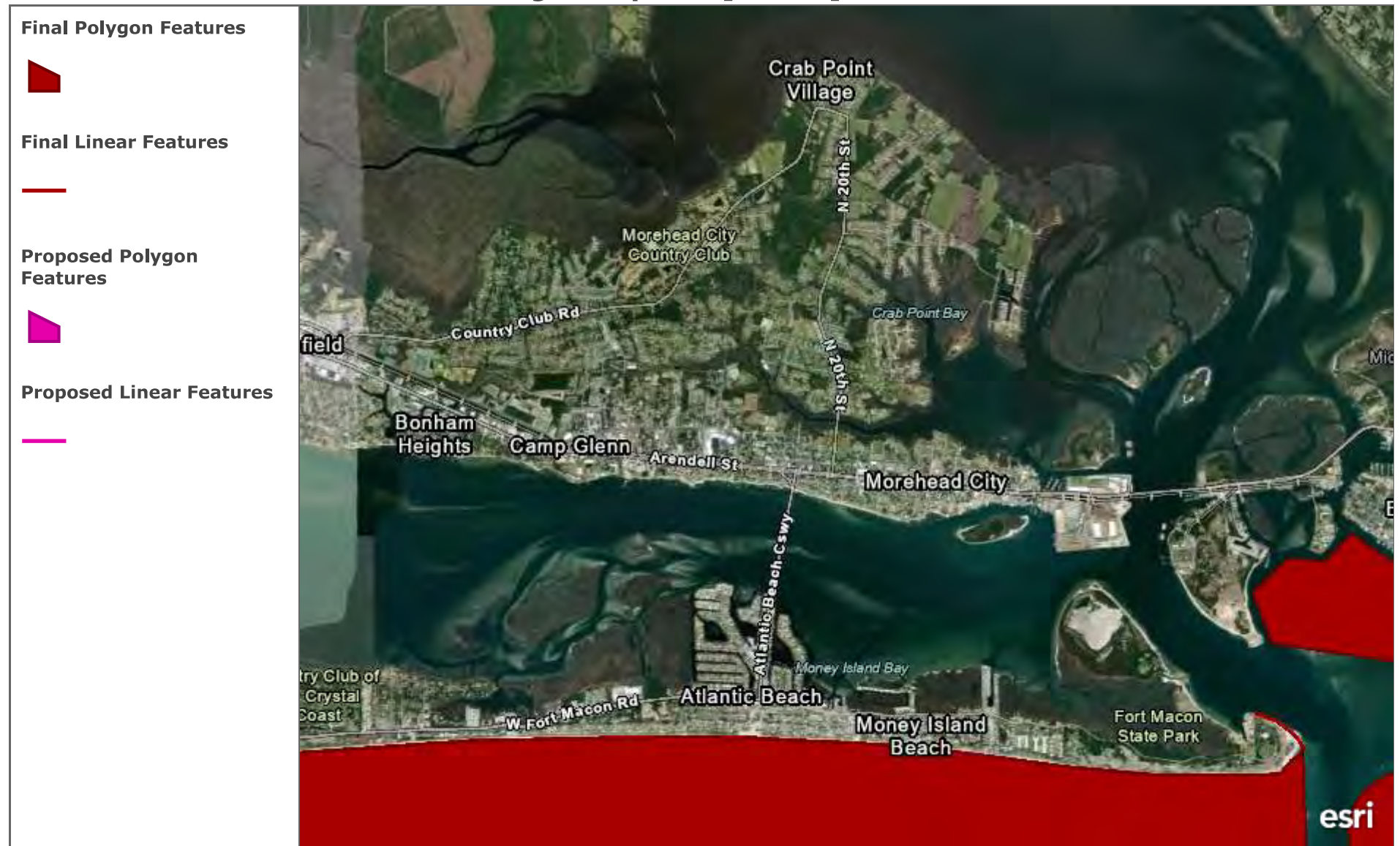
Email: cmoody@atlanticshoresenv.com

Phone: 9103715980

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

Critical Habitat for Threatened & Endangered Species [USFWS]



A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.



Roy Cooper, Governor

D. Reid Wilson, Secretary

Misty Buchanan
Deputy Director, Natural Heritage Program

NCNHDE-21734

April 27, 2023

Andrea Gievers
NCORR
P.O. Box 110465
Durham, NC 27709
RE: Elijahs's Landing Apartments

Dear Andrea Gievers:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

A query of the NCNHP database indicates that there are records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. These results are presented in the attached 'Documented Occurrences' tables and map.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is documented within the project area or indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: <https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37>.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

Also please note that the NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Land and Water Fund easement, or an occurrence of a Federally-listed species is documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at rodney.butler@ncdcr.gov or 919-707-8603.

Sincerely,
NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Intersecting the Project Area
Elijahs's Landing Apartments
April 27, 2023
NCNHDE-21734

No Element Occurrences are Documented within the Project Area

There are no documented element occurrences (of medium to very high accuracy) that intersect with the project area. Please note, however, that although the NCNHP database does not show records for rare species within the project area, it does not necessarily mean that they are not present; it may simply mean that the area has not been surveyed. The use of Natural Heritage Program data should not be substituted for actual field surveys if needed, particularly if the project area contains suitable habitat for rare species. If rare species are found, the NCNHP would appreciate receiving this information so that we may update our database.

No Natural Areas are Documented within the Project Area

Managed Areas Documented Within Project Area*

Managed Area Name	Owner	Owner Type
Mountains-to-Sea Trail	NC DNCR, Division of Parks and Recreation	State

* NOTE: If the proposed project intersects with a conservation/managed area, please contact the landowner directly for additional information. If the project intersects with a Dedicated Nature Preserve (DNP), Registered Natural Heritage Area (RHA), or Federally-listed species, NCNHP staff may provide additional correspondence regarding the project.

Definitions and an explanation of status designations and codes can be found at <https://ncnhde.natureserve.org/help>. Data query generated on April 27, 2023; source: NCNHP, Q4, Winter (January) 2023. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area
Elijahs's Landing Apartments
April 27, 2023
NCNHDE-21734

Element Occurrences Documented Within a One-mile Radius of the Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Animal Assemblage	32556	Waterbird Colony	Waterbird Colony	2014-06-17	B	3-Medium	---	---	GNR	S3
Animal Assemblage	26655	Waterbird Colony	Waterbird Colony	2007	D	3-Medium	---	---	GNR	S3
Animal Assemblage	23990	Waterbird Colony	Waterbird Colony	2014-06-26	C	3-Medium	---	---	GNR	S3
Bird	35615	Gelochelidon nilotica	Gull-billed Tern	2014-06-26	D	3-Medium	---	Threatened	G5	S1S2B
Bird	26020	Haematopus palliatus	American Oystercatcher	2019-07-18	B	3-Medium	---	Special Concern	G5	S2S3B, S3N
Bird	10588	Passerina ciris	Painted Bunting	2019-09-23	AB	3-Medium	---	Special Concern	G5	S2B
Bird	35618	Rynchops niger	Black Skimmer	2014-06-26	D	3-Medium	---	Special Concern	G5	S2B,S3N
Bird	23992	Sterna hirundo	Common Tern	2014-06-26	D	3-Medium	---	Endangered	G5	S2B
Bird	15792	Sternula antillarum	Least Tern	2001-07-03	H	3-Medium	---	Special Concern	G4	S3B
Bird	26656	Sternula antillarum	Least Tern	2007-06-16	CD	2-High	---	Special Concern	G4	S3B
Dragonfly or Damselfly	32036	Coryphaeschna ingens	Regal Darner	2004-Pre	H?	5-Very Low	---	Significantly Rare	G5	S2?
Dragonfly or Damselfly	33787	Triacanthagyna trifida	Phantom Darner	2004-Pre	H?	5-Very Low	---	Significantly Rare	G5	SH
Freshwater Fish	38939	Acipenser oxyrinchus oxyrinchus	Atlantic Sturgeon	2004-11-28	E	4-Low	Endangered	Endangered	G3T3	S2
Natural Community	28394	Salt Marsh (Carolinian Subtype)	---	2022-05-06	A	2-High	---	---	G5	S4
Reptile	15254	Malaclemys terrapin	Diamondback Terrapin	2022-05-15	B	3-Medium	---	Special Concern	G4	S3
Reptile	37553	Sistrurus miliarius miliarius	Carolina Pigmy Rattlesnake	1950-08-01	H	4-Low	---	Special Concern	G5T4T5	S2
Vascular Plant	26526	Crocanthemum georgianum	Georgia Sunrose	2008-05-18	D	2-High	---	Endangered	G4	S1

Element Occurrences Documented Within a One-mile Radius of the Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Vascular Plant	41276	Steironema hybridum	Lowland Loosestrife	1919-07-19	H	5-Very Low	---	Significantly Rare Peripheral	G5	S2?

Natural Areas Documented Within a One-mile Radius of the Project Area

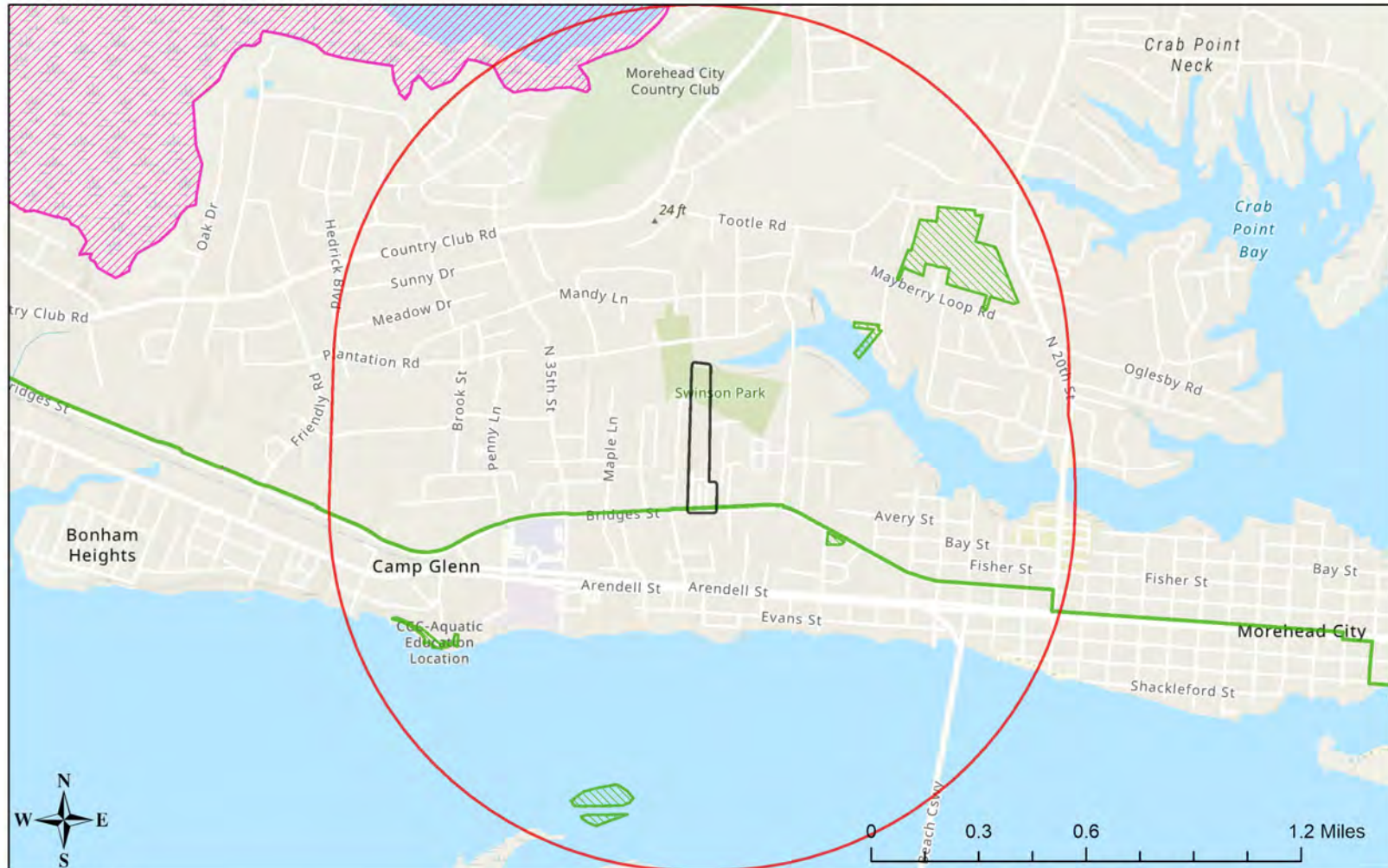
Site Name	Representational Rating	Collective Rating
Newport River and Black Creek Wetlands	R2 (Very High)	C3 (High)

Managed Areas Documented Within a One-mile Radius of the Project Area

Managed Area Name	Owner	Owner Type
NC Department of Transportation Mitigation Site	NC Department of Transportation	State
Town of Morehead City - Morehead City Sports Complex	Town of Morehead City	Local Government
Town of Morehead City - Piney Park	Town of Morehead City	Local Government
Town of Morehead City Open Space	Town of Morehead City	Local Government
Mountains-to-Sea Trail	NC DNCR, Division of Parks and Recreation	State
NC Land and Water Fund Conservation Agreement	NC DNCR, NC Land and Water Fund	State

Definitions and an explanation of status designations and codes can be found at <https://ncnhde.natureserve.org/help>. Data query generated on April 27, 2023; source: NCNHP, Q4, Winter (January) 2023. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

NCNHDE-21734: Elijahs's Landing Apartments




April 27, 2023

- NHP Natural Area (NHNA)
- Managed Area (MAREA)
- Buffered Project Boundary
- Project Boundary

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community
 Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Elijah's Landing Apartments – Distance to Mountains-to-Sea Trail Map

← ↻ <https://mountaintoseatrail.org/the-trail/map/>

 The Trail

Legend

Current Route

- Trails
- Roads
- Paddle Routes
- Alternate Routes
- Detours If Trail Closed

Choose a Segment ▼ Zoom

Available Map Layers:

- ☒ Trail Segments
- ☒ Primary Trailheads
- ☐ Mile Markers
- ☒ Trail Alerts
- ☐ Day Hikes
- ☐ Photo Contest Entries

Drawing Tools:

☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Show Drawing Tools

Hide Drawing Tools

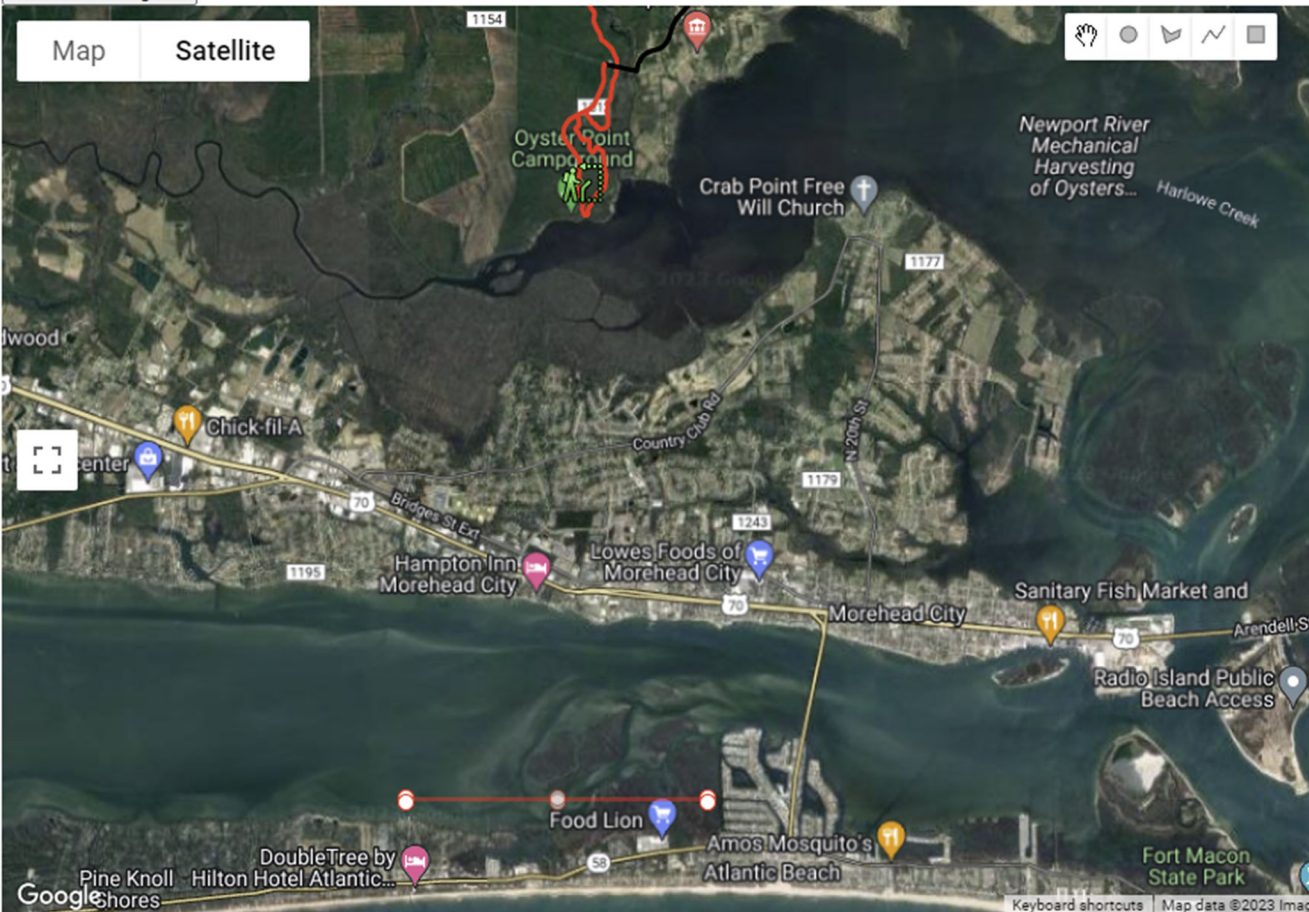
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Delete All Shapes

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Hide/Show Legend

Map Satellite



Keyboard shortcuts Map data ©2023 Imag



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To:
Project code: 2023-0024148
Project Name: Elijahs's Landing

April 26, 2023

Federal Nexus: yes
Federal Action Agency (if applicable): Department of Housing and Urban Development

Subject: Record of project representative's no effect determination for 'Elijahs's Landing'

Dear Cheryl Moody:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on April 26, 2023, for 'Elijahs's Landing' (here forward, Project). This project has been assigned Project Code 2023-0024148 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may

include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- American Alligator *Alligator mississippiensis* Similarity of Appearance (Threatened)
- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened
- Green Sea Turtle *Chelonia mydas* Threatened
- Kemp's Ridley Sea Turtle *Lepidochelys kempii* Endangered
- Leatherback Sea Turtle *Dermochelys coriacea* Endangered
- Loggerhead Sea Turtle *Caretta caretta* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Piping Plover *Charadrius melodus* Threatened
- Red Knot *Calidris canutus rufa* Threatened
- Red-cockaded Woodpecker *Picoides borealis* Endangered
- Rough-leaved Loosestrife *Lysimachia asperulaefolia* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- West Indian Manatee *Trichechus manatus* Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of "No Effect" on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Raleigh Ecological Services Field Office and reference Project Code 2023-0024148 associated with this Project.

DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Your project overlaps with an area where northern long-eared bats may be present year-round. Time-of-year restrictions may not be appropriate for your project due to bats being active all year.

Do you understand that your project may impact bats at any time during the year and time-of-year restrictions may not apply to your project?

Yes

3. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

4. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

10. Your project overlaps with an area where northern long-eared bats may be present year-round.

Is suitable northern long-eared bat habitat present within 1000 feet of project activities?

No

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Atlantic Shores Environmental Services Ltd

Name: Cheryl Moody

Address: 175-1 Venture Drive

City: Belville

State: NC

Zip: 28451

Email: cmoody@atlanticshoresenv.com

Phone: 9103715980

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Housing and Urban Development

Elijah's Landing			
Habitat Summary 1/16/2023			
Species	Habitat	Habitat Present (Y/N)	Critical Habitat Present (Y/N)
Mammals			
Northern Long-eared Bat <i>Myotis septentrionalis</i>	winter hibernating in caves and minesummer and portions of the fall and spring, northern long-eared bats may be found roosting singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags, or dead trees. The species has also been found, although less commonly, roosting in structures, such as barns and sheds. Northern long-eared bats use forested areas not only for roosting, but also for foraging and commuting between summer and winter habitat.(USFWS)	Possibly	N
Tricolored Bat <i>Perimyotis subflavus</i>	hibernating seasons - tricolored bats primarily roost among live and dead leaf clusters of live or recently dead deciduous hardwood treesDuring the winter, tricolored bats hibernate in caves and mines. (USFWS)	No	N
West Indian Manatee <i>Trichechus manatus</i>	Manatees live in marine, brackish and freshwater systems in coastal and riverine areas throughout their range (USFWS)	No	N
Birds			
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i>	Requires dense vegetative cover that allows movelment underneath the canopy in salt, brackish, and freshwater marshes (USFWS)	No	N
Piping Plover <i>Charadrius melodus</i>	these patches in response to local weather and tidal conditions. Coastal habitats include sand spits, small islands, tidal flats, shoals and sandbars with inlets. Primary foraging habitats include sandy mud flats, ephemeral pools and seasonally emergent seagrass beds (USFWS)	No	N
Red Knot <i>Calidris canutus rufa</i>	Coastal marine and estuarine habitas with larege areas of exposed intertidal sediments (USFWS)	No	N
Red-cockaded Woodpecker <i>Picoides borealis</i>	Mature (80+ years) long leaf pines or other pines. (USFWS)	No	N
Reptiles			

American Alligator <i>Alligator mississippiensis</i>	American alligator inhabits freshwater swamps, marshes, ponds, lakes and the backwaters of large rivers. They have also been observed in brackish water and even on beaches. (NCWildlife)	No	N
Green Sea Turtle <i>Chelonia mydas</i>	Green turtles are found worldwide primarily in subtropical and temperate regions of the Atlantic, Pacific, and Indian Oceans, and in the Mediterranean Sea.(NOAAA Fisheries)	No	N
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i>	Adult Kemp's ridleys primarily occupy nearshore coastal (neritic) habitats in the Gulf of Mexico that include muddy or sandy bottoms where their preferred prey are found.(NOAA Fisheries)	No	N
Leatherback Sea Turtle <i>Dermochelys coriacea</i>	Leatherbacks occur in the Atlantic, Pacific, and Indian Oceans. (NOAA Fisheries)	No	N
Loggerhead Sea Turtle <i>Caretta caretta</i>	Loggerhead turtles are found worldwide primarily in subtropical and temperate regions of the Atlantic, Pacific, and Indian Oceans, and in the Mediterranean Sea. (NOAAA Fisheries)	No	N
Insects			
Monarch Butterfly <i>Danaus plexippus</i>	field, roadside area, open area, wet area or urban garden, milkweed and flowering plants are needed for monarch habitat. (USFWS)	Possibly	N
Flowering Plants			
Rough-leaved Loosestrife <i>Lysimachia asperulaefolia</i>	This species generally occurs in the ecotones or edges between longleaf pine uplands and pond pine pocosins (areas of dense shrub and vine growth usually on a wet, peaty, poorly drained soil) on moist to seasonally saturated sands and on shallow organic soils overlaying sand. (USFWS)	Possibly	N
Seabeach Amaranth <i>Amaranthus pumilus</i>	Seabeach amaranth occurs on barrier beaches, where its primary habitat consists of overwash flats at the ends of islands that are accumulating more sand and lower developing dunes and upper strands of non-eroding beaches. (USFWS)	No	N

Species Conclusions Table

Project Name: Elijah's Landing Apartments


Date: 4/27/23

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Northern Long-eared Bat Myotis septentrionalis	Suitable habitat present	No Effect acc to USFWS NLEB D Key	See attached USFWS NLEB DKey - No Effect.
Tricolored Bat Perimyotis subflavus	No suitable habitat present	No Effect - project area will likely be cleared before listing	Limited number of large trees and limited woodland edges
West Indian Manatee Trichechus manatus	No suitable habitat present	No Effect	No marine habitat
Eastern Black Rail	No suitable habitat present	No Effect	Limited vegetative cover
Piping Plover	No suitable habitat present	No Effect	No sand spits, small islands, tidal flats, shoals and sandbars with inlets
Red Knot	No suitable habitat present	No Effect	No muddy or sandy coastal areas, specifically, bays and estuaries, tidal flats, and unimproved tidal inlets
Red-cockaded Woodpecker	No suitable habitat present	No Effect	No mature pine forests
Bald Eagle	Unlikely to disturb nesting bald eagles	No Eagle Act Permit Required	No bald eagle nests observed

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Ryan Kramer

Signature /Title

 Digitally signed by Ryan Kramer
Date: 2023.04.27 17:24:34 -04'00'

4/27/23

Date

Species Conclusions Table


Project Name: Elijah's Landing Apartments

Date: 4/27/23

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
American Alligator	No suitable habitat present	No Effect acc to USFWS NLEB D Key	No freshwater, slow-moving rivers or swamps, marshes and lakes.
Green Sea Turtle	No suitable habitat present	No Effect	No marine habitat
Kemp's Ridley Sea Turtle	No suitable habitat present	No Effect	No marine habitat
Leatherback Sea Turtle	No suitable habitat present	No Effect	No marine habitat
Loggerhead Sea Turtle	No suitable habitat present	No Effect	No marine habitat
Monarch Butterfly	Suitable habitat may be present	May Affect, Not likely to adversely affect	None observed
Rough-leaved Loosestrife	Suitable habitat may be present	May Affect, Not likely to adversely affect	None observed
Atlantic Sturgeon	No suitable habitat present	No Effect	No rivers or coastal waters on site or adjacent

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

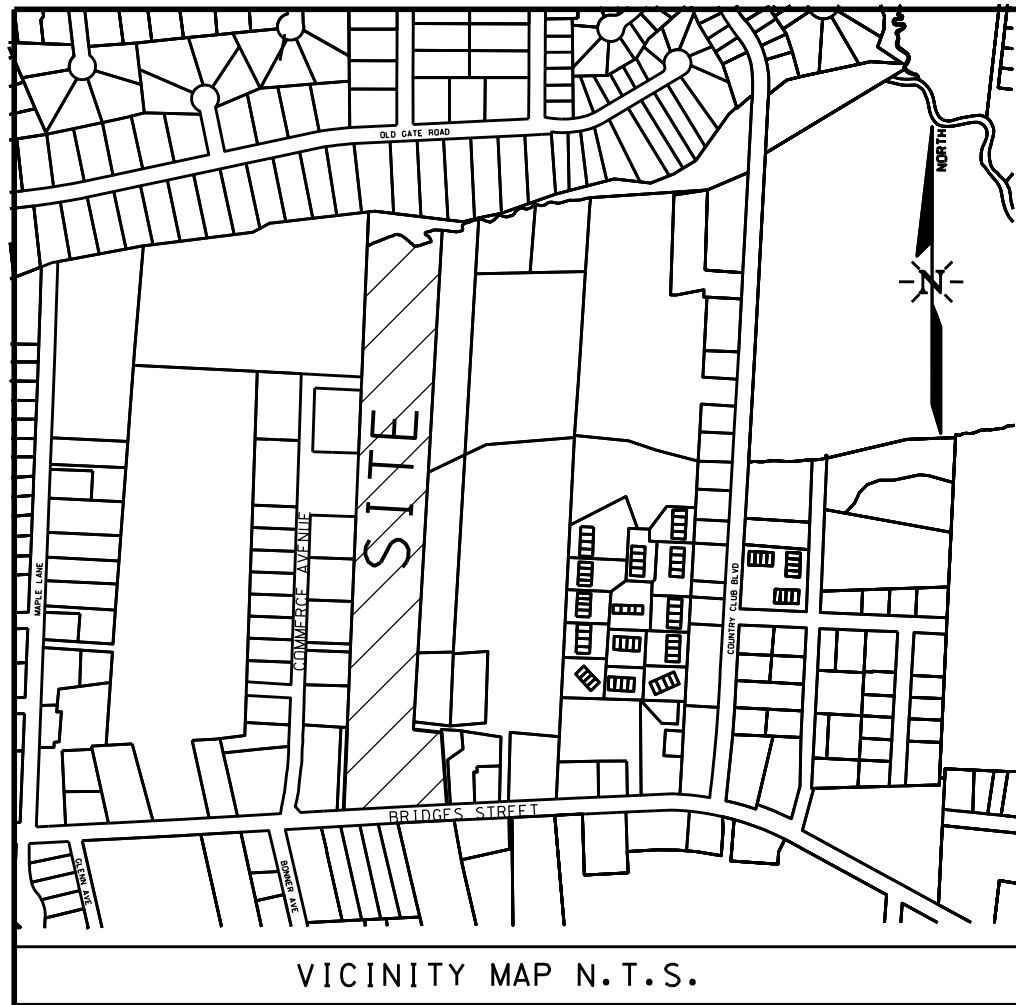
Ryan Kramer

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Signature /Title

4/27/23

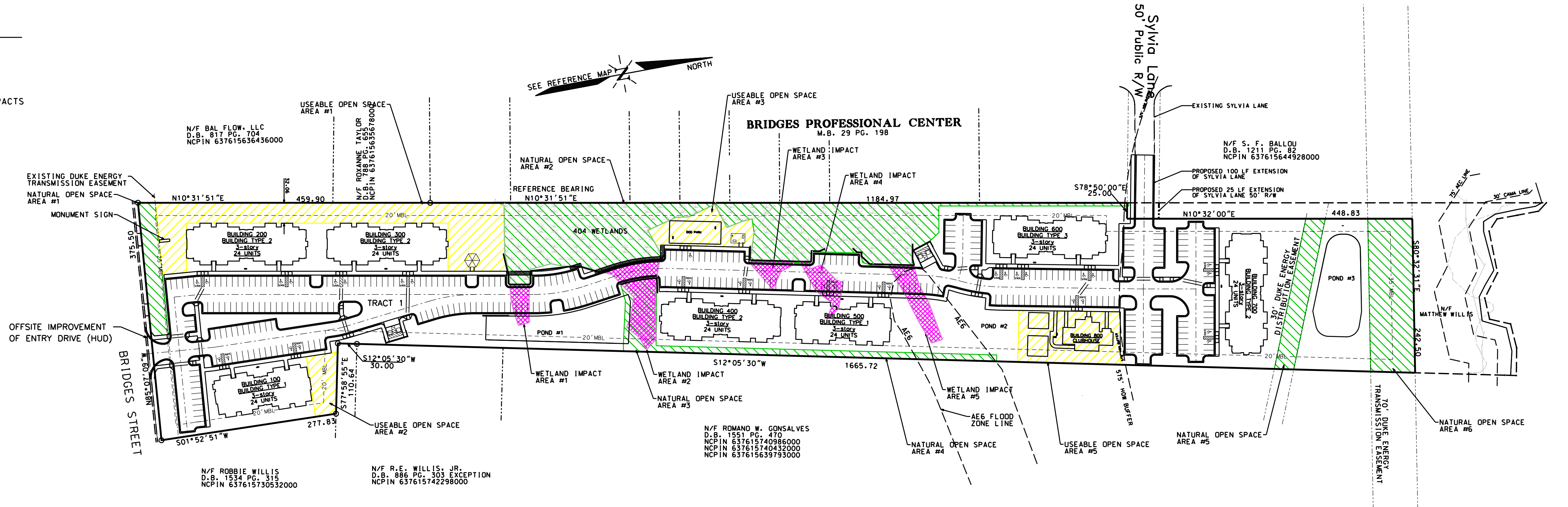
Date



VICINITY MAP N.T.S.

LEGEND

- EXISTING WETLANDS
- PROPOSED WETLAND IMPACTS
- USEABLE OPEN SPACE
- NATURAL OPEN SPACE



AREA TABULATIONS

USEABLE OPEN SPACE AREAS		NATURAL OPEN SPACE AREAS		WETLAND IMPACT AREAS	
AREA #	AREA (SF)	AREA #	AREA (SF)	AREA #	AREA (AC)
1	27,686.83	1	5,561.79	1	0.037
2	3,933.28	2	54,784.37	2	0.139
3	7,041.94	3	1,711.15	3	0.055
4	OMITTED	4	3,110.77	4	0.065
5	13,175.22	5	1,299.98	5	0.083
6		6	16,913.42		
TOTAL AREA = 51,837.27 SF		TOTAL AREA = 95,341.48 SF		TOTAL AREA = 0.349 AC	

SITE DATA

TRACT AREA = 11.74 AC = 506,966.36 SF
MAXIMUM BUILDING COVERAGE ALLOWED IS 40% OF TRACT AREA = 202,786.54 SF
PROPOSED BUILDING COVERAGE (BUILDINGS 100 THRU 700, CLUBHOUSE, GAZEBO & COVERED PICNIC AREA) = 64,755.28 SF
MINIMUM LOT SIZE PER UNITS = 5,000 SF FOR FIRST UNIT, EACH 2+ BEDROOM UNIT REQUIRES 3,000 SF PER UNIT AND EACH 1 BEDROOM UNIT REQUIRES 2,500 SF PER UNIT.
PROPOSED (30) 1 BEDROOM UNITS, (78) 2 BEDROOM UNITS AND (60) 3 BEDROOM UNITS
REQUIRED AREA = 5,000 SF + [138 UNITS X 3,000 SF] + [29 X 2,500 SF] = 491,500 SF = 11.28 AC
TRACT AREA IS GREATER THAN MINIMUM LOT AREA REQUIRED

OPEN SPACE REQUIREMENTS = 18% OF TRACT MUST BE NATURAL OPEN SPACE AND 10% USEABLE OPEN SPACE
NATURAL OPEN SPACE REQUIRES (18% OF TRACT) = 91,253.94 SF
USEABLE OPEN SPACE REQUIRED (10% OF TRACT) = 50,696.64 SF
NATURAL OPEN SPACE PROVIDED = 94,261.85 SF
USEABLE OPEN SPACE PROVIDED = 51,837.27 SF

MINIMUM SETBACK REQUIREMENTS
FRONT = 25'; 25' PROVIDED
REAR = 25' + 5' PER ADDITIONAL STORY = 35'; 35' PROVIDED
SIDE = 20' AGGREGATE = 5' PER ADDITIONAL STORY = 40' AGGREGATE
SIDE SETBACKS ARE 20' FOR ENTIRE PROPERTY

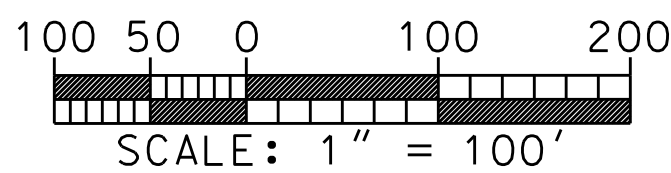
MAXIMUM BUILDING HEIGHT ALLOWED = 50' ABOVE AVERAGE GRADE
MAXIMUM BUILDING HEIGHT PROPOSED = 34' 3"

PARKING DATA
PARKING SPACES REQ'D = 1.75 PARKING SPACES PER RESIDENTIAL UNIT (NCHFA 2020 OAP)
PARKING SPACES REQ'D = 168 UNITS X 1.75 SPACES PER UNIT = 294 SPACES TOTAL

PARKING REQ'D (MOREHEAD CITY) = 2 SPACES PER UNIT PLUS 1 ADDITIONAL SPACE PER 6 UNITS
PARKING SPACES REQ'D = 336 SPACES + 28 SPACES = 364 TOTAL SPACES
PARKING SPACES PROVIDED = 348 SPACES - PLEASE SEE REQUEST FOR 4.4% PARKING REDUCTION PER ORDINANCE SECTION 20-1.4.

HANDICAP(H/C) PARKING REQ'D (NORTH CAROLINA) = 2% OF 364 = 8 SPACES REQ'D

HANDICAP(H/C) PARKING REQ'D (NCHFA) = 1 PER TYPE 'A' UNITS, 2% OF TYPE 'B' UNITS,
1 PER LOCATIONS OF AMENITIES, VAN ACCESSIBLE SPACES REQ'D AT EACH AMENITIES LOCATION
AND THE 1ST HANDICAP SPACE PER TYPE 'A' UNIT
TYPE 'A' UNITS = 18, 18 HANDICAP SPACES REQ'D
TYPE 'B' UNITS = 38, 1 HANDICAP SPACES REQ'D
AMENITIES LOCATION = 3, 3 HANDICAP SPACES REQ'D
HANDICAP(H/C) PARKING REQ'D = 21 VAN SPACES + 1 SPACES = 22 HANDICAP SPACES TOTAL
HANDICAP PARKING SPACES PROVIDED = 33 SPACES

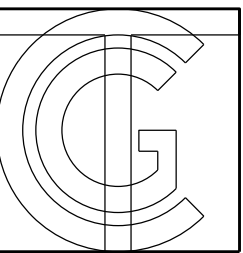


SCALE: 1" = 100'

SHEET INDEX	
SHEET NO.	DESCRIPTION
C1.0	OVERALL SITE PLAN
C2.0	EXISTING CONDITIONS SURVEY
C3.0	ENLARGED SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING & DRAINAGE PLAN
C6.0	UTILITY PLAN
C6.1-6.3	UTILITY PLAN & PROFILES
C7.0	LANDSCAPE PLAN
C8.0	STORMWATER POND #1 DETAILS
C8.1	STORMWATER POND #2 DETAILS
C8.2	STORMWATER POND #3 DETAILS
C8.3	STORMWATER PONDS PLANTING PLAN
C9.0	SITE DETAILS
C10.0	SITE DETAILS
C11.0	EROSION CONTROL DETAILS
C12.0	UTILITY DETAILS
C13.0	BMP DELINEATION PLAN
C14.0	GROUND STABILIZATION
C15.0	SELF INSPECTION

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing
Overall
Site Plan



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
C-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080



date	9/28/22
drafter	CMC
checked by	CMC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

OVERALL
SITE PLAN

C1.0



Photograph 1 – View of the site looking northeast from Bridges Street



Photograph 2 – View of typical vegetation centrally on the site



Photograph 3 – Typical vegetation on the northern portion of the site



Photograph 4 – View of the site looking northeast toward on-site derelict structure



Photograph 5 – View of debris south of the on-site structure



Photograph 6 – View of debris south of the on-site structure



Photograph 7 – On-site pole mounted transformer north of the site structure



Photograph 8 – View of on-site structure



Photograph 9 – View of the interior of the structure



Photograph 10 – Concrete sub grade maintenance pit



Photograph 13 – Five-gallon bucket of oil just outside the on-site structure



Photograph 14 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 15 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 16 – Soil pile north of the on-site structure



Photograph 17 – Debris north of the on-site structure



Photograph 18 – Debris and dirt piles north of the on-site structure
and view of eastern adjoining property



Photograph 19 – View of eastern adjoining property (The Wood Yard)



Photograph 20 – View of eastern adjoining property (residential)



Photograph 21 – View of eastern adjoining property (food pantry)



Photograph 22 – View of southern adjoining property (residential)

Gievers, Andrea

From: Ratcliffe, Judith
Sent: Friday, April 28, 2023 10:05 AM
To: Gievers, Andrea
Cc: Butler, Rodney A
Subject: RE: TCB Review - Elijah's Landing
Attachments: project_report_ncorr_cdbg_dr_review_elijah_44861_44861.pdf

Hello Andrea,

Thank you for the opportunity to review **Elijah's Landing Apartments located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557.**

There are no documented Tricolored Bat maternity roost trees within 150 feet of this project boundary.
There are no documented Tricolored Bat hibernacula within 0.25 mile of this project boundary.
Individuals of this species have been mist-net captured approximately 10 miles to the northwest of this project boundary.

There are no documented Northern Long-eared Bat maternity roost trees within 150 feet of this project boundary.
There are no documented Northern Long-eared Bat hibernacula within 0.25 mile of this project boundary.
Roost trees have been documented, and Individuals of this species have been mist-net captured, approximately 12 miles to the northwest of this project boundary.

Sincerely,
Judith Ratcliffe

JUDITH RATCLIFFE
Zoologist, NC Natural Heritage Program

121 W Jones St MSC 1651 Raleigh, NC 27699
919 707 9395 office **NEW PHONE NUMBER**



Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

[Facebook](#) [Twitter](#) [Instagram](#) [YouTube](#)

From: Gievers, Andrea <andrea.l.gievers@rebuild.nc.gov>
Sent: Thursday, April 27, 2023 5:19 PM
To: Ratcliffe, Judith <judith.ratcliffe@ncdcr.gov>
Cc: Butler, Rodney A <Rodney.Butler@ncdcr.gov>
Subject: TCB Review - Elijah's Landing

Hello Judy:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed affordable housing project, **Elijah’s Landing Apartments located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557**. I have attached the proposed project aerial maps, site plans, and shapefiles to assist in your Tricolored Bat review. Please feel free to contact me if you have any questions or need anything at all. Thank you so much for your time and assistance!

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

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ATTACHMENT 9:

Explosive and Flammable Hazards

Signed HUD Thermal and Explosive Hazards Worksheet, Topographic and Aerial Map with 1-mile Buffer, Fire Marshal Correspondence on Planned and Existing ASTs, AST Data, and ASD Calculations



Thermal and Explosive Hazards

Project Name	Investigator(s)	Site Visit Date
Elijah's Landing	Cheryl Moody	December 14, 2022

Part I –Above Ground Storage Tanks – Site Review

Are any above ground storage tanks visible from the site?

☐ Yes ☒ No

If yes, are these tanks 100-gallons or larger?

☐ Yes ☐ No

List visible tanks						
Tank Identifier	Tank Distance (ft)	Tank Size/Contents	Flammable? (Yes or No)	Pressurized? (Yes or No)	ASD ¹ (ft) Thermal Radiation	ASD (ft) Blast Pressure

¹ASD = Acceptable Separation Distance as defined in "Siting of HUD-Assisted Projects Near Hazardous Facilities"

Is the project site within the ASD of any above ground storage tank visible from the site?

☐ Yes ☒ No

If yes, list the proposed mitigation strategies or reject the site?

Mitigation (attach additional documentation)

Part II –Above Ground Storage Tanks – Agency Consultation

Has consultation with the Local Planning, Building, Public Safety or Fire Department indicated the presence of existing or planned thermal/explosive hazards that may affect the site (Attach record of consultation)?

☐ Yes ☒ No

If yes, list the proposed mitigation strategies or reject

Mitigation (attach additional documentation)



Part III – Above Ground Storage Tanks – Record Review

Are above ground storage tanks, which are visible on aerial photographs and USGS topographic maps, located within 1-mile of the site (Attach copies of documents reviewed)?

☒ Yes ☐ No

If yes, are these tanks 100-gallons or larger?

☒ Yes ☐ No

List visible tanks						
Tank Identifier	Tank Distance (ft)	Tank Size/Contents	Flammable? (Yes or No)	Pressurized? (Yes or No)	ASD ¹ (ft) Thermal Radiation	ASD (ft) Blast Pressure
1 & 2	2,640 ft.	(2) 10,000 gal diesel	No	Yes	721.77 ft.	469.92 ft.
2 & 3	3,696 ft.	(2) 5,000 gal tanks (1 gasoline, 1 jet fuel)	Yes	Yes	540.74 ft.	105.81 ft.
4	3,168 ft.	(1) 15,000 gal. fuel oil	No	Yes	854.59 ft.	536.19 ft.

¹ASD = Acceptable Separation Distance as defined in "Siting of HUD-Assisted Projects Near Hazardous Facilities"

Is the project site within the ASD of any above ground storage tank?

☐ Yes ☒ No

If yes are there acceptable barriers (natural or manmade) between the site and the tank?

☐ Yes ☐ No

Identify Acceptable Barriers ²

²Acceptable barriers must meet the conditions of 24 CFR § 51.205

If no, list the proposed mitigation strategies or reject the site?

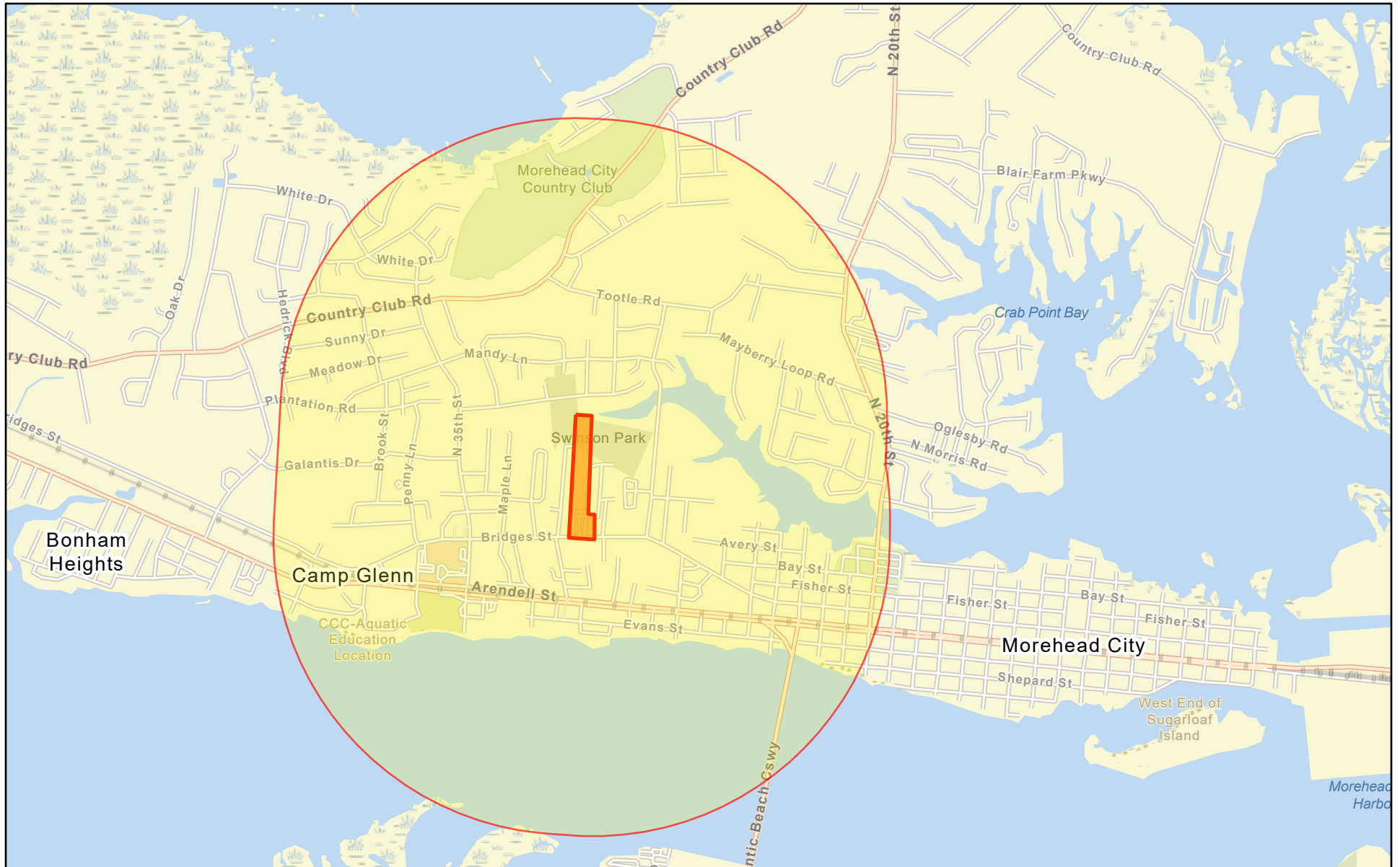
Mitigation (attach additional documentation)	
Additional Comments or Recommendations	

Lead Investigator's Signature



12/14/22

Date

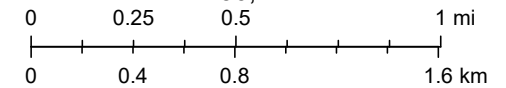
Topographic Map - 1 Mile Radius



February 28, 2023

-  Project Buffer
-  elijahs's landing
-  Elijah's Landing

1:36,112



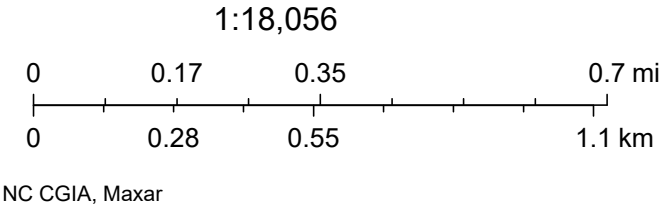
State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

Aerial Map



March 2, 2023

- Project Buffer
- 1 Mile Radius
- elijahs's landing



From: Dykeman Baily DBaily@moreheadcitync.org

Subject: RE: HUD Project request for information

Date: March 3, 2023 at 5:32 PM

To: Cheryl Moody cmoody@atlanticshoresenv.com, Cathy Campbell Cathy.Campbell@moreheadcitync.org

Cc: Carrie Tyndall carrie.tyndall@moreheadcitync.org, Keith Walker kwalker@eccdi.com

DB

Cheryl Moody,

Please find the following information as requested:

1. Carteret Healthcare (hospital), 3500 Arendell Street – 2 above ground storage tanks, diesel, capacity of each tank 10,000 gallons.
2. NC Marine Fisheries Division, 3441 Arendell Street – 2 above ground storage tanks, gasoline in one, jet-fuel in the other. I have not received the exact quantities but am guessing each contains equal to or more than 5000 gallons. The Safety Director believes the tank previously storing the jet fuel is empty. The gasoline storage tank continues in use.
3. Morehead City Middle School, 400 Barbour Road – 1 above ground storage tank, fuel oil, capacity = 15,000 gallons, however, the school has discontinued use of the tank as the heating systems now use natural gas (piped delivery). The tank remains but is currently empty.
4. There are likely multiple electrical generators located within the one-mile radius with fuel quantities exceeding 100 gallons. The two more common fuels for generators are LP Gas and Diesel. We do not have records or knowledge of the locations for such as these are typically located in single-family homes which are exempt from the Fire Codes.

Please let me know if I may be of further assistance,

Dykeman Baily

Assistant Chief/Fire Marshal
Morehead City Fire & EMS
252-726-5040, ext. 4

From: Cheryl Moody <cmoody@atlanticshoresenv.com>

Sent: Thursday, March 2, 2023 7:02 PM

To: Cathy Campbell <Cathy.Campbell@moreheadcitync.org>

Cc: Carrie Tyndall <carrie.tyndall@moreheadcitync.org>; Dykeman Baily <DBaily@moreheadcitync.org>; Keith Walker <kwalker@eccdi.com>

Subject: Re: HUD Project request for information

Be Advised: This email originated from outside of the Town of Morehead City, NC

Thank you. Please see the attached request.

Cheryl J. Moody, PE, REM, CIEC, CMRS
Principal Engineer

Owner
LEED Green Associate

Atlantic Shores Environmental Services, Ltd.
175-1 Venture Drive
Belville, North Carolina 28451
910-371-5980 (o)
910-512-5321 (c)
cmoody@atlanticshoresenv.com
www.atlanticshoresenvironmental.com
NC License No. C-4762

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On Mar 1, 2023, at 4:25 PM, Cathy Campbell <Cathy.Campbell@moreheadcitync.org> wrote:

Ms. Moody,

We are happy to reply to your request. Please complete the attached Public Records Request form as required by city policy and return to me. Once received, the request will be forwarded to the appropriate staff member for fulfillment.

Cathy

Cathy Campbell, CMC, NCCMC

City Clerk
Town of Morehead City
252.726.6848 ext. 139
www.moreheadcitync.org
<image001.jpg>

<[image002.png](#)><[image003.png](#)><[image004.jpg](#)>

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If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter by US Mail to U.S. Dept. of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W. Washington, D.C.

20250-9410, by fax (202) 690-7442 or email to program.intake@usda.gov

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From: Carrie Tyndall <carrie.tyndall@moreheadcitync.org>
Sent: Wednesday, March 1, 2023 4:17 PM
To: Cathy Campbell <Cathy.Campbell@moreheadcitync.org>
Cc: Dykeman Baily <DBaily@moreheadcitync.org>
Subject: Fw: HUD Project request for information

As requested, the original with the attachments removed.

Carrie Tyndall

Senior Administrative Assistant
Morehead City Fire & EMS Department
4034 Arendell Street
Morehead City NC 28557
PH: 252-726-5040 x 1 | FX: 252-240-0480
carrie.tyndall@moreheadcitync.org

<Outlook-anp4qt0i.png> <Outlook-kfoyalgq.jpg>

From: Cheryl Moody <cmoody@atlanticshoresenv.com>
Sent: Wednesday, March 1, 2023 10:13 AM
To: Carrie Tyndall <carrie.tyndall@moreheadcitync.org>
Subject: HUD Project request for information

Be Advised: This email originated from outside of the Town of Morehead City, NC

Carrie,

We are conducting an assessment of the proposed Elijah's Landing Apartment project (see attached). One of the requirements of HUD is to correspond with the Fire Marshal regarding Thermal and Explosive Hazards. Is the department aware of any above ground tanks within one mile of the project? and if so what are the locations, volumes and content. I have provided a map with a one mile radius. Please call me at (910) 512-5321 if you have questions or need additional information to fulfill this request. Thank you.

Cheryl J. Moody, PE, REM, CIEC, CMRS
Principal Engineer
Owner
LEED Green Associate

Atlantic Shores Environmental Services, Ltd.

175-1 Venture Drive
Belville, North Carolina 28451
910-371-5980 (o)
910-512-5321 (c)
cmoody@atlanticshoresenv.com
www.atlanticshoresenvironmental.com
NC License No. C-4762

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<PUBLIC RECORDS REQUEST FORM - Fillable.pdf>

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > ASD Calculator

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft² - hr - people and 10,000 BTU/ft² - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD- Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Is the container under pressure?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Does the container hold a cryogenic liquified gas?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Is the container diked?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
What is the volume (gal) of the container?	<input type="text" value="10000"/>
What is the Diked Area Length (ft)?	<input type="text"/>
What is the Diked Area Width (ft)?	<input type="text"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text" value="468 92"/>

ASD for Blast Over Pressure (ASDBOP)	100.02
ASD for Thermal Radiation for People (ASDPPU)	721.77
ASD for Thermal Radiation for Buildings (ASDBPU)	145.78
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options
(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us**
(<https://www.hudexchange.info/contact-us/>) form.

Related Information

- ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/)
- ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)

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Is the container under pressure?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Does the container hold a cryogenic liquified gas?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Is the container diked?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
What is the volume (gal) of the container?	<input type="text" value="5000"/>
What is the Diked Area Length (ft)?	<input type="text"/>
What is the Diked Area Width (ft)?	<input type="text"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text" value="372 89"/>

ASD for Blast Over Pressure (ASDBOP)	572.00
ASD for Thermal Radiation for People (ASDPPU)	540.74
ASD for Thermal Radiation for Buildings (ASDBPU)	105.81
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options
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Is the container under pressure?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Does the container hold a cryogenic liquified gas?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Is the container diked?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
What is the volume (gal) of the container?	<input type="text" value="15000"/>
What is the Diked Area Length (ft)?	<input type="text"/>
What is the Diked Area Width (ft)?	<input type="text"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text" value="536 19"/>

ASD for Blast Over Pressure (ASDBOP)	555.15
ASD for Thermal Radiation for People (ASDPPU)	854.59
ASD for Thermal Radiation for Buildings (ASDBPU)	175.84
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options
(/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)

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ATTACHMENT 10:

Farmland Protection

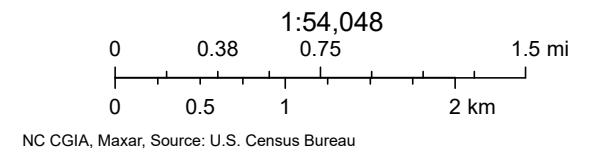
TIGERweb Urban Areas Map and
USDA NRCS Soil Survey

TIGERweb - Urban Areas



May 25, 2023

Counties 2020 Urban Areas Counties
States 2020 Urban Areas States




Farmland Classification—Carteret County, North Carolina
(Prime farm land)



Farmland Classification—Carteret County, North Carolina
(Prime farm land)









MAP LEGEND








Area of Interest (AOI)






 Area of Interest (AOI)








Soils



Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season









-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of statewide importance, if drained
-  Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated

-  Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if irrigated and drained
-  Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
-  Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
-  Farmland of statewide importance, if warm enough
-  Farmland of statewide importance, if thawed
-  Farmland of local importance
-  Farmland of local importance, if irrigated

-  Farmland of unique importance
-  Not rated or not available

Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Farmland Classification—Carteret County, North Carolina
(Prime farm land)

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season	Soil Rating Points			Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Not prime farmland		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if thawed		Prime farmland if protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of local importance		Prime farmland if irrigated		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season				Farmland of local importance, if irrigated		Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated						Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated

Farmland Classification—Carteret County, North Carolina
(Prime farm land)



Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AaA	Altavista loamy fine sand, 0 to 2 percent slopes	All areas are prime farmland	1.6	12.6%
De	Deloss fine sandy loam	Prime farmland if drained	4.2	32.2%
Ln	Leon sand	Farmland of unique importance	3.4	26.2%
Mc	Mandarin-Urban land complex	Not prime farmland	1.5	11.7%
StA	State loamy fine sand, 0 to 2 percent slopes	All areas are prime farmland	2.2	17.4%
Totals for Area of Interest			12.9	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Soil Map—Carteret County, North Carolina
(USAD Soil Survey)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Carteret County, North Carolina

Survey Area Data: Version 26, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 20, 2020—Nov 29, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AaA	Altavista loamy fine sand, 0 to 2 percent slopes	1.6	12.6%
De	Deloss fine sandy loam	4.2	32.2%
Ln	Leon sand	3.4	26.2%
Mc	Mandarin-Urban land complex	1.5	11.7%
StA	State loamy fine sand, 0 to 2 percent slopes	2.2	17.4%
Totals for Area of Interest		12.9	100.0%

ATTACHMENT 11:

EO 11988 Floodplain Management Determination and EO 11990 Protection of Wetlands Determination

Elijah's Landing Apartments Project
EO 11988 Floodplain Management and EO 11990 Protection of Wetlands Determination
Affordable Housing Development Fund Program

August 15, 2023

Introduction and Overview

The purpose of Executive Order (EO) 11988 Floodplain Management is “to avoid to the extent possible the long- and short-term adverse impacts associated with occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.” The purpose of EO 11990 Protection of Wetlands is “to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.” This determination contains the analysis prescribed by 24 CFR Part 55.

This project involves U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant Program – Disaster Recovery (CDBG-DR) funding for construction of a new 168-unit multifamily affordable housing complex with seven 24-unit, three-story residential buildings, a clubhouse, gazebo, covered picnic area, boardwalk, playground, tot lot, dog park, open spaces, paved parking areas, landscaped areas, three storm water retention ponds, and associated infrastructure. The analysis that follows focuses on floodplain and wetland impacts, as there are direct wetland and floodplain impacts associated with this proposed action. Based on the type of land use and other case characteristics described herein, it is concluded that there is a reasonable basis to proceed with funding for this proposed action within floodplain and wetland. The HUD CDBG-DR funding is administered through the North Carolina Office of Recovery and Resiliency (NCORR) Affordable Housing Development Fund Program which is developing safer and more resilient communities while increasing the availability of affordable housing for low- and middle-income families. Thus, alternatives preventing or impeding the development of safer and more resilient communities along with increasing affordable housing options are not considered reasonable alternatives.

Description of Proposed Action and Land Use

The Elijah's Landing Apartments project (“proposed action”) will provide affordable housing options to the residents of Morehead City, North Carolina. More affordable housing options are needed to address the shortage in inventory exacerbated by the effects of the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). The availability of affordable housing to lower income families was reduced by these storm events which disproportionately affected older, more affordable housing stock, leaving it uninhabitable. The proposed action will provide an opportunity to create much needed affordable housing in the Morehead City community.

Elijah's Landing Apartments involves new construction of a 168-unit affordable housing apartment complex with a clubhouse, gazebo, covered picnic area, boardwalk, playground, tot lot, dog park, open spaces, paved parking areas, landscaped areas, three storm water retention ponds, and associated infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units (*see Appendix 1*).

The proposed multifamily, affordable housing development is located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 (Subject Property). The approximately 11.64-acre site is identified as Carteret County Parcel ID number 637615648235000 with frontage along Bridges Road to the south. On March 1, 2023, Jeannie Drake, Zoning Enforcement Officer for the Town of Morehead City, the Subject Property is zoned as Residential Multifamily District (RMF). The City has granted site plan approval for the proposed action. According to the Morehead City Code of Ordinances, Article 9-11.10, “[t]he purpose of this district shall be to provide and protect areas deemed necessary or desirable for multifamily use and uses customarily related to multifamily residences. A residential multifamily district shall be composed of not less than three (3) contiguous acres.” The Subject Property is currently vacant land, with a dilapidated storage building constructed in 1982 (*See Attachment 1A - Site Visit Photographs in the Elijah’s Landing Apartments Project Environmental Assessment (EA) environmental review record [ERR]*). The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. Commercial and residential properties surround the Subject Property. The Subject Property and a portion of the eastern adjoining and western adjoining properties appear to have been initially developed as agricultural property some time prior to 1938. A single-wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. The southern part of the Subject Property has been vacant since that time. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The northern portion of the Subject Property was historically used as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). This waste is buried up to 10 feet below grade in some areas and is present on the surface in other areas.

The surrounding properties were primarily agricultural in 1960s. However, the area transitioned to residential and commercial development in the early 1980s. Currently, properties located west of the Subject Property are multifamily residential and commercial office buildings including the Commerce Plaza. Properties located east of the Subject Property are a mix of commercial uses (boutique, restaurant, and construction contractor, and single-family residential (Willis Mobile Home Park). Properties located north of the Subject Property includes Calico Creek, undeveloped land then single-family residential. Properties located south of the Subject Property consist of Bridges Street and a mix of residential, light industrial (welding), and commercial properties (jewelry, car dealership, etc.).

Applicable Regulatory Procedure Per EO 11988 and EO 11990

The proposed action corresponds with a noncritical action not excluded under 24 CFR §55.12. Funding is permissible for the use in the floodplain and wetland if the proposed action is processed under §55.20 and the findings of the determination are affirmative to suggest that the proposed action may proceed.

In accordance with 24 CFR 55, the proposed action to construct a multifamily, affordable housing development occurs in Morehead City which is a participating community in good standing in the regular program of the National Flood Insurance Program (NFIP). Substantial Improvement/ Substantial Damage calculations do not apply to this proposed action. The proposed action involves new construction in 100-year floodplain which is only a small portion of the Subject Property. However, this proposed action involves “modification” of floodplain. As such, the full eight-step process in §55.20 is required, and the following analysis examines each step in an EO 11988 Floodplain Management Determination process.

Based on data from the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory Map and U.S. Army Corps of Engineers (USACE) (*see Appendix 1*), there will be new construction in wetlands on the site. As such, the full eight-step process in §55.20 is required, and the following analysis examines each

step in an EO 11990 Protection of Wetlands Determination process. Thus, in accordance with the decision-making process set forth in 24 CFR Part 55, this analysis focuses on both floodplains and wetlands.

Step 1. Determine Whether the Proposed Action is Located in the 100-year Floodplain (500-year for Critical Actions) or results in New Construction in Wetlands.

Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel Number 3720637600J dated 07/16/2003, the majority of the Subject Property and surrounding area are located in Zone X, outside of the Special Flood Hazard Area (SFHA), as shown in **Appendix 1**. However, a small central eastern portion of the Subject Property is located in 100-year floodplain (Zone AE, SFHA). A Preliminary FIRM (PFIRM) dated 06/30/2016 shows the approximate central eastern 100-year floodplain portion and northern edges of the Subject Property as 500-year floodplain. This analysis uses the most restrictive FIRM designation as 100-year floodplain. The Subject Property does not include any areas of FEMA-designated regulatory floodway. Permanent impacts to 0.310 acre of 100-year floodplain include fill material needed for Building #500's foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, landscaping, lighting, and stormwater pond #2 per NC Department of Environmental Quality (NC DEQ), and does not include any NFIP insurable structures. In accordance with 24 CFR §55, Morehead City (370048) is a participating community in good standing in the regular program of the NFIP. The proposed action has been redesigned to have only minimal activities conducted within the SFHA. Flood insurance will not be required for the proposed action because all insurable structures, according to the NFIP Flood Insurance Manual effective October 1, 2022, will be located in Zone X. While flood insurance may not be mandatory in this instance, HUD recommends that all insurable structures maintain flood insurance under the NFIP. Since there is modification of floodplain, the full eight-step process in §55.20 is required, and the following analysis examines each step in an EO 11988 Floodplain Management Determination process.

Based on the USFWS National Wetlands Inventory Map and USACE Jurisdictional Determination (JD), the proposed action is located in NWI-mapped wetlands and USACE verified delineated wetlands (PSS1A – Freshwater Palustrine Forested/Scrub-Shrub Wetland), as shown in **Appendix 1**. The proposed action is considered new construction in wetlands under 24 CFR 55 and EO 11990. The proposed action will result in temporary impacts to 0 acres permanent impacts to 0.349 acres of NWI-mapped wetlands and USACE verified delineated wetlands (PSS1A – Freshwater Palustrine Forested/Scrub-Shrub Wetland). Permanent impacts to the 100-year floodplain and Wetland impact area #5 (0.083 acre) include fill material needed for Building #500's foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, retaining wall (wetland only), landscaping, lighting, and stormwater pond #2 per NC DEQ. Permanent impacts to Wetland impact areas #1 and #2 (0.176 acre) include fill material, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining walls, landscaping, lighting, and stormwater pond #1 per NC DEQ. A 6-foot wide boardwalk is also proposed over a small portion of Wetland impact areas #1, 2 and 3. Permanent impacts to Wetland impact areas #3 and #4 (0.09 acre) include fill material, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining wall, landscaping, lighting, and Building #500. Since there is new construction in wetlands, the full eight-step process in §55.20 is required, and the following analysis examines each step in an EO 11990 Protection of Wetlands Determination process.

The proposed action will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE Clean Water Act (CWA) Section 404 Nationwide Permits 18 and 29, NC DEQ Division of Water Resources (DWR) CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work.

Step 2. Initiate Public Notice for Early Review of Proposal.

Because the proposed action is located in floodplain and wetlands, NCORR published an early notice and posted supporting documentation that allowed for public and agency input on the decision to provide funding for construction and development activities. Supporting documentation incorporated by reference into the early notice was posted for public review to the NCORR ReBuild NC website (below) and included Proposed Project Location Maps and Site Plans, FEMA FIRMs and PFIRM with parcel boundary, USFWS NWI Map with parcel boundary, Proposed Floodplain and Wetlands Impacts Site Plan (revised with Building #500 moved outside of 100-year floodplain), USACE CWA Section 404 General Permit Verification (3/5/2021) with Special Conditions, USACE JD (7/24/2018), and NC DEQ DWR CWA Section 401 Water Quality General Certification No. 4139 with Additional Conditions. The early public notice and 15-day comment period is complete. No new, substantive public comments were received.

The early notice and corresponding 15-day public comment period started on June 28, 2023 with the "*Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland*" being published in the Carteret County News-Times newspaper, with the 15-day period expiring on July 13, 2023. The notice targeted local residents within the community, including those in the floodplain. The notice was also posted with supporting documentation at <https://www.rebuild.nc.gov/about/plans-policies-reports/environmental-reviews> and sent via Federal Express and email to the following federal and state agencies: HUD NC Field Office; Federal Emergency Management Agency (FEMA); U.S. Environmental Protection Agency (EPA); USFWS; USACE; NC State Environmental Clearinghouse; and NC Housing Finance Agency (NCHFA). The notice was also sent to Carteret County and the Town of Morehead City. Project information was sent to the NC State Historic Preservation Office (SHPO) and Catawba Indian Nation for review and comment under Section 106 of the National Historic Preservation Act of 1966 (NHPA) (*See Elijah's Landing Apartments Project EA ERR*). (*See Appendix 2* for the early notice distributed to these agencies, newspaper publication affidavit, distribution list, and public comments).

Step 3. Identify and Evaluate Practicable Alternatives to Locating the Proposed Action in a 100-year Floodplain or Wetland.

The North Carolina Affordable Housing Development Fund Program empowers the State's most impacted communities with the technical expertise needed to develop thorough and implementable construction plans to build affordable and physically, socially, and economically resilient and sustainable communities.

The main alternative is to identify a different suitable location for the proposed action. There were three main alternative sites considered for the proposed action. The first site was located on Highway 70 in Newport, North Carolina near the Food Lion Area. However, this site did not move forward because it did not meet the requirements for award by North Carolina Housing Finance Agency tax credits. Moreover, the cost for 20 acres was well over \$3 million. Although this site was positioned next to a multifamily housing development, it would not have been able to sustain itself financially due to the affordable rents. The second site was located in Morehead City off Highway 70 East, Arendell Street 1300 block, Third Street, and Sixth Street. Ultimately, this site was not chosen because of the price and location in an urbanized area with a building that required removal from the site. The third site was located off Highway 70 East near the Walmart Plaza. Although this site was approximately 20 acres and would have scored well, there was a high crane quotation/ radio tower located on the site, which because of this potential fall zone, would not qualify for the affordable housing tax code for the State of North Carolina.

There are a very limited number of sites within Morehead City that both meet the scoring criteria of the NCHFA QAP for being competitive for a tax-credit funding award and is properly zoned for multifamily development. This site was chosen as most preferable for multifamily development. A similar affordable housing development was funded and completed on the adjacent tract which was the first Low-Income Housing Tax Credit (LIHTC) affordable housing development in the southwestern area of Morehead City and the developer wanted to add additional affordable housing on this side of Town. Ultimately, the Subject Property was the best location for the new development due to market demand and its close proximity to a variety of community amenities and services including public schools, public transportation, shopping, grocery stores and employment opportunities. This site was found to be a suitable site with minimal adverse environmental impacts for multifamily, affordable housing in an area that needs it. Therefore, the Subject Property was determined to be the most ideal location for the proposed action. In addition, the proposed action itself was redesigned to remove Building #500 outside of 100-year floodplain and minimize impacts to floodplain and wetlands.

The final alternative for the current proposed action is the “No Action” Alternative. With the “No Action” Alternative, affordable housing would not be provided for low- and middle-income families in the local community. The Town of Morehead City would need to find other options to address the shortage in affordable housing inventory exacerbated by the effects of hurricanes that recently damaged and destroyed homes. Thus, the “No Action” Alternative is not feasible in relation to the desired objective of creating affordable housing options in Morehead City.

The above identified alternatives will be re-evaluated in response to public comments received.

Step 4. Identify and Evaluate Potential Direct and Indirect Impacts Associated with the Occupancy or Modification of 100-year Floodplain and Wetland and the Potential Direct and Indirect Support of Floodplain and Wetland Development that Could Result from Proposed Action.

The focus of floodplain evaluation should be on adverse impacts to lives and property, and on natural and beneficial floodplain values. Natural and beneficial values include consideration of potential for adverse impacts on water resources such as natural moderation of floods, water quality maintenance, and groundwater recharge.

According to the FEMA Report - A Unified National Program for Floodplain Management, the two definitions commonly used in evaluating actions in floodplain are “structural” and “non-structural” activities. Per the report, structural activity is usually intended to mean adjustments that modify the behavior of floodwaters through the use of measures such as public works dams, levees, and channel work. Non-structural is usually intended to include all other adjustments (e.g., regulations, insurance, etc.) in the way society acts when occupying or modifying a floodplain. These definitions are used in describing impacts that may arise in association with potential advancement of this case.

Natural Moderation of Floods, Water Quality Maintenance, and Groundwater Recharge

According to the FEMA FIRM effective 7/16/2003, the impacted 100-year floodplain is Zone AE, and a less restrictive Preliminary FIRM dated 6/30/2016 identifies it as 500-year floodplain along with a small portion on the parcel’s northern edge. Only a small central eastern portion of the site is located in Zone AE. The buildings and most of the improvements will be constructed in Zone X and outside of SFHA. The proposed action will result in permanent impacts to 0.310 acre of the 100-year floodplain (Zone AE) from fill material placement needed for Building #500’s foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, landscaping, lighting, and

stormwater pond #2 per NC DEQ. Construction and development activities for the proposed action have been redesigned to minimize impacts to 100-year floodplain.

Natural floodplains provide flood risk reduction benefits by slowing runoff and storing flood water in addition to water quality maintenance and groundwater recharge benefits. Best Management Practices (BMPs) and design features will minimize impacts to floodplain. The site contains approximately 0.389 acre of floodplain with Calico Creek located north of the site. Side slopes from parking lots and drive aisles shall not exceed 3:1 slope in order to reduce runoff impacts. A temporary silt fence around the toe of the slope will prevent sediment from going downstream during a rain event prior to the embankments being stabilized. There is also Class B rip rap installed downstream of the outlet control device will prevent washout of the surrounding material. BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction.

Mitigation measures/design features for the proposed action include five green open spaces, native plant landscaping, and three proposed onsite stormwater retention ponds which will slow down stormwater runoff. Green infrastructure mitigation measures, five green open spaces, have been incorporated into the design plans and will maintain or restore natural hydrology through infiltration. According to the EPA, “[g]reen infrastructure can be used to address stormwater runoff and sewer overflow problems. Green infrastructure works by slowing down the runoff, spreading it out over the land, and slowly soaking it into the ground, or in some cases reusing the water onsite. Green infrastructure is also sometimes referred to as low impact development. These techniques also help to remove pollutants from runoff, by allowing plants to filter out pollutants as the water slowly infiltrates into the ground.” See <https://www.epa.gov/nutrientpollution/sources-and-solutions-stormwater>. The three proposed stormwater retention ponds should alleviate some flooding on the site and in the immediate area by intercepting stormwater runoff. According to a University of Florida/IFAS article, “Stormwater ponds’ primary purpose is flood control, and they are designed to intercept stormwater runoff (precipitation that runs off our buildings, roads, parking lots, and sidewalks), but they also provide other services like a place for sediment to settle out of the water column, habitat for wildlife, recreational opportunities like birding, and pollutant removal. Overall, stormwater ponds help mitigate the impacts of urban stormwater runoff while protecting our natural waterways from nutrient loading, erosion, sedimentation, and algal blooms.”

The proposed action’s activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DEQ DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the *Elijah’s Landing Apartments Project EA ERR* when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and Stormwater Pollution Prevention Plan (SWPPP). Thus, the proposed action has been designed and mitigation measures incorporated to have minimal impacts on these functions.

Living Resources such as Flora and Fauna

According to the USACE JD, the wetland impacted has typical coastal plain floodplain vegetation but does not provide ideal habitat for wildlife diversity. For this proposed action, the USFWS Raleigh Ecological Services' online 10-step project review process was completed. The proposed action was determined to have "no effect" on proposed, threatened, endangered, or candidate species and proposed or designated critical habitat under USFWS jurisdiction, except for the Monarch Butterfly and Rough-leaved Loosestrife which are "May Affect, Not Likely to Adversely Affect," and a "no Eagle Act permit required" determination for the Bald Eagle. A Self-certification Letter and 10-step Project Review Package were prepared and submitted to the USFWS Raleigh Ecological Services Field Office (FO) on April 28, 2023. According to the USFWS Information for Planning and Consultation (IPaC) Official Species List prepared for the Subject Property, there are a total of fourteen threatened, endangered, or candidate species identified. However, based on the USFWS IPaC and Critical Habitat Mapper results, there are no critical habitats identified within the proposed action area. Carteret County is identified as a Northern Long-eared Bat known presence county. However, the proposed action was reviewed using the new USFWS Determination Key for the Northern Long-eared Bat which resulted in a "No Effect" determination. In addition, the NC Natural Heritage Program (NC NHP) stated that mist-net capture of the NLEB has occurred approximately 12 miles northwest of the Subject Property, and mist-net capture of Tricolored Bat has occurred approximately 10 miles northwest of the Subject Property. The proposed action will likely remove all trees prior to the Tricolored Bat listing, and Atlantic Shores Environmental Services, Ltd. (ASE) did not find suitable habitat present at the Subject Property. The NC NHP database query documented eighteen element occurrences within a one-mile radius of the Subject Property. ASE did not observe any of the above-listed species during the site visit. In addition, the Subject Property does not contain suitable habitat for these species (with the exception of Rough-Leaved Loosestrife and Monarch Butterfly) and is located near a densely developed area. Therefore, ASE has determined that the project will have No Effect on proposed/ listed species and/ or proposed/ designated critical habitat, except for the Monarch Butterfly and Rough-leaved Loosestrife which are "May Affect, Not Likely to Adversely Affect," and a "no Eagle Act permit required" determination for eagles. (See **Attachment 8** in the *Elijah's Landing Apartments Project EA ERR* for full details.)

The proposed action's activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE Clean Water Act (CWA) Section 404 Nationwide Permits 18 & 29, NC DEQ CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the *Elijah's Landing Apartments Project EA ERR* when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, the proposed action is anticipated to have minimal impacts on living resources such as flora and fauna.

Impacts to Property and Lives

The proposed action's construction and development activities are mostly located within Zone X with a small portion of the site in Zone AE. Thus, the buildings and most improvements will be located outside of SFHA. According to the FEMA Flood Insurance Rate Map (FIRM) effective 7/16/2003, the impacted 100-year floodplain is Zone AE and a less restrictive Preliminary FIRM dated 6/30/2016 identifies it as 500-year floodplain along with a small portion on the parcel's northern edge. The Proposed Activity will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE Clean Water Act (CWA)

Section 404 Nationwide Permits 18 and 29, NC DEQ CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP.

There are three proposed stormwater retention ponds which should assist with reducing flooding on the site and in the immediate area. According to a University of Florida/IFAS article, “Stormwater ponds’ primary purpose is flood control, and they are designed to intercept stormwater runoff (precipitation that runs off our buildings, roads, parking lots, and sidewalks), but they also provide other services like a place for sediment to settle out of the water column, habitat for wildlife, recreational opportunities like birding, and pollutant removal. Overall, stormwater ponds help mitigate the impacts of urban stormwater runoff while protecting our natural waterways from nutrient loading, erosion, sedimentation, and algal blooms.” Further, construction and development activities for the proposed action have been redesigned to minimize impacts to 100-year floodplain. Therefore, the proposed action should not create or increase impacts to property and lives.

Cultural Resources such as Archaeological, Historic and Recreational

The Subject Property is currently vacant land with a dilapidated storage building constructed in 1982. As part of this review, the NC State Historic Preservation Office (SHPO) and Tribal Historic Preservation Offices (THPO) of all applicable Tribes, Nations, and Communities were consulted regarding any historic or tribal resources in the area that could be affected by the proposed actions. The NC SHPO responded on July 3, 2023 that the proposed action will have no effect on historic properties. According to the HUD Tribal Directory Assessment Tool (TDAT), the Catawba Indian Nation is the only federally-recognized tribe with interests in Carteret County, North Carolina. On May 24, 2023, the Catawba Indian Nation’s THPO responded that the “Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed action areas. However, the Catawba are to be notified if Native American artifacts and/ or human remains are located during the ground disturbance phase of this project.” The SHPO and THPO NHPA Section 106 consultation documentation is included in the *Elijah’s Landing Apartments Project EA ERR*.

The proposed action will include a clubhouse, gazebo, covered picnic area, boardwalk over the wetlands, playground, tot lot, various open spaces, and dog park on the site for residents. The boardwalk allows for wetlands to remain while providing the residents with a natural landscape view and recreational opportunities such as bird watching and a walking trail. The green open spaces provide residents with a natural landscape view and recreation area. Parks, open spaces and recreation areas are situated within the surrounding area. The following recreational amenities are located within close proximity to the Subject Property: Rotary Park, Morehead City Park, Shevans Park, Piney Park, Swinson Park, and others. The Subject Property is proposed for multi-family apartments and will have minimal impact on parks, recreational areas and open spaces within the vicinity of the Subject Property. According to the Recreational Services Certification dated March 22, 2023, by Daniel K. Williams, Director of Public Services for Morehead City, adequate and appropriate recreational services and facilities are available for this proposed development, and available recreational services and facilities will not be adversely affected by the proposed project. The Certification also notes there is an onsite recreational area and greenspace. Additionally, it is anticipated that many residents of the proposed project will come from within the community and there will be a negligible increased demand for resources. Thus, the proposed project is not anticipated to have an adverse impact on parks, open spaces, and recreation areas.

Agricultural, Aquacultural, and Forestry Resources

The Subject Property and immediate area are not being used for agricultural, aquacultural or forestry resources. The Subject Property is currently vacant land with a dilapidated storage building constructed in 1982. The Subject Property and a portion of the eastern adjoining and western adjoining properties appear to have been initially developed as agricultural property some time prior to 1938. A single-wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. The southern part of the Subject Property has been vacant since that time. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The northern portion of the Subject Property was historically used as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. The surrounding properties currently contain mostly residential and commercial development. The surrounding properties were primarily agricultural in 1960s. However, the area transitioned to residential and commercial development in the early 1980s. Currently, properties located west of the Subject Property are multifamily residential and commercial office buildings including the Commerce Plaza. Properties located east of the Subject Property are a mix of commercial uses (boutique, restaurant, and construction contractor, and single-family residential (Willis Mobile Home Park). Properties located north of the Subject Property includes Calico Creek, undeveloped land then single-family residential. Properties located south of the Subject Property consist of Bridges Street and a mix of residential, light industrial (welding), and commercial properties (jewelry, car dealership, etc.). The proposed multifamily, affordable housing development will fit within the surrounding developed area.

BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction, green open spaces incorporated, native plants used in landscaping and site restoration, and three proposed onsite stormwater retention ponds installed. According to the USACE General Permit (CWA Section 404 Nationwide Permits 18 and 29) Verification's Special Conditions, "[t]he permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4)." According to the NC DWR CWA Section 401 Water Quality General Certification No. 4139's Additional Conditions, "1. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0211 (12)]. 2. The Permittee shall adhere specifically to 15A NCAC 02B .0221 Tidal Salt Water Quality for Class SA Waters (3)(g) pH: shall be normal for waters in the area, which generally shall range between 6.8 and 8.5 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions; (l) Turbidity: the turbidity in the receiving water shall not exceed 25 NTU; if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased. [15A NCAC 02B .0221]."

The proposed action's activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DEQ DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the *Elijah's Landing Apartments Project EA ERR* when received from the permitting agencies. Further, the proposed action will comply with 15A NCAC 2H 1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed action will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, the proposed action is not anticipated to have an adverse impact on agricultural, aquacultural or forestry resources.

Wetland Evaluation

The purpose of wetland evaluation is to consider factors relevant to a proposed action's effect on the survival and quality of any wetlands to be disturbed. These factors should include public health (i.e., water supply and water quality), maintenance of natural systems, cost increases attributed to construction in wetland, and other uses of wetland in the public interest (i.e., recreational, scientific, and cultural). The site contains approximately 1.47 acres of wetland (PSS1A – Freshwater Palustrine Forested/Scrub-Shrub Wetland) with Calico Creek located north of the Subject Property. The proposed action will result in permanent impacts to 0.349 acres (15,202 square feet) of wetland. Wetland impact areas #1 and #2 (0.176 acre) will have fill material placement, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining walls, landscaping, lighting, and stormwater pond #1 per NC DEQ. A 6-foot wide boardwalk is also proposed over a small portion of Wetland impact areas #1, 2 and 3. Wetland impact areas #3 and #4 (0.09 acre) include fill material placement, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining wall, landscaping, lighting, and Building #500. Wetland impact area #5 (0.083 acre) will have fill material placement for Building #500's foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, retaining wall, landscaping, lighting, and stormwater pond #2 per NC DEQ. The proposed action has been redesigned to have minimal construction and development activities in the wetland. Further, mitigation measures are incorporated into the design plans and permit requirements and conditions will be complied with during construction. There were no other wetlands identified onsite that met the HUD definition of wetlands under 24 CFR 55.2(b)(11) which can include non-jurisdictional and jurisdictional wetlands.

On February 15, 2021, NC DEQ DWR Regional Supervisor, Morella Sanchez-King, completed their review under CWA Section 401 and 15 NCAC 02H .500 and issued Water Quality General Certification Number 4139 with Additional Conditions (DWR #20201353). The two Additional Conditions include staging, inspecting and maintaining all mechanized equipment to prevent surface water contamination and adherence to 15A NCAC 02B .0221 Tidal Salt Water Quality for Class SA Waters (3)(g) pH and (l) turbidity requirements. According to the USACE CWA Section 404 General Permit Verification (3/5/21) with Special Conditions, "[t]his verification authorizes the use of a Nationwide Permit 29 and 18 to impact 0.037 acres of wetland for road crossing & parking site 1, impact 0.139 acres of wetland for road crossing & Grading site 2, impact 0.035 acres of wetland for road & parking site 3, impact 0.055 acres of wetland for road, building & parking site 4 and impact 0.083 acres of wetland for road, parking & grading site 5, total impacts 0.349." The Special Condition listed includes utilizing sedimentation and erosion control measures, such as silt fencing around all soil disturbance areas, and immediate soil stabilization to prevent increased sedimentation or turbidity in waters and wetlands outside the permit area. Additionally, full compliance is required with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

The proposed project activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the *Elijah's Landing Apartments Project EA ERR* when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, measures will be implemented to ensure the proposed project will have no further impacts to wetlands during construction and operation.

Public Health, Safety, and Welfare, Including Water Supply, Quality, Recharge, and Discharge; Pollution; Flood and Storm Hazards and Hazard Protection; and Sediment and Erosion

Wetlands have unique natural characteristics that play an integral role in the ecology of the watershed. The natural and beneficial functions and values related to hydrology and water quality include slowing down stormwater runoff, providing surface and subsurface retention, and filtering out pollutants.

The proposed development will connect to the municipal water supply. Public water is available and adequate according to the Public Water Certification dated March 17, 2023 by Daniel K. Williams, Director of Public Services for Morehead City. In addition, an 8-inch water main is located at Bridges Street for connection to the proposed development. Water supply wells were not identified at the Subject Property. According to available information, a public water system operated by the Morehead City Public Utilities Department (MCPUD) serves the vicinity. According to a representative of the MCPUD, shallow groundwater directly beneath the Subject Property is not utilized for domestic purposes. The sources of public water for the Town of Morehead City is groundwater from five to six wells located throughout Morehead City which draw from the Castle Hayne Aquifer. The proposed action will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. There are no sole source aquifers in the State of North Carolina. The proposed development will use lead-free pipes, fittings, fixtures and/ or solder. The proposed project will connect to the municipal sewer. Public sewer is available and adequate to serve the Subject Property according to the Public Sewer Certification dated March 17, 2023 by Daniel K. Williams, Director of Public Services for Morehead City. In addition, an 8-inch sewer main is located onsite for connection to the proposed development.

According to the NC DEQ comment, plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the NC DWR/ Public Water Supply Section prior to the award of a contract or the initiation of construction as per 15A NCAC 18C .0300 et. seq. In addition, all public water supply systems must comply with State and federal drinking water monitoring requirements. If any wells are discovered on the proposed project site, then abandonment of wells must be in accordance with Title 15A. Subchapter 2C .0100. Further, NC DEQ notes that any relocation of existing water lines requires plans to be submitted to the NC DWR/ Public Water Supply Section prior to construction. A permit to construct and operate wastewater treatment facilities, non-standard sewer system extensions and sewer systems that do not discharge into state surface waters and a permit to construct and operate, sewer extensions involving gravity sewers, pump stations and force mains discharging into a sewer collection system might be required. Also, a NPDES permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters might be required. All applicable federal, State and local permits will be obtained for the proposed project prior to construction and activities will comply with their requirements and conditions.

Wetlands provide flood risk reduction benefits by slowing runoff and storing flood water in addition to water quality, recharge, and discharge; pollution; flood and storm hazards and hazard protection; and sediment and erosion. According to the USACE JD, the ground surface is considered severely altered with moderately altered water storage function. Due to land use in the area being mostly impervious surfaces, there is little to no opportunity to improve water quality. The USACE determined a mitigation fee was not required due to the low quality of the impacted wetlands.

BMPs and design features will minimize impacts to wetlands. The site contains approximately 1.47 acres of wetland with Calico Creek located north of the site. Side slopes from parking lots and drive aisles shall not exceed 3:1 slope in order to reduce impacts to wetlands. A temporary silt fence around the toe of the slope will prevent sediment from going downstream during a rain event prior to the embankments being stabilized. There is also Class B rip rap installed downstream of the outlet control device will prevent washout of the surrounding material. BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction. Mitigation measures/design features for the proposed action include five green open spaces, native plant landscaping, and three proposed onsite stormwater retention ponds which will slow down stormwater runoff, filter pollutants and assist with recharge and discharge functions. Green infrastructure mitigation measures, five green open spaces, have been incorporated into the design plans and will maintain or restore natural hydrology through infiltration. According to the EPA, “[g]reen infrastructure can be used to address stormwater runoff and sewer overflow problems. Green infrastructure works by slowing down the runoff, spreading it out over the land, and slowly soaking it into the ground, or in some cases reusing the water onsite. Green infrastructure is also sometimes referred to as low impact development. These techniques also help to remove pollutants from runoff, by allowing plants to filter out pollutants as the water slowly infiltrates into the ground.” See <https://www.epa.gov/nutrientpollution/sources-and-solutions-stormwater>. The three proposed stormwater retention ponds should alleviate some flooding on the site and in the immediate area by intercepting stormwater runoff. According to a University of Florida/IFAS article, “Stormwater ponds’ primary purpose is flood control, and they are designed to intercept stormwater runoff (precipitation that runs off our buildings, roads, parking lots, and sidewalks), but they also provide other services like a place for sediment to settle out of the water column, habitat for wildlife, recreational opportunities like birding, and pollutant removal. Overall, stormwater ponds help mitigate the impacts of urban stormwater runoff while protecting our natural waterways from nutrient loading, erosion, sedimentation, and algal blooms.”

The proposed action’s activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DEQ DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the *Elijah’s Landing Apartments Project EA ERR* when received from the permitting agencies. Further, the proposed project will comply with 15A NCAC 02H .1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed project will have a NPDES Construction Stormwater Permit (NCG010000) and Stormwater Pollution Prevention Plan (SWPPP). Thus, the proposed action has been designed and mitigation measures incorporated to have minimal impacts on these functions.

Maintenance of Natural Systems, Including Conservation and Long-Term Productivity of Existing Flora and Fauna; Species and Habitat Diversity and Stability; Natural Hydrologic Function; Wetland Type; Fish; Wildlife; Timber; and Food and Fiber Resources

According to the USACE JD, the wetland impacted has typical coastal plain floodplain vegetation but does not provide ideal habitat for wildlife diversity. The ground surface is considered severely altered with moderately altered water storage function. Due to land use in the area being mostly impervious surfaces, there is little to no opportunity to improve water quality. The USACE determined a mitigation fee was not required due to the low quality of the impacted wetlands. The Subject Property and immediate area are not being used for agricultural, aquacultural or forestry resources. The Subject Property is currently vacant land with a dilapidated storage building constructed in 1982. The Subject Property and a portion of the eastern adjoining and western adjoining properties appear to have been initially developed as agricultural property some time prior to 1938. A single-wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. The southern part of the Subject Property has been vacant since that time. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The northern portion of the Subject Property was historically used as an unpermitted disposal site for construction material (dirt, brick, concrete, etc.). The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. The surrounding properties currently contain mostly residential and commercial development. The surrounding properties were primarily agricultural in 1960s. However, the area transitioned to residential and commercial development in the early 1980s. Currently, properties located west of the Subject Property are multifamily residential and commercial office buildings including the Commerce Plaza. Properties located east of the Subject Property are a mix of commercial uses (boutique, restaurant, and construction contractor, and single-family residential (Willis Mobile Home Park). Properties located north of the Subject Property includes Calico Creek, undeveloped land then single-family residential. Properties located south of the Subject Property consist of Bridges Street and a mix of residential, light industrial (welding), and commercial properties (jewelry, car dealership, etc.). The proposed multifamily, affordable housing development will fit within the surrounding developed area.

According to the USACE General Permit (CWA Section 404 Nationwide Permits 18 and 29) Verification's Special Conditions, "[t]he permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4)." According to the NC DWR CWA Section 401 Water Quality General Certification No. 4139's Additional Conditions, "1. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0211 (12)]. 2. The Permittee shall adhere specifically to 15A NCAC 02B .0221 Tidal Salt Water Quality for Class SA Waters (3)(g) pH: shall be normal for waters in the area, which generally shall range between 6.8 and 8.5 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions; (l) Turbidity: the turbidity in the receiving water shall not exceed 25 NTU; if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased. [15A NCAC 02B .0221]."

The proposed action's activities will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE CWA Section 404 Nationwide Permits 18 and 29, NC DEQ DWR CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work and appended to the *Elijah's Landing Apartments Project EA ERR* when received from the permitting agencies. Further, the proposed action will comply with 15A NCAC 2H 1000 State Stormwater Permitting Programs that regulate site development and post-construction stormwater runoff control. The proposed action will have a NPDES Construction Stormwater Permit (NCG010000) and SWPPP. Thus, the proposed action is not anticipated to have adverse impacts on existing flora and fauna, species and habitat diversity, stability, and fish resources.

BMPs and design features will minimize impacts to wetlands. Side slopes from parking lots and drive aisles shall not exceed 3:1 slope in order to reduce impacts to wetlands. A temporary silt fence around the toe of the slope will prevent sediment from going downstream during a rain event prior to the embankments being stabilized. There is also Class B rip rap installed downstream of the outlet control device will prevent washout of the surrounding material. BMPs for erosion and sedimentation control such as silt fencing will be utilized during construction. Mitigation measures/design features for the proposed action include five green open spaces, native plant landscaping, and three proposed onsite stormwater retention ponds. Green infrastructure mitigation measures, five green open spaces, have been incorporated into the design plans and will maintain or restore natural hydrologic function through infiltration. Green infrastructure works by slowing down the runoff, spreading it out over the land, and slowly soaking it into the ground, or in some cases reusing the water onsite. These techniques help to remove pollutants from runoff, by allowing plants to filter out pollutants as the water slowly infiltrates into the ground." See <https://www.epa.gov/nutrientpollution/sources-and-solutions-stormwater>. According to a University of Florida/IFAS article, "Stormwater ponds' primary purpose is flood control, and they are designed to intercept stormwater runoff (precipitation that runs off our buildings, roads, parking lots, and sidewalks), but they also provide other services like a place for sediment to settle out of the water column, habitat for wildlife, recreational opportunities like birding, and pollutant removal. Overall, stormwater ponds help mitigate the impacts of urban stormwater runoff while protecting our natural waterways from nutrient loading, erosion, sedimentation, and algal blooms." Thus, the proposed action is not anticipated to have an adverse impact on natural hydrologic function, fish, wildlife, timber, and food, and fiber resources.

Cost Increases Attributed to Wetland-Required New Construction and Mitigation Measures to Minimize Harm to Wetlands that May Result from Such Use

The additional costs attributed to wetlands for wetland design, delineation, and permits services totaled \$7,600.00. USACE did not require a compensatory mitigation fee due to the low quality nature of the wetlands being impacted. Since the wetland impacts were kept under one acre, there is no State required compensatory mitigation. There are no anticipated cost increases attributed to additional mitigation measures to minimize harm to wetlands as these measures are built into existing plans. The proposed scope of work involves green open spaces, native plants used in landscaping, and three proposed onsite stormwater retention ponds. The stormwater retention ponds will require regular maintenance, as needed, but retention ponds are standard requirements for similar development sites. The green open spaces are cheaper to create and maintain than paving and provide residents with a natural landscape view and recreation area.

Other Uses of Wetland in the Public Interest, Including Recreational, Scientific, and Cultural Uses

There are no identified recreational, scientific or cultural uses of the wetland that will be impacted by the proposed action. The proposed action will include a clubhouse, gazebo, covered picnic area, boardwalk over the wetlands, playground, tot lot, various open spaces, and dog park on the site for residents. The boardwalk allows for wetlands to remain while providing the residents with a natural landscape view and recreational opportunities such as bird watching and a walking trail. The green open spaces provide residents with a natural landscape view and recreation area.

Step 5. Where Practicable, Design or Modify the Proposed Action to Minimize the Potential Adverse Impacts to and from the 100-Year Floodplain and the Wetland and to Restore and Preserve its Natural and Beneficial Functions and Values.

The buildings and most of the improvements will be constructed in Zone X and outside of SFHA. Only a small portion of the site is located in Zone AE. Construction and development activities for the proposed action have been designed to minimize impacts to wetlands and 100-year floodplain. Designs were modified to relocate Building #500 from in the 100-year floodplain to 2.48' away from the 100-year floodplain while maintaining a 21-foot setback from Building #400 (minimum setback is 20 feet). For greater resiliency during flood events, a significant amount of fill material is proposed to be brought onsite. All of the proposed structures will be situated well above any nearby Special Flood Areas (wetlands or flood zone) including the only 100 year floodplain elevation onsite, see table below.

Building #	FFE	Nearest Flood Wetland Elevation	Notes
100	22.27	N/A	There are no nearby Special Flood Areas
200	22.27	N/A	There are no nearby Special Flood Areas
300	21.00	13.50	Wetlands immediately north
400	15.77	11.50	Wetlands immediately south near Pond #1 outlet
500	15.67	8.50	Wetlands immediately north near Pond #2 outlet
600	16.07	9.00	Wetland south of adjacent parking lot. Top of ditch bank behind building is 12.0' but it is not wetland or flood zone
700	13.80	N/A	There are no nearby Special Flood Areas
800 (Clubhouse)	15.20	9.00	Wetlands immediately north near Pond #2 outlet

Avoidance and Minimization (A&M) of the wetlands was one of the major design constraints associated with the proposed action's Civil Engineering Design. Many redesigns of the site and grading plan were completed to minimize the proposed wetland impacts from 0.82 acres to 0.578 acres then to the final State- and USACE-approved 0.349 acre. The avoidance of the 100-year floodplain was not considered in the original design. Not only were the site and grading plan refined to minimize these impacts, but there were additional items utilized to increase A&M such as retaining walls, slotted boardwalks raised over wetlands, and an alternative landscape plan to use existing wetlands vegetation that has been approved by the Town of Morehead City and other permitting agencies.

The short-term impacts will be mitigated by BMPs for debris, dust, and erosion control during construction activities. BMPs and design features will minimize impacts to floodplain and wetlands. Side slopes from parking lots and drive aisles shall not exceed 3:1 slope in order to reduce runoff impacts. A temporary silt fence around the toe of the slope will prevent sediment from going downstream during a rain event prior to the embankments being stabilized. There is also Class B rip rap installed downstream of the outlet control device will prevent washout of the surrounding material. Mitigation measures/design features for the proposed action also include five green open spaces, native plant landscaping, and three proposed onsite

stormwater retention ponds which will slow down stormwater runoff. All applicable federal, State and local permits will be obtained for the proposed action prior to construction and activities will comply with their requirements and conditions. Thus, measures will be implemented to ensure the proposed action will have no further impacts to floodplain and wetlands during construction.

It is a direct policy requirement to specify standards that mitigate future flood risk. These mitigation measures will help minimize flood water level for the area, green infrastructure features will help slow down water runoff and filter out pollutants and the stormwater ponds will intercept runoff. However, it is still reasonable to promote awareness of future risks of natural hazards, including altered flooding patterns, plus the physical, social and economic impacts that potential flood events could convey.

Step 6. Reevaluate the Alternatives and Proposed Action.

There were three main alternative sites considered for the proposed action but these sites were not considered ideal for the proposed affordable multifamily development for the reasons stated above. The “No Action” Alternative would not address the purpose and need of the proposed action. The Town of Morehead City would need to find other options to address the shortage in affordable housing inventory exacerbated by the effects of hurricanes that recently damaged or destroyed hundreds of homes in North Carolina. In the absence of the proposed action, the Subject Property would not generate additional tax revenue or create affordable housing for residents, which are both of greater benefit to the community than leaving the property vacant. Therefore, the alternatives examined are not considered desirable and the proposed action is still practicable in light of potential impacts on the floodplain and wetland, the extent to which it may aggravate current hazards to other floodplains and wetlands, and the potential to disrupt the natural and beneficial functions and values of floodplains and wetlands.

Implementation of the proposed action will abide by all applicable federal, State and local laws, regulations, and permit requirements and conditions. The impacts of the proposed action and these alternatives will be re-evaluated in response to any pertinent public comments received.

Step 7. Issue Findings and Public Explanation.

It is the finding of this report that there is no better alternative than to provide funding for the Elijah’s Landing Apartments Project. The Town of Morehead City would need to find other suitable options to address the immense shortage in affordable housing inventory exacerbated by the effects of hurricanes.

A final notice, formally known as “*Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain and Wetland*” was published in accordance with 24 CFR 55. However, this notice was combined with the Notice of Finding of No Significant Impact (FONSI) and Notice of Intent to Request Release of Funds (NOI-RROF) for a 15-day comment period. The 15-day comment period started with the combined notice publishing in the Carteret County News-Times newspaper on August 16, 2023 and ends on August 31, 2023. The notice was also posted at <https://www.rebuild.nc.gov/about/plans-policies-reports/environmental-reviews> and sent via Federal Express and email to the following state and federal agencies: HUD NC Field Office; FEMA; EPA; USFWS; USACE; NC State Environmental Clearinghouse; and NCHFA. The notice was also sent to Carteret County and the Town of Morehead City. Project information was sent to the NC State Historic Preservation Office (SHPO) and Catawba Indian Nation for review and comment under NHPA Section 106 (*See Elijah’s Landing Apartments Project EA ERR*). (*See Appendix 3* for the final notice distributed to these agencies, newspaper publication affidavit [to be added], distribution list, and public comments [to be added].)

Supporting documentation, including this EO 11988 Floodplain Management and EO 11990 Protection of Wetlands Determination, incorporated into the Final Notice was posted for public review to the NCCORR ReBuild NC website and included the Early Notice documentation (Proposed Project Location Maps and Site Plans, FEMA FIRMs and PFIRM with parcel boundary, USFWS NWI Map with parcel boundary, Proposed Floodplain and Wetlands Impacts Site Plan (revised with Building #500 moved outside of 100-year floodplain), USACE CWA Section 404 General Permit Verification (3/5/2021) with Special Conditions, USACE JD (7/24/2018), and NC DEQ DWR CWA Section 401 Water Quality General Certification No. 4139 with Additional Conditions) and any additional appendices noted herein. The EA was also posted to the NCCORR ReBuild NC website allowing for public and agency input on the decision to provide funding for construction and development activities. Any substantive comments received will be addressed, and incorporated into the EA prior to proceeding with the submission of a request for release of funds.

Step 8. Implementation and Continuing Responsibility of the Responsible Entity and Recipient.

NCCORR is the responsible entity and will provide educational materials, when available. It is acknowledged there is a continuing responsibility by the responsible entity to ensure, to the extent feasible and necessary, compliance with the Steps herein.

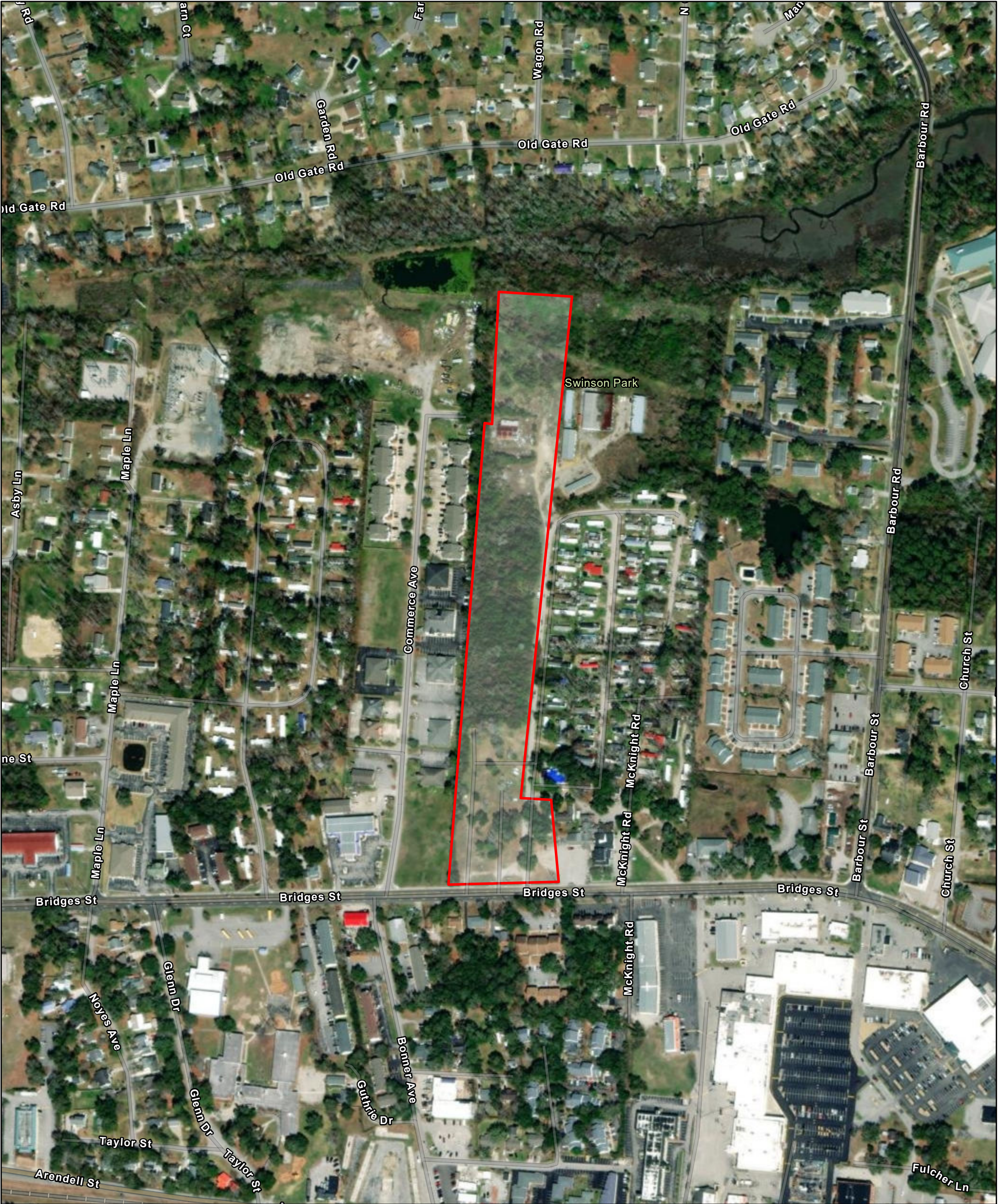
APPENDIX 1

EARLY NOTICE FLOODPLAIN AND WETLAND MAPS

- **Proposed Project Location Maps and Site Plans**
- **FEMA FIRMs and PFIRM with Parcel Boundary**
- **USFWS NWI Map with Parcel Boundary**
- **Proposed Floodplain and Wetlands Impacts Site Plan (*revised with Building #500 moved outside of 100-year floodplain*)**
- **USACE CWA Section 404 General Permit Verification (3/5/2021) with Special Conditions, USACE JD (7/24/2018), NCDEQ DWR CWA Section 401 Water Quality General Certification No. 4139 with Additional Conditions**

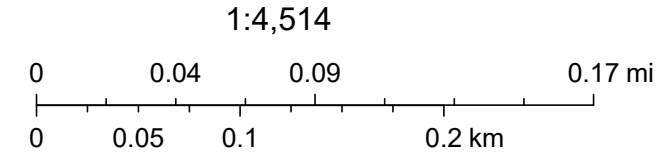
Proposed Project Location Maps and Site Plans

Elijah's Landing Apartments - Aerial Map



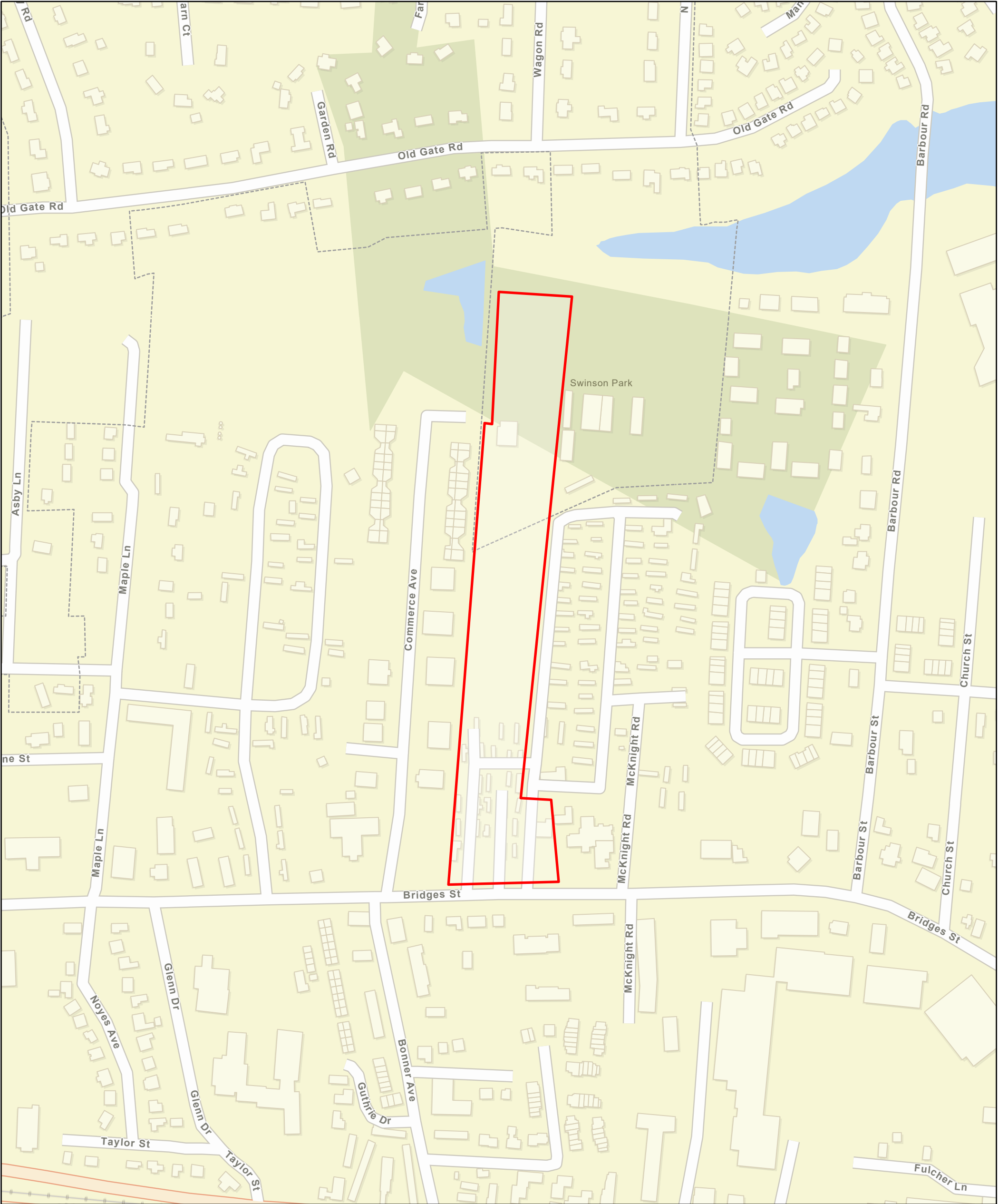
June 21, 2023

 Elijah's Landing Apartments



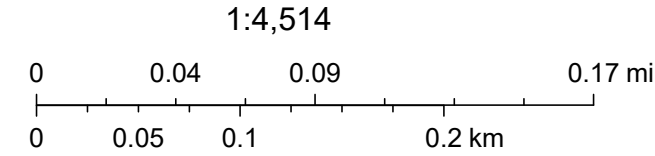
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Elijah's Landing Apartments - Street Map



June 21, 2023

 Elijah's Landing Apartments



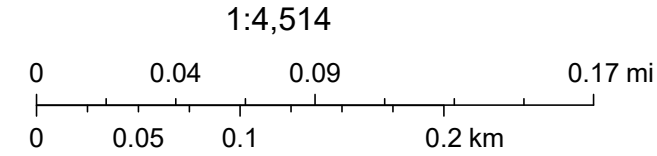
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Elijah's Landing Apartments - Topo Map



June 21, 2023

 Elijah's Landing Apartments



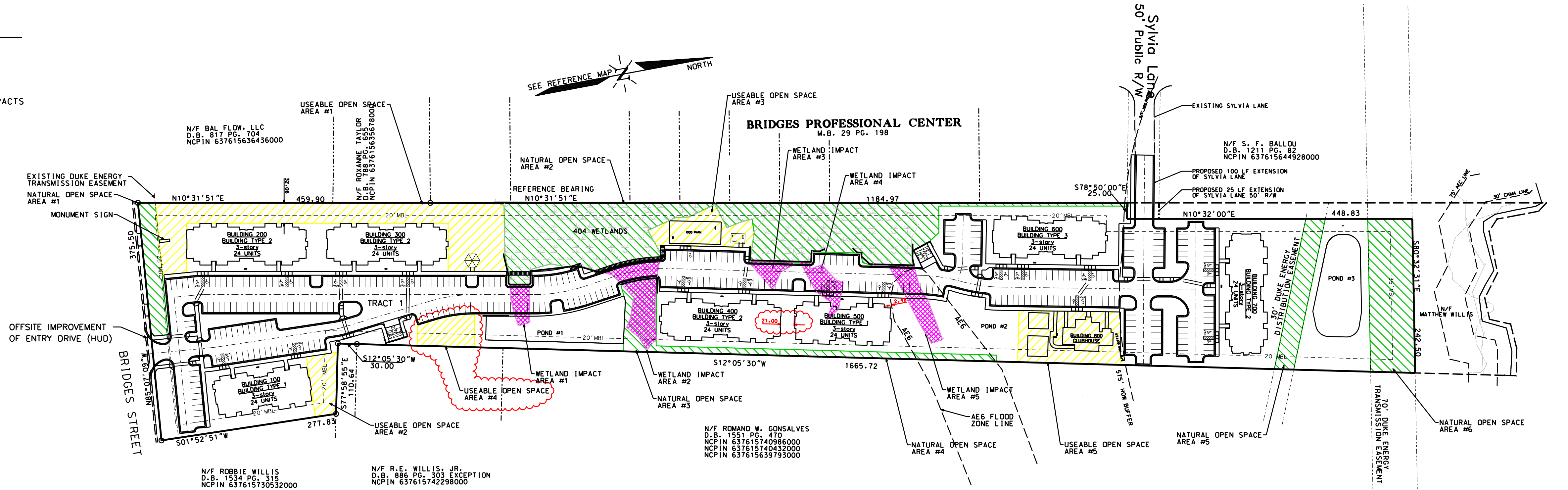
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VICINITY MAP N.T.S.

LEGEND

- EXISTING WETLANDS
- PROPOSED WETLAND IMPACTS
- USEABLE OPEN SPACE
- NATURAL OPEN SPACE
- REVISIONS REQUESTED FOR REVIEW



AREA TABULATIONS

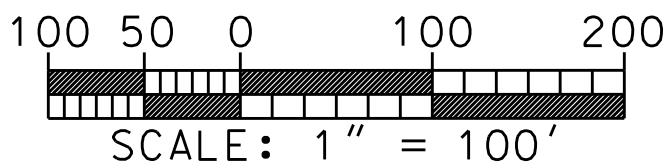
USEABLE OPEN SPACE AREAS		NATURAL OPEN SPACE AREAS		WETLAND IMPACT AREAS	
AREA #	AREA (SF)	AREA #	AREA (SF)	AREA #	AREA (AC)
1	27,686.83	1	5,561.79	1	0.037
2	3,933.28	2	54,784.37	2	0.139
3	7,045.84	3	1,711.15	3	0.055
4	4,020.67	4	3,110.77	4	0.055
5	55,858.03	5	16,913.42	5	0.083
TOTAL AREA = 55,858.03 SF		TOTAL AREA = 95,341.48 SF		TOTAL AREA = 0.349 AC	

SITE DATA

TRACT AREA = 11.74 AC = 506,966.36 SF
MAXIMUM BUILDING COVERAGE ALLOWED IS 40% OF TRACT AREA = 202,786.54 SF
PROPOSED BUILDING COVERAGE (BUILDINGS 100 THRU 700, CLUBHOUSE, GAZEBO & COVERED PICNIC AREA) = 64,755.28 SF
MINIMUM LOT SIZE PER UNITS = 5,000 SF FOR FIRST UNIT, EACH 2+ BEDROOM UNIT REQUIRES 3,000 SF PER UNIT AND EACH 1 BEDROOM UNIT REQUIRES 2,500 SF PER UNIT.
PROPOSED (30) 1 BEDROOM UNITS, (78) 2 BEDROOM UNITS AND (60) 3 BEDROOM UNITS
REQUIRED AREA = 5,000 SF + [138 UNITS X 3,000 SF] + [29 X 2,500 SF] = 491,500 SF = 11.28 AC
TRACT AREA IS GREATER THAN MINIMUM LOT AREA REQUIRED
OPEN SPACE REQUIREMENTS = 18% OF TRACT MUST BE NATURAL OPEN SPACE AND 10% USEABLE OPEN SPACE
NATURAL OPEN SPACE REQUIRES (18% OF TRACT) = 91,253.94 SF
USEABLE OPEN SPACE REQUIRED (10% OF TRACT) = 50,696.64 SF
NATURAL OPEN SPACE PROVIDED = 94,261.85 SF
USEABLE OPEN SPACE PROVIDED = 55,858.03 SF
MINIMUM SETBACK REQUIREMENTS
FRONT = 25'; 25' PROVIDED
REAR = 25' + 5' PER ADDITIONAL STORY = 35'; 35' PROVIDED
SIDE = 20' AGGREGATE = 5' PER ADDITIONAL STORY = 40' AGGREGATE
SIDE SETBACKS ARE 20' FOR ENTIRE PROPERTY
MAXIMUM BUILDING HEIGHT ALLOWED = 50' ABOVE AVERAGE GRADE
MAXIMUM BUILDING HEIGHT PROPOSED = 34' 3"

PARKING DATA

PARKING SPACES REQ'D = 1.75 PARKING SPACES PER RESIDENTIAL UNIT (NCHFA 2020 OAP)
PARKING SPACES REQ'D = 168 UNITS X 1.75 SPACES PER UNIT = 294 SPACES TOTAL
PARKING REQ'D (MOREHEAD CITY) = 2 SPACES PER UNIT PLUS 1 ADDITIONAL SPACE PER 6 UNITS
PARKING SPACES REQ'D = 336 SPACES + 28 SPACES = 364 TOTAL SPACES
PARKING SPACES PROVIDED = 348 SPACES - PLEASE SEE REQUEST FOR 4.4% PARKING REDUCTION PER ORDINANCE SECTION 20-1.4.
HANDICAP(H/C) PARKING REQ'D (NORTH CAROLINA) = 2% OF 364 = 8 SPACES REQ'D
HANDICAP(H/C) PARKING REQ'D (NCHFA) = 1 PER TYPE 'A' UNITS, 2% OF TYPE 'B' UNITS,
1 PER LOCATIONS OF AMENITIES, VAN ACCESSIBLE SPACES REQ'D AT EACH AMENITIES LOCATION AND THE 1ST HANDICAP SPACE PER TYPE 'A' UNIT
TYPE 'A' UNITS = 18, 18 HANDICAP SPACES REQ'D
TYPE 'B' UNITS = 38, 1 HANDICAP SPACES REQ'D
AMENITIES LOCATION = 3, 3 HANDICAP SPACES REQ'D
HANDICAP(H/C) PARKING REQ'D = 21 VAN SPACES + 1 SPACES = 22 HANDICAP SPACES TOTAL
HANDICAP PARKING SPACES PROVIDED = 33 SPACES

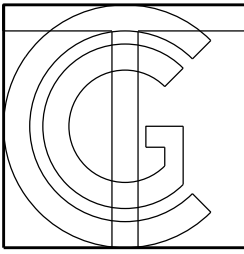


SCALE: 1" = 100'

SHEET INDEX	
SHEET NO.	DESCRIPTION
C1.0	OVERALL SITE PLAN
C2.0	EXISTING CONDITIONS SURVEY
C3.0	ENLARGED SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING & DRAINAGE PLAN
C6.0	UTILITY PLAN
C6.1-6.3	UTILITY PLAN & PROFILES
C7.0	LANDSCAPE PLAN
C8.0	STORMWATER POND #1 DETAILS
C8.1	STORMWATER POND #2 DETAILS
C8.2	STORMWATER POND #3 DETAILS
C8.3	STORMWATER PONDS PLANTING PLAN
C9.0	SITE DETAILS
C10.0	SITE DETAILS
C11.0	EROSION CONTROL DETAILS
C12.0	UTILITY DETAILS
C13.0	BMP DELINEATION PLAN
C14.0	GROUND STABILIZATION
C15.0	SELF INSPECTION

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing
Overall
Site Plan



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
C-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080



100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	CMC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

OVERALL
SITE PLAN

C1.0

- LEGEND
- EIR EXISTING IRON ROD
EIP EXISTING IRON PIPE
EPK EXISTING PK NATL
ECM EXISTING CONC. MON.
ERRS EXISTING R/R SPIKE
E.P. EDGE OF PAVEMENT
SIR SET IRON ROD
CP CALCULATED POINT
MWH MEAN HIGH WATER
N/F NOW OR FORMERLY
MB MAP BOOK
DB DEED BOOK
PG PAGE
OP OVERHEAD POLE
LP LIGHT POLE
DE OVERHEAD ELECTRIC
LEC ELECTRICAL PEDESTAL
TRANS ELEC. TRANSFORMER
TEL TELEPHONE PEDESTAL
TV CABLE TV PEDESTAL
WM WATER METER
CD CLEAN OUT
SD SINGLE WIDE MOBILE HOME
SS DANCE STUDIO
SSMH SANITARY SEWER MANHOLE
EXCEPTION ITEMS IDENTIFICATION NUMBER
- EASEMENT
--- EXISTING IMPROVEMENTS
--- UNDERGROUND SEWER
--- ADJACENT PROPERTY BOUNDARY
--- FLOOD ZONE
--- DITCH CENTERLINE
WETLAND
ADJOINING PROPERTY LOT NUMBER

RECORD LEGAL DESCRIPTION

BEGINNING AT A SET IRON ROD IN THE NORTHERN RIGHT OF WAY OF BRIDGES STREET, SAID POINT ALSO BEING LOCATED 577°15'43"E 179.39 FEET AND 585°07'09"E 375.50 FEET FROM AN EXISTING IRON ROD LOCATED IN THE EASTERN RIGHT OF WAY OF COMMERCE AVENUE, THENCE FROM SAID BEGINNING POINT AND ALONG BRIDGES STREET RIGHT OF WAY N85°07'09"W 375.50 FEET TO AN EXISTING IRON ROD, THENCE LEAVING SAID RIGHT OF WAY N10°31'51"E 459.90 FEET TO AN EXISTING IRON LOCATED AT THE NORTHEAST CORNER OF THAT PROPERTY OWNED BY ROXANNE TAYLOR AS RECORDED IN DEED BOOK 188 PAGE 655 OF THE CARTERET COUNTY REGISTRY, THENCE FROM SAID POINT AND CONTINUING ON THE SAME LINE N10°31'51"E 1096.61 FEET TO AN EXISTING IRON ROD, SAID LINE BEING THE EASTERN LINE OF BRIDGES PROFESSIONAL CENTER AS RECORDED IN MAP BOOK 29 PAGE 157.02, SAID POINT ALSO BEING NEAR THE SOUTHERN RIGHT OF WAY OF SYLVIA LANE, THENCE LEAVING SAID EASTERN LINE AND AN EXTENSION OF THE SOUTHERN LINE OF SYLVIA LANE S78°50'00"E 25.00 FEET TO AN EXISTING IRON ROD, THENCE N10°32'00"E 448.83 FEET TO AN EXISTING IRON ROD NEAR THE NORTHERN RIGHT OF WAY OF A 70 FOOT DUKE ENERGY UTILITY EASEMENT, THENCE WITH SAID NORTH LINE S80°32'31"E 242.50 FEET TO AN EXISTING IRON ROD, THENCE LEAVING SAID NORTHERN LINE S12°05'30"W 1665.72 FEET TO A SET IRON ROD, THENCE S12°05'30"W 30.00 FEET TO A SET IRON ROD, THENCE S77°58'54"E 110.64 FEET TO A SET IRON ROD, THENCE S01°52'51"W 277.83 FEET TO THE POINT AND PLACE OF BEGINNING, BEING ALL OF TRACT 1, MAP BOOK 33, PAGE 993, AND CONTAINING 11.64 ACRES.

ENCROACHMENT/SIGNIFICANT OBSERVATION

THE FOLLOWING ITEMS CONSTITUTE ENCROACHMENTS:

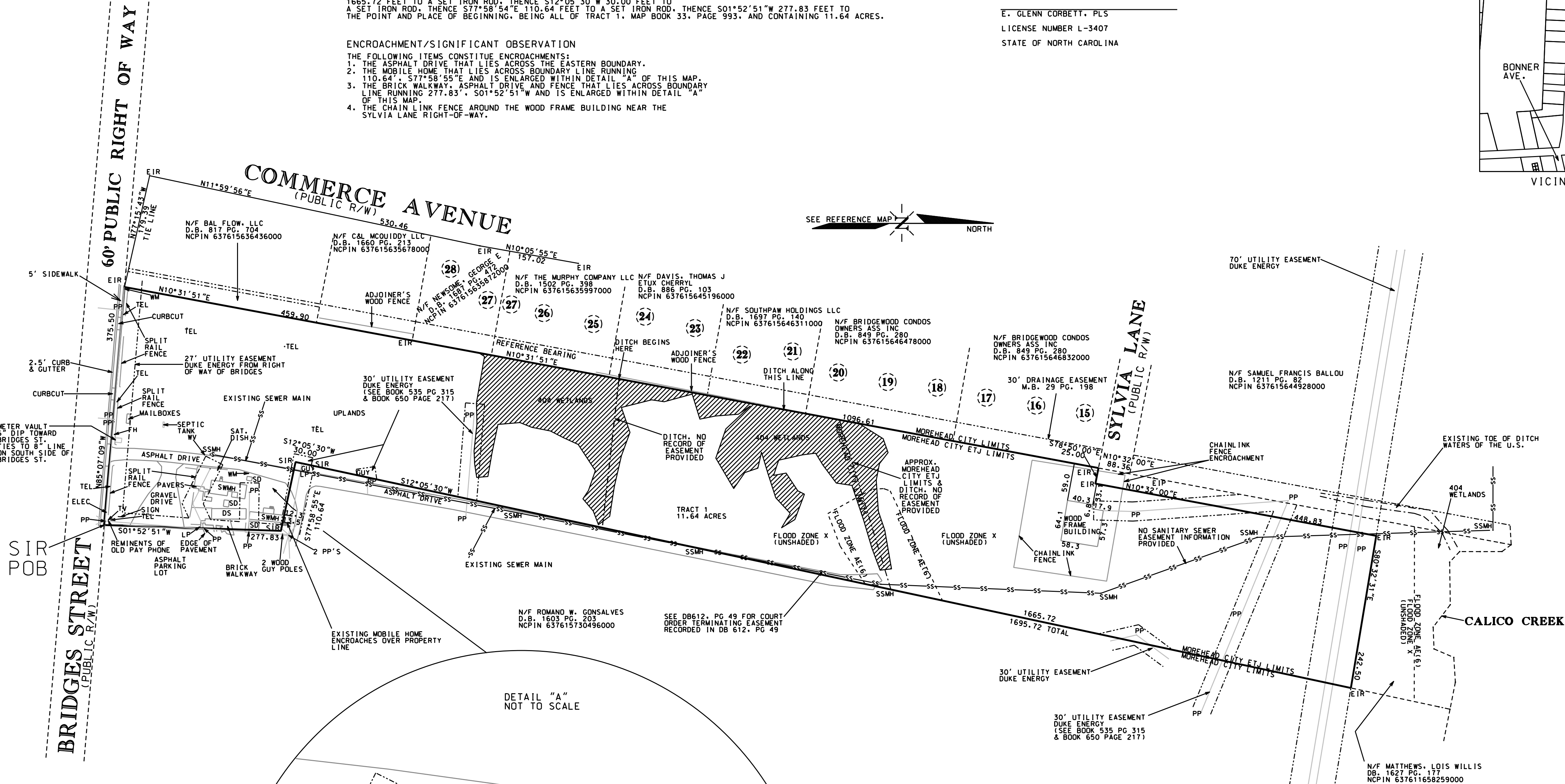
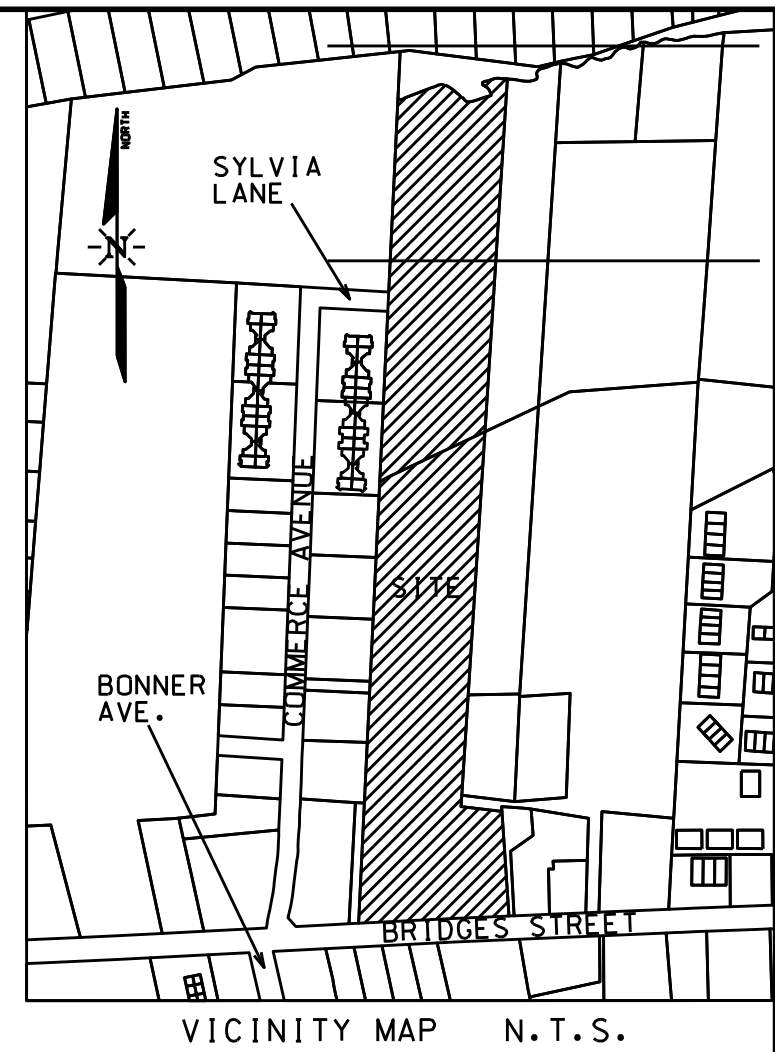
1. THE ASPHALT DRIVE THAT LIES ACROSS THE EASTERN BOUNDARY.
2. THE MOBILE HOME THAT LIES ACROSS BOUNDARY LINE RUNNING 110.64' S77°58'55"E AND IS ENLARGED WITHIN DETAIL "A" OF THIS MAP.
3. THE BRICK WALKWAY, ASPHALT DRIVE AND FENCE THAT LIES ACROSS BOUNDARY LINE RUNNING 277.83' S01°52'51"W AND IS ENLARGED WITHIN DETAIL "A" OF THIS MAP.
4. THE CHAIN LINK FENCE AROUND THE WOOD FRAME BUILDING NEAR THE SYLVIA LANE RIGHT-OF-WAY.

E. GLENN CORBETT, PLS
LICENSE NUMBER L-3407
STATE OF NORTH CAROLINA

REFERENCE MAP
SEE SURVEY FOR WILLIS MOBILE HOME PARK #1
FOR LOIS MATTHEWS C/O HARVEY L. AND COLLEEN
P.A. BY PRESTIGE LAND SURVEYING, P.A. DATED
JUNE 29, 2016.

TO, ELIJAH'S LANDING OF MOREHEAD CITY, LLC, CHURCHILL MORTGAGE INVESTMENT LLC, A FLORIDA LIMITED LIABILITY COMPANY, CHURCHILL MORTGAGE CONSTRUCTION, LLC, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT(HUD), CHICAGO TITLE INSURANCE COMPANY AND, COMMUNITY EQUITY FUND XXV LIMITED PARTNERSHIP:

DATE OF PLAT OR MAP: 10/8/2021 AND LAST REVISED: 12/1/21



SURVEYOR'S COMMENTS - SCHEDULE B, PART II
RELATIVE TO CHICAGO TITLE INSURANCE COMPANY
COMMITMENT NUMBER: 21-20231NB
COMMITMENT DATE: 9/16/211 REVISED 11/23/21

1. TAXES OR ASSESSMENTS FOR THE YEAR 2022, AND SUBSEQUENT YEARS, A LIEN NOT YET DUE OR PAYABLE
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
2. ANY RIGHT, EASEMENT, SETBACK, INTEREST, CLAIM, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATIONS OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE DISCLOSED BY PLAT(S) RECORDED IN MAP BOOK 33, PAGE 993, NOTWITHSTANDING THE FOREGOING, THE POLICY INSURES AGAINST LOSS OR DAMAGE RESULTING FROM A FINAL DETERMINATION BY A COURT OF COMPETENT JURISDICTION THAT PARTIES OTHER THAN THE INSURED, AND THOSE CLAIMING BY THROUGH AND UNDER THE INSURED, HAVE RIGHTS IN AND TO THE USE OF THE PORTION OF THE ASPHALT DRIVE LOCATED ON THE LAND AND SHOWN THEREON. (LOAN POLICY ONLY)
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
3. ANY DISCREPANCY, CONFLICT, MATTERS REGARDING ACCESS, SHORTAGE IN AREA OR BOUNDARY LINES, ENCROACHMENT, ENCUMBRANCE, VIOLATION, OVERLAP, SETBACK, EASEMENT OR CLAIMS OF EASEMENT, RIPARIAN RIGHT, AND TITLE TO LAND WITHIN ROADS, WAYS, RAILROADS, WATERCOURSES, BURIAL GROUNDS, MARSHES, DREDGED OR FILLED AREAS OR LAND BELOW THE MEAN HIGHWATER MARK OR WITHIN THE BOUNDS OF ANY ADJOINING BODY OF WATER, OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY A CURRENT INSPECTION AND ACCURATE AND COMPLETE LAND SURVEY OF THE LAND.
UPON RECEIPT OF A CURRENT LAND SURVEY AND SURVEYOR'S REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS SHOWN THEREBY.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
4. RIGHTS OF WAY TO CAROLINA POWER AND LIGHT COMPANY RECORDED IN BOOK 535, PAGE 315; BOOK 650, PAGE 217.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
5. TITLE TO ANY PORTION OF THE LAND LYING WITHIN THE RIGHT OF WAY OF BRIDGES STREET.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
6. RIPARIAN AND/OR LITTORAL RIGHTS INCIDENT TO THE LAND; RIGHTS OF OTHERS IN AND TO THE CONTINUOUS AND UNINTERRUPTED FLOW OF THE WATERS OVER CROSSING THE LAND; AND TITLE TO ANY PORTION OF THE LAND OWNED BY ANY GOVERNMENTAL ENTITY INCLUDING, BUT NOT LIMITED TO, MARSH, DREDGED AND/OR FILLED AREAS AND LAND BELOW THE MEAN HIGH-WATER MARK.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
7. THE LAND SHALL NOT BE DEEMED TO INCLUDE ANY HOUSE TRAILER, MANUFACTURED HOME, MOBILE HOME, OR MOBILE DWELLING ON THE LAND.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
8. ORDINANCE FOR ANNEXATION RECORDED IN BOOK 1671, PAGE 120.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
9. EASEMENT FROM ELIJAH'S LANDING OF MOREHEAD CITY, LLC TO DUKE ENERGY PROGRESS, LLC RECORDED JUNE 2, 2021, IN FILE #1724386, CARTERET COUNTY REGISTRY.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.

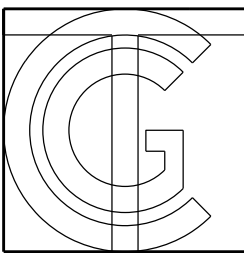
DETAIL "A"
NOT TO SCALE

NOTES:

1. THIS SURVEY IS OF AN EXISTING PARCEL OF LAND
2. AREA BY COORDINATES
3. THIS MAP IS NOT FOR RECORDING.
4. TRACT AREA = 11.64 ACRES ± 506,964.36 SF
5. NO POINTS SET IN CALICO CREEK.
6. NO TREES LOCATED OR SHOWN.
7. NO EASEMENTS FOR WATER, SEWER, TELEPHONE OR DRAINAGE PROVIDED.
8. FLOOD ZONE LINES SCALED FROM FIRM NUMBER 3720637600J DATED 7/16/03.
9. NO PARKING SPACES OR STRIPING EXIST ON PROPERTY.
10. NO PARTY OR DIVISION WALLS EXIST ON PROPERTY.
11. WETLANDS LINES FIELD APPROVED BY TOM CHARLES OF USACE ON 3/18/18.
12. PROPERTY IS ZONED: RWF (RESIDENTIAL MULTI-FAMILY) ACCORDING TO THE ZONING VERIFICATION LETTER PROVIDED BY THE TOWN OF MOREHEAD CITY, DATED 10/27/2021.
13. AT TIME OF FIELD WORK, THERE WAS NO EVIDENCE OF EARTH MOVING, CONSTRUCTION, ETC.
14. AT TIME OF FIELD WORK, THERE WAS NO EVIDENCE OF STREET OR RIGHT-OF-WAY CHANGES.
15. PARCEL HAS TWO ADDRESS NUMBERS DUE TO OLD TAX NUMBERS.
16. THE SURVEY CORRECTLY SHOWS THE LOCATION OF ALL BUILDINGS, STRUCTURES, AND OTHER IMPROVEMENTS SITUATED ON THE PROPERTY.
17. EXCEPT AS SHOWN, ALL UTILITIES SERVING THE PROPERTY ENTER THROUGH ADJOINING PUBLIC STREETS AND OR EASEMENTS OF RECORD; THAT, EXCEPT AS SHOWN, THERE ARE NO VISIBLE EASEMENTS OR RIGHTS OF WAY ACROSS SAID PROPERTY; THAT THE PROPERTY IS THE SAME AS THE PROPERTY DESCRIBED IN INVESTORS TITLE INSURANCE COMPANY, COMMITMENT NO. 21-20231NB WITH AN EFFECTIVE DATE OF 09/16/2021 AND A DATE OF SECOND REVISION OF 11/23/2021; AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT, OR EASEMENTS OF WHICH THE UNDERSIGNED HAS BEEN ADVISED OR HAS KNOWLEDGE, HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR AFFECT ON THE PROPERTY.
18. EXCEPT AS SHOWN, THERE ARE NO ENCROACHMENTS ONTO ADJOINING PREMISES, STREETS OR ALLEYS BY ANY BUILDING, STRUCTURES OR OTHER IMPROVEMENTS, AND NO ENCROACHMENTS ONTO SAID PROPERTY BY BUILDINGS, STRUCTURES OR OTHER IMPROVEMENTS SITUATED ON ADJOINING PREMISES.
19. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN ZONE X (UNSHADED) AND AE(6) OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 3720637600J, WHICH BEARS AN EFFECTIVE DATE OF 07/16/03, AND A PORTION OF THE PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA. THIS COMMUNITY DOES PARTICIPATE IN THE PROGRAM. NO FIELD SURVEYING PERFORMED TO DETERMINE BASE FLOOD ELEVATION OR ESTABLISH BENCHMARK.
20. THE PROPERTY HAS DIRECT PHYSICAL ACCESS TO A PUBLICLY DEDICATED STEET OR HIGHWAY KNOWN AS BRIDGES STREET AND IS A 60' PUBLIC RIGHT OF WAY.
21. THE NUMBER OF DRIVE-UP PARKING SPACES LOCATED ON THE PROPERTY IS INCLUDING HANDICAPPED SPACES AND TO THE EXTENT POSSIBLE ARE GRAPHICALLY SHOWN HEREON. N/A
22. THIS PROPERTY IS A SINGLE TAX PARCEL.

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
15400
101-A NC HIGHWAY 84
101-A NC HIGHWAY 84
101-A NC HIGHWAY 84
(252) 773-0080

PRELIMINARY PLAT
NOT FOR RECORDATION,
CONVEYANCE OR SALE.
FOR REVIEW ONLY!

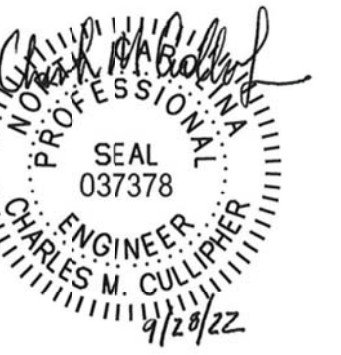
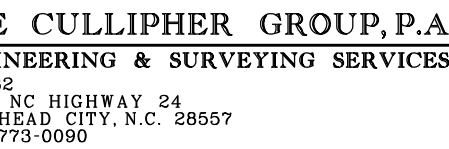
100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	EGC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

ALTA/NSPS
LAND TITLE
SURVEY

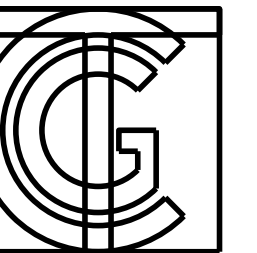
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Elijah's Landing

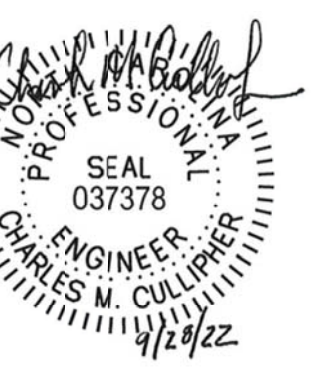


C3.0

Elijah's Landing



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
15-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080



100%
CONSTRUCTION
DRAWINGS

date 9/28/22

drafter CMC

checked by CMC

proj. no. PM858-29

revisions

1 PER NCFHA

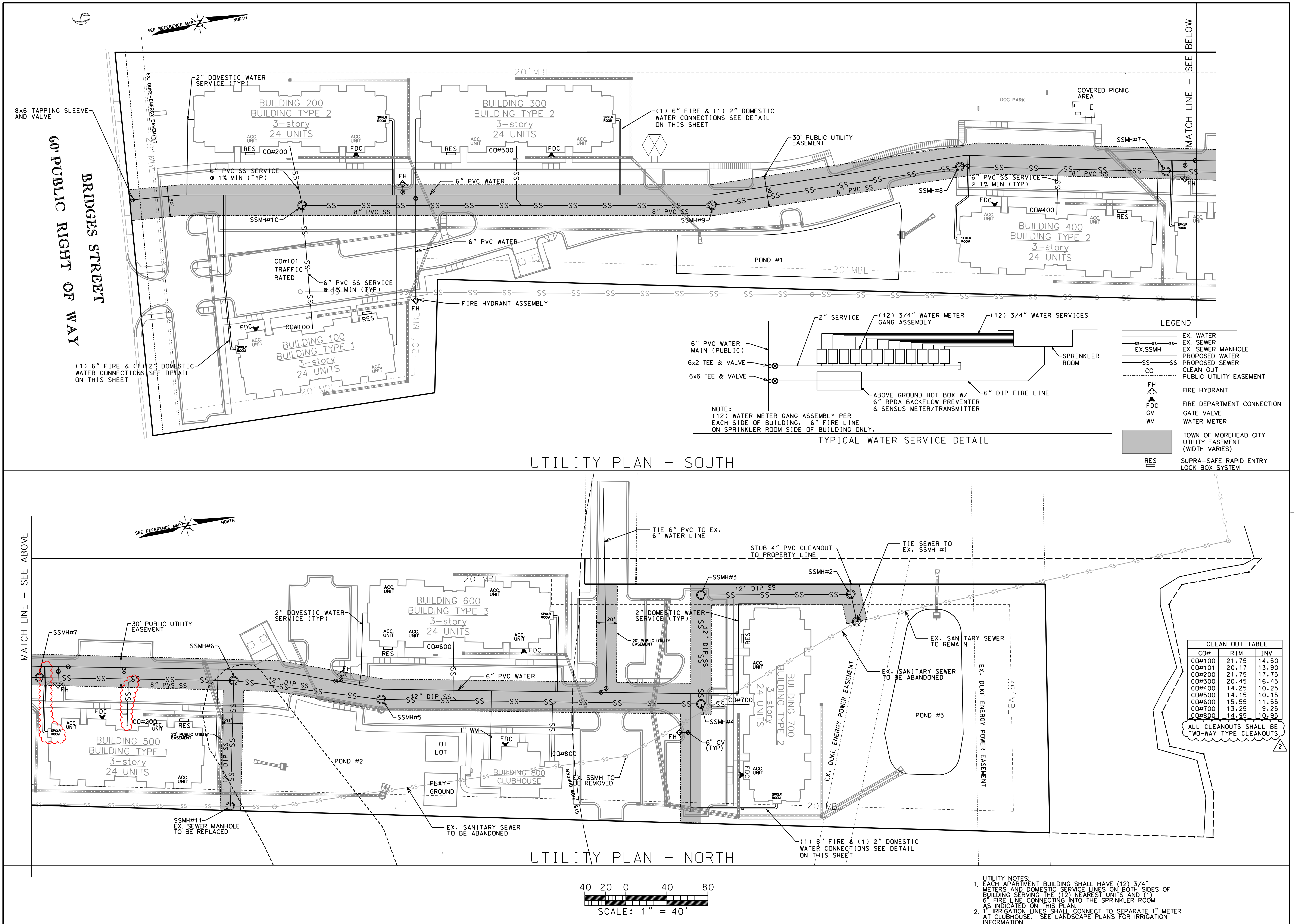
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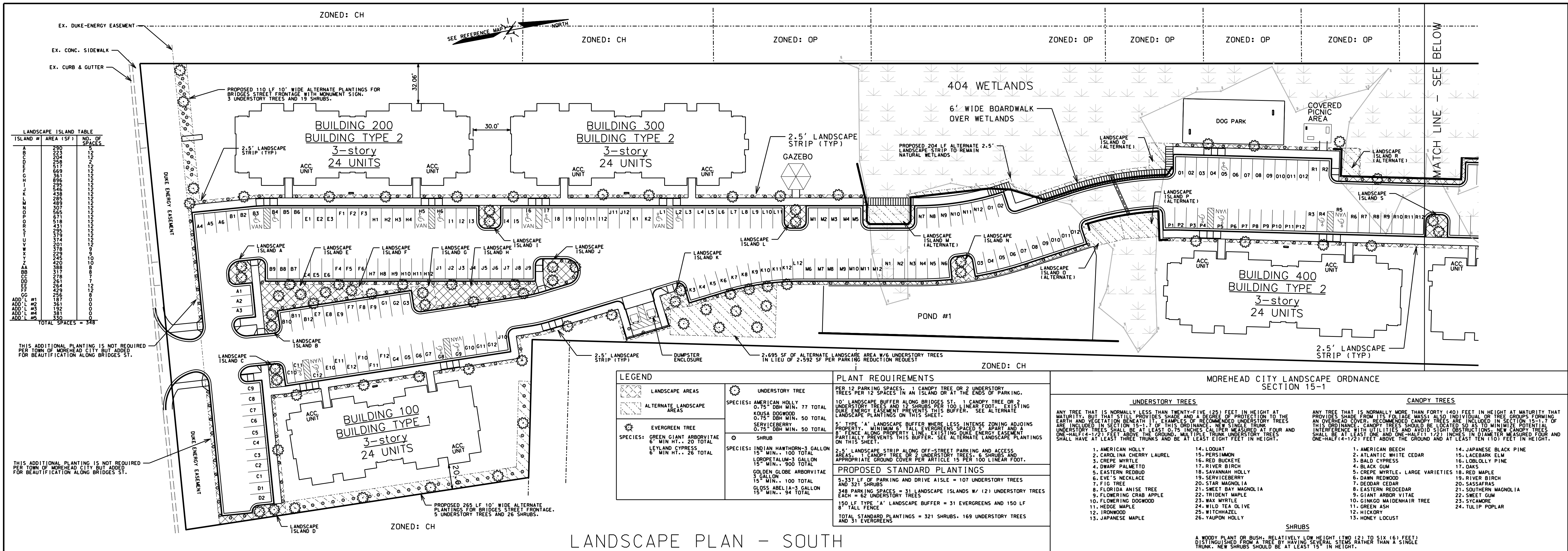
3 PER TITLE/LENDER

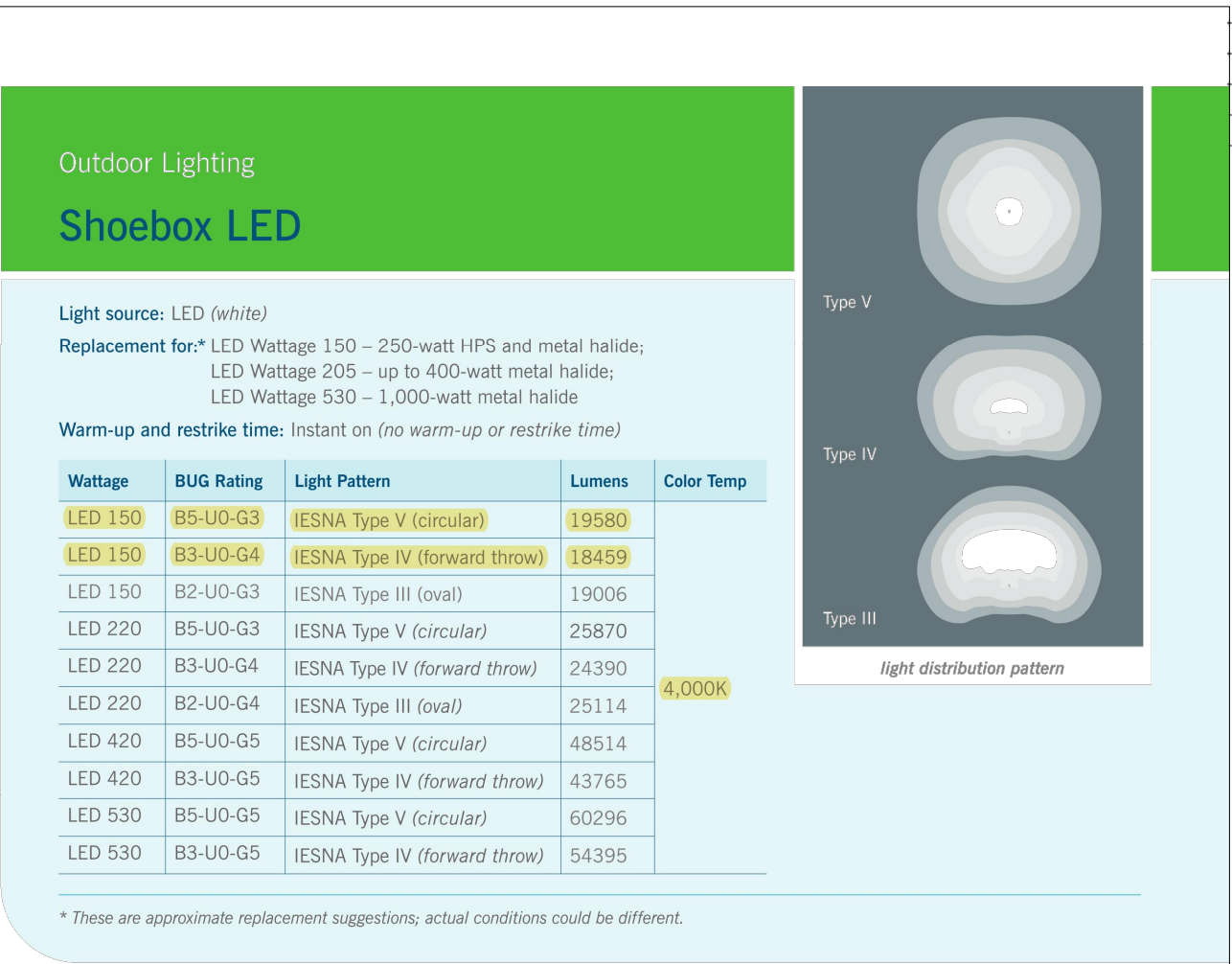
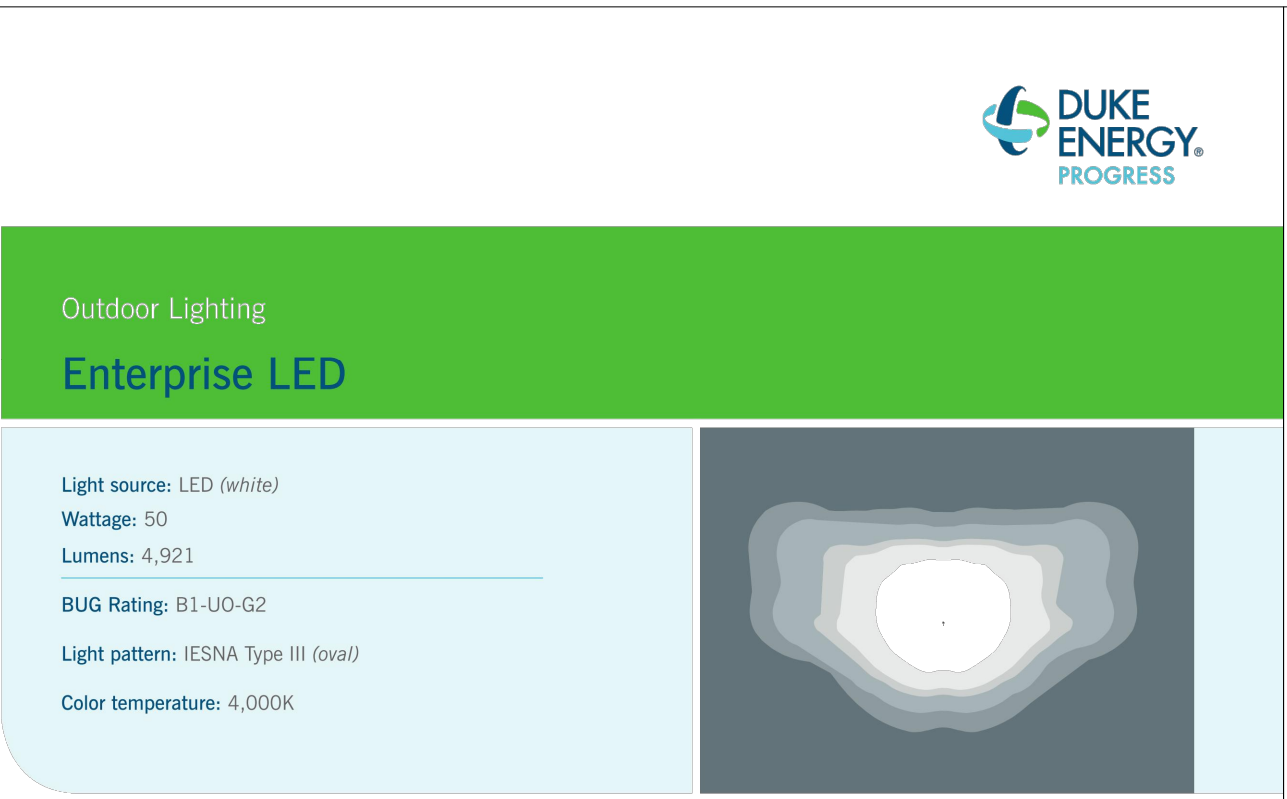
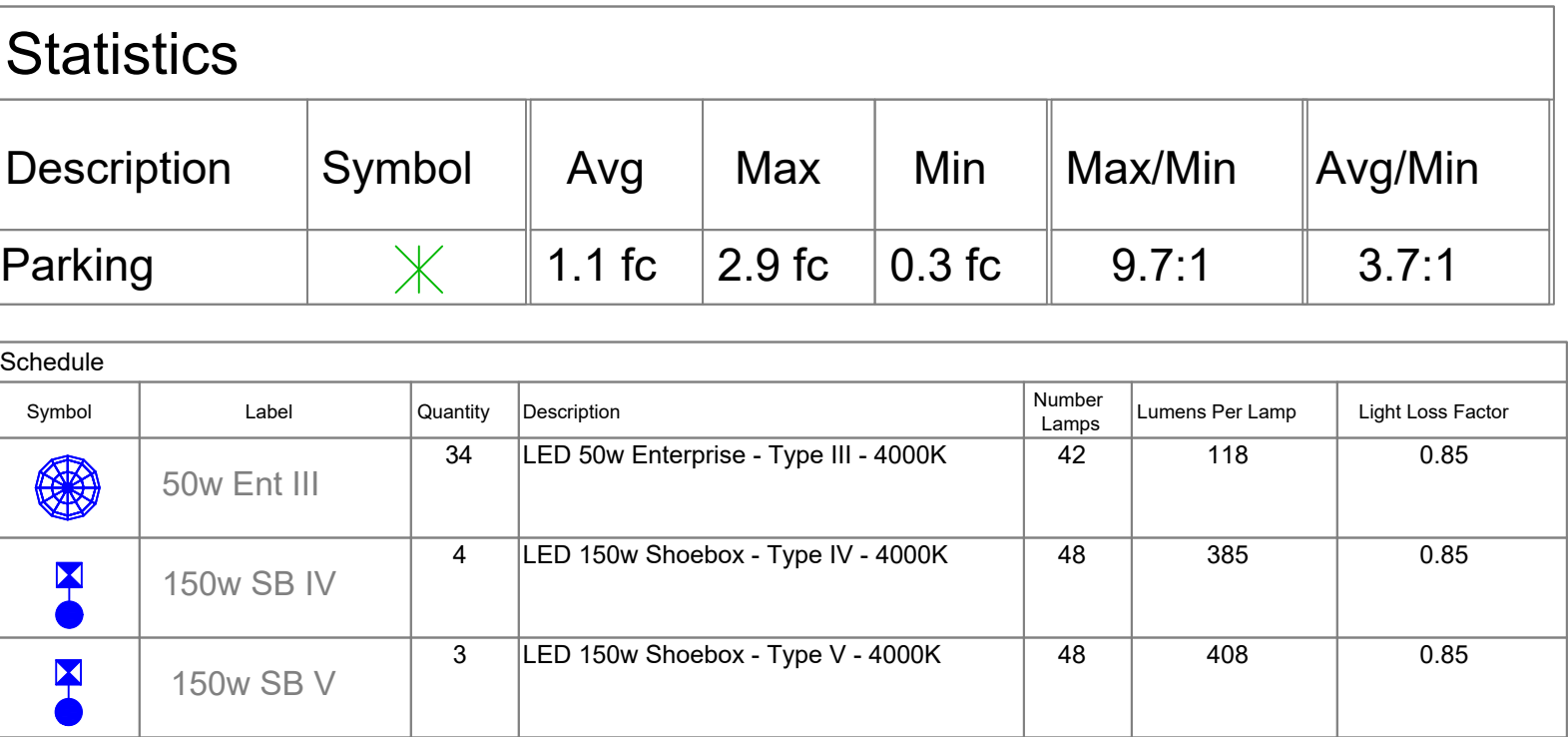
4 PER NCDPS

UTILITY
PLAN

C6.0







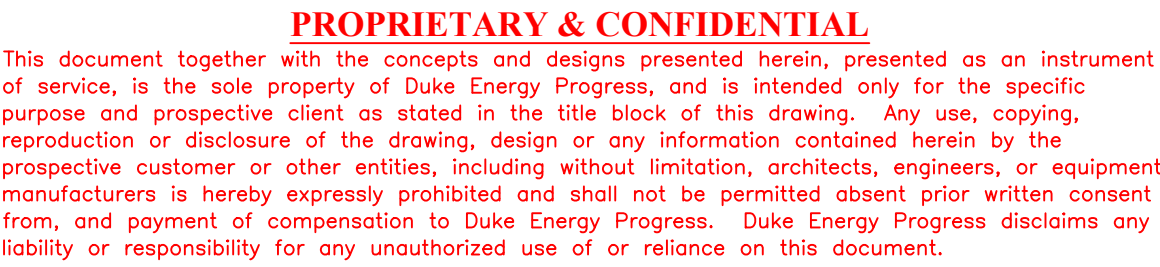
Name	Mounting height	Color
Smooth concrete	12', 16'	Black
Fluted concrete	13'	Black
Fiberglass	16'	Black
Decorative aluminum	12', 16'	Black

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.

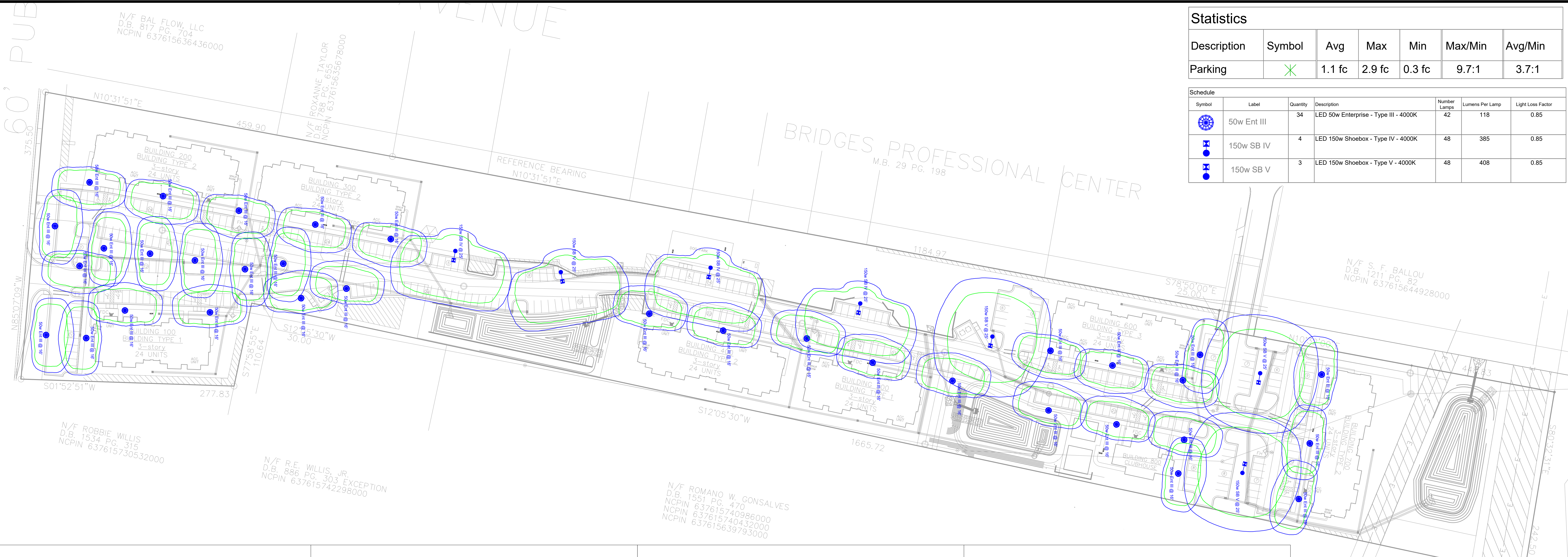
Poles available:			
Name	Mounting height	Color	
Round tapered decorative metal*	35'	Black Bronze	
Decorative square metal*	25' and 30'	Black Bronze	Gray White
Fiberglass	30'	Black (1 or 2 fixtures per pole) Gray (1 or 2 fixtures per pole)	
Features		Benefits	
Little or no installation cost		Frees up capital for other projects	
Design services by lighting professionals included		Meets industry standards and lighting ordinances	
Maintenance included		Eliminates high and unexpected repair bills	
Electricity included		Less expensive than metered service	
Warranty included		Worry-free	
One low monthly cost on your electric bill		Convenience and savings for you	
Turnkey operation		Provides hassle-free installation and service	
Backed by over 40 years of experience		A name you can trust today ... and tomorrow	

DISTANCE CALIBRATION (INCHES)

0 0.5 1.0 2.0 3.0 4.0



ELIJAH'S LANDING		
Morehead City, NC		
SITE LIGHTING PLAN		
Designed by <u>DEP LIGHTING SOLUTIONS</u>		
Reviewed by	<u>N. Johnson</u>	Scale <u>1" = 50'</u>
Date	<u>03/23/2021</u>	Size <u>"Arch D"</u>
Description <u>LED 50w Enterprise</u>		
Drawing No.	<u>20-0417B</u>	Sht. <u>1 OF 2</u>



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	✕	1.1 fc	2.9 fc	0.3 fc	9.7:1	3.7:1
Schedule						
Symbol	Label	Quantity	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor
⊙	50w Ent III	34	LED 50w Enterprise - Type III - 4000K	42	118	0.85
⊕	150w SB IV	4	LED 150w Shoebox - Type IV - 4000K	48	385	0.85
⊖	150w SB V	3	LED 150w Shoebox - Type V - 4000K	48	408	0.85

Outdoor Lighting

Enterprise LED

Illuminate streetscapes and pedestrian areas with the Enterprise LED. This sleek, energy-efficient fixture will add modern appeal to any neighborhood or park.

LED	50 watts
<i>(Light Emitting Diode)</i>	
Mounting heights	12', 13', 16'
Color	Black
Poles	Smooth round concrete Fluted concrete Fiberglass Decorative aluminum

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.

Outdoor Lighting

Enterprise LED

Light source: LED (white)
Wattage: 50
Lumens: 4,921
BUG Rating: B1-U0-G2
Light pattern: IESNA Type III (oval)
Color temperature: 4,000K

light distribution pattern

Poles available:		
Name	Mounting height	Color
Smooth concrete	12', 16'	Black
Fluted concrete	13'	Black
Fiberglass	16'	Black
Decorative aluminum	12', 16'	Black

Features	Benefits
No installation cost	Frees up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

©2017 Duke Energy Corporation 170288 3/17

Outdoor Lighting

Shoebox LED

The energy-efficient Shoebox LED combines a decorative, contemporary style with versatility and ample lighting effect that is perfect for streets, parking lots, commercial buildings and residential communities. The Shoebox LED provides excellent color rendition along with a controlled light pattern that reduces glare and keeps the light directed only where you want it. Available in black, dark bronze, gray or white with one to four fixtures per pole.

LED
(Light Emitting Diode) 150, 220, 420, 530 watts

Mounting heights 25', 30', 35'

Colors
Black
Bronze
Gray
White

Poles
Fiberglass (1 or 2 fixtures per pole)
Decorative tapered metal
Decorative square metal

Note: 35' pole available in black or bronze only.

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free at 866.769.6417.

DUKE ENERGY
PROGRESS
BUILDING A SMARTER ENERGY FUTURE®

Outdoor Lighting

Shoebox LED

Light source: LED (white)
Replacement for: LED Wattage 150 – 250-watt HPS and metal halide;
LED Wattage 205 – up to 400-watt metal halide;
LED Wattage 530 – 1,000-watt metal halide
Warm-up and restrike time: Instant on (no warm-up or restrike time)

Wattage	BUG Rating	Light Pattern	Lumens	Color Temp
LED 150	B5-U0-G3	IESNA Type V (circular)	19580	4,000K
LED 150	B3-U0-G4	IESNA Type IV (forward throw)	18459	
LED 150	B2-U0-G3	IESNA Type III (oval)	19006	
LED 220	B5-U0-G3	IESNA Type V (circular)	25870	
LED 220	B3-U0-G4	IESNA Type IV (forward throw)	24390	
LED 220	B2-U0-G4	IESNA Type III (oval)	25114	
LED 420	B5-U0-G5	IESNA Type V (circular)	48514	4,000K
LED 420	B3-U0-G5	IESNA Type IV (forward throw)	43765	
LED 530	B5-U0-G5	IESNA Type V (circular)	60296	
LED 530	B3-U0-G5	IESNA Type IV (forward throw)	54395	

* These are approximate replacement suggestions; actual conditions could be different.

Poles available:

Name	Mounting height	Color
Round tapered decorative metal*	35'	Black Bronze
Decorative square metal*	25' and 30'	Black Bronze Gray White
Fiberglass	30'	Black (1 or 2 fixtures per pole) Gray (1 or 2 fixtures per pole)

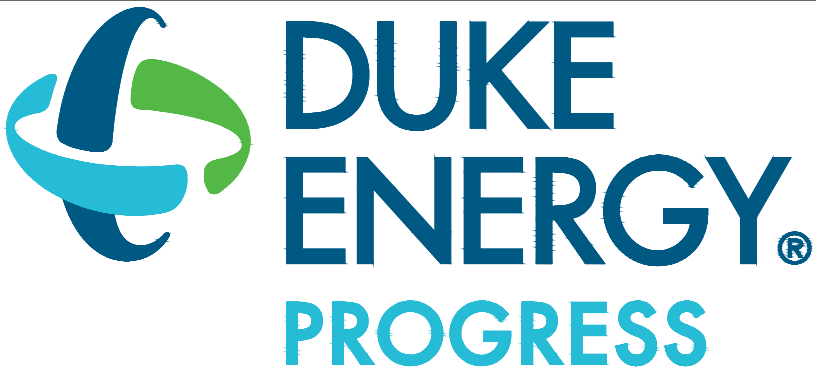
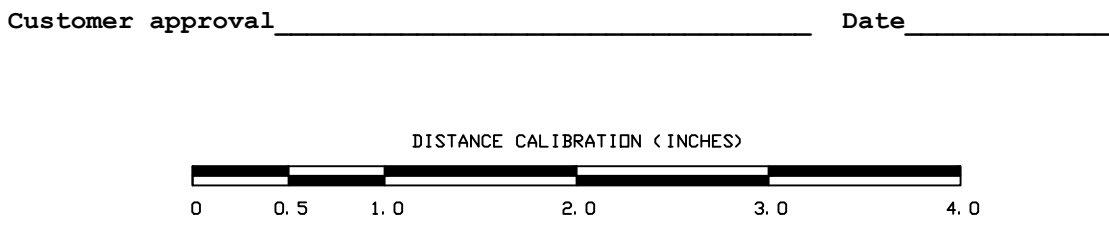
Features

Little or no installation cost	Benefits
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

*2" raised foundation available when required on metal poles only.

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LIGHTING DESIGN TOLERANCE
The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy Progress. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.



PROPRIETARY & CONFIDENTIAL
This document together with the concepts and designs presented herein, presented as an instrument of service, is the sole property of Duke Energy Progress, and is intended only for the specific purpose and prospective client as stated in the title block of this drawing. Any use, copying, reproduction or disclosure of the drawing, design or any information contained herein by the prospective customer or other entities, including without limitation, architects, engineers, or equipment manufacturers is hereby expressly prohibited and shall not be permitted absent prior written consent from, and payment of compensation to Duke Energy Progress. Duke Energy Progress disclaims any liability or responsibility for any unauthorized use of or reliance on this document.

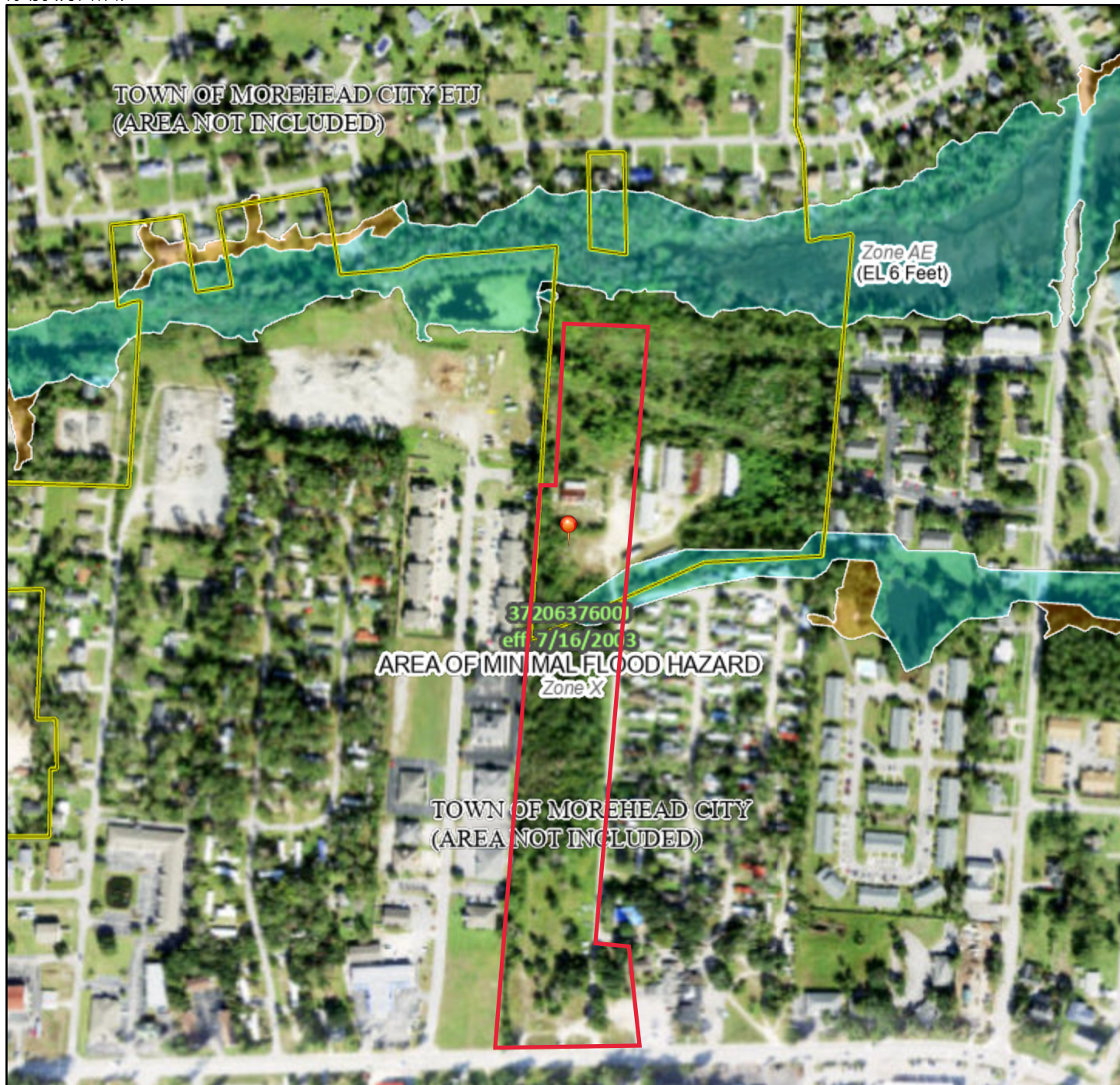
ELIJAH'S LANDING	
Morehead City, NC	
SITE LIGHTING PLAN	
Designed by DEP LIGHTING SOLUTIONS	
Reviewed by N. Johnson	Scale 1" = 50'
Date 03/23/2021	Size "Arch D"
Description LED 50w Enterprise	
Drawing No. 20-0417B	Sht. 2 OF 2

FEMA FIRMs and PFIRM with Parcel Boundary

National Flood Hazard Layer FIRMette



76°45'8"W 34°44'7"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

76°44'30"W 34°43'37"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/21/2023 at 10:40 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

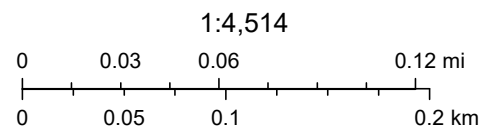
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Elijah's Landing Apartments - FEMA FIRM



June 21, 2023

- Elijah's Landing Apartments
- Area of Undetermined Flood Hazard
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway



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This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map flood hazard areas at the local level. As a part of this effort, the State of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTP://FRIS.NC.GOV/FRIS](http://FRIS.NC.GOV/FRIS)

Without Base Flood Elevation (BFE)

With BFE or Depth Zone AE, AO, AH, VE, AR

Regulatory Floodway

0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile Zone X

Future Conditions 1% Annual Chance Flood Hazard Zone X

Area with Reduced Flood Risk due to Levee See Notes Zone X

Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X

Channel, Culvert, or Storm Sewer Accredited or Provisionally Accredited Levee, Dike, or Floodwall

Non-accredited Levee, Dike, or Floodwall

BM5510 x

North Carolina Geodetic Survey bench mark

BM5510

National Geodetic Survey bench mark

BM5510

Contractor Est. NCFMP Survey bench mark

18-2

Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)

8

Coastal Transect

Coastal Transect Baseline

Profile Baseline

Hydrographic Feature

Limit of Study

Jurisdiction Boundary

OTHER AREAS OF FLOOD HAZARD

OTHER AREAS

GENERAL STRUCTURES

OTHER FEATURES

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodmaps.com> or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).

ACCREDITED LEEVE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

PROVISIONALLY ACCREDITED LEEVE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/business/nfip/index.shtm>.

LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LIMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LIMWA (or between the shoreline and the LIMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Limit of Moderate Wave Action (LIMWA)

COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE

This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see <http://www.fws.gov/cbrs>, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

CBRS Area **Otherwise Protected Area**

SCALE

PANEL LOCATOR

FEDERAL EMERGENCY MANAGEMENT AGENCY

NATIONAL FLOOD INSURANCE PROGRAM

National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

NORTH CAROLINA

PANEL 6376

Panel Contains:

COMMUNITY

CARTERET COUNTY

CID

370043

PANEL

6376

SUFFIX

K

PRELIMINARY

06/30/2016

MAP NUMBER

3720637600K

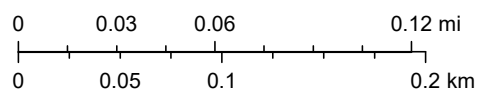
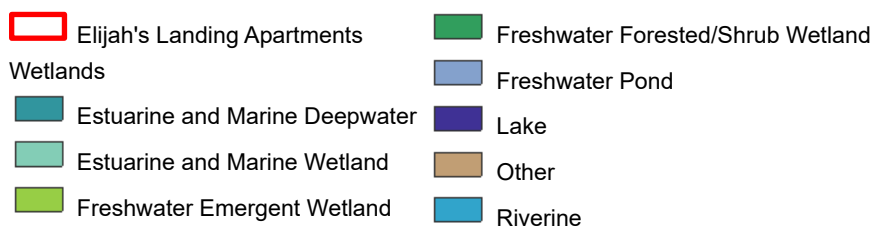
USFWS NWI Map with Parcel Boundary

Elijah's Landing Apartments - NWI Map



June 21, 2023

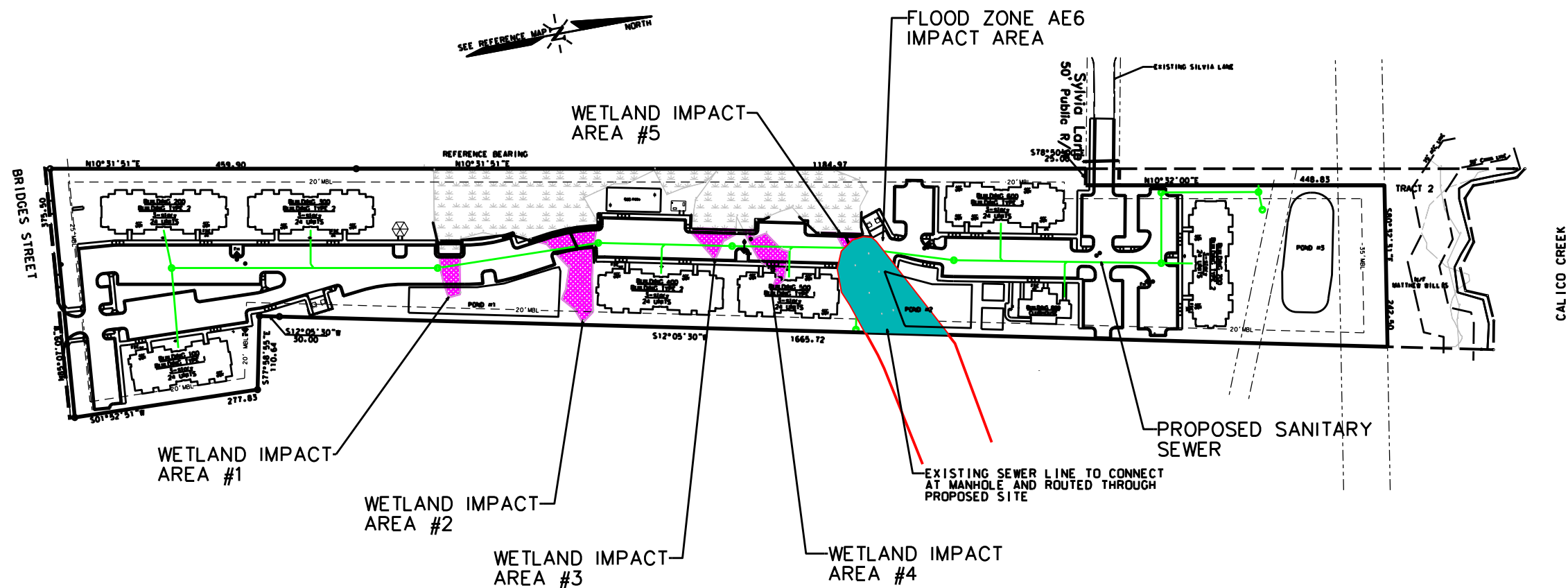
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**Proposed Floodplain and Wetlands Impacts
Site Plan (*revised with Building #500 moved
outside of 100-year floodplain*)**

ELIJAH'S LANDING APARTMENTS PROPOSED WETLAND AND FLOOD ZONE IMPACTS



IMPACTS TABLE

TOTAL WETLANDS	AREA	=	64.004.06	SF	
WETLAND IMPACT	AREA #1	=	1.625.19	SF	= 0.037 AC
WETLAND IMPACT	AREA #2	=	6.064.18	SF	= 0.139 AC
WETLAND IMPACT	AREA #3	=	1.542.44	SF	= 0.035 AC
WETLAND IMPACT	AREA #4	=	2.376.78	SF	= 0.055 AC
WETLAND IMPACT	AREA #5	=	3.608.10	SF	= 0.083 AC
TOTAL PROPOSED WETLANDS IMPACTS		=	15.216.69	SF	= 0.349 AC
TOTAL AE FLOOD ZONE		=	13.511.32	SF	= 0.310 AC
PROPOSED IMPACT TO FLOOD ZONE		=	0.310	AC	

AVOIDANCE AND MINIMIZATION TABLE

WETLAND IMPACT AREA #1	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. CONVERTED CONCRETE SIDEWALK TO ABOVE GRADE BOARDWALK
WETLAND IMPACT AREA #2	1. REMOVED PARKING SPACES ON BOTH SIDES OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG BOTH SIDES OF DRIVE AISLE 3. CONVERTED CONCRETE SIDEWALK TO ABOVE GRADE BOARDWALK
WETLAND IMPACT AREA #3	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. MOVED ACCESSIBLE ROUTE TO EAST SIDE OF DRIVE AISLE
WETLAND IMPACT AREA #4	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. MOVED ACCESSIBLE ROUTE TO EAST SIDE OF DRIVE AISLE
WETLAND IMPACT AREA #5	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. MOVED ACCESSIBLE ROUTE TO EAST SIDE OF DRIVE AISLE

LEGEND

EXISTING WETLANDS

PROPOSED WETLAND IMPACTS

EXISTING AE FLOOD ZONE

PROPOSED SEWER



**USACE CWA Section 404 General Permit
Verification (3/5/21) with Special Conditions
and USACE JD (7/24/2018), NC DEQ DWR
CWA Section 401 Water Quality General
Certification No. 4139 with Additional
Conditions**

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action Id. SAW-2021-00044 County: Carteret County U.S.G.S. Quad: Morehead City

GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION

Owner Information: Elijah's Landing of Morehead City, LLC
C/O Keith Walker
108 Professional Park Drive
Beaufort, NC, 28516

Agent/ Consultant: Kim Williams
Land Management Group
3805 Wrightsville Avenue; Suite 15
Wilmington, NC 28403

Size (acres)	<u>13.3 acres</u>	Nearest Town	<u>Morehead City</u>
Nearest Waterway	<u>Calico Creek</u>	River Basin	<u>White Oak</u>
USGS HUC	<u>030203010406</u>	Coordinates	Latitude: <u>34.730365</u> Longitude: <u>-76.746681</u>

Location description: This project is located off of Bridges Street, Pin#'s 637615648235000 & 6376156499070000, in Morehead City, Carteret County, NC.

Description of projects area and activity: This verification authorizes the use of a Nationwide Permit 29 & 18 to impact 0.037 acres of wetland for road crossing & parking site 1, impact 0.139 acres of wetland for road crossing & Grading site 2, impact 0.035 acres of wetland for road & parking site 3, impact 0.055 acres of wetland for road, building & parking site 4 and impact 0.083 acres of wetland for road, parking & grading site 5, total impacts 0.349.

Applicable Law: ☒ Section 404 (Clean Water Act, 33 USC 1344)
☐ Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: Regional General Permit Number and/or Nationwide Permit Number: 29 & 18
SEE ATTACHED RGP or NWP GENERAL, REGIONAL AND/OR SPECIAL CONDITIONS

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached conditions and your submitted application and attached information dated 1/6/2021. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management in Wilmington, NC.


This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits.

If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact Thomas Charles at (910) 251-4101 or Thomas.p.charles@usace.army.mil.

Corps Regulatory Official: Thomas Charles

Date: 3/5/2021

Expiration Date of Verification: March 18, 2022

 Digitally signed by Thomas Charles
Date: 2021.03.05 14:50:18 -05'00'

SPECIAL CONDITIONS
SAW-2021-00044

1. The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

Action ID Number: SAW-2021-00044 **County:** Carteret County

Permittee: Keith Walker

Project Name: Elijah's Landing of Morehead City, LLC

Date Verification Issued: 3/5/2021

Project Manager: Thomas Charles

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification, and return it to the following address:

**US ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT
Attn: Thomas Charles**

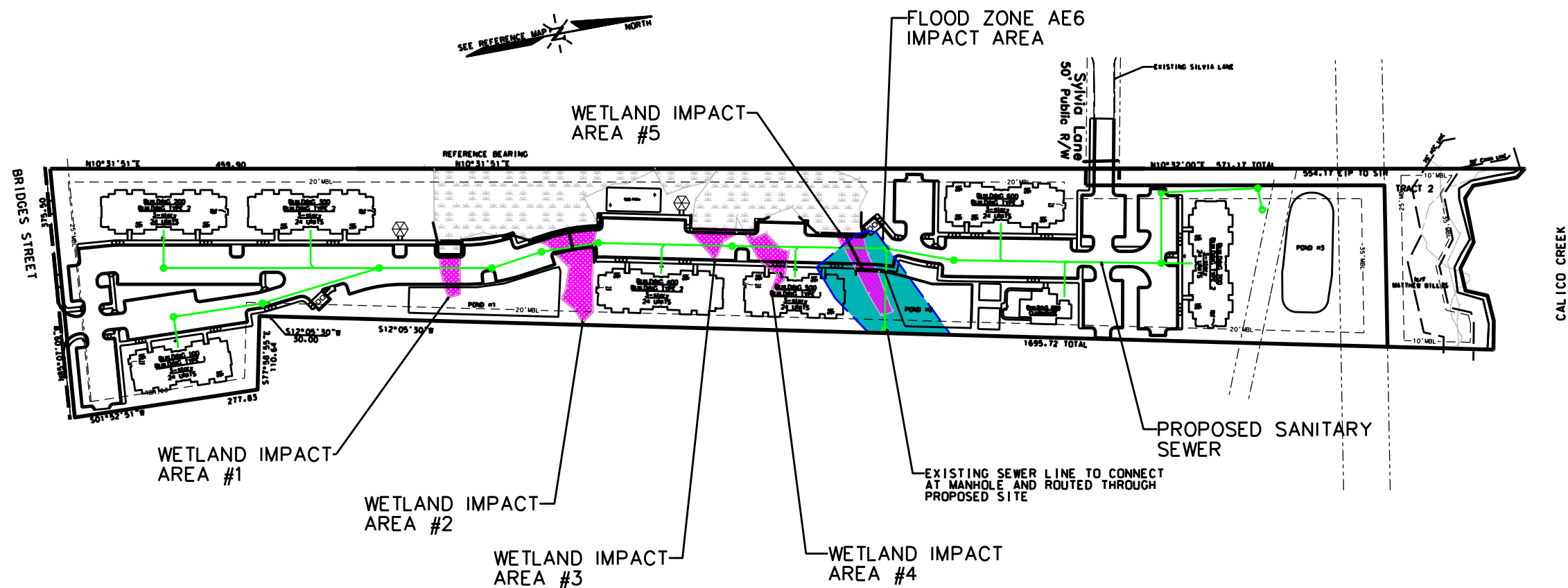
Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying, or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

ELIJAH'S LANDING APARTMENTS PROPOSED WETLAND AND FLOOD ZONE IMPACTS



IMPACTS TABLE

TOTAL WETLANDS AREA = 64,004.06 SF				
WETLAND IMPACT	AREA #1	= 1,625.19 SF	= 0.037 AC	
WETLAND IMPACT	AREA #2	= 6,064.18 SF	= 0.139 AC	
WETLAND IMPACT	AREA #3	= 1,542.44 SF	= 0.035 AC	
WETLAND IMPACT	AREA #4	= 2,376.78 SF	= 0.055 AC	
WETLAND IMPACT	AREA #5	= 3,608.10 SF	= 0.083 AC	
TOTAL PROPOSED WETLANDS IMPACTS = 15,216.69 SF = 0.349 AC				
TOTAL AE FLOOD ZONE = 16,953.51 SF = 0.389 AC				
PROPOSED IMPACT TO FLOOD ZONE = 0.389 AC				

AVOIDANCE AND MINIMIZATION TABLE

WETLAND AREA #1	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. CONVERTED CONCRETE SIDEWALK TO ABOVE GRADE BOARDWALK
WETLAND AREA #2	1. REMOVED PARKING SPACES ON BOTH SIDES OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG BOTH SIDES OF DRIVE AISLE 3. CONVERTED CONCRETE SIDEWALK TO ABOVE GRADE BOARDWALK
WETLAND AREA #3	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. MOVED ACCESSIBLE ROUTE TO EAST SIDE OF DRIVE AISLE
WETLAND AREA #4	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. MOVED ACCESSIBLE ROUTE TO EAST SIDE OF DRIVE AISLE
WETLAND AREA #5	1. REMOVED PARKING SPACES ON WEST SIDE OF DRIVE AISLE 2. ADDED RETAINING WALL ALONG WEST SIDE OF DRIVE AISLE 3. MOVED ACCESSIBLE ROUTE TO EAST SIDE OF DRIVE AISLE

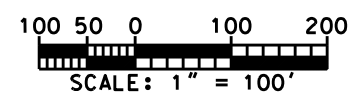
LEGEND

EXISTING WETLANDS

PROPOSED WETLAND IMPACTS

EXISTING AE FLOOD ZONE

PROPOSED SEWER



Thomas Charles

Digitally signed by Thomas
Charles
Date: 2021.03.05 14:51:03 -05'00'

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action Id. SAW-2018-00412 County: Carteret U.S.G.S. Quad: NC- Beaufort

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner: Lois Matthews et al
Address: 182 Drum Inlet
Morehead City, NC 28557
Phone No. (252) 726-9050

Size (acres) 13.3
Nearest Waterway Bogue Sound
USGS HUC 03020301

Nearest Town Morehead City
River Basin White Oak
Coordinates Latitude: 34.7303
Longitude: -76.7466

Location description: The project area is located at 3200 and 3140 N. Bridges Street in Morehead City, Carteret County, North Carolina. The Parcel ID #s are 637615648235000 and 637615649907000.

Indicate Which of the Following Apply:

A. Preliminary Determination

- ☐ There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The **waters, including wetlands** have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. The approximate boundaries of these waters are shown on the enclosed delineation map dated. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.
- ☐ There appear to be **waters, including wetlands** on the above described project area/property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the **waters, including wetlands** have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the **waters, including wetlands** at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

B. Approved Determination

- ☐ There are Navigable Waters of the United States within the above described project area/property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☒ There are **waters, including wetlands** on the above described project area/property subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ We recommend you have the **waters, including wetlands** on your project area/property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

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- ☐ The waters, including wetlands on your project area/property have been delineated and the delineation has been verified by the Corps. The approximate boundaries of these waters are shown on the enclosed delineation map dated. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.
- ☒ The waters, including wetlands have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on **May 16, 2018**. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☐ There are no waters of the U.S., to include wetlands, present on the above described project area/property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- ☒ The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in **Morehead City, NC, at (252) 808-2808** to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact **Mr. Tom Charles at (910) 251-4101 or Thomas.P.Charles@usace.army.mil**.

C. Basis For Determination: Basis For Determination: See the approved jurisdictional determination form dated 7/24/2018.

D. Remarks: None.

E. Attention USDA Program Participants

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

F. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

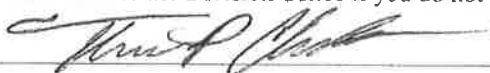
This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers
South Atlantic Division
Attn: Jason Steele, Review Officer
60 Forsyth Street SW, Room 10M15
Atlanta, Georgia 30303-8801

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by **9/23/2018**.

****It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.****

Corps Regulatory Official: _____



Date of JD: **7/24/2018** Expiration Date of JD: **7/24/2023**

SAW-2018-00412

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0

Copy furnished:

Agent: Land Management Group, Inc.
Mr. Paul Farley
Address: 3805 Wrightsville Ave, Suite 15
Wilmington, NC 28403
Telephone Number: (910) 452-0001

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

Applicant: **Lois Matthews et al,** File Number: **SAW-2018-00412** Date: **7/24/2018**

Attached is:

<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	See Section below
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/>	PERMIT DENIAL	B
<input checked="" type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	C
<input type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	D
		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at or <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx> or the Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the district engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

District Engineer, Wilmington Regulatory Division

Attn: **Mr. Tom Charles**

Wilmington Regulatory Office

U.S. Army Corps of Engineers

69 Darlington Avenue

Wilmington, North Carolina 28403

If you only have questions regarding the appeal process you may also contact:

Mr. Jason Steele, Administrative Appeal Review Officer

CESAD-PDO

U.S. Army Corps of Engineers, South Atlantic Division

60 Forsyth Street, Room 10M15

Atlanta, Georgia 30303-8801

Phone: (404) 562-5137

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

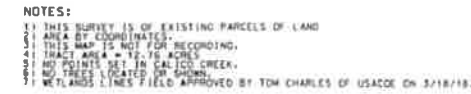
Telephone number:

For appeals on Initial Proffered Permits send this form to:

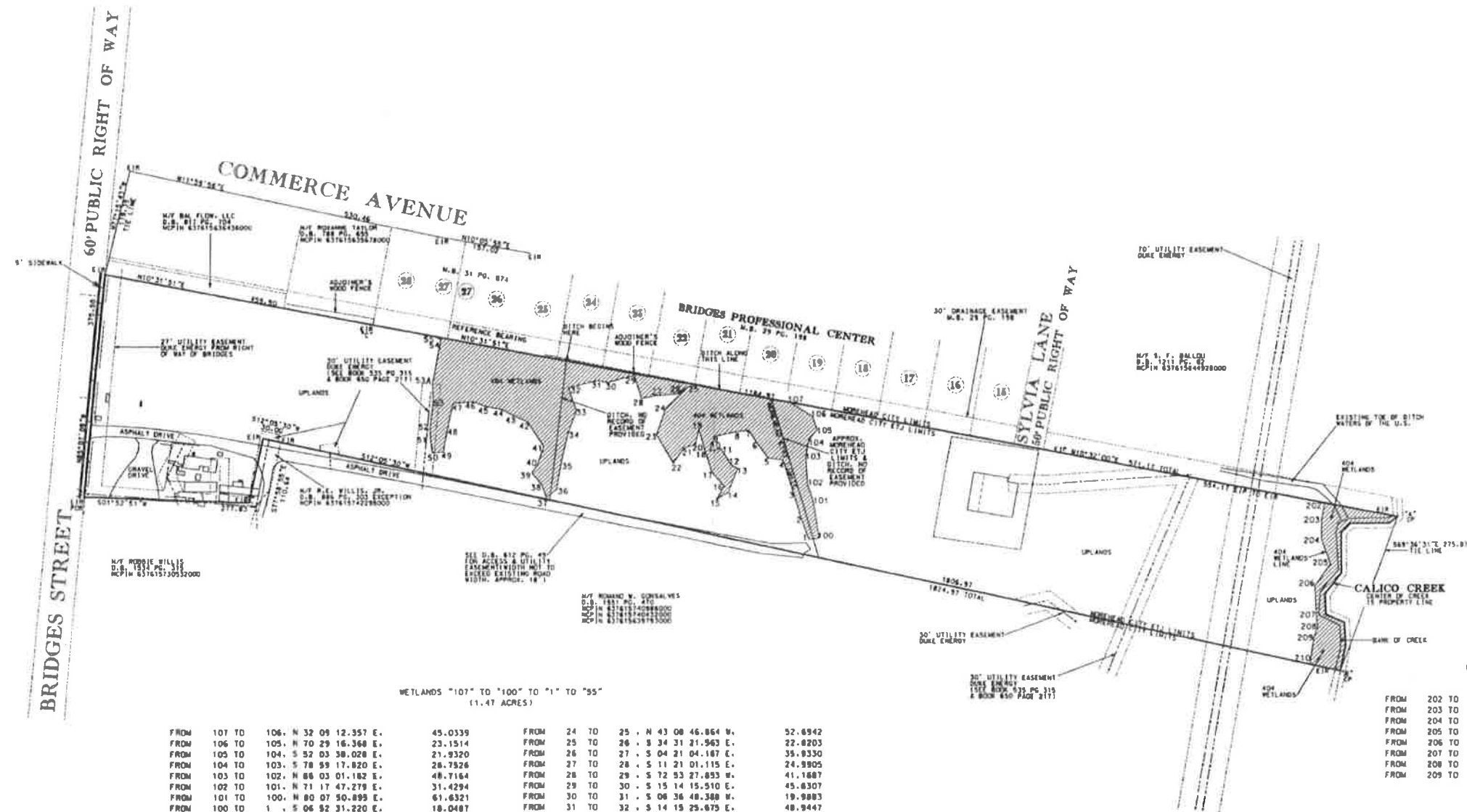
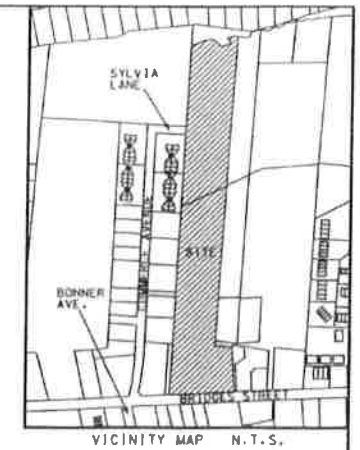
District Engineer, Wilmington Regulatory Division, Attn: **Mr. Tom Charles**, 69 Darlington Avenue, Wilmington, North Carolina 28403

For Permit denials, Proffered Permits and Approved Jurisdictional Determinations send this form to:

Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: **Mr. Jason Steele**, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801
Phone: (404) 562-5137



REFERENCE MAP
SEE SURVEY FOR WILLIS MOBILE HOME PARK IN
FOR LOIS MATTHEWS C/O HARVELL AND COLLINS.
P.A. BY PRESTIGE LAND SURVEYING, P.A. DATED
JUNE 29, 2018.



CALICO CREEK CALLS "A" TO "B"				
S36	36	48	18	00
S00	13	52	24	18
S00	07	40	22	29
S46	26	43	22	85
N89	10	57	66	95
S52	37	49	44	36
N87	40	22	34	23
N23	18	23	33	85
N86	19	08	38	95
S78	45	16	43	41

KAY BALLOU ENTERPRISES
 D.O. 445 PC. 433
 WCPIN 657612853828000

WETLANDS "202" TO "210"
(0.25 ACRES)

FROM	202 TO	203.	5	79	20	16.031	E
FROM	203 TO	204.	8	59	59	3.387	E
FROM	204 TO	205.	6	19	34	6.11	E
FROM	205 TO	206.	5	54	55	39.728	E
FROM	206 TO	207.	8	86	43	16.550	E
FROM	207 TO	208.	8	33	36	55.089	E
FROM	208 TO	209.	5	70	38	43.645	E
FROM	209 TO	210.	5	82	46	33.055	E

TIE 202 TO "A" CP
N10°32'00"E 126.74

210 TO "B" CP
N12°05'30"E 52.00

REVISIONS:

IN	NO	DATE	DESCRIPTION
OWNER:	N/F	LOIS WILLIS MATTHEWS	
D.B.	876	PG. 585	
NCPIN	637615648235000		
ADDRESS:	3200	BRIDGES STREET	
NCPIN	637615649907000		
ADDRESS:	3140	BRIDGES STREET	

WETLANDS SURVEY

ELIJAH'S LANDING

MOREHEAD TOWNSHIP, CARTERET COUNTY, NORTH CAROLINA

CLIENT:	EAST CAROLINA COMMUNITY DEVELOPMENT INC.	DATE:	JH 03/16/18
ADDRESS:	P.O. BOX 2400	DRAWN:	

ADDRESS:	PO BOX 2400 BEAUFORT, NC 28516	DATE:	EGC
PHONE:	252-524-1000	CHECKED:	

PHONE: 252-504-3996	EGC
THE CULLIPHER GROUP, P.A. C-4408	APPROVED:

ENGINEERING & SURVEYING SERVICES	ECC
161A HIGHWAY 24	DATE:
MOREHEAD CITY, N.C. 28557	

05/16/18
SCALE:

E. GLENN CORBETT, P.L.S.	1" = 100'
--------------------------	-----------

LEGEND

EIF	EXISTING IRON ROOF
IF	IRON PIPING
CPW	EXISTING PW RAIL
ICW	EXISTING CONC. MON.
EW	EXISTING WOOD SPIKE
IFP	BE IRON ROD
CP	CALCULATED POINT
WFW	NEW W/ W/ WATER
W/P	NEW W/ POWER/L
W/B	W/ BOOM
W/D	W/ DREDGE
W/P	W/ PILE
W/P	W/ POWER POLE
W/P	W/ LIGHT POLE
W/E	W/ ELECTRIC
E/EC	ELECTRIC, PEDESTAL
TRANS	ELEC. TRANSDUCER
TEL	TELEPHONE CABLE
TEL	CABLE TV POSTAL
W/H	WATER METER
W/C	W/ CEMENT
W/MH	SINGLE W/ MOBILE HOME
W/S	W/ SHED
W/S	DANCE STUDIO
W/S	SANITARY SEWER MANHOLE

PROJECT #: PM858S-29

WETLANDS "107" TO "100" TO "1" TO "55"
(1.47 ACRES)

FROM	107	10	106	N	32	09	2.357 E.	45.0339	FROM	24	20	25	N	43	00	46.864 E.	32.6942	
FROM	106	106	N	70	29	16.368 E.	23.1514		FROM	25	26	26	S	34	31	21.563 E.	22.0203	
FROM	105	104	104	S	52	03	38.028 E.	21.9320	FROM	26	27	27	S	04	21	04.167 E.	35.0330	
FROM	104	103	S	78	59	17.820 E.	26.7526	FROM	27	28	S	11	21	01.115 E.	24.8905			
FROM	103	102	N	86	03	01.182 E.	48.7164	FROM	28	29	S	72	53	27.893 W.	41.1607			
FROM	102	101	N	71	17	47.279 E.	31.4294	FROM	29	30	S	15	14	15.510 E.	45.0307			
FROM	101	100	N	80	07	50.899 E.	61.6321	FROM	30	31	S	1	06	36	48.348 W.	19.9803		
FROM	100	1	S	5	06	52	31.220 E.	18.0487	FROM	31	32	S	14	15	29.675 E.	48.9447		
FROM	1	2	S	5	59	32	14.759 W.	36.8152	FROM	32	32	S	33	N	77	00	78.784 E.	41.3703
FROM	2	3	S	7	73	38	19.576 W.	46.3326	FROM	33	33	S	34	S	48	53	01.881 E.	39.3316
FROM	3	4	S	7	25	17.430 W.	37.4385	FROM	34	35	S	71	03	07.240 E.	49.8455			
FROM	4	5	S	5	08	25	38.033 W.	24.6081	FROM	35	36	S	81	17	53.390 E.	46.9273		
FROM	5	5	S	5	53	21	04.953 W.	35.2706	FROM	36	37	S	3	36	37	28.323 E.	22.1886	
FROM	6	7	S	5	58	29	02.209 W.	21.9799	FROM	37	38	S	5	59	28	22.585 W.	27.9274	
FROM	7	8	S	5	07	16	00.118 E.	20.3545	FROM	38	39	S	49	S	49	41	34.550 W.	28.2133
FROM	8	9	S	5	12	27	88.460 E.	38.7762	FROM	39	40	N	56	14	56.682 W.	15.0651		
FROM	9	9	10	S	7	11	41	33.431 E.	39.2529	FROM	40	41	N	70	32	33.749 W.	33.1483	
FROM	10	11	N	10	10	34	39.621 E.	19.9277	FROM	41	42	S	56	42	55.157 W.	49.1308		
FROM	11	12	S	56	38	28.106 E.	22.2246	FROM	42	43	S	5	56	56	56.480 E.	25.4590		
FROM	12	13	N	27	30	29.022 E.	11.6660	FROM	43	44	S	27	11	52.171 W.	23.2317			
FROM	13	14	S	5	53	24	57.405 E.	42.5681	FROM	44	45	S	11	09	35.636 W.	28.8304		
FROM	14	15	S	31	31	36.904 E.	24.5400	FROM	45	46	S	5	21	44	26.238 W.	19.0129		
FROM	15	16	N	58	87	30.719 W.	26.3892	FROM	46	47	S	0	54	03	32.402 E.	34.7454		
FROM	16	17	S	5	47	07	14.559 W.	33.4436	FROM	47	48	S	7	08	15	28.866 E.	45.2570	
FROM	17	18	S	5	72	11	40.373 W.	40.6964	FROM	48	49	S	8	03	03	50.869 E.	38.0879	
FROM	18	19	S	73	10	38.840 W.	34.2277	FROM	49	50	S	0	54	58	28.022 E.	17.0635		
FROM	19	20	S	77	11	00.818 E.	29.6185	FROM	50	51	S	8	51	31	25.493 E.	21.7811		
FROM	20	21	S	77	31	07.678 E.	21.6641	FROM	51	52	S	5	52	51	16.116 W.	20.3391		
FROM	21	22	S	2	55	10	36.616 E.	30.9135	FROM	52	53	S	83	47	04.798 W.	42.3899		
FROM	22	23	S	2	59	32	10.219 W.	35.4969	FROM	53	54	S	88	34	49.252 E.	33.1625		
FROM	23	24	N	71	05	13.133 E.	48.3904	FROM	53A	54	N	8	00	06	49.369 E.	74.0505		

TIE BS TO EIR "C"
510° 31' 91" W 106.52

95 70 107
M107 11:51:55 603 23

N10 37 37 E 601.22

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): July 24, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Wilmington District-WFO, Elijah's Landing, SAW-2018-00412

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: North Carolina County/parish/borough: Carteret City: Morehead City
Center coordinates of site (lat/long in degree decimal format): Lat. 34.729263° N, Long. -76.746994° W.
Universal Transverse Mercator: 18 S 340043.65 m E 384411.29 m N

Name of nearest waterbody: unnamed tributary to Calico Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Newport River

Name of watershed or Hydrologic Unit Code (HUC): 03020106

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☒ Field Determination. Date(s): 3/8/18

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

☒ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: ~ 240 linear feet: 6width (ft) and/or acres.

Wetlands: ~1.4 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 0.16 square miles

Drainage area: 0.16 square miles

Average annual rainfall: 52.52 inches

Average annual snowfall: 13 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through 2 tributaries before entering TNW.

Project waters are 1-2 river miles from TNW.

Project waters are 1-2 river miles from RPW.

Project waters are 1-2 aerial (straight) miles from TNW.

Project waters are 1-2 aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: . Rpw on-site flows into a tributary of Calico Creek and from Calico Creek to the Newport River

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☒ Artificial (man-made). Explain: On-site rpw appears to be man made ditch.
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: 5 feet

Average depth: 2 feet

Average side slopes: **Vertical (1:1 or less)**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input checked="" type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: appears stable.

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: Professional judgement perennial flow.

Other information on duration and volume: .

Surface flow is: **Confined**. Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

<input checked="" type="checkbox"/> Bed and banks	
<input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input checked="" type="checkbox"/> clear, natural line impressed on the bank	<input type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain:	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input type="checkbox"/> High Tide Line indicated by:	<input type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: unknown.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: Wetland surface water releases at higher rain events. Wetlands flow into the culvert and then into the tributary.

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
 - ☐ Discrete wetland hydrologic connection. Explain: .
 - ☐ Ecological connection. Explain: .
 - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: Forested/ 100% cover.
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed: Typical depressional/flats function, surface and subsurface water storage, maintenance of characteristic vegetation community and various biogeochemical functions.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: The tributary is a seasonal RPW at the flow analysis point based on annual rainfall, tributary profile/elevations, topography, soils, and drainage area..

Provide estimates for jurisdictional waters in the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

☐ Tributary waters: linear feet width (ft).

☐ Other non-wetland waters: acres.

Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
- ☒ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: wetlands connected to the on-site rpw which flows to Calico Creek and eventually to the Newport River.

Provide acreage estimates for jurisdictional wetlands in the review area: ~1.4 acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
- ☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- ☒ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters' study: .
- ☐ U.S. Geological Survey Hydrologic Atlas: .
- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: Carteret County GIS Mosaic, 1:800'.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soil Survey GIS Data.
- ☐ National wetlands inventory map(s). Cite name: .
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: .
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): 1998 NAPP and 2012 NC Onemap.
- or ☐ Other (Name & Date): Site photographs.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☒ Other information (please specify): LiDAR Map.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): July 24, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Wilmington District-WFO, Elijah's Landing, SAW-2018-00412

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: North Carolina County/parish/borough: Carteret City: Morehead City
Center coordinates of site (lat/long in degree decimal format): Lat. 34.729263° N, Long. -76.746994° W.
Universal Transverse Mercator: 18 S 340043.65 m E 384411.29 m N

Name of nearest waterbody: Calico Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Newport River

Name of watershed or Hydrologic Unit Code (HUC): 03020106

- ☐ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): 3/8/2018

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- ☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Pick List** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☒ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
☐ Non-RPWs that flow directly or indirectly into TNWs
☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
☐ Impoundments of jurisdictional waters
☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: ~655 linear feet: 8 width (ft) and/or 0.1 acres.
Wetlands: ~0.2 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

- ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 0.73 square miles

Drainage area: 0.73 square miles

Average annual rainfall: 52.52 inches

Average annual snowfall: 1.3 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☒ Tributary flows directly into TNW.

☐ Tributary flows through Pick List tributaries before entering TNW.

Project waters are 1-2 river miles from TNW.

Project waters are 1-2 river miles from RPW.

Project waters are 1-2 aerial (straight) miles from TNW.

Project waters are 1-2 aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: Calico Creek flows directly into the Newport River

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☒ Artificial (man-made). Explain: approximately 800' is a man made ditch.
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: 20 feet

Average depth: 2 feet

Average side slopes: **4:1 (or greater)**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input checked="" type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: appears stable.

Presence of run/riffle/pool complexes. Explain: not observed, coastal plain stream.

Tributary geometry: **Meandering**

Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: Perennial.

Other information on duration and volume:

Surface flow is: **Discrete and confined**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

☐ Dye (or other) test performed:

Tributary has (check all that apply):

<input checked="" type="checkbox"/> Bed and banks	
<input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input checked="" type="checkbox"/> clear, natural line impressed on the bank	<input checked="" type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input checked="" type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input checked="" type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input checked="" type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain:	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input type="checkbox"/> High Tide Line indicated by:	<input type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known: unknown.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☒ Wetland fringe. Characteristics: Typical coastal plain floodplain vegetation.
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: Wetland surface water releases at higher rain events. Wetlands flow into the culvert and then into the tributary.

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: Forested/ 100% cover.
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Large drainage area with substantial local floodplain.
☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☒ Tributary waters: **1900** linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Wetlands fall within floodplain of Calico Creek.**
☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: **0.2** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps:
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: Carteret County GIS Mosaic, 1:800'.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Soils Survey GIS Data.
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): 1998 NAPP and 2012 NC Onemap .
or ☒ Other (Name & Date): Site photographs.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify): LiDAR map .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

NC WAM FIELD ASSESSMENT FORM
Accompanies User Manual Version 5.0

USACE AID #	SAW-2018-00412	NCDWR#	
Project Name	Elijah's Landing	Date of Evaluation	8/2/2018
Applicant/Owner Name	East Carolina Community Development Inc	Wetland Site Name	Wetland 1
Wetland Type	Headwater Forest	Assessor Name/Organization	Wes Fryar / Land Management Group
Level III Ecoregion	Middle Atlantic Coastal Plain	Nearest Named Water Body	Calico Creek
River Basin	White Oak	USGS 8-Digit Catalogue Unit	03020301
County	Carteret	NCDWR Region	Wilmington
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Precipitation within 48 hrs?	Latitude/Longitude (deci-degrees)	34.729263/-76.746994

Evidence of stressors affecting the assessment area (may not be within the assessment area)

Please circle and/or make note on the last page if evidence of stressors is apparent. Consider departure from reference, if appropriate, in recent past (for instance, within 10 years). Noteworthy stressors include, but are not limited to the following.

- Hydrological modifications (examples: ditches, dams, beaver dams, dikes, berms, ponds, etc.)
- Surface and sub-surface discharges into the wetland (examples: discharges containing obvious pollutants, presence of nearby septic tanks, underground storage tanks (USTs), hog lagoons, etc.)
- Signs of vegetation stress (examples: vegetation mortality, insect damage, disease, storm damage, salt intrusion, etc.)
- Habitat/plant community alteration (examples: mowing, clear-cutting, exotics, etc.)

Is the assessment area intensively managed? ☐ Yes ☒ No

Regulatory Considerations - Were regulatory considerations evaluated? ☒ Yes ☐ No If Yes, check all that apply to the assessment area.

- ☐ Anadromous fish
- ☐ Federally protected species or State endangered or threatened species
- ☐ NCDWR riparian buffer rule in effect
- ☐ Abuts a Primary Nursery Area (PNA)
- ☐ Publicly owned property
- ☐ N.C. Division of Coastal Management Area of Environmental Concern (AEC) (including buffer)
- ☒ Abuts a stream with a NCDWQ classification of SA or supplemental classifications of HQW, ORW, or Trout
- ☐ Designated NCNHP reference community
- ☐ Abuts a 303(d)-listed stream or a tributary to a 303(d)-listed stream

What type of natural stream is associated with the wetland, if any? (check all that apply)

- ☒ Blackwater
- ☐ Brownwater
- ☐ Tidal (if tidal, check one of the following boxes) ☐ Lunar ☐ Wind ☐ Both

Is the assessment area on a coastal island? ☐ Yes ☒ No

Is the assessment area's surface water storage capacity or duration substantially altered by beaver? ☐ Yes ☒ No

Does the assessment area experience overbank flooding during normal rainfall conditions? ☐ Yes ☒ No

1. Ground Surface Condition/Vegetation Condition – assessment area condition metric

Check a box in each column. Consider alteration to the ground surface (GS) in the assessment area and vegetation structure (VS) in the assessment area. Compare to reference wetland if applicable (see User Manual). If a reference is not applicable, then rate the assessment area based on evidence an effect.

- | | | |
|---------------------------------------|---------------------------------------|--|
| GS | VS | |
| <input type="checkbox"/> A | <input type="checkbox"/> A | Not severely altered |
| <input checked="" type="checkbox"/> B | <input checked="" type="checkbox"/> B | Severely altered over a majority of the assessment area (ground surface alteration examples: vehicle tracks, excessive sedimentation, fire-plow lanes, skidder tracks, bedding, fill, soil compaction, obvious pollutants) (vegetation structure alteration examples: mechanical disturbance, herbicides, salt intrusion [where appropriate], exotic species, grazing, less diversity [if appropriate], hydrologic alteration) |

2. Surface and Sub-Surface Storage Capacity and Duration – assessment area condition metric

Check a box in each column. Consider surface storage capacity and duration (Surf) and sub-surface storage capacity and duration (Sub). Consider both increase and decrease in hydrology. A ditch \leq 1 foot deep is considered to affect surface water only, while a ditch $>$ 1 foot deep is expected to affect both surface and sub-surface water. Consider tidal flooding regime, if applicable.

- | | | |
|---------------------------------------|---------------------------------------|--|
| Surf | Sub | |
| <input type="checkbox"/> A | <input type="checkbox"/> A | Water storage capacity and duration are not altered. |
| <input checked="" type="checkbox"/> B | <input checked="" type="checkbox"/> B | Water storage capacity or duration are altered, but not substantially (typically, not sufficient to change vegetation). |
| <input type="checkbox"/> C | <input type="checkbox"/> C | Water storage capacity or duration are substantially altered (typically, alteration sufficient to result in vegetation change) (examples: draining, flooding, soil compaction, filling, excessive sedimentation, underground utility lines). |

3. Water Storage/Surface Relief – assessment area/wetland type condition metric (skip for all marshes)

Check a box in each column. Select the appropriate storage for the assessment area (AA) and the wetland type (WT).

- | | | | |
|-----|---------------------------------------|---------------------------------------|---|
| | AA | WT | |
| 3a. | <input type="checkbox"/> A | <input type="checkbox"/> A | Majority of wetland with depressions able to pond water $>$ 1 deep |
| | <input checked="" type="checkbox"/> B | <input checked="" type="checkbox"/> B | Majority of wetland with depressions able to pond water 6 inches to 1 foot deep |
| | <input type="checkbox"/> C | <input type="checkbox"/> C | Majority of wetland with depressions able to pond water 3 to 6 inches deep |
| | <input type="checkbox"/> D | <input type="checkbox"/> D | Depressions able to pond water $<$ 3 inches deep |
| 3b. | <input type="checkbox"/> A | | Evidence that maximum depth of inundation is greater than 2 feet |
| | <input type="checkbox"/> B | | Evidence that maximum depth of inundation is between 1 and 2 feet |
| | <input type="checkbox"/> C | | Evidence that maximum depth of inundation is less than 1 foot |

4. Soil Texture/Structure – assessment area condition metric (skip for all marshes)

Check a box from each of the three soil property groups below. Dig soil profile in the dominant assessment area landscape feature. Make soil observations within the top 12 inches. Use most recent National Technical Committee for Hydric Soils guidance for regional indicators.

- 4a. ☐A Sandy soil
☒B Loamy or clayey soils exhibiting redoximorphic features (concentrations, depletions, or rhizospheres)
☐C Loamy or clayey soils not exhibiting redoximorphic features
☐D Loamy or clayey gleyed soil
☐E Histosol or histic epipedon
- 4b. ☒A Soil ribbon < 1 inch
☐B Soil ribbon ≥ 1 inch
- 4c. ☒A No peat or muck presence
☐B A peat or muck presence

5. Discharge into Wetland – opportunity metric

Check a box in each column. Consider surface pollutants or discharges (Surf) and sub-surface pollutants or discharges (Sub). Examples of sub-surface discharges include presence of nearby septic tank, underground storage tank (UST), etc.

- | Surf | Sub | |
|---------------------------------------|---------------------------------------|---|
| <input type="checkbox"/> A | <input type="checkbox"/> A | Little or no evidence of pollutants or discharges entering the assessment area |
| <input checked="" type="checkbox"/> B | <input checked="" type="checkbox"/> B | Noticeable evidence of pollutants or discharges entering the wetland and stressing, but not overwhelming the treatment capacity of the assessment area |
| <input type="checkbox"/> C | <input type="checkbox"/> C | Noticeable evidence of pollutants or discharges (pathogen, particulate, or soluble) entering the assessment area and potentially overwhelming the treatment capacity of the wetland (water discoloration, dead vegetation, excessive sedimentation, odor) |

6. Land Use – opportunity metric (skip for non-riparian wetlands)

Check all that apply (at least one box in each column). Evaluation involves a GIS effort with field adjustment. Consider sources draining to assessment area within entire upstream watershed (WS), within 5 miles and within the watershed draining to the assessment area (5M), and within 2 miles and within the watershed draining to the assessment area (2M).

- | WS | 5M | 2M | |
|---------------------------------------|---------------------------------------|---------------------------------------|---|
| <input checked="" type="checkbox"/> A | <input type="checkbox"/> A | <input type="checkbox"/> A | ≥ 10% impervious surfaces |
| <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | Confined animal operations (or other local, concentrated source of pollutants) |
| <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | ≥ 20% coverage of pasture |
| <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | ≥ 20% coverage of agricultural land (regularly plowed land) |
| <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | ≥ 20% coverage of maintained grass/herb |
| <input type="checkbox"/> F | <input type="checkbox"/> F | <input type="checkbox"/> F | ≥ 20% coverage of clear-cut land |
| <input type="checkbox"/> G | <input checked="" type="checkbox"/> G | <input checked="" type="checkbox"/> G | Little or no opportunity to improve water quality. Lack of opportunity may result from little or no disturbance in the watershed <u>or</u> hydrologic alterations that prevent drainage <u>and/or</u> overbank flow from affecting the assessment area. |

7. Wetland Acting as Vegetated Buffer – assessment area/wetland complex condition metric (skip for non-riparian wetlands)

- 7a. Is assessment area within 50 feet of a tributary or other open water?
☒Yes ☐No If Yes, continue to 7b. If No, skip to Metric 8.
Wetland buffer need only be present on one side of the water body. Make buffer judgment based on the average width of wetland. Record a note if a portion of the buffer has been removed or disturbed.
- 7b. How much of the first 50 feet from the bank is wetland? (Wetland buffer need only be present on one side of the water body. Make buffer judgment based on the average width of wetland. Record a note if a portion of the buffer has been removed or disturbed.)
☒A ≥ 50 feet
☐B From 30 to < 50 feet
☐C From 15 to < 30 feet
☐D From 5 to < 15 feet
☐E < 5 feet or buffer bypassed by ditches
- 7c. Tributary width. If the tributary is anastomosed, combine widths of channels/braids for a total width.
☒≤ 15-feet wide ☐ > 15-feet wide ☐ Other open water (no tributary present)
- 7d. Do roots of assessment area vegetation extend into the bank of the tributary/open water?
☒Yes ☐No
- 7e. Is stream or other open water sheltered or exposed?
☒Sheltered – adjacent open water with width < 2500 feet and no regular boat traffic.
☐Exposed – adjacent open water with width ≥ 2500 feet or regular boat traffic.

8. Wetland Width at the Assessment Area – wetland type/wetland complex condition metric (evaluate WT for all marshes and Estuarine Woody Wetland only; evaluate WC for Bottomland Hardwood Forest, Headwater Forest, and Riverine Swamp Forest only)

Check a box in each column for riverine wetlands only. Select the average width for the wetland type at the assessment area (WT) and the wetland complex at the assessment area (WC). See User Manual for WT and WC boundaries.

- | WT | WC | |
|----------------------------|---------------------------------------|-----------------------|
| <input type="checkbox"/> A | <input checked="" type="checkbox"/> A | ≥ 100 feet |
| <input type="checkbox"/> B | <input type="checkbox"/> B | From 80 to < 100 feet |
| <input type="checkbox"/> C | <input type="checkbox"/> C | From 50 to < 80 feet |
| <input type="checkbox"/> D | <input type="checkbox"/> D | From 40 to < 50 feet |
| <input type="checkbox"/> E | <input type="checkbox"/> E | From 30 to < 40 feet |
| <input type="checkbox"/> F | <input type="checkbox"/> F | From 15 to < 30 feet |
| <input type="checkbox"/> G | <input type="checkbox"/> G | From 5 to < 15 feet |
| <input type="checkbox"/> H | <input type="checkbox"/> H | < 5 feet |

9. Inundation Duration – assessment area condition metric (skip for non-riparian wetlands)

Answer for assessment area dominant landform.

- ☐A Evidence of short-duration inundation (< 7 consecutive days)
☐B Evidence of saturation, without evidence of inundation
☒C Evidence of long-duration inundation or very long-duration inundation (7 to 30 consecutive days or more)

10. Indicators of Deposition – assessment area condition metric (skip for non-riparian wetlands and all marshes)

Consider recent deposition only (no plant growth since deposition).

- ☒A Sediment deposition is not excessive, but at approximately natural levels.
☐B Sediment deposition is excessive, but not overwhelming the wetland.
☐C Sediment deposition is excessive and is overwhelming the wetland.

11. Wetland Size – wetland type/wetland complex condition metric

Check a box in each column. Involves a GIS effort with field adjustment. This metric evaluates three aspects of the wetland area: the size of the wetland type (WT), the size of the wetland complex (WC), and the size of the forested wetland (FW) (if applicable, see User Manual). See the User Manual for boundaries of these evaluation areas. If assessment area is clear-cut, select "K" for the FW column.

- | WT | WC | FW (if applicable) |
|---------------------------------------|---------------------------------------|---|
| <input type="checkbox"/> A | <input type="checkbox"/> A | <input type="checkbox"/> A ≥ 500 acres |
| <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B From 100 to < 500 acres |
| <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C From 50 to < 100 acres |
| <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D From 25 to < 50 acres |
| <input type="checkbox"/> E | <input type="checkbox"/> E | <input checked="" type="checkbox"/> E From 10 to < 25 acres |
| <input type="checkbox"/> F | <input type="checkbox"/> F | <input type="checkbox"/> F From 5 to < 10 acres |
| <input checked="" type="checkbox"/> G | <input checked="" type="checkbox"/> G | <input type="checkbox"/> G From 1 to < 5 acres |
| <input type="checkbox"/> H | <input type="checkbox"/> H | <input type="checkbox"/> H From 0.5 to < 1 acre |
| <input type="checkbox"/> I | <input type="checkbox"/> I | <input type="checkbox"/> I From 0.1 to < 0.5 acre |
| <input type="checkbox"/> J | <input type="checkbox"/> J | <input type="checkbox"/> J From 0.01 to < 0.1 acre |
| <input type="checkbox"/> K | <input type="checkbox"/> K | <input type="checkbox"/> K < 0.01 acre <u>or</u> assessment area is clear-cut |

12. Wetland Intactness – wetland type condition metric (evaluate for Pocosins only)

- ☐A Pocosin is the full extent (≥ 90%) of its natural landscape size.
☐B Pocosin type is < 90% of the full extent of its natural landscape size.

13. Connectivity to Other Natural Areas – landscape condition metric

13a. **Check appropriate box(es) (a box may be checked in each column).** Involves a GIS effort with field adjustment. This metric evaluates whether the wetland is well connected (Well) and/or loosely connected (Loosely) to the landscape patch, the contiguous naturally vegetated area and open water (if appropriate). Boundaries are formed by four-lane roads, regularly maintained utility line corridors the width of a four-lane road or wider, urban landscapes, maintained fields (pasture and agriculture), or open water > 300 feet wide.

- | Well | Loosely |
|---------------------------------------|---|
| <input checked="" type="checkbox"/> A | <input type="checkbox"/> A ≥ 500 acres |
| <input type="checkbox"/> B | <input type="checkbox"/> B From 100 to < 500 acres |
| <input type="checkbox"/> C | <input type="checkbox"/> C From 50 to < 100 acres |
| <input type="checkbox"/> D | <input type="checkbox"/> D From 10 to < 50 acres |
| <input type="checkbox"/> E | <input type="checkbox"/> E < 10 acres |
| <input type="checkbox"/> F | <input type="checkbox"/> F Wetland type has a poor or no connection to other natural habitats |

13b. **Evaluate for marshes only.**

- ☐Yes ☐No Wetland type has a surface hydrology connection to open waters/stream or tidal wetlands.

14. Edge Effect – wetland type condition metric (skip for all marshes and Estuarine Woody Wetland)

May involve a GIS effort with field adjustment. Estimate distance from wetland type boundary to artificial edges. Artificial edges include non-forested areas ≥ 40 feet wide such as fields, development, roads, regularly maintained utility line corridors, and clear-cuts. Consider the eight main points of the compass. Artificial edge occurs within 150 feet in how many directions? If the assessment area is clear cut, select option "C."

- ☐A 0
☐B 1 to 4
☒C 5 to 8

15. Vegetative Composition – assessment area condition metric (skip for all marshes and Pine Flat)

- ☐A Vegetation is close to reference condition in species present and their proportions. Lower strata composed of appropriate species, with exotic plants absent or sparse within the assessment area.
☒B Vegetation is different from reference condition in species diversity or proportions, but still largely composed of native species characteristic of the wetland type. This may include communities of weedy native species that develop after clearcutting or clearing. It also includes communities with exotics present, but not dominant, over a large portion of the expected strata.
☐C Vegetation severely altered from reference in composition, or expected species are unnaturally absent (planted stands of non-characteristic species or at least one stratum inappropriately composed of a single species), or exotic species are dominant in at least one stratum.

16. Vegetative Diversity – assessment area condition metric (evaluate for Non-tidal Freshwater Marsh only)

- ☐A Vegetation diversity is high and is composed primarily of native species (< 10% cover of exotics).
☐B Vegetation diversity is low or has > 10% to 50% cover of exotics.
☐C Vegetation is dominated by exotic species (> 50 % cover of exotics).

17. Vegetative Structure – assessment area/wetland type condition metric

17a. Is vegetation present?

☒ Yes ☐ No If Yes, continue to 17b. If No, skip to Metric 18.

17b. Evaluate percent coverage of assessment area vegetation **for all marshes only**. Skip to 17c for non-marsh wetlands.

☐ A ≥ 25% coverage of vegetation
☐ B < 25% coverage of vegetation

17c. **Check a box in each column for each stratum.** Evaluate this portion of the metric **for non-marsh wetlands**. Consider structure in airspace above the assessment area (AA) and the wetland type (WT) separately.

Canopy	AA	WT	
	<input checked="" type="checkbox"/> A	<input checked="" type="checkbox"/> A	Canopy closed, or nearly closed, with natural gaps associated with natural processes
	<input type="checkbox"/> B	<input type="checkbox"/> B	Canopy present, but opened more than natural gaps
	<input type="checkbox"/> C	<input type="checkbox"/> C	Canopy sparse or absent
Mid-Story	<input type="checkbox"/> A	<input type="checkbox"/> A	Dense mid-story/sapling layer
	<input checked="" type="checkbox"/> B	<input checked="" type="checkbox"/> B	Moderate density mid-story/sapling layer
	<input type="checkbox"/> C	<input type="checkbox"/> C	Mid-story/sapling layer sparse or absent
Shrub	<input type="checkbox"/> A	<input type="checkbox"/> A	Dense shrub layer
	<input checked="" type="checkbox"/> B	<input checked="" type="checkbox"/> B	Moderate density shrub layer
	<input type="checkbox"/> C	<input type="checkbox"/> C	Shrub layer sparse or absent
Herb	<input type="checkbox"/> A	<input type="checkbox"/> A	Dense herb layer
	<input checked="" type="checkbox"/> B	<input checked="" type="checkbox"/> B	Moderate density herb layer
	<input type="checkbox"/> C	<input type="checkbox"/> C	Herb layer sparse or absent

18. Snags – wetland type condition metric (skip for all marshes)

☐ A Large snags (more than one) are visible (> 12 inches DBH, or large relative to species present and landscape stability).
☒ B Not A

19. Diameter Class Distribution – wetland type condition metric (skip for all marshes)

☐ A Majority of canopy trees have stems > 6 inches in diameter at breast height (DBH); many large trees (> 12 inches DBH) are present.
☐ B Majority of canopy trees have stems between 6 and 12 inches DBH, few are > 12 inch DBH.
☒ C Majority of canopy trees are < 6 inches DBH or no trees.

20. Large Woody Debris – wetland type condition metric (skip for all marshes)

Include both natural debris and man-placed natural debris.

☐ A Large logs (more than one) are visible (> 12 inches in diameter, or large relative to species present and landscape stability).
☒ B Not A

21. Vegetation/Open Water Dispersion – wetland type/open water condition metric (evaluate for Non-Tidal Freshwater Marsh only)

Select the figure that best describes the amount of interspersions between vegetation and open water in the growing season. Patterned areas indicate vegetated areas, while solid white areas indicate open water.



22. Hydrologic Connectivity – assessment area condition metric (evaluate for riparian wetlands and Salt/Brackish Marsh only)

Examples of activities that may severely alter hydrologic connectivity include intensive ditching, fill, sedimentation, channelization, diversion, man-made berms, beaver dams, and stream incision. Documentation required if evaluated as B, C, or D.

☐ A Overbank and overland flow are not severely altered in the assessment area.
☐ B Overbank flow is severely altered in the assessment area.
☐ C Overland flow is severely altered in the assessment area.
☒ D Both overbank and overland flow are severely altered in the assessment area.

Notes

Wetlands are bound on western side by a large retaining wall. Flow is diverted north and into an unnamed tributary to Calico Creek which has been channelized in the past. Lots of trash and debris were noted in the wetland. Some cloudy water was noted entering the wetland from small ditches entering from the cleared area to the north.

NC WAM Wetland Rating Sheet **Accompanies User Manual Version 5.0**

Wetland Site Name Wetland 1 Date of Assessment 8/2/2018
Wetland Type Headwater Forest Assessor Name/Organization Wes Fryar / Land Management Group

Notes on Field Assessment Form (Y/N) YES
Presence of regulatory considerations (Y/N) YES
Wetland is intensively managed (Y/N) NO
Assessment area is located within 50 feet of a natural tributary or other open water (Y/N) YES
Assessment area is substantially altered by beaver (Y/N) NO
Assessment area experiences overbank flooding during normal rainfall conditions (Y/N) NO
Assessment area is on a coastal island (Y/N) NO

Sub-function Rating Summary

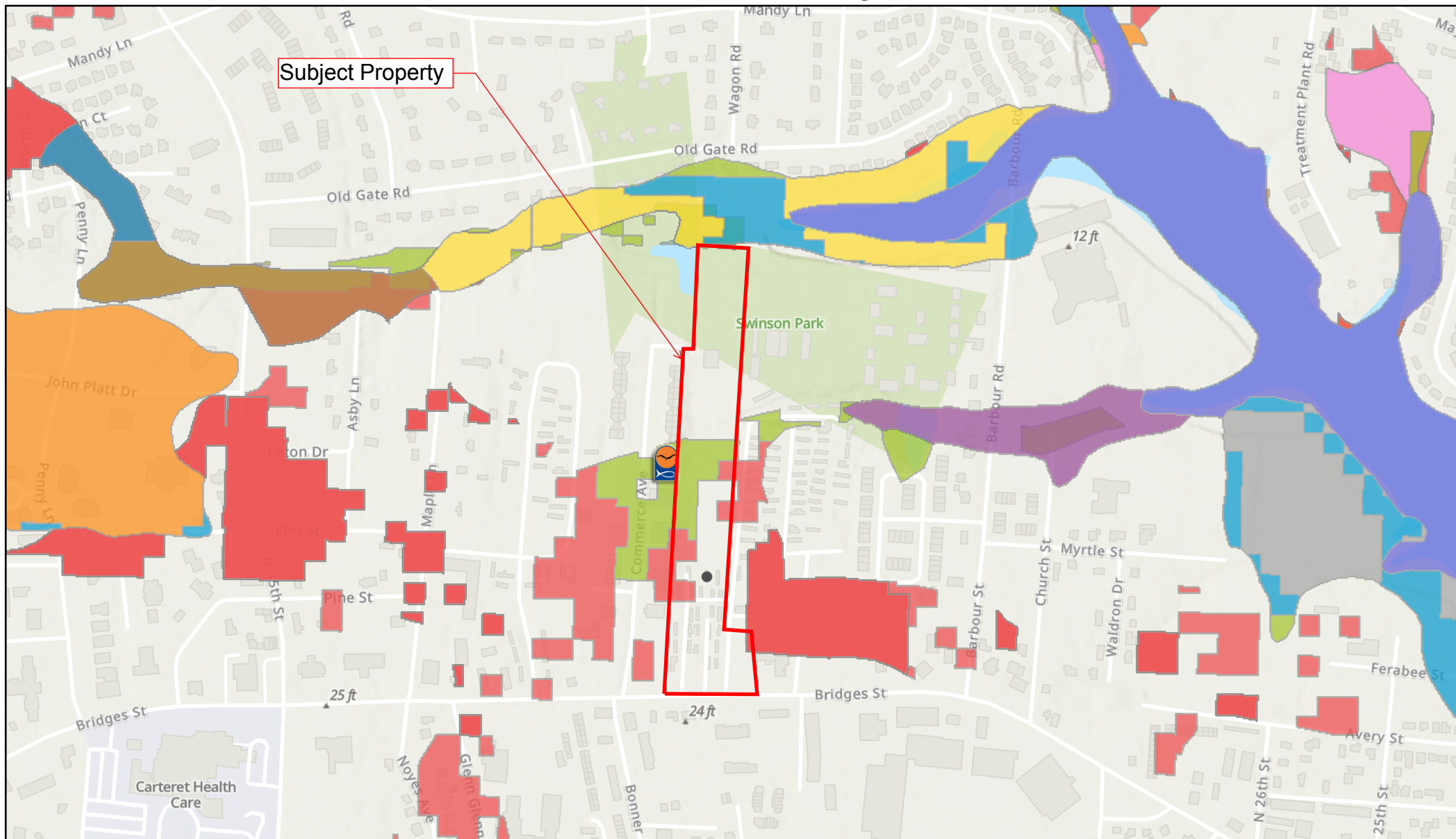
Function	Sub-function	Metrics	Rating
Hydrology	Surface Storage and Retention	Condition	LOW
	Sub-surface Storage and Retention	Condition	HIGH
Water Quality	Pathogen Change	Condition	LOW
		Condition/Opportunity	LOW
		Opportunity Presence (Y/N)	NO
	Particulate Change	Condition	LOW
		Condition/Opportunity	NA
		Opportunity Presence (Y/N)	NA
	Soluble Change	Condition	LOW
		Condition/Opportunity	LOW
		Opportunity Presence (Y/N)	NO
	Physical Change	Condition	LOW
		Condition/Opportunity	LOW
		Opportunity Presence (Y/N)	NO
	Pollution Change	Condition	NA
		Condition/Opportunity	NA
		Opportunity Presence (Y/N)	NA
Habitat	Physical Structure	Condition	LOW
	Landscape Patch Structure	Condition	HIGH
	Vegetation Composition	Condition	MEDIUM

Function Rating Summary

Function	Metrics	Rating
Hydrology	Condition	MEDIUM
Water Quality	Condition	LOW
	Condition/Opportunity	LOW
	Opportunity Presence (Y/N)	NO
Habitat	Condition	LOW

Overall Wetland Rating LOW

Division of Coastal Management



12/22/2020, 2:51:59 PM

DCM Office Locations



DCM

Wetlands



Other

Managed Pineland

Cutover

Cleared

Depressional Swamp Forest

Pine Flat

Bottomland Hardwood

Hardwood Flat

Drained

Freshwater Marsh

Salt/Brackish Marsh

Restoration & Enhancement

Salt/Brackish Marsh

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, Carteret County, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

ROY COOPER

Governor

MICHAEL S. REGAN

Secretary

S. DANIEL SMITH

Director

NORTH CAROLINA
Environmental Quality

February 15, 2021

DWR # 20201353

Carteret County

Elijah's Landing of Morehead City, LLC

Attn: Keith Walker

108 Professional Park Drive

Beaufort, NC 28516

Subject: APPROVAL OF 401 WATER QUALITY CERTIFICATION WITH ADDITIONAL CONDITIONS
Elijah's Landing Apartments – Morehead City

Dear Mr. Walker:

You have our approval for the impacts listed below for the purpose described in your application by the Division of Water Resources on January 6, 2021. These impacts are covered by the attached Water Quality General Certification Number 4139 and the conditions listed below. This certification is associated with the use of Nationwide Permit Number 29 once it is issued to you by the U.S. Army Corps of Engineers. Please note that you should get any other federal, state or local permits before proceeding with your project, including those required by (but not limited to) Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations. **Also, this approval to proceed with your proposed impacts or to conduct impacts to waters as depicted in your application shall expire upon expiration of the 404 or CAMA Permit.**

The Division has determined that the proposed project will comply with water quality requirements provided that you adhere to the conditions listed in the enclosed certification and to the additional conditions itemized below.

The following proposed impacts are hereby approved. No other impacts are approved, including incidental impacts. [15A NCAC 02H .0506(b)]

Type of Impact	Amount Approved (units) Permanent	Amount Approved (units) Temporary
Stream	N/A	N/A
404/401 Wetlands (see narrative and drawings 1 thru 5)	0.349 acres (approx. 15,202 square feet)	N/A

This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of this Certification. If you change your project,



you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this Certification and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)].

If you are unable to comply with any of the conditions of the attached Water Quality General Certification or with the additional conditions itemized below, you must notify the Wilmington Regional Office within 24 hours (or the next business day if a weekend or holiday) from the time the permittee becomes aware of the circumstances.

The permittee shall report to the Wilmington Regional Office any noncompliance with, and/or any violation of, stream or wetland standards [15A NCAC 02B .0200] including but not limited to sediment impacts to streams or wetlands. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the permittee became aware of the non-compliance circumstances.

Additional Conditions:

1. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0211 (12)]

2. The Permittee shall adhere specifically to 15A NCAC 02B .0221 Tidal Salt Water Quality for Class SA Waters (3)(g) pH: shall be normal for waters in the area, which generally shall range between 6.8 and 8.5 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions; (I) Turbidity: the turbidity in the receiving water shall not exceed 25 NTU; **if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased.** [15A NCAC 02B .0221]

This approval and its conditions are final and binding unless contested. [G.S. 143-215.5]

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) **within sixty (60) calendar days**. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.


One (1) copy of the Petition must also be served to the North Carolina Department of Environmental Quality:

William F. Lane, General Counsel
Department of Environmental Quality

1601 Mail Service Center
Raleigh, NC 27699-1601

This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Holley Snider at 910-796-7215 or holley.snider@ncdenr.gov if you have any questions or concerns.

Sincerely,

DocuSigned by:

E3ABA14AC7DC434...

Morella Sanchez-King
Regional Supervisor
Water Quality Regional Operations Section
Division of Water Resources
Wilmington Regional Office

Enclosures: GC 4139

cc: Kimberlee Williams, Land Management Group (via email)
Thomas Charles, USACE Wilmington Regulatory Field Office (via email)
DWR 401 & Buffer Permitting Unit file

**STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER RESOURCES**

WATER QUALITY GENERAL CERTIFICATION NO. 4139

GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR US ARMY CORPS OF ENGINEERS

- **NATIONWIDE PERMIT NUMBER 18 (MINOR DISCHARGES),**
- **NATIONWIDE PERMIT NUMBER 29 (RESIDENTIAL DEVELOPMENT),**
- **NATIONWIDE PERMIT NUMBER 39 (COMMERCIAL AND INSTITUTIONAL DEVELOPMENTS),**
- **NATIONWIDE PERMIT NUMBER 40 (AGRICULTURAL ACTIVITIES),**
- **NATIONWIDE PERMIT NUMBER 41 (RESHAPING EXISTING DRAINAGE DITCHES),**
- **NATIONWIDE PERMIT NUMBER 42 (RECREATIONAL FACILITIES),**
- **NATIONWIDE PERMIT NUMBER 44 (MINING ACTIVITIES),**
- **NATIONWIDE PERMIT NUMBER 46 (DISCHARGES IN DITCHES),**
- **NATIONWIDE PERMIT NUMBER 51 (LAND BASED RENEWABLE ENERGY GENERATION FACILITIES), AND**
- **NATIONWIDE PERMIT NUMBER 52 (WATER BASED RENEWABLE ENERGY GENERATION PILOT PROJECTS).**

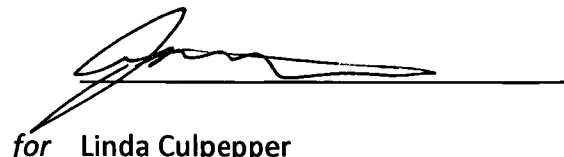
Water Quality Certification Number 4139 is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Regulations in 15A NCAC 02H .0500 and 15A NCAC 02B .0200 for the discharge of fill material to surface waters and wetland areas as described in 33 CFR 330 Appendix A (B) (18, 29, 39, 40, 41, 42, 44, 46, 51 and 52) of the US Army Corps of Engineers regulations.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Effective date: December 1, 2017

Signed this day: December 1, 2017

By


for Linda Culpepper
Interim Director

Activities meeting any one (1) of the following thresholds or circumstances require written approval for a 401 Water Quality Certification from the Division of Water Resources (DWR):

- a) If any of the conditions of this Certification (listed below) cannot be met; or
- b) Any impacts to streams from excavation or dredging other than excavation that is conducted as preparation for installing permanent fill or structures; or
- c) Total temporary and permanent impacts to streams greater than 150 feet; or
- d) Any stream relocation or stream restoration; or
- e) Complete dewatering and drawdowns to a sediment layer related to pond/dam maintenance or removal; or
- f) Total temporary and permanent impacts to wetlands or open waters equal to or greater than one-tenth (1/10) acre; or
- g) Any high-density project, as defined in 15A NCAC 02H .1003(2)(a) and by the density thresholds specified in 15A NCAC 02H .1017, which:
 - i. Disturbs one acre or more of land (including a project that disturbs less than one acre of land that is part of a larger common plan of development or sale); and
 - ii. Has permanent wetland, stream or open water impacts; and
 - iii. Is proposing new built-upon area; and
 - iv. Does not have a stormwater management plan reviewed and approved under a state stormwater program¹ or a state-approved local government stormwater program².

Projects that have vested rights, exemptions, or grandfathering from state or locally-implemented stormwater programs and projects that satisfy state or locally-implemented stormwater programs through use of community in-lieu programs **require written approval.**; or

- h) Any permanent impacts to waters, or to wetlands adjacent to waters, designated as: ORW (including SAV), HQW (including PNA), SA, WS-I, WS-II, Trout, or North Carolina or National Wild and Scenic River; or
- i) Any permanent impacts to coastal wetlands [15A NCAC 07H .0205], or Unique Wetlands (UWL) [15A NCAC 02H .0506]; or
- j) Any impact associated with a Notice of Violation or an enforcement action for violation(s) of NC Wetland Rules (15A NCAC 02H .0500), NC Isolated Wetland Rules (15A NCAC 02H .1300), NC Surface Water or Wetland Standards (15A NCAC 02B .0200), or State Regulated Riparian Buffer Rules (15A NCAC 02B .0200); or
- k) Any impacts to subject water bodies and/or state regulated riparian buffers along subject water bodies in the Neuse, Tar-Pamlico, or Catawba River Basins or in the Randleman Lake, Jordan Lake or Goose Creek Watersheds (or any other basin or watershed with State Regulated Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) *unless*:
 - i. The activities are listed as “EXEMPT” from these rules; or

¹ e.g. Coastal Counties, HQW, ORW, or state-implemented Phase II NPDES

² e.g. Delegated Phase II NPDES, Water Supply Watershed, Nutrient-Sensitive Waters, or Universal Stormwater Management Program

GC4139

- ii. A Buffer Authorization Certificate is issued by the NC Division of Coastal Management (DCM); or
- iii. A Buffer Authorization Certificate or a Minor Variance is issued by a delegated or designated local government implementing a state riparian buffer program pursuant to 143-215.23.

Activities included in this General Certification that do not meet one of the thresholds listed above do not require written approval.

I. ACTIVITY SPECIFIC CONDITIONS:

1. If this Water Quality Certification is used to access residential, commercial or industrial building sites, then all parcels owned by the applicant that are part of the single and complete project authorized by this Certification must be buildable without additional impacts to streams or wetlands. If required in writing by DWR, the applicant shall provide evidence that the parcels are buildable without requiring additional impacts to wetlands, waters, or state regulated riparian buffers. [15A NCAC 02H .0506(b)(4) and (c)(4)]
2. For road construction purposes, this Certification shall only be utilized from natural high ground to natural high ground. [15A NCAC 02H .0506(b)(2) and (c)(2)]
3. Deed notifications or similar mechanisms shall be placed on all lots with retained jurisdictional wetlands, waters, and state regulated riparian buffers within the project boundaries in order to assure compliance with NC Wetland Rules (15A NCAC 02H .0500), NC Isolated Wetland Rules (15A NCAC 02H .1300), and/or State Regulated Riparian Buffer Rules (15A NCAC 02B .0200). These mechanisms shall be put in place at the time of recording of the property or individual parcels, whichever is appropriate. [15A NCAC 02H .0506(b)(4) and (c)(4)]
4. For all dam removal projects meeting the definition under G.S. 143-215.25 and requirements under G.S. 143-215.27 of a professionally supervised dam removal, the applicant shall provide documentation that any sediment that may be released has similar or lower level of contamination than sediment sampled from downstream of the dam in accordance with Session Law 2017-145.
5. For the North Carolina Department of Transportation, compliance with the NCDOT's individual NPDES permit NCS000250 shall serve to satisfy this condition. All other high-density projects that trigger threshold Item (g) above shall comply with one of the following requirements: [15A NCAC 02H .0506(b)(5) and (c)(5)]

- a. Provide a completed Stormwater Management Plan (SMP) for review and approval, including all appropriate stormwater control measure (SCM) supplemental forms and associated items, that complies with the high-density development requirements of 15A NCAC 02H .1003. Stormwater management shall be provided throughout the entire project area in accordance with 15A NCAC 02H .1003. For the purposes of 15A NCAC 02H .1003(2)(a), density thresholds shall be determined in accordance with 15A NCAC 02H .1017.
- b. Provide calculations to document that the project will not cause degradation of downstream surface waters. Documentation shall include a detailed analysis of the hydrological impacts from stormwater runoff when considering the volume and velocity of stormwater runoff from the project built upon area and the size and existing condition of the receiving stream(s).

Exceptions to this condition require application to and written approval from DWR.

II. GENERAL CONDITIONS:

1. When written authorization is required, the plans and specifications for the project are incorporated into the authorization by reference and are an enforceable part of the Certification. Any modifications to the project require notification to DWR and may require an application submittal to DWR with the appropriate fee. [15A NCAC 02H .0501 and .0502]
2. No waste, spoil, solids, or fill of any kind shall occur in wetlands or waters beyond the footprint of the impacts (including temporary impacts) as authorized in the written approval from DWR; or beyond the thresholds established for use of this Certification without written authorization. [15A NCAC 02H .0501 and .0502]

No removal of vegetation or other impacts of any kind shall occur to state regulated riparian buffers beyond the footprint of impacts approved in a Buffer Authorization or Variance or as listed as an exempt activity in the applicable riparian buffer rules. [15A NCAC 02B .0200]

3. In accordance with 15A NCAC 02H .0506(h) and Session Law 2017-10, compensatory mitigation may be required for losses of greater than 300 linear feet of perennial streams and/or greater than one (1) acre of wetlands. Impacts associated with the removal of a dam shall not require mitigation when the removal complies with the requirements of Part 3 of Article 21 in Chapter 143 of the North Carolina General Statutes. Impacts to isolated and other non-404 jurisdictional wetlands shall not be combined with 404 jurisdictional wetlands for the purpose of determining when impact thresholds trigger a mitigation requirement. For linear publicly owned and maintained transportation projects that are not determined to be part of a larger common plan of development by the US Army Corps of Engineers, compensatory mitigation may be required for losses of greater than 300 linear feet per perennial stream.

Compensatory stream and/or wetland mitigation shall be proposed and completed in compliance with G.S. 143-214.11. For applicants proposing to conduct mitigation within a project site, a complete mitigation proposal developed in accordance with the most recent guidance issued by the US Army Corps of Engineers Wilmington District shall be submitted for review and approval with the application for impacts.

4. All activities shall be in compliance with any applicable State Regulated Riparian Buffer Rules in Chapter 2 of Title 15A.
5. When applicable, all construction activities shall be performed and maintained in full compliance with G.S. Chapter 113A Article 4 (Sediment and Pollution Control Act of 1973). Regardless of applicability of the Sediment and Pollution Control Act, all projects shall incorporate appropriate Best Management Practices for the control of sediment and erosion so that no violations of state water quality standards, statutes, or rules occur. [15A NCAC 02H .0506 (b)(3) and (c)(3) and 15A NCAC 02B .0200]

Design, installation, operation, and maintenance of all sediment and erosion control measures shall be equal to or exceed the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*, or for linear transportation projects, the *NCDOT Sediment and Erosion Control Manual*.

All devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) sites, including contractor-owned or leased borrow pits associated with the project. Sufficient materials required for stabilization and/or repair of erosion control measures and stormwater routing and treatment shall be on site at all times.

For borrow pit sites, the erosion and sediment control measures shall be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*. Reclamation measures and implementation shall comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act and the Mining Act of 1971.

If the project occurs in waters or watersheds classified as Primary Nursery Areas (PNAs), SA, WS-I, WS-II, High Quality Waters (HQW), or Outstanding Resource Waters (ORW), then the sedimentation and erosion control designs shall comply with the requirements set forth in 15A NCAC 04B .0124, *Design Standards in Sensitive Watersheds*.

6. Sediment and erosion control measures shall not be placed in wetlands or waters except within the footprint of temporary or permanent impacts authorized under this Certification. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02H .0501 and .0502]
7. Erosion control matting that incorporates plastic mesh and/or plastic twine shall not be used along streambanks or within wetlands. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02B .0201]

8. An NPDES Construction Stormwater Permit (NCG010000) is required for construction projects that disturb one (1) or more acres of land. The NCG010000 Permit allows stormwater to be discharged during land disturbing construction activities as stipulated in the conditions of the permit. If the project is covered by this permit, full compliance with permit conditions including the erosion & sedimentation control plan, inspections and maintenance, self-monitoring, record keeping and reporting requirements is required. [15A NCAC 02H .0506(b)(5) and (c)(5)]

The North Carolina Department of Transportation (NCDOT) shall be required to be in full compliance with the conditions related to construction activities within the most recent version of their individual NPDES (NCS000250) stormwater permit. [15A NCAC 02H .0506(b)(5) and (c)(5)]

9. All work in or adjacent to streams shall be conducted so that the flowing stream does not come in contact with the disturbed area. Approved best management practices from the most current version of the *NC Sediment and Erosion Control Manual*, or the *NC DOT Construction and Maintenance Activities Manual*, such as sandbags, rock berms, cofferdams, and other diversion structures shall be used to minimize excavation in flowing water. Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02H .0506(b)(3) and (c)(3)]
10. If activities must occur during periods of high biological activity (e.g. sea turtle nesting, fish spawning, or bird nesting), then biological monitoring may be required at the request of other state or federal agencies and coordinated with these activities. [15A NCAC 02H .0506(b)(2) and 15A NCAC 04B .0125]

All moratoriums on construction activities established by the NC Wildlife Resources Commission (WRC), US Fish and Wildlife Service (USFWS), NC Division of Marine Fisheries (DMF), or National Marine Fisheries Service (NMFS) shall be implemented. Exceptions to this condition require written approval by the resource agency responsible for the given moratorium. A copy of the approval from the resource agency shall be forwarded to DWR.

Work within a designated trout watershed of North Carolina (as identified by the Wilmington District of the US Army Corps of Engineers), or identified state or federal endangered or threatened species habitat, shall be coordinated with the appropriate WRC, USFWS, NMFS, and/or DMF personnel.

11. Culverts shall be designed and installed in such a manner that the original stream profiles are not altered and allow for aquatic life movement during low flows. The dimension, pattern, and profile of the stream above and below a pipe or culvert shall not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed culvert shall be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. [15A NCAC 02H .0506(b)(2) and (c)(2)]

Placement of culverts and other structures in streams shall be below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20% of the culvert diameter for culverts having a diameter less than or equal to 48 inches, to allow low flow passage of water and aquatic life.

If multiple pipes or barrels are required, they shall be designed to mimic the existing stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel shall be avoided.

When topographic constraints indicate culvert slopes of greater than 5%, culvert burial is not required, provided that all alternative options for flattening the slope have been investigated and aquatic life movement/connectivity has been provided when possible (e.g. rock ladders, cross vanes, etc.). Notification, including supporting documentation to include a location map of the culvert, culvert profile drawings, and slope calculations, shall be provided to DWR 60 calendar days prior to the installation of the culvert.

When bedrock is present in culvert locations, culvert burial is not required provided that there is sufficient documentation of the presence of bedrock. Notification, including supporting documentation such as, a location map of the culvert, geotechnical reports, photographs, etc. shall be provided to DWR a minimum of 60 calendar days prior to the installation of the culvert. If bedrock is discovered during construction, then DWR shall be notified by phone or email within 24 hours of discovery.

If other site-specific topographic constraints preclude the ability to bury the culverts as described above and/or it can be demonstrated that burying the culvert would result in destabilization of the channel, then exceptions to this condition require application to and written approval from DWR.

Installation of culverts in wetlands shall ensure continuity of water movement and be designed to adequately accommodate high water or flood conditions. When roadways, causeways, or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges shall be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in destabilization of streams or wetlands.

The establishment of native woody vegetation and other soft stream bank stabilization techniques shall be used where practicable instead of rip-rap or other bank hardening methods.

12. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated through site-appropriate means to the maximum extent practicable (e.g. grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. -Exceptions to this condition require application to and written approval from DWR. [15A NCAC 02H .0506(b)(5)]

13. Application of fertilizer to establish planted/seeded vegetation within disturbed riparian areas and/or wetlands shall be conducted at agronomic rates and shall comply with all other Federal, State and Local regulations. Fertilizer application shall be accomplished in a manner that minimizes the risk of contact between the fertilizer and surface waters. [15A NCAC 02B .0200 and 15A NCAC 02B .0231]
14. If concrete is used during construction, then all necessary measures shall be taken to prevent direct contact between uncured or curing concrete and waters of the state. Water that inadvertently contacts uncured concrete shall not be discharged to waters of the state. [15A NCAC 02B .0200]
15. All proposed and approved temporary fill and culverts shall be removed and the impacted area shall be returned to natural conditions within 60 calendar days after the temporary impact is no longer necessary. The impacted areas shall be restored to original grade, including each stream's original cross sectional dimensions, planform pattern, and longitudinal bed profile. For projects that receive written approval, no temporary impacts are allowed beyond those included in the application and authorization. All temporarily impacted sites shall be restored and stabilized with native vegetation. [15A NCAC 02H .0506(b)(2) and (c)(2)]
16. All proposed and approved temporary pipes/culverts/rip-rap pads etc. in streams shall be installed as outlined in the most recent edition of the *North Carolina Sediment and Erosion Control Planning and Design Manual* or the *North Carolina Surface Mining Manual* or the *North Carolina Department of Transportation Best Management Practices for Construction and Maintenance Activities* so as not to restrict stream flow or cause dis-equilibrium during use of this Certification. [15A NCAC 02H .0506(b)(2) and (c)(2)]
17. Any rip-rap required for proper culvert placement, stream stabilization, or restoration of temporarily disturbed areas shall be restricted to the area directly impacted by the approved construction activity. All rip-rap shall be placed such that the original stream elevation and streambank contours are restored and maintained. Placement of rip-rap or other approved materials shall not result in de-stabilization of the stream bed or banks upstream or downstream of the area or in a manner that precludes aquatic life passage. [15A NCAC 02H .0506(b)(2)]
18. Any rip-rap used for stream or shoreline stabilization shall be of a size and density to prevent movement by wave, current action, or stream flows and shall consist of clean rock or masonry material free of debris or toxic pollutants. Rip-rap shall not be installed in the streambed except in specific areas required for velocity control and to ensure structural integrity of bank stabilization measures. [15A NCAC 02H .0506(b)(2)]
19. Applications for rip-rap groins proposed in accordance with 15A NCAC 07H .1401 (NC Division of Coastal Management General Permit for construction of Wooden and Rip-rap Groins in Estuarine and Public Trust Waters) shall meet all the specific conditions for design and construction specified in 15A NCAC 07H .1405.

20. All mechanized equipment operated near surface waters shall be inspected and maintained regularly to prevent contamination of surface waters from fuels, lubricants, hydraulic fluids, or other toxic materials. Construction shall be staged in order to minimize the exposure of equipment to surface waters to the maximum extent practicable. Fueling, lubrication and general equipment maintenance shall be performed in a manner to prevent, to the maximum extent practicable, contamination of surface waters by fuels and oils. [15A NCAC 02H .0506(b)(3) and (c)(3) and 15A NCAC 02B .0211 (12)]
21. Heavy equipment working in wetlands shall be placed on mats or other measures shall be taken to minimize soil disturbance. [15A NCAC 02H .0506(b)(3) and (c)(3)]
22. In accordance with 143-215.85(b), the applicant shall report any petroleum spill of 25 gallons or more; any spill regardless of amount that causes a sheen on surface waters; any petroleum spill regardless of amount occurring within 100 feet of surface waters; and any petroleum spill less than 25 gallons that cannot be cleaned up within 24 hours.
23. If an environmental document is required under the State Environmental Policy Act (SEPA), then this General Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse. If an environmental document is required under the National Environmental Policy Act (NEPA), then this General Certification is not valid until a Categorical Exclusion, the Final Environmental Assessment, or Final Environmental Impact Statement is published by the lead agency [15A NCAC 01C .0107(a)]
24. This General Certification does not relieve the applicant of the responsibility to obtain all other required Federal, State, or Local approvals before proceeding with the project, including those required by, but not limited to Sediment and Erosion Control, Non-Discharge, Water Supply Watershed, and Trout Buffer regulations.
25. The applicant and their authorized agents shall conduct all activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act), and any other appropriate requirements of State and Federal Law. If DWR determines that such standards or laws are not being met, including failure to sustain a designated or achieved use, or that State or Federal law is being violated, or that further conditions are necessary to assure compliance, then DWR may revoke or modify a written authorization associated with this General Water Quality Certification. [15A NCAC 02H .0507(d)]
26. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this Certification. A copy of this Certification, including all conditions shall be available at the project site during the construction and maintenance of this project. [15A NCAC 02H .0507 (c) and 15A NCAC 02H .0506 (b)(2) and (c)(2)]

27. When written authorization is required for use of this Certification, upon completion of all permitted impacts included within the approval and any subsequent modifications, the applicant shall be required to return a certificate of completion (available on the DWR website <https://edocs.deq.nc.gov/Forms/Certificate-of-Completion>). [15A NCAC 02H .0502(f)]
28. Additional site-specific conditions, including monitoring and/or modeling requirements, may be added to the written approval letter for projects proposed under this Water Quality Certification in order to ensure compliance with all applicable water quality and effluent standards. [15A NCAC 02H .0507(c)]
29. If the property or project is sold or transferred, the new permittee shall be given a copy of this Certification (and written authorization if applicable) and is responsible for complying with all conditions. [15A NCAC 02H .0501 and .0502]

III. GENERAL CERTIFICATION ADMINISTRATION:

1. In accordance with North Carolina General Statute 143-215.3D(e), written approval for a 401 Water Quality General Certification must include the appropriate fee. An applicant for a CAMA permit under Article 7 of Chapter 113A of the General Statutes for which a Water Quality Certification is required shall only make one payment to satisfy both agencies; the fee shall be as established by the Secretary in accordance with 143-215.3D(e)(7).
2. This Certification neither grants nor affirms any property right, license, or privilege in any waters, or any right of use in any waters. This Certification does not authorize any person to interfere with the riparian rights, littoral rights, or water use rights of any other person and this Certification does not create any prescriptive right or any right of priority regarding any usage of water. This Certification shall not be interposed as a defense in any action respecting the determination of riparian or littoral rights or other rights to water use. No consumptive user is deemed by virtue of this Certification to possess any prescriptive or other right of priority with respect to any other consumptive user regardless of the quantity of the withdrawal or the date on which the withdrawal was initiated or expanded.
3. This Certification grants permission to the Director, an authorized representative of the Director, or DWR staff, upon the presentation of proper credentials, to enter the property during normal business hours. [15A NCAC 02H .0502(e)]
4. This General Certification shall expire on the same day as the expiration date of the corresponding Nationwide Permit and/or Regional General Permit. The conditions in effect on the date of issuance of Certification for a specific project shall remain in effect for the life of the project, regardless of the expiration date of this Certification. This General Certification is rescinded when the US Army Corps of Engineers reauthorizes any of the corresponding Nationwide Permits and/or Regional General Permits or when deemed appropriate by the Director of the Division of Water Resources.

GC4139

5. Non-compliance with or violation of the conditions herein set forth by a specific project may result in revocation of this General Certification for the project and may also result in criminal and/or civil penalties.
6. The Director of the North Carolina Division of Water Resources may require submission of a formal application for Individual Certification for any project in this category of activity if it is deemed in the public's best interest or determined that the project is likely to have a significant adverse effect upon water quality, including state or federally listed endangered or threatened aquatic species, or degrade the waters so that existing uses of the water or downstream waters are precluded.

History Note: Water Quality Certification (WQC) Number 4139 issued December 1, 2017 replaces WQC 4092 issued March 3, 2017; WQC 3890 issued March 19, 2012; replaces WQC Number 3821 issued April 6, 2010; WQC Number 3631 issued March 19, 2007; WQC 3402 issued March 28, 2003; WQC Number 3362, issued March 18, 2002; WQC 3287, issued June 1, 2000; WQCs 3106 and 3108 issued February 11, 1997.

APPENDIX 2

- **Early Notice and Public Review of a Proposed Activity in Wetlands and 100-Year Floodplain**
- **Affidavit for Publication of Early Notice**
- **Distribution List to Interested Agencies, Groups and Individuals**
- **Early Notice Comments**



North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Laura H. Hogshead, Director

EARLY NOTICE AND PUBLIC REVIEW OF A PROPOSED ACTIVITY IN A 100-YEAR FLOODPLAIN AND WETLAND

**ELIJAH'S LANDING APARTMENTS
3200 BRIDGES STREET, MOREHEAD CITY
CARTERET COUNTY, NORTH CAROLINA 28557**

June 28, 2023

To: All Interested Agencies, Groups and Individuals

This is to give notice that the North Carolina Office of Recovery and Resiliency (NCORR) has received an application from Elijah's Landing, LLC to use U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) funding from the Affordable Housing Development Fund Program to construct the Elijah's Landing Apartments project ("Proposed Activity"). NCORR is conducting an evaluation as required by Executive Orders 11988 and 11990 in accordance with HUD regulations (24 CFR 55) including identifying and evaluating practicable alternatives to locating the Proposed Activity in 100-year floodplain and wetlands and the Proposed Activity's potential impacts on these special areas. The Proposed Activity entails construction of a new 168-unit multifamily affordable housing complex with seven 24-unit, three-story residential buildings, a clubhouse, gazebo, covered picnic area, boardwalk, playground and tot lot, dog park, paved parking areas, landscaped areas, three storm water retention ponds, and associated infrastructure. The site is an approximate 11.64-acre tract located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and wetlands, and those who have an interest in the protection of the natural environment, should be given an opportunity to express their concerns and provide information about these areas. Commenters are encouraged to offer alternative locations outside of the floodplain and wetlands, alternative methods to serve the same project purpose, and methods to minimize and mitigate impacts. Second, adequate public notice is an important public education tool. The dissemination of information and request for public comment about floodplain and wetlands facilitates and enhances governmental efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the government determines it will participate in actions taking place in floodplain and wetlands, it must inform those who may be put at greater or continued risk. Funding for the Proposed Activity will be provided, in part, by the HUD CDBG-DR program for Hurricane Florence storm recovery activities in North Carolina.

Mailing Address:
Post Office Box 110465
Durham, NC 27709



Phone: (984) 833-5350
www.ncdps.gov
www.rebuild.nc.gov

An Equal Opportunity Employer

The Proposed Activity is needed to address an affordable housing inventory shortage, which was exacerbated by the impacts of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018) when hundreds of homes were damaged or destroyed. Elijah's Landing Apartments will provide a multifamily residential development for low- and middle-income households. The Proposed Activity will assist Morehead City and Carteret County to provide affordable housing options to the local community.

The Proposed Activity will result in temporary impacts to 0 acres of a 100-year floodplain and 0 acres of National Wetlands Inventory-mapped and U.S. Army Corps of Engineers (USACE) verified delineated wetlands. The Proposed Activity will result in permanent impacts to 0.310 acres of the 100-year floodplain (Zone AE) and 0.349 acres of NWI-mapped wetlands and USACE verified delineated wetlands (PSS1A – Freshwater Palustrine Forested/Scrub-Shrub Wetland). Permanent impacts to the 100-year floodplain and Wetland impact area #5 (0.083 acre) include fill material needed for Building #500's foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, retaining wall (wetland only), landscaping, lighting, and stormwater pond #2 per NC Department of Environmental Quality (NCDEQ). Permanent impacts to Wetland impact areas #1 and #2 (0.176 acre) include fill material, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining walls, landscaping, lighting, and stormwater pond #1 per NCDEQ. A 6-foot wide boardwalk is also proposed over a small portion of Wetland impact areas #1, 2 and 3. Permanent impacts to Wetland impact areas #3 and #4 (0.09 acre) include fill material, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining wall, landscaping, lighting, and Building #500. Best Management Practices and design features will minimize impacts to floodplain and wetlands. The site contains approximately 1.47 acres of wetland and 0.389 acre of floodplain with Calico Creek located north of the site. Side slopes from parking lots and drive aisles shall not exceed 3:1 slope in order to reduce impacts to wetlands. A temporary silt fence around the toe of the slope will prevent sediment from going downstream during a rain event prior to the embankments being stabilized. There is also Class B rip rap installed downstream of the outlet control device will prevent washout of the surrounding material. Natural floodplains and wetlands provide flood risk reduction benefits by slowing runoff and storing flood water. In addition, floodplains and wetlands are beneficial by providing diverse wildlife habitat, flood and erosion control, surface water quality maintenance, groundwater recharge, and educational, scientific, cultural, and recreational opportunities. Wetlands have unique natural characteristics that play an integral role in the ecology of the watershed. According to the USACE JD, the wetland impacted has typical coastal plain floodplain vegetation but does not provide ideal habitat for wildlife diversity. The ground surface is considered severely altered with moderately altered water storage function. Due to land use in the area being mostly impervious surfaces, there is little to no opportunity to improve water quality. The USACE determined a mitigation fee was not required due to the low quality of the impacted wetlands. According to the FEMA Flood Insurance Rate Map (FIRM) effective 7/16/2003, the impacted 100-year floodplain is Zone AE and a less restrictive Preliminary FIRM dated 6/30/2016 identifies it as 500-year floodplain along with a small portion on the parcel's northern edge. The Proposed Activity will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE Clean Water Act (CWA) Section 404 Nationwide Permits 18 & 29, NCDEQ CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work.

Floodplain maps based on the FEMA FIRM, NWI maps, USACE Jurisdictional Determination, and supporting documentation are available for review at <https://www.rebuild.nc.gov/about/plans-policies-reports/environmental-reviews>. A full description of the Proposed Activity may also be viewed in person, by appointment only, at: NCORR, 200 Park Offices Drive, Durham, NC 27709. Call (984) 833-5350 to make an appointment.

Written comments must be received by NCORR at the following address on or before July 13, 2023: Laura Hogshead, Director, NCORR, ATTN: Elijah's Landing Apartments, P.O. Box 110465, Durham, NC 27709. Comments may also be submitted by email to publiccomments@rebuild.nc.gov with "ATTN: Elijah's Landing Apartments Comments" in the subject line.

AFFIDAVIT OF PUBLICATION

CARTERET COUNTY, NORTH CAROLINA

NC Office of Recovery and Resiliency
Department of Public Safety
PO Box 110465
Durham NC 27709

Before the undersigned, a notary public of said County and State, duly commissioned, qualified, and authorized by law to administer oaths, personally appeared:

Mona McFerran

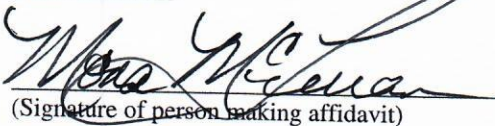
first duly sworn, deposes and says that he (she) is:

(Owner, partner, publisher or other officer or employee authorized to make this affidavit)

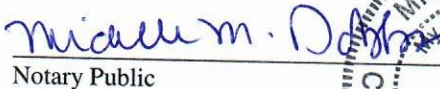
Clerk of THE CARTERET PUBLISHING CO., INC., engaged in the publication of a newspaper known as CARTERET COUNTY NEWS-TIMES, published, issued, and entered as second class mail in the Town of Morehead City, in Carteret County, North Carolina; that he (she) is authorized to make this affidavit and sworn statement; that the notice or other legal advertisement, a true copy of which is attached here-to, was published the following publication and dates:

Carteret County News-Times: 6/28/2023

and that said newspaper in which such notice, paper, document, or legal advertisement was published was, at the time of each and every such publication, a new paper meeting all of the requirements and qualifications of Section 1-597 of the General Statutes of North Carolina and was a qualified newspaper within the meaning of section 1-597 of the General Statutes of North Carolina.
Date: 6/28/2023

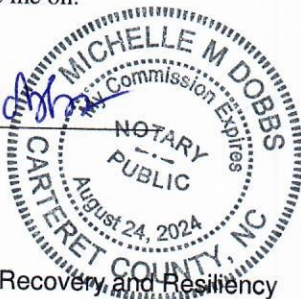

(Signature of person making affidavit)

Sworn and subscribed to before me on:
6/28/2023


Notary Public

My commission expires:
August 24, 2024

Name NC Office of Recovery and Resiliency
Order Number 11813
Order Date 6/23/2023
Number Issues 1
First Issue 6/28/2023
Last Issue 6/28/2023
Order Price \$336.54
Publications Carteret County News-Times



EARLY NOTICE AND PUBLIC REVIEW OF A PROPOSED ACTIVITY IN A 100-YEAR FLOODPLAIN AND WETLAND

ELIJAH'S LANDING
APARTMENTS
3200 BRIDGES STREET,
MOREHEAD CITY
CARTERET COUNTY,
NORTH CAROLINA 28557
June 28, 2023

To: All Interested Agencies,
Groups and Individuals

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The Proposed Activity is needed to address an affordable housing inventory shortage, which was exacerbated by the impacts of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018) when hundreds of homes were damaged or destroyed. Elijah's Landing Apartments will provide a multifamily residential development for low- and middle-income households. The Proposed Activity will assist Morehead City and Carteret County to provide affordable housing options to the local community.

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quality maintenance, groundwater recharge, and educational, scientific, cultural, and recreational opportunities. Wetlands have unique natural characteristics that play an integral role in the ecology of the watershed. According to the USACE Jurisdictional Determination (JD), the wetland impacted has typical coastal plain floodplain vegetation but does not provide ideal habitat for wildlife diversity. The ground surface is considered severely altered with moderately altered water storage function. Due to land use in the area being mostly impervious surfaces, there is little to no opportunity to improve water quality. The USACE determined a mitigation fee was not required due to the low quality of the impacted wetlands. According to the FEMA Flood Insurance Rate Map (FIRM) effective 7/16/2003, the impacted 100-year floodplain is Zone AE and a less restrictive Preliminary FIRM dated 6/30/2016 identifies it as 500-year floodplain along with a small portion on the parcel's northern edge. The Proposed Activity will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE Clean Water Act (CWA) Section 404 Nationwide Permits 18 & 29, NCDEQ CWA Section 401 Water Quality General Certification, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work.

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EARLY NOTICE DISTRIBUTION LIST

**ELIJAH'S LANDING APARTMENTS
3200 BRIDGES STREET, MOREHEAD CITY
CARTERET COUNTY, NORTH CAROLINA 28557**

Publication 6/28/23, comments end 7/13/23

FEDERAL AGENCIES

Agency	Name & Address	Method
HUD NC	Mr. Lenwood E. Smith, II Environmental Protection Specialist Greensboro Field Office U.S. Dept. of Housing and Urban Development 1500 Pinecroft Road, Suite 401 Greensboro, NC 27407-3838	Lenwood.E.Smith@hud.gov
FEMA, Region IV	Ms. Gracia B. Szczech, Regional Administrator U.S. Dept. of Homeland Security FEMA, Region IV 3003 Chamblee Tucker Road Atlanta, GA 30341	FedEx
FEMA ATTN: 11988	<i>Hard copies may also be mailed to</i> Attn: 11988/NEPA Reviewer (EHP) DHS/FEMA RIV 3003 Chamblee Tucker Road Atlanta, GA 30341	FEMA-R4EHP@fema.dhs.gov with the subject line REVIEW REQUEST: 11988/NEPA
US EPA, Region 4	Mr. John Blevins, Acting Regional Administrator U.S. EPA, Region 4 Laboratory Services & Applied Science Div. 980 College Station Road Athens, GA 30605-2720	FedEx
US EPA, Region 4	Ms. Ntale Kajumba, NEPA Coordinator U.S. EPA, Region 4 Laboratory Services & Applied Science Div. 980 College Station Road Athens, GA 30605-2720	Kajumba.ntale@epa.gov
USFWS – Raleigh Field Office	USFWS – Raleigh Field Office ATTN: John Ellis P.O. Box 33726 Raleigh, NC 27636 ph.: 919-856-4520, ext. 26	john_ellis@fws.gov cc: leigh_mann@fws.gov

USACE – Wilmington District	Mr. Tom Charles – Carteret County USACE – Wilmington District 69 Darlington Avenue Wilmington, NC 28403	Thomas.P.Charles@usace.army.mil
TRIBES, NATIONS AND COMMUNITIES (who asked to be notified)		
Catawba Indian Nation	Dr. Wenonah George Haire, THPO ATTN: THPO Archaeology Dept. Catawba Indian Nation 1536 Tom Steven Road Rock Hill, SC 29730	Does not want Notice
Catawba Indian Nation	Chief Bill Harris Catawba Indian Nation 996 Avenue of the Nations Rock Hill, SC 29730	Does not want Notice
NC STATE AGENCIES		
STATE CLEARING- HOUSE	Ms. Crystal Best North Carolina Department of Administration State Environmental Review Clearinghouse 1301 Mail Service Center Raleigh, North Carolina 27699-1301	State.Clearinghouse@doa.nc.gov crystal.best@doa.nc.gov
NCHFA	Ms. Ronda G. Moore Senior Attorney, Manager of Real Estate Transactions North Carolina Housing Finance Agency P.O. Box 28066 Raleigh, NC 27611-8066 Phone: 919-875-3621	rgmoore@nchfa.com
LOCAL AGENCIES		
COUNTY	Tommy Burns, County Manager County Manager's Office 302 Courthouse Square Beaufort, NC 28516 Phone: 252-728-8450	tommy.burns@carteretcountync.gov
COUNTY	Lori Roberson Turner Clerk to the Board of Commissioners 302 Courthouse Square Beaufort, NC 28516 Phone: 252-728-8450	lori.turner@carteretcountync.gov
COUNTY	Gene Foxworth, Planning Director 402 Broad St. Beaufort, NC 28516 Ph: 252-728-8545	Gene.foxworth@carteretcountync.gov

CITY	Christopher Turner, City Manager Morehead City 1100 Bridges Street Morehead City, NC 28557	christopher.turner@moreheadcitync.org
CITY	Cathy Campbell, City Clerk Morehead City 1100 Bridges Street Morehead City, NC 28557 Phone: 252-726-6848, ext. 139	cityclerk@moreheadcitync.org
CITY	Kelli Jones, Grants Manager Town of Morehead City 1100 Bridges Street Morehead City, NC 28557 (252) 726-6848 Ext. 141	kelli.jones@moreheadcitync.org

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:28 AM
To: Smith, Lenwood E
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:27 AM
To: FEMA-R4EHP@fema.dhs.gov
Subject: REVIEW REQUEST: 11988/NEPA - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:26 AM
To: Kajumba, Ntale
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Eljahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. A hard copy of the notice is also being sent via Federal Express to Mr. Blevins' office. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:22 AM
To: john_ellis@fws.gov
Cc: Mann, Leigh
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:21 AM
To: Charles, Thomas P CIV USARMY CESAW (USA)
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Eljahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

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Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:20 AM
To: State Clearinghouse
Cc: Best, Crystal
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 with comment period ending July 13th for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:19 AM
To: Ronda Moore
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:18 AM
To: Burns, Tommy
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:18 AM
To: lori.turner@carteretcountync.gov
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:17 AM
To: Gene.foxworth@carteretcountync.gov
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:16 AM
To: christopher.turner@moreheadcitync.org
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:12 AM
To: 'cityclerk@moreheadcitync.org'
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Elijahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

Gievers, Andrea

From: Gievers, Andrea
Sent: Wednesday, June 28, 2023 11:11 AM
To: Jones, Kelli
Subject: Public Notice - Early Notice - Elijah's Landing Apartments, Morehead City, NC
Attachments: NCORR Eljahs Landing Apts Early Notice 6.28.23.pdf

Hello:

Please find attached the Public Notice for HUD 24 CFR §55.20(b) - Early Notice and Public Review of a Proposed Activity in a 100-year Floodplain and Wetland publishing June 28, 2023 for the NCORR Affordable Housing Development Fund Program's Elijah's Landing Apartments proposed project in Morehead City, Carteret County, NC. Please feel free to contact me if you have any questions. Thank you for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM
Environmental SME
Community Development
NC Office of Recovery and Resiliency
Andrea.L.Gievers@Rebuild.NC.Gov
(845) 682-1700

1 From Please print and press hard. Date **6/28/23** Sender's FedEx Account Number **8950-9899-0**

Sender's Name **Andrea Gievers** Phone **(845) 682-1700**

Company **NCORR**

Address **123 Kings Hill Rd** Dept./Floor/Suite/Room

City **Walden** State **NY** ZIP **12586**

2 Your Internal Billing Reference **Elijah's EN** OPTIONAL

3 To Recipient's Name **Ms. Gracia B. Szczech** Phone ()

Company **FEMA, Region 4**

Address **3003 Chamblee Tucker Road** Dept./Floor/Suite/Room

Address **Atlanta** State **GA** ZIP **30341**

Use this line for the HOLD location address or for continuation of your shipping address.

☐ Hold Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

☐ Hold Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.



4 Express Package Service *To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

☐ FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day A.M. Second business morning.* Saturday Delivery NOT available.

☒ FedEx 2Day Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Express Saver Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☐ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required Package may be left without obtaining a signature for delivery.

☐ Direct Signature Someone at recipient's address may sign for delivery.

☐ Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

☐ No ☐ Yes As per associated Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry ice, 9, UN 1845 x kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

7 Payment Bill to:

Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party

Enter FedEx Acct. No. below.

FedEx Acct. No.

Total Packages Total Weight Total Declared Value*

Our liability is limited to US\$100 unless you declare a higher value. See back for details. By using this airbill you agree to the service conditions on the back of this airbill and in the current FedEx Service Guide, including terms that limit our liability.

Rev. Date 4/22 • Part #167002 • ©2012-2022 FedEx • PRINTED IN U.S.A.

644

1 From Please print and press hard. Date **6/28/23** Sender's FedEx Account Number **8950-9899-0**

Sender's Name **Andrea Gievers** Phone **(845) 682-1700**

Company **NCORR**

Address **123 Kings Hill Rd** Dept./Floor/Suite/Room

City **Walden** State **NY** ZIP **12586**

2 Your Internal Billing Reference **Elijah's EN** OPTIONAL

3 To Recipient's Name **Mr. John Blevins** Phone ()

Company **EPA, Region 4**

Address **Lab Svcs & Applied Science Division** Dept./Floor/Suite/Room

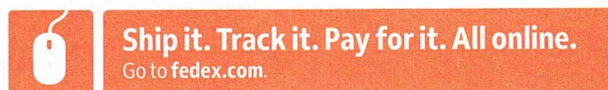
Address **980 College Station Road** Dept./Floor/Suite/Room

City **Athens** State **GA** ZIP **30605-2720**

Use this line for the HOLD location address or for continuation of your shipping address.

☐ Hold Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

☐ Hold Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.



4 Express Package Service *To most locations. Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

☐ FedEx First Overnight Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Priority Overnight Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Standard Overnight Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day A.M. Second business morning.* Saturday Delivery NOT available.

☒ FedEx 2Day Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Express Saver Third business day.* Saturday Delivery NOT available.

5 Packaging *Declared value limit \$500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☐ Other

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required Package may be left without obtaining a signature for delivery.

☐ Direct Signature Someone at recipient's address may sign for delivery.

☐ Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

☐ No ☐ Yes As per associated Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry ice, 9, UN 1845 x kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide. ☐ Cargo Aircraft Only

7 Payment Bill to:

Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party

Enter FedEx Acct. No. below.

FedEx Acct. No.

Total Packages Total Weight Total Declared Value*

Our liability is limited to US\$100 unless you declare a higher value. See back for details. By using this airbill you agree to the service conditions on the back of this airbill and in the current FedEx Service Guide, including terms that limit our liability.

Rev. Date 4/22 • Part #167002 • ©2012-2022 FedEx • PRINTED IN U.S.A.

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Roy Cooper
Governor

Pamela B. Cashwell
Secretary

July 13, 2023

Andrea Gievers
Elijah's Landing Apartments
c/o NC Department of Public Safety
Office of Recovery and Resiliency
Durham, NC 27709-

Re: SCH File # 23-E-4600-0256 Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirt

Dear Andrea Gievers:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act.

Attached to this letter are comments made by the agencies in the review of this document. If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

If you have any questions, please do not hesitate to contact me at (984) 236-0000.

Sincerely,

KADISHA MOLYNEAUX
State Environmental Review Clearinghouse

Attachments

Mailing
1301 Mail Service Center | Raleigh, NC 27699-1301



ncadmin.nc.gov

Location
116 West Jones St. | Raleigh NC 27603
984-236-0000 T

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

DEVON BORGARDT
CLEARINGHOUSE COORDINATOR
DEPT OF NATURAL & CULTURAL
RESOURCE

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☐ No Comment

☐ Comments Below

☒ Documents Attached

Reviewed By: DEVON BORGARDT

Date: 7/3/2023



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

July 3, 2023

MEMORANDUM

TO: Crystal Best
North Carolina State Clearinghouse
Department of Administration

crystal.best@doa.nc.gov

FROM: Ramona M. Bartos, Deputy
State Historic Preservation Officer

RMB for Ramona M. Bartos

SUBJECT: Demolish Buildings & Construct Elijahs Landing Multi Family Housing, 3200 Bridges Street, Morehead City, Carteret County, SCH #23-E-4600-0256, ER 18-1037

Thank you for your submission of June 28, 2023, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

JESSICA MOSLEY
CLEARINGHOUSE COORDINATOR
DEPT OF TRANSPORTATION

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☒ No Comment

☐ Comments Below

☐ Documents Attached

Reviewed By: JESSICA MOSLEY

Date: 6/30/2023

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

LYN HARDISON
CLEARINGHOUSE COORDINATOR
DEPT OF ENVIRONMENTAL QUALITY

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☒ No Comment

☐ Comments Below

☐ Documents Attached

Reviewed By: LYN HARDISON

Date: 6/30/2023

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

JINTAO WEN
CLEARINGHOUSE COORDINATOR
DPS - DIV OF EMERGENCY MANAGEMENT

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☒ No Comment

☐ Comments Below

☐ Documents Attached

Reviewed By: JINTAO WEN

Date: 7/10/2023

APPENDIX 3

- **Combined FONSI/NOI-RROF/ Final Notice and Public Explanation of a Proposed Activity in a 100-year Floodplain and Wetland**
- **Affidavit for Publication of Final Notice *(to be added)***
- **Distribution List to Interested Agencies, Groups and Individuals**
- **Final Notice Comments *(to be added)***



North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Laura H. Hogshead, Director

PUBLIC NOTICE

COMBINED NOTICE OF FINDING OF NO SIGNIFICANT IMPACT (*FONSI*), NOTICE OF INTENT TO REQUEST RELEASE OF FUNDS (*NOI-RROF*), AND FINAL NOTICE AND PUBLIC EXPLANATION OF A PROPOSED ACTIVITY IN A 100-YEAR FLOODPLAIN AND WETLAND

**ELIJAH'S LANDING APARTMENTS
3200 BRIDGES STREET, MOREHEAD CITY, CARTERET COUNTY, NC 28557**

August 16, 2023

To: All interested Agencies, Groups and Individuals

Name of Responsible Entity and Recipient: North Carolina Office of Recovery and Resiliency (NCORR), P.O. Box 110465, Durham, NC 27709. Contact: Director Laura Hogshead (984) 833-5350.

Pursuant to 24 CFR Section 58.43, this combined Notice of Finding of No Significant Impact (FONSI), Notice of Intent to Request Release of Funds (NOI-RROF), and Final Notice and Public Explanation of a Proposed Activity in a Floodplain and Wetland satisfies three separate procedural requirements for project activities proposed to be undertaken by NCORR.

Project Description: NCORR is responsible for the direct administration of the United States Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) program in North Carolina. NCORR proposes to provide CDBG-DR funding from the Affordable Housing Development Fund Program of \$8,300,000.00 for the Elijah's Landing Apartments Project ("Proposed Activity") located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 on an approximately 11.64-acre site. The Proposed Activity is anticipated to have a total cost of \$36,521,198.00 and entails new construction of a 168-unit multifamily affordable housing complex with seven 24-unit, three-story residential buildings, a clubhouse, gazebo, covered picnic area, boardwalk, playground, tot lot, dog park, green open spaces, paved parking areas, landscaped areas, three storm water retention ponds, and associated infrastructure.

The Proposed Activity is needed to address an affordable housing inventory shortage, which was

Mailing Address:
Post Office Box 110465
Durham, NC 27709



An Equal Opportunity Employer

Phone: (984) 833-5350
www.ncdps.gov
www.rebuild.nc.gov

exacerbated by the impacts of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018) when hundreds of homes were damaged or destroyed. Elijah's Landing Apartments will provide a multifamily residential development for low- and middle-income households. The Proposed Activity will assist Morehead City and Carteret County in providing affordable housing options to the local community.

PUBLIC EXPLANATION OF A PROPOSED ACTIVITY IN A 100-YEAR FLOODPLAIN AND WETLAND

NCORR has conducted an evaluation as required by Executive Orders (EO) 11988 and 11990, in accordance with HUD regulations at 24 CFR 55 Subpart C Procedures for Making Determinations on Floodplain Management and Wetlands Protection. The Proposed Activity will result in temporary impacts to 0 acres of a 100-year floodplain and 0 acres of National Wetlands Inventory (NWI) mapped and U.S. Army Corps of Engineers (USACE) verified delineated wetlands. The Proposed Activity will result in permanent impacts to 0.310 acre of the 100-year floodplain (Zone AE) and 0.349 acre of NWI-mapped wetlands and USACE verified delineated wetlands (PSS1A – Freshwater Palustrine Forested/Scrub-Shrub Wetland). Permanent impacts to the 100-year floodplain and Wetland impact area #5 (0.083 acre) include fill material needed for Building #500's foundation, sanitary sewer and water line placement and connection, grading, and construction of paved parking, drive aisle access, retaining wall (wetland only), landscaping, lighting, and stormwater pond #2 per NC Department of Environmental Quality (NCDEQ). Permanent impacts to Wetland impact areas #1 and #2 (0.176 acre) include fill material, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining walls, landscaping, lighting, and stormwater pond #1 per NCDEQ. A 6-foot wide boardwalk is also proposed over a small portion of Wetland impact areas #1, 2 and 3. Permanent impacts to Wetland impact areas #3 and #4 (0.09 acre) include fill material, sanitary sewer and water line placement, grading, and construction of paved parking, drive aisle access, retaining wall, landscaping, lighting, and Building #500. The site contains approximately 1.47 acres of wetland and 0.389 acre of 100-year floodplain with Calico Creek located north of the site.

NCORR has considered the alternatives and mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial values. This Proposed Activity will be an affordable multifamily housing complex that will provide new, safe housing that is needed in the area. There were three main alternative sites considered for the Proposed Activity. The first site was located on Highway 70 in Newport near the Food Lion. However, this site was not chosen because it did not meet the requirements for NC Housing Finance Agency tax credits and cost over \$3 million for 20 acres. Although this site was positioned next to a multifamily housing development, it would not have been able to sustain itself financially due to the affordable rents. The second site was located in Morehead City off Highway 70 East, Arendell Street 1300 block, Third Street, and Sixth Street. Ultimately, this site was not chosen because of the price and location in an urbanized area with a building that required removal from the site. The third site was located off Highway 70 East near the Walmart Plaza. Although this site was approximately 20 acres and would have scored well, there was a high trance quotation/ radio tower located on the site, which because of this potential fall zone, would not qualify for the NC State affordable housing tax code. Therefore, the Subject Property was determined to be the most suitable location for the Proposed Activity. Further, the Proposed Activity itself was redesigned to remove Building #500 outside of 100-year floodplain and minimize impacts to floodplain and wetlands. The final alternative for the

current Proposed Activity is the “No Action” Alternative. With the “No Action” Alternative, affordable housing would not be provided for low- and middle-income families in the local community. The Town of Morehead City would need to find other options to address the affordable housing inventory shortage exacerbated by the effects of hurricanes that recently damaged and destroyed homes which disproportionately affected older, more affordable housing stock. Thus, the “No Action” Alternative is not feasible in relation to the desired objective of creating affordable housing options in Morehead City. Natural floodplains and wetlands provide flood risk reduction benefits by slowing runoff and storing flood water. In addition, floodplains and wetlands are beneficial by providing diverse wildlife habitat, flood and erosion control, surface water quality maintenance, groundwater recharge, and educational, scientific, cultural, and recreational opportunities. Wetlands have unique natural characteristics that play an integral role in the ecology of the watershed. According to the USACE, the wetland impacted has typical coastal plain floodplain vegetation but does not provide ideal habitat for wildlife diversity. The ground surface is considered severely altered with moderately altered water storage function. Due to land use in the area being mostly impervious surfaces, there is little to no opportunity to improve water quality. The USACE determined a mitigation fee was not required due to the low quality of the impacted wetlands. There are no identifiable educational, scientific, cultural, and recreational values. No additional impacts to floodplain and wetland functions are anticipated. According to the FEMA Flood Insurance Rate Map (FIRM) effective 7/16/2003, the impacted 100-year floodplain is Zone AE and a less restrictive Preliminary FIRM dated 6/30/2016 identifies it as 500-year floodplain along with a small portion on the parcel’s northern edge.

The Proposed Activity will be completed in accordance with all applicable federal, state and local laws, regulations, and permit requirements and conditions including a Floodplain Development Permit, USACE Clean Water Act (CWA) Section 404 Nationwide Permits 18 and 29, NCDEQ CWA Section 401 Water Quality General Certification, NPDES Construction Stormwater Permit, and Morehead City Erosion and Sediment Control Permit which will be obtained prior to starting work. Best Management Practices and design features will minimize impacts to floodplain and wetlands. Side slopes from parking lots and drive aisles shall not exceed 3:1 slope in order to reduce impacts to wetlands. A temporary silt fence around the toe of the slope will prevent sediment from going downstream during a rain event prior to the embankments being stabilized. There is also Class B rip rap installed downstream of the outlet control device to prevent washout of the surrounding material. There are three proposed onsite stormwater retention ponds and five green open spaces, and landscaping will use native plants. The Proposed Activity site is the most suitable location due to market demand and its close proximity to a variety of community amenities and services including public schools, public transportation, shopping, and employment opportunities; the “No Action” alternative would not effectively address the area’s affordable housing needs; and mitigation measures include a project design that minimizes impacts, stormwater and erosion and sedimentation controls, permit conditions, BMPs, green infrastructure, and native plants in landscaping.

Since the action will include modification of floodplain and new construction in wetland, EOs 11988 and 11990 require that the Proposed Activity not be supported if there are practicable alternatives to floodplain and wetland impacts. NCORR has reevaluated the alternatives to modification of floodplain and new construction in wetland, and has determined that it has no practicable alternative. The 8-step process has been further documented in the EO 11988

Floodplain Management and EO 11990 Protection of Wetlands Determination which is available for viewing and copying as described below in Public Review.

There are three primary purposes for this notice. First, people who may be affected by activities in floodplains and wetlands and those who have an interest in the protection of the natural environment are given an opportunity to express their concerns and provide information about these areas. Second, adequate public notice is an important public education tool. The dissemination of information and request for public comment about floodplains and wetlands can facilitate and enhance federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the federal government determines it will participate in actions taking place in floodplains and wetlands, it must inform those who may be put at greater or continued risk.

FINDING OF NO SIGNIFICANT IMPACT

An Environmental Assessment (EA) for the Proposed Activity has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and HUD environmental review regulations at 24 CFR Part 58. The EA and supporting documentation are incorporated by reference into this FONSI. Subject to public comments, no further review of the Proposed Activity is anticipated. NCORR has determined that the EA for the project identified herein complies with the requirements of HUD environmental review regulations at 24 CFR Part 58. NCORR has determined that the Proposed Activity will have no significant impact on the human environment and, therefore, does not require the preparation of an environmental impact statement under NEPA.

Public Review: Public viewing of the EA, environmental review record, and EO 11988 Floodplain Management and EO 11990 Protection of Wetlands Determination is available online at <https://www.rebuild.nc.gov/about/plans-policies-reports/environmental-reviews>. Documents may also be viewed in person by appointment only at: NCORR, 200 Park Offices Drive, Durham, NC 27709. Call (984) 833-5350 to make an appointment.

Further information may be requested by writing to the above address, emailing publiccomments@rebuild.nc.gov or calling (984) 833-5350. This combined notice is being sent to individuals and groups known to be interested in these activities, local news media, appropriate local, state and federal agencies, the regional office of the U.S. Environmental Protection Agency having jurisdiction, and the HUD Field Office, and is being published in a newspaper of general circulation in the affected community.

Public Comments on the Proposed Activity within Floodplain and Wetland, FONSI and/or NOIRROF: Any individual, group or agency may submit written comments on the Proposed Activity. The public is hereby advised to specify in their comments which “notice” their comments address. Comments should be submitted via email, in the proper format, on or before August 31, 2023 at publiccomments@rebuild.nc.gov. Written comments may also be submitted by mail, in the proper format, to be received on or before August 31, 2023, and addressed to: Laura Hogshead, Director, NCORR, ATTN: Elijah’s Landing Apartments Project, P.O. Box 110465, Durham, NC 27709. All comments must be received on or before August 31, 2023 or they will not be considered. If modifications result from public comment, these will be made prior to proceeding with the submission of a request for release of funds.

REQUEST FOR RELEASE OF FUNDS AND CERTIFICATION

On or after September 1, 2023, the NCORR certifying officer will submit a request and certification to HUD for the release of CDBG-DR funds as authorized by related laws and policies for the purpose of undertaking this project under the North Carolina CDBG-DR Affordable Housing Development Fund Program.

NCORR certifies to HUD that Laura Hogshead, in her capacity as Certifying Officer, consents to accept the jurisdiction of the U.S. federal courts if an action is brought to enforce responsibilities in relation to the environmental review process and that these responsibilities have been satisfied. HUD's approval of the certification satisfies its responsibilities under NEPA and related laws and authorities, and allows NCORR to use CDBG-DR program funds.

Objection to Release of Funds: HUD will accept objections to its release of funds and NCORR's certification for a period of fifteen days following the anticipated submission date or its actual receipt of the request (whichever is later). Potential objectors should contact HUD or the NCORR Certifying Officer to verify the actual last day of the objection period.

The only permissible grounds for objections claiming a responsible entity's non-compliance with 24 CFR Part 58 are: (a) certification was not executed by NCORR's Certifying Officer; (b) the responsible entity has omitted a step or failed to make a decision or finding required by HUD regulations at 24 CFR Part 58; (c) the grant recipient or other participants in the development process have committed funds, incurred costs or undertaken activities not authorized by 24 CFR Part 58 before HUD's release of funds and approval of environmental certification; or (d) another federal agency acting pursuant to 40 CFR Part 1504 has submitted a written finding that the project is unsatisfactory from the standpoint of environmental quality.

Objections must be prepared and submitted in accordance with the required procedures (24 CFR 58.76) and shall be addressed to Tennille Smith Parker, Director, Disaster Recovery and Special Issues Division, Office of Block Grant Assistance, U.S. Department of Housing & Urban Development, 451 7th Street SW, Washington, DC 20410, Phone: (202) 402-4649, or emailed to disaster_recovery@hud.gov.

Laura Hogshead
Certifying Officer
August 16, 2023

FONSI/NOI-RROF/FINAL NOTICE DISTRIBUTION LIST

**ELIJAH'S LANDING APARTMENTS
3200 BRIDGES STREET, MOREHEAD CITY
CARTERET COUNTY, NORTH CAROLINA 28557**

Publication 8/16//23, comments end 8/31/23

FEDERAL AGENCIES

Agency	Name & Address	Method
HUD NC	Mr. Lenwood E. Smith, II Environmental Protection Specialist Greensboro Field Office U.S. Dept. of Housing and Urban Development 1500 Pinecroft Road, Suite 401 Greensboro, NC 27407-3838	Lenwood.E.Smith@hud.gov
FEMA, Region IV	Ms. Gracia B. Szczech, Regional Administrator U.S. Dept. of Homeland Security FEMA, Region IV 3003 Chamblee Tucker Road Atlanta, GA 30341	FedEx
FEMA ATTN: 11988	<i>Hard copies may also be mailed to</i> Attn: 11988/NEPA Reviewer (EHP) DHS/FEMA RIV 3003 Chamblee Tucker Road Atlanta, GA 30341	FEMA-R4EHP@fema.dhs.gov with the subject line REVIEW REQUEST: 11988/NEPA
US EPA, Region 4	Ms. Ntale Kajumba, NEPA Coordinator U.S. EPA, Region 4 Laboratory Services & Applied Science Div. 980 College Station Road Athens, GA 30605-2720	Kajumba.ntale@epa.gov
USFWS – Raleigh Field Office	USFWS – Raleigh Field Office ATTN: John Ellis P.O. Box 33726 Raleigh, NC 27636 ph.: 919-856-4520, ext. 26	john_ellis@fws.gov cc: leigh_mann@fws.gov
USACE – Wilmington District	Mr. Tom Charles – Carteret County USACE – Wilmington District 69 Darlington Avenue Wilmington, NC 28403	Thomas.P.Charles@usace.army.mil

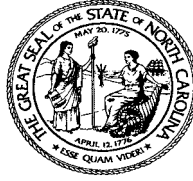
TRIBES, NATIONS AND COMMUNITIES (who asked to be notified)		
Catawba Indian Nation	Dr. Wenonah George Haire, THPO ATTN: THPO Archaeology Dept. Catawba Indian Nation 1536 Tom Steven Road Rock Hill, SC 29730	Does not want Notice
Catawba Indian Nation	Chief Bill Harris Catawba Indian Nation 996 Avenue of the Nations Rock Hill, SC 29730	Does not want Notice
NC STATE AGENCIES		
STATE CLEARING-HOUSE	Ms. Crystal Best North Carolina Department of Administration State Environmental Review Clearinghouse 1301 Mail Service Center Raleigh, North Carolina 27699-1301	State.Clearinghouse@doa.nc.gov crystal.best@doa.nc.gov
NCHFA	Ms. Ronda G. Moore Senior Attorney, Manager of Real Estate Transactions North Carolina Housing Finance Agency P.O. Box 28066 Raleigh, NC 27611-8066 Phone: 919-875-3621	rgmoore@nchfa.com
LOCAL AGENCIES		
COUNTY	Tommy Burns, County Manager County Manager's Office 302 Courthouse Square Beaufort, NC 28516 Phone: 252-728-8450	tommy.burns@carteretcountync.gov
COUNTY	Lori Roberson Turner Clerk to the Board of Commissioners 302 Courthouse Square Beaufort, NC 28516 Phone: 252-728-8450	lori.turner@carteretcountync.gov
COUNTY	Gene Foxworth, Planning Director 402 Broad St. Beaufort, NC 28516 Ph: 252-728-8545	Gene.foxworth@carteretcountync.gov
CITY	Christopher Turner, City Manager Morehead City 1100 Bridges Street Morehead City, NC 28557	christopher.turner@moreheadcitync.org

CITY	Cathy Campbell, City Clerk Morehead City 1100 Bridges Street Morehead City, NC 28557 Phone: 252-726-6848, ext. 139	cityclerk@moreheadcitync.org
CITY	Kelli Jones, Grants Manager Town of Morehead City 1100 Bridges Street Morehead City, NC 28557 (252) 726-6848 Ext. 141	kelli.jones@moreheadcitync.org

ATTACHMENT 12:

Historic Preservation

SHPO Response, NCORR SHPO Submission
Package, TDAT Results, Catawba Indian Nation
Response, and NCORR Catawba Indian Nation
Submission Packages



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

July 3, 2023

MEMORANDUM

TO: Crystal Best
North Carolina State Clearinghouse
Department of Administration

crystal.best@doa.nc.gov

FROM: Ramona M. Bartos, Deputy
State Historic Preservation Officer

RMB for Ramona M. Bartos

SUBJECT: Demolish Buildings & Construct Elijahs Landing Multi Family Housing, 3200 Bridges Street, Morehead City, Carteret County, SCH #23-E-4600-0256, ER 18-1037

Thank you for your submission of June 28, 2023, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.



North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Laura H. Hogshead, Director

April 25, 2023

Ms. Renee Gledhill-Earley
Environmental Review Coordinator
NC State Historic Preservation Office
4617 Mail Service Center
Raleigh, NC 27699-4617

Sent via email to the State Environmental Clearinghouse:

State.Clearinghouse@doa.nc.gov
crystal.best@doa.nc.gov

RE: State Historic Preservation Office Request for Concurrence
Section 106 Review - HUD CDBG-DR Program
Elijah's Landing Apartments
3200 Bridges Street
Morehead City, NC 28557
Parcel #637615648235000

Dear Ms. Gledhill-Earley:

In accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800, we are providing information for your review and concurrence regarding the above-referenced project. The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is serving as the responsible entity for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. NCORR is acting on behalf of HUD in providing the enclosed project information and request for consultation.

The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes, worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low- and moderate-income families.

Mailing Address:
Post Office Box 110465
Durham, NC 27709



An Equal Opportunity Employer

Phone: (984) 833-5350
www.ncdps.gov
www.rebuild.nc.gov

Proposed Project Location: The proposed project site is located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 (Subject Property). The approximately 11.64-acre site is identified as Carteret County Parcel ID number 637615648235000, and owned by Elijah's Landing of MHC LLC. The Subject Property has frontage along Bridges Street to the south. The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. The proposed project location maps are included in **Attachment 1** for your review.

Area of Potential Effects (APE) under §800.16(d): We have defined the APE as the boundary of the Subject Property consisting of an approximately 11.64-acre site, identified as Carteret County Parcel ID # 637615648235000, located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557. The proposed project location maps are included in **Attachment 1** for your review.

Proposed Project Description: Elijah's Landing Apartments ("proposed project") involves new construction of a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. The proposed project site plans are included in **Attachment 1**.

We have made a Finding of "*No Historic Properties Affected*" pursuant to 36 CFR 800.4(d)(1) based on the following:

A review of the Subject Property in the National Register of Historic Places, North Carolina State Historic Preservation Office's HPOWEB, and site review performed by Atlantic Shores Environmental Services, Ltd., identified no publicly recorded historic properties which are locally designated or listed in or eligible for inclusion in the State or National Register of Historic Places are located on or adjacent to the Subject Property or within the APE. The Willis House (CR1260) is the closest historical property (SO) identified 0.10-mile to the east of the Subject Property. The results are included in **Attachment 1**.

The proposed project information has been sent to the Catawba Indian Nation in accordance with Section 106 of the NHPA and its implementing regulations, 36 CFR Part 800. The Subject Property is currently vacant land, with a dilapidated storage building constructed in 1982. The Subject Property and a portion of the eastern adjoining and western adjoining properties appear to have been initially developed as agricultural property some time prior to 1938. A single-wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. Agricultural practices appear to have stopped at the site in the mid-1970's. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. The southern part of the Subject Property has been vacant since that time. The proposed development will be a multifamily apartment complex and, therefore, typical clearing and grading will take place on the Subject Property during construction. The Subject Property photographs are included in **Attachment 2**.

Attached for your review are copies of relevant documents supporting our finding, along with photographs and a map showing the location of the Subject Property. This documentation satisfies requirements set forth at §800.11(d).

NCORR processes environmental reviews for proposed projects funded with HUD CDBG-DR on a case-by-case basis. A consultation request for the proposed project described herein was also be sent to the Catawba Indian Nation. In accordance with Section 101(d)(6)(B) of the NHPA of 1966, as amended (16 U.S.C. 470f), and its implementing regulations, 36 CFR Part 800, this letter serves as notification of the proposed action.

NCORR respectfully requests your review of the proposed project described herein. In accordance with §800.4(d)(1)(i), your office has *thirty days* to object to this finding. Please respond within this timeframe, otherwise we will assume that you concur with our finding. If you concur, please sign on the line below and return a copy of this letter by email to Andrea Gievers at Andrea.L.Gievers@Rebuild.NC.gov.

If you have any questions or require additional information regarding this request, please feel free to contact Andrea Gievers at (845) 682-1700 or via email at Andrea.L.Gievers@Rebuild.NC.gov. Thank you for your time and assistance.

Sincerely,



Andrea Gievers, JD, MSEL, ERM
NCORR Environmental Subject Matter Expert

Proposed Elijah's Landing Apartments Enclosures:

Attachment 1: Proposed Project Location, NRHP and NC HPOWEB Maps, and Proposed Project Site Plan

Attachment 2: Subject Property Photographs

Attachment 3: Consultant's SHPO Package and SHPO Response

Proposed Elijah's Landing Apartments Concurrence:

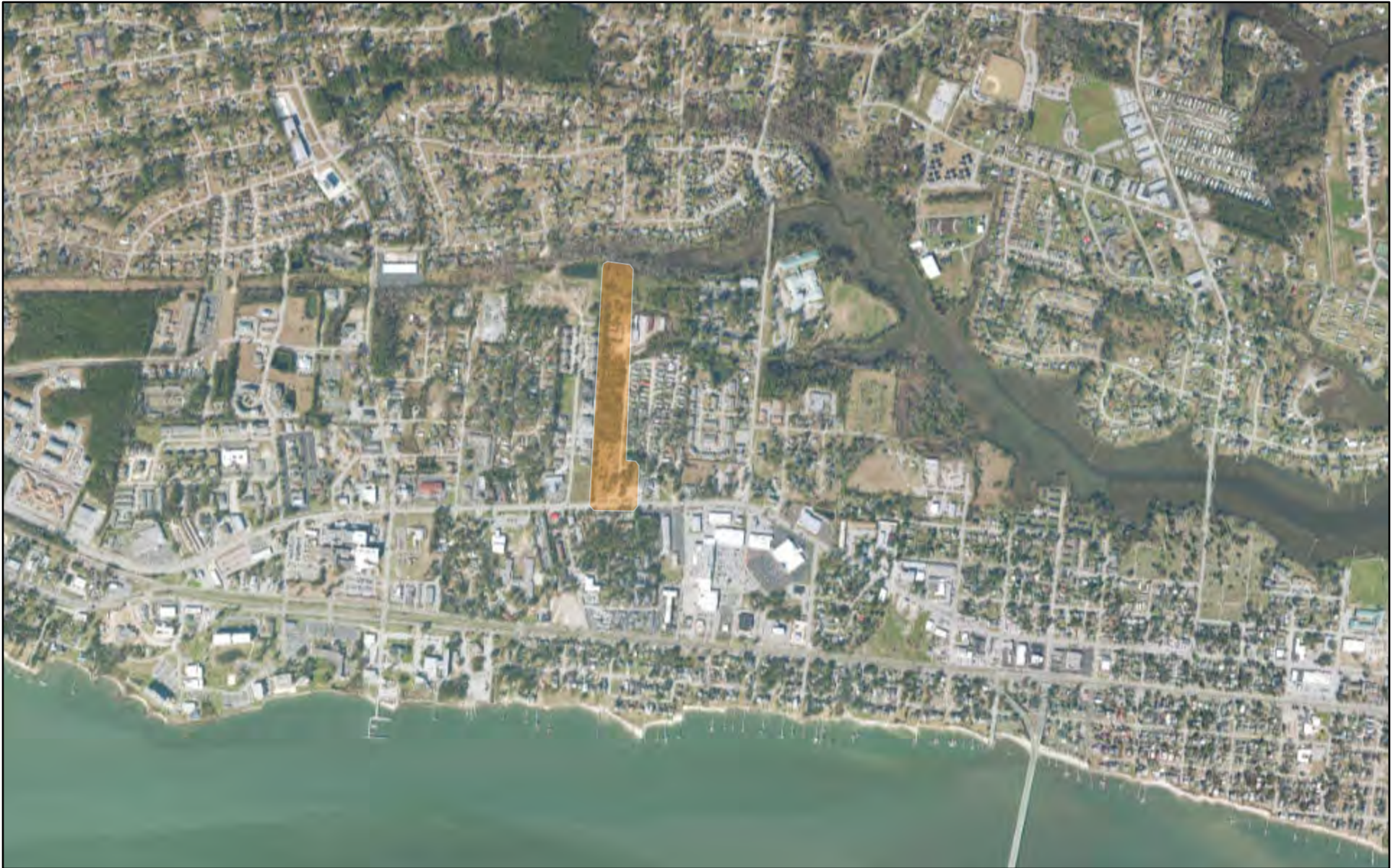
State Historic Preservation Officer

Date

ATTACHMENT 1:

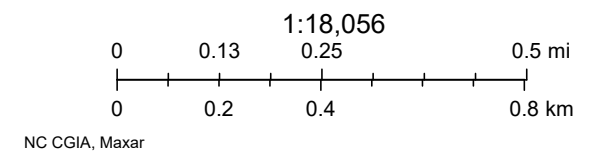
Proposed Project Location, NRHP and NC HPOWEB Maps, and Proposed Project Site Plan

Elijah's Landing Aerial

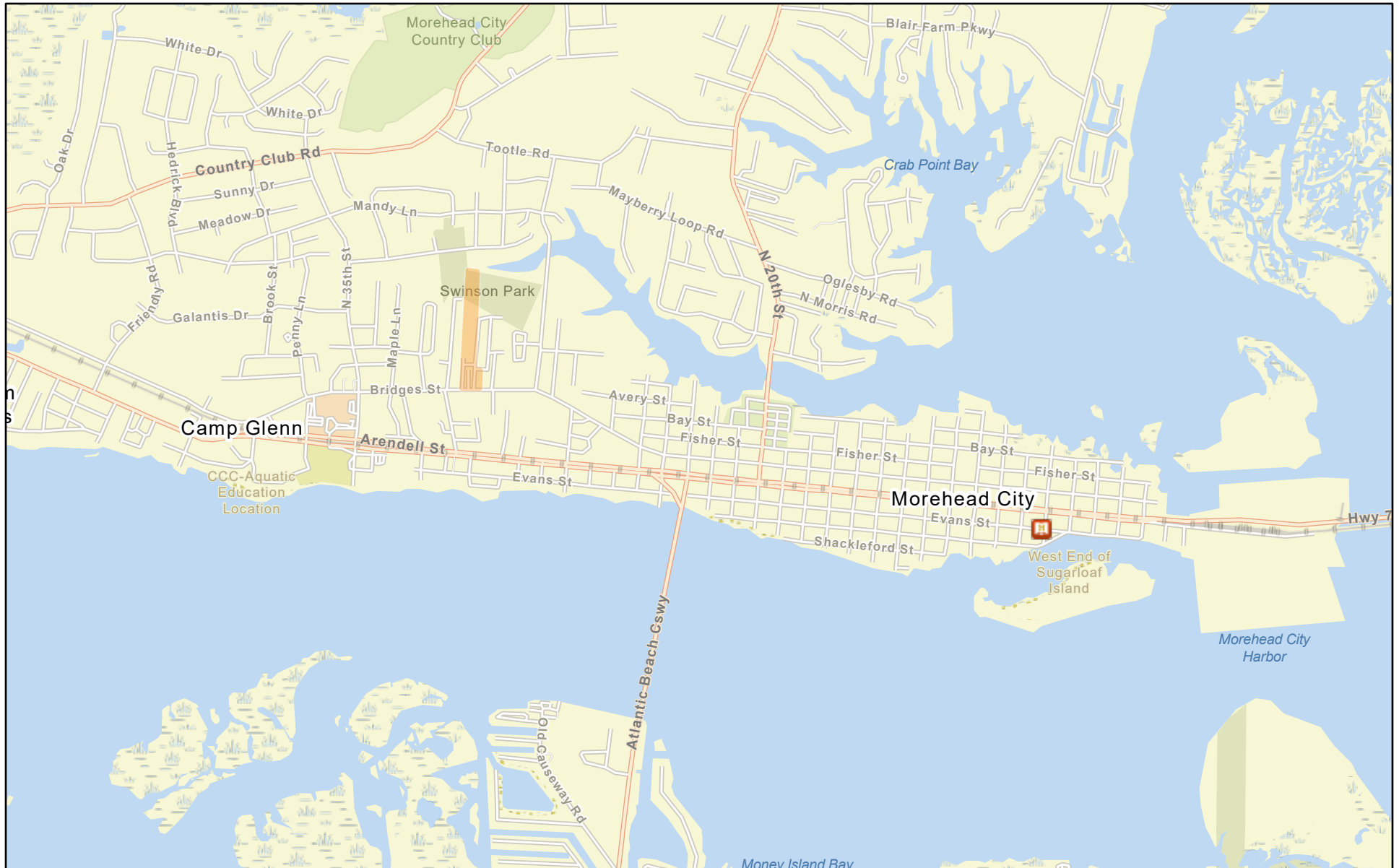


January 17, 2023

 elijahs's landing



National Registry of Historic Places

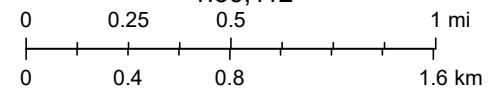


January 17, 2023

 elijah's landing

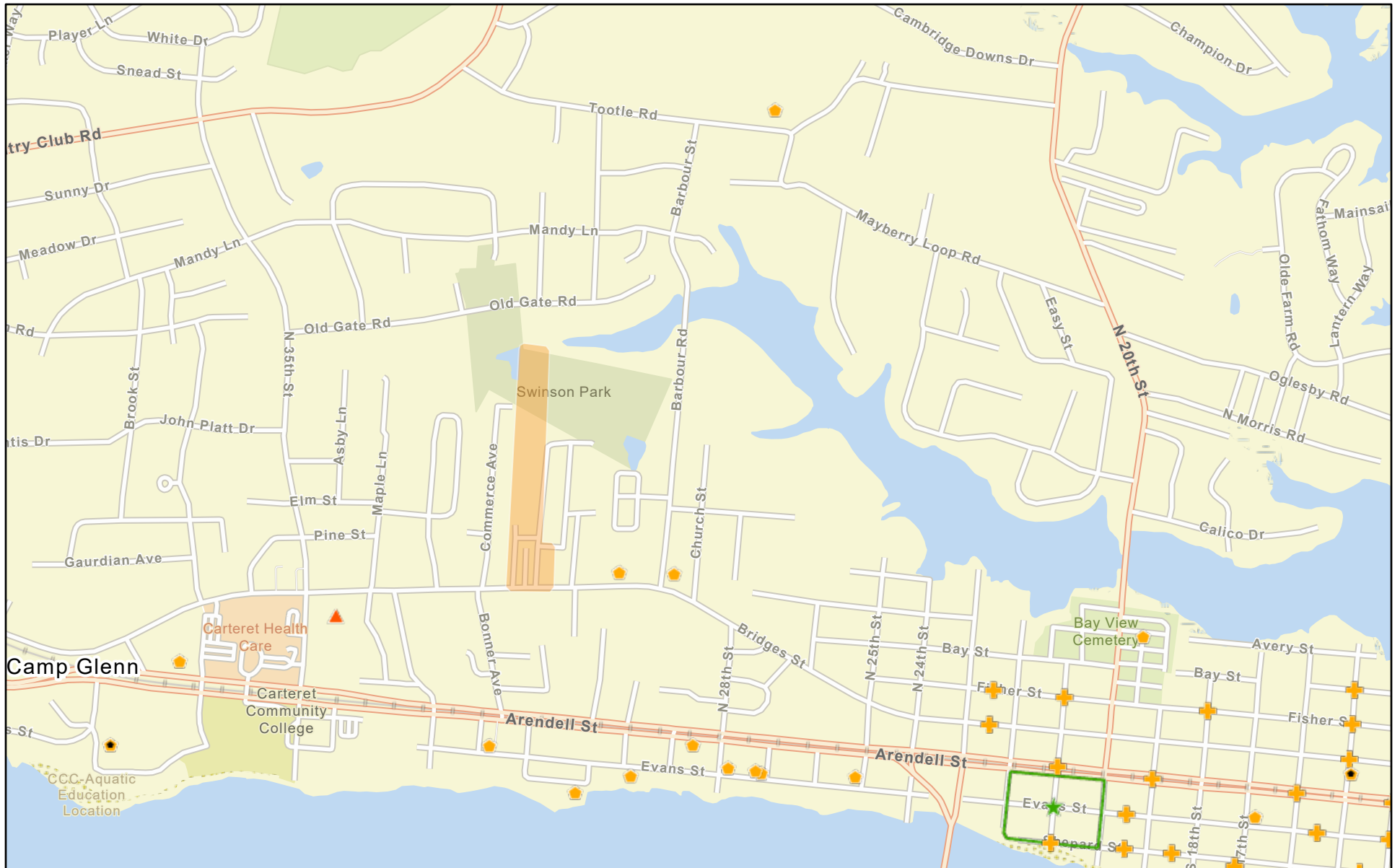
 National Register of Historic Places

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State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

State and Local Historic Places



January 17, 2023

Designated

▲ Determined Eligible - DOE

★ SL Historic District center point

Undesignated

★ Surveyed Only

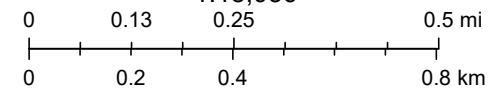
★ Surveyed, Gone



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elijahs's landing

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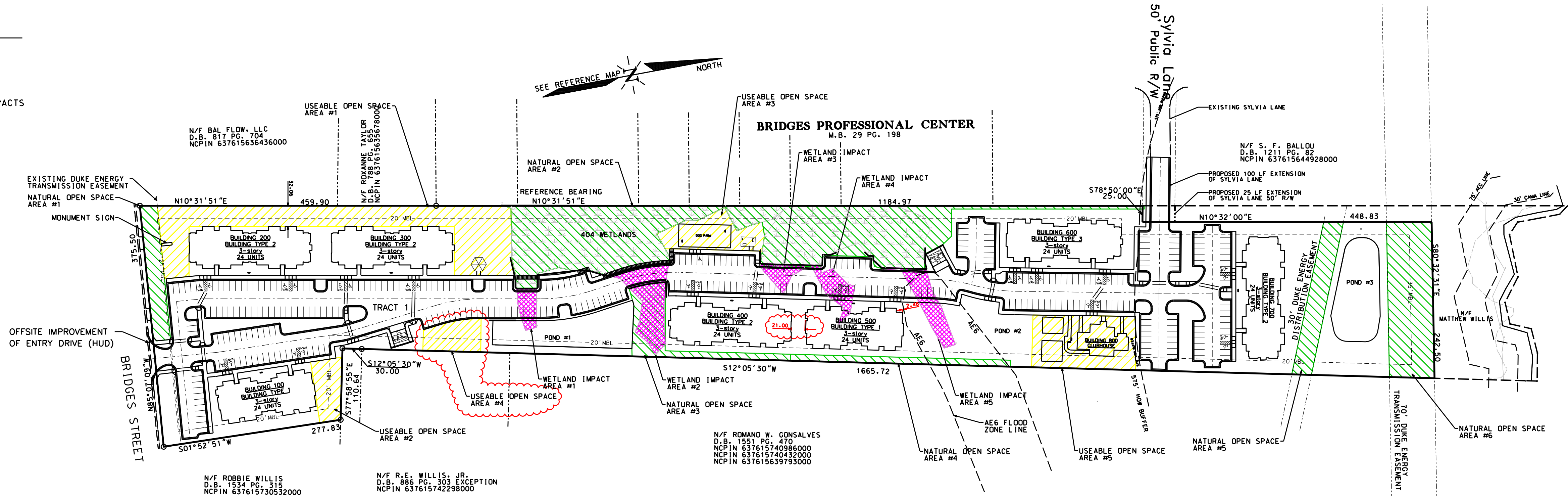
Esri Community Maps Contributors, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA,



VICINITY MAP N.T.S.

LEGEND

- EXISTING WETLANDS
- PROPOSED WETLAND IMPACTS
- USEABLE OPEN SPACE
- NATURAL OPEN SPACE
- REVISIONS REQUESTED FOR REVIEW



AREA TABULATIONS

USEABLE OPEN SPACE AREAS		NATURAL OPEN SPACE AREAS		WETLAND IMPACT AREAS	
AREA #	AREA (SF)	AREA #	AREA (SF)	AREA #	AREA (AC)
1	27,686.83	1	5,561.79	1	0.037
2	3,933.28	2	54,784.37	2	0.139
3	7,045.84	3	1,711.15	3	0.055
4	4,020.67	4	3,110.77	4	0.055
5	55,858.03	5	16,913.42	5	0.083
TOTAL AREA = 55,858.03 SF		TOTAL AREA = 95,341.48 SF		TOTAL AREA = 0.349 AC	

SITE DATA

TRACT AREA = 11.74 AC = 506,966.36 SF
MAXIMUM BUILDING COVERAGE ALLOWED IS 40% OF TRACT AREA = 202,786.54 SF
PROPOSED BUILDING COVERAGE (BUILDINGS 100 THRU 700, CLUBHOUSE, GAZEBO & COVERED PICNIC AREA) = 64,755.28 SF
MINIMUM LOT SIZE PER UNITS = 5,000 SF FOR FIRST UNIT, EACH 2+ BEDROOM UNIT REQUIRES 3,000 SF PER UNIT AND EACH 1 BEDROOM UNIT REQUIRES 2,500 SF PER UNIT.
PROPOSED (30) 1 BEDROOM UNITS, (78) 2 BEDROOM UNITS AND (60) 3 BEDROOM UNITS
REQUIRED AREA = 5,000 SF + [138 UNITS X 3,000 SF] + [29 X 2,500 SF] = 491,500 SF = 11.28 AC
TRACT AREA IS GREATER THAN MINIMUM LOT AREA REQUIRED

OPEN SPACE REQUIREMENTS = 18% OF TRACT MUST BE NATURAL OPEN SPACE AND 10% USEABLE OPEN SPACE
NATURAL OPEN SPACE REQUIRES (18% OF TRACT) = 91,253.94 SF
USEABLE OPEN SPACE REQUIRED (10% OF TRACT) = 50,696.64 SF
NATURAL OPEN SPACE PROVIDED = 94,261.85 SF
USEABLE OPEN SPACE PROVIDED = 55,858.03 SF

MINIMUM SETBACK REQUIREMENTS
FRONT = 25'; 25' PROVIDED
REAR = 25' + 5' PER ADDITIONAL STORY = 35'; 35' PROVIDED
SIDE = 20' AGGREGATE = 5' PER ADDITIONAL STORY = 40' AGGREGATE
SIDE SETBACKS ARE 20' FOR ENTIRE PROPERTY

MAXIMUM BUILDING HEIGHT ALLOWED = 50' ABOVE AVERAGE GRADE
MAXIMUM BUILDING HEIGHT PROPOSED = 34' 3"

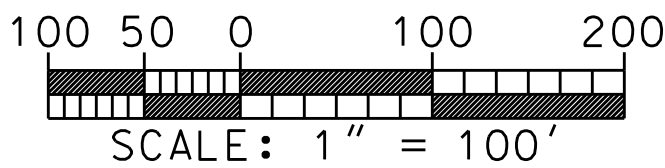
PARKING DATA

PARKING SPACES REQ'D = 1.75 PARKING SPACES PER RESIDENTIAL UNIT (NCHFA 2020 OAP)
PARKING SPACES REQ'D = 168 UNITS X 1.75 SPACES PER UNIT = 294 SPACES TOTAL

PARKING REQ'D (MOREHEAD CITY) = 2 SPACES PER UNIT PLUS 1 ADDITIONAL SPACE PER 6 UNITS
PARKING SPACES REQ'D = 336 SPACES + 28 SPACES = 364 TOTAL SPACES
PARKING SPACES PROVIDED = 348 SPACES - PLEASE SEE REQUEST FOR 4.4% PARKING REDUCTION PER ORDINANCE SECTION 20-1.4.

HANDICAP(H/C) PARKING REQ'D (NORTH CAROLINA) = 2% OF 364 = 8 SPACES REQ'D

HANDICAP(H/C) PARKING REQ'D (NCHFA) = 1 PER TYPE 'A' UNITS, 2% OF TYPE 'B' UNITS,
1 PER LOCATIONS OF AMENITIES, VAN ACCESSIBLE SPACES REQ'D AT EACH AMENITIES LOCATION AND THE 1ST HANDICAP SPACE PER TYPE 'A' UNIT
TYPE 'A' UNITS = 18, 18 HANDICAP SPACES REQ'D
TYPE 'B' UNITS = 38, 1 HANDICAP SPACES REQ'D
AMENITIES LOCATION = 3, 3 HANDICAP SPACES REQ'D
HANDICAP(H/C) PARKING REQ'D = 21 VAN SPACES + 1 SPACES = 22 HANDICAP SPACES TOTAL
HANDICAP PARKING SPACES PROVIDED = 33 SPACES

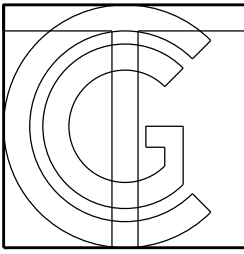


SCALE: 1" = 100'

SHEET INDEX	
SHEET NO.	DESCRIPTION
C1.0	OVERALL SITE PLAN
C2.0	EXISTING CONDITIONS SURVEY
C3.0	ENLARGED SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING & DRAINAGE PLAN
C6.0	UTILITY PLAN
C6.1-6.3	UTILITY PLAN & PROFILES
C7.0	LANDSCAPE PLAN
C8.0	STORMWATER POND #1 DETAILS
C8.1	STORMWATER POND #2 DETAILS
C8.2	STORMWATER POND #3 DETAILS
C8.3	STORMWATER PONDS PLANTING PLAN
C9.0	SITE DETAILS
C10.0	SITE DETAILS
C11.0	EROSION CONTROL DETAILS
C12.0	UTILITY DETAILS
C13.0	BMP DELINEATION PLAN
C14.0	GROUND STABILIZATION
C15.0	SELF INSPECTION

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing
Overall
Site Plan



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
C-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080



100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	CMC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

OVERALL
SITE PLAN

C1.0

ATTACHMENT 2:

Subject Property Photographs



Photograph 1 – View of the site looking northeast from Bridges Street



Photograph 2 – View of typical vegetation centrally on the site



Photograph 3 – Typical vegetation on the northern portion of the site



Photograph 4 – View of the site looking northeast toward on-site derelict structure



Photograph 5 – View of debris south of the on-site structure



Photograph 6 – View of debris south of the on-site structure



Photograph 7 – On-site pole mounted transformer north of the site structure



Photograph 8 – View of on-site structure



Photograph 13 – Five-gallon bucket of oil just outside the on-site structure



Photograph 14 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 15 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 16 – Soil pile north of the on-site structure



Photograph 17 – Debris north of the on-site structure



Photograph 18 – Debris and dirt piles north of the on-site structure
and view of eastern adjoining property



Photograph 19 – View of eastern adjoining property (The Wood Yard)



Photograph 20 – View of eastern adjoining property (residential)



Photograph 21 – View of eastern adjoining property (food pantry)



Photograph 22 – View of southern adjoining property (residential)

ATTACHMENT 3:

Consultant's SHPO Package and SHPO Response



Atlantic Shores Environmental Services, Ltd.

December 9, 2022

Ms. Renee Gledhill-Earley
State Historic Preservation Office
4617 Mail Service Center
Raleigh, North Carolina, 27699

Reference: Section 106 of the National Historic Preservation Act
Elijah's Landing Apartments
3200 Bridges Street
Morehead City, Carteret County North Carolina
ASE Project No 1591

Atlantic Shores Environmental Services, Ltd. (ASE) is currently conducting a HUD Part 58 Environmental Review for the above referenced property. This letter is to inform SHPO of this undertaking and request SHPOs position on the project.

Project Description

Elijah's Landing Apartments in Morehead City, Carteret County is a proposed 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. Comprised of seven separate apartment buildings, there is a mix of thirty (30) one-bedroom units, (78) seventy-eight two-bedroom units and (60) sixty three-bedroom units. The parcel address is 3200 Bridges Street. It is bound by an existing commercial development to the west, an existing mobile home park to the east, Bridges Street to the south and a vacant, undeveloped parcel to the North. It is centrally located in Morehead City and has pedestrian access to shops, grocery stores, the hospital, and the post office.

The site consists of Carteret County Parcel ID number 637615648235000 and is owned by Elijah's Landing of MHC LLC. The site encompasses approximately 11.64 acres. The parcel is located at 3100 Bridges Street in Morehead City Carteret County, North Carolina. The site has frontage along Bridges Street to the south. The site is currently occupied by an approximate 5,000 square-foot derelict warehouse building constructed in 1982. The site was historically agricultural fields with the southern portion of the site being developed into a single wide trailer park in the late 1960's. Anticultural practices appear to have stopped at the site in the mid 1970's.

The site is located in a mixed use area of Morehead City. Commercial and residential properties surround the site. The site area was primarily undeveloped, agricultural or residential Prior to 1970. However, the area began becoming commercially developed in the mid 1970's. Effects to

surrounding properties will be negligible as the surrounding area has been predominantly developed.

Based on the current site use, proposed project plans, site use of the adjacent properties, general urban setting, and topography, the Area of Potential Effect (APE) for this Environmental Assessment includes a 0.25-mile radius surrounding the project area. The APE for archeological sites is limited to the boundaries of the project area. ASE consulted the North Carolina State Historic Preservation Office HPOWEB Service (<http://gis.ncdcr.gov/hpoweb/>) to determine the presence of historic resources within the APE. Based on the consultation of HPOWEB, ASE did not identify properties that are listed, eligible, or potentially eligible for the National Register of Historic Places (NRHP) were located within a 0.25-mile radius of the proposed project area.

For your reference, maps of the location are attached. Please provide any comments you may have, if you have any questions, please contact me at cmoody@atlanticshoresenv.com or 910-512-5321. Thank you for your time.

Respectfully submitted,
ATLANTIC SHORES ENVIRONMENTAL SERVICES, LTD.



Cheryl Moody
Principal Engineer

Attachments:

Project Area Maps

- Aerial
- Site Survey
- NCSHPO
- NRHP



- LEGEND
- EIR EXISTING IRON ROD
EIP EXISTING IRON PIPE
EPK EXISTING PK NAIL
ECM EXISTING CONC. MON.
ERRS EXISTING R/R SPIKE
E.P. EXISTING
EOP EDGE OF PAVEMENT
SIR SET IRON ROD
CP CALCULATED POINT
MWH MEAN HIGH WATER
N/F NOW OR FORMERLY
MB MAP BOOK
DB DEED BOOK
PG PAGE
OP OVERHEAD POLE
LP LIGHT POLE
OE OVERHEAD ELECTRIC
LEC ELECTRICAL PEDESTAL
ELCC ELCC TRANSFORMER
TEL TELEPHONE PEDESTAL
TV CABLE TV PEDESTAL
WM WATER METER
CD CLEAN OUT
SWM SINGLE WIDE MOBILE HOME
SD SHED
DS DANCE STUDIO
SSMH SANITARY SEWER MANHOLE
EXCEPTION ITEMS IDENTIFICATION NUMBER
- EASEMENT
--- EXISTING IMPROVEMENTS
--- UNDERGROUND SEWER
--- ADJACENT PROPERTY BOUNDARY
--- FLOOD ZONE
--- DITCH CENTERLINE
WETLAND
ADJOINING PROPERTY LOT NUMBER

RECORD LEGAL DESCRIPTION

BEGINNING AT A SET IRON ROD IN THE NORTHERN RIGHT OF WAY OF BRIDGES STREET, SAID POINT ALSO BEING LOCATED 577°15'43"E 179.39 FEET AND 585°07'09"E 375.50 FEET FROM AN EXISTING IRON ROD LOCATED IN THE EASTERN RIGHT OF WAY OF COMMERCE AVENUE, THENCE FROM SAID BEGINNING POINT AND ALONG BRIDGES STREET RIGHT OF WAY N85°07'09"W 375.50 FEET TO AN EXISTING IRON ROD, THENCE LEAVING SAID RIGHT OF WAY N10°31'51"E 459.90 FEET TO AN EXISTING IRON LOCATED AT THE NORTHEAST CORNER OF THAT PROPERTY OWNED BY ROXANNE TAYLOR AS RECORDED IN DEED BOOK 188 PAGE 655 OF THE CARTERET COUNTY REGISTRY, THENCE FROM SAID POINT AND CONTINUING ON THE SAME LINE N10°31'51"E 1096.61 FEET TO AN EXISTING IRON ROD, SAID LINE BEING THE EASTERN LINE OF BRIDGES PROFESSIONAL CENTER AS RECORDED IN MAP BOOK 29 PAGE 157.02, THENCE LEAVING SAID LINE N10°31'51"E 1096.61 FEET TO AN EXISTING IRON ROD, THENCE LEAVING SAID EASTERN LINE AND AN EXTENSION OF THE SOUTHERN LINE OF SYLVIA LANE 578°50'00"E 25.00 FEET TO AN EXISTING IRON ROD, THENCE N10°32'00"E 448.83 FEET TO AN EXISTING IRON ROD NEAR THE NORTHERN RIGHT OF WAY OF A 70 FOOT DUKE ENERGY UTILITY EASEMENT, THENCE WITH SAID NORTH LINE S80°32'31"E 242.50 FEET TO AN EXISTING IRON ROD, THENCE LEAVING SAID NORTHERN LINE S12°05'30"W 1665.72 FEET TO A SET IRON ROD, THENCE S12°05'30"W 30.00 FEET TO A SET IRON ROD, THENCE S77°58'54"E 110.64 FEET TO A SET IRON ROD, THENCE S01°52'51"W 277.83 FEET TO THE POINT AND PLACE OF BEGINNING, BEING ALL OF TRACT 1, MAP BOOK 33, PAGE 993, AND CONTAINING 11.64 ACRES.

ENCROACHMENT/SIGNIFICANT OBSERVATION

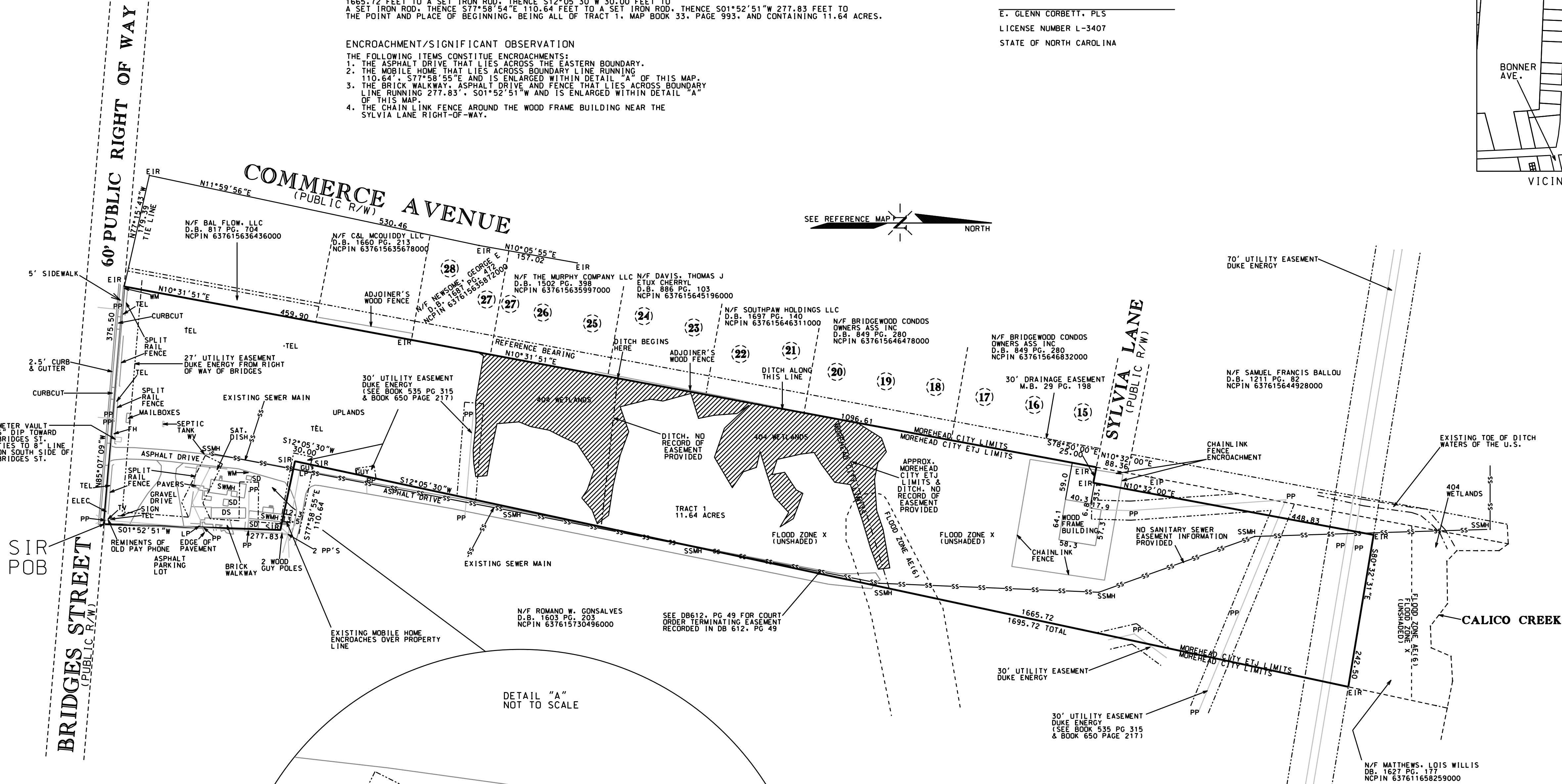
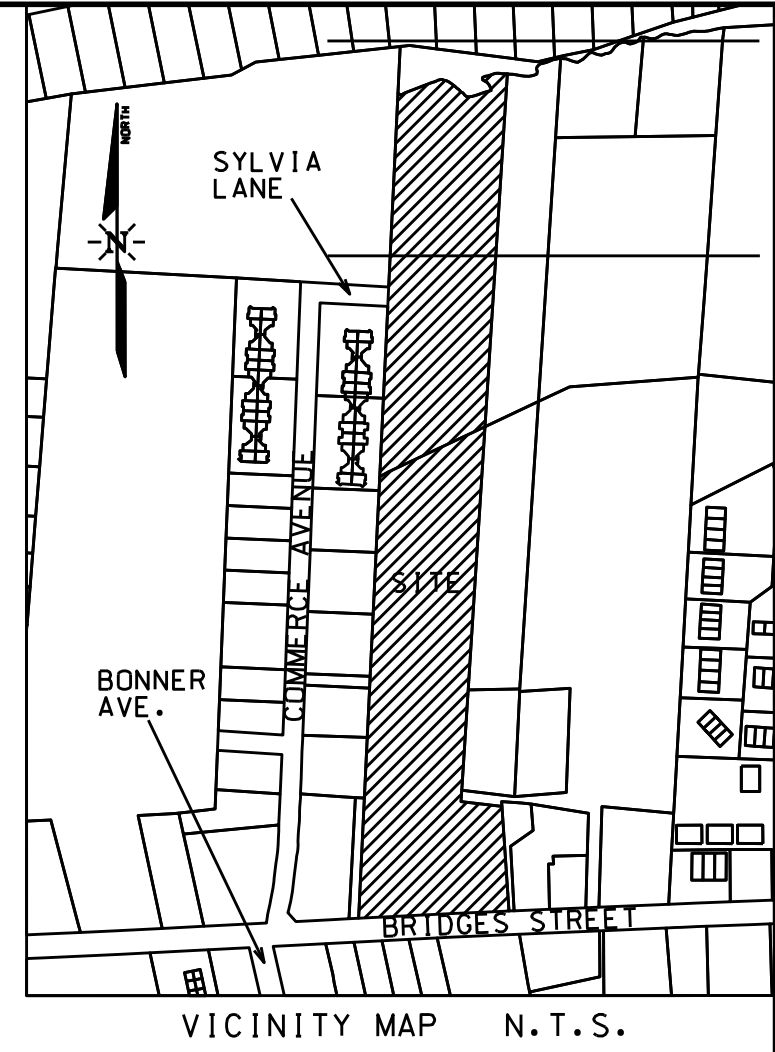
THE FOLLOWING ITEMS CONSTITUTE ENCROACHMENTS:

1. THE ASPHALT DRIVE THAT LIES ACROSS THE EASTERN BOUNDARY.
2. THE MOBILE HOME THAT LIES ACROSS BOUNDARY LINE RUNNING 110.64', S77°58'55"E AND IS ENLARGED WITHIN DETAIL "A" OF THIS MAP.
3. THE BRICK WALKWAY, ASPHALT DRIVE AND FENCE THAT LIES ACROSS BOUNDARY LINE RUNNING 277.83', S01°52'51"W AND IS ENLARGED WITHIN DETAIL "A" OF THIS MAP.
4. THE CHAIN LINK FENCE AROUND THE WOOD FRAME BUILDING NEAR THE SYLVIA LANE RIGHT-OF-WAY.

E. GLENN CORBETT, PLS
LICENSE NUMBER L-3407
STATE OF NORTH CAROLINA

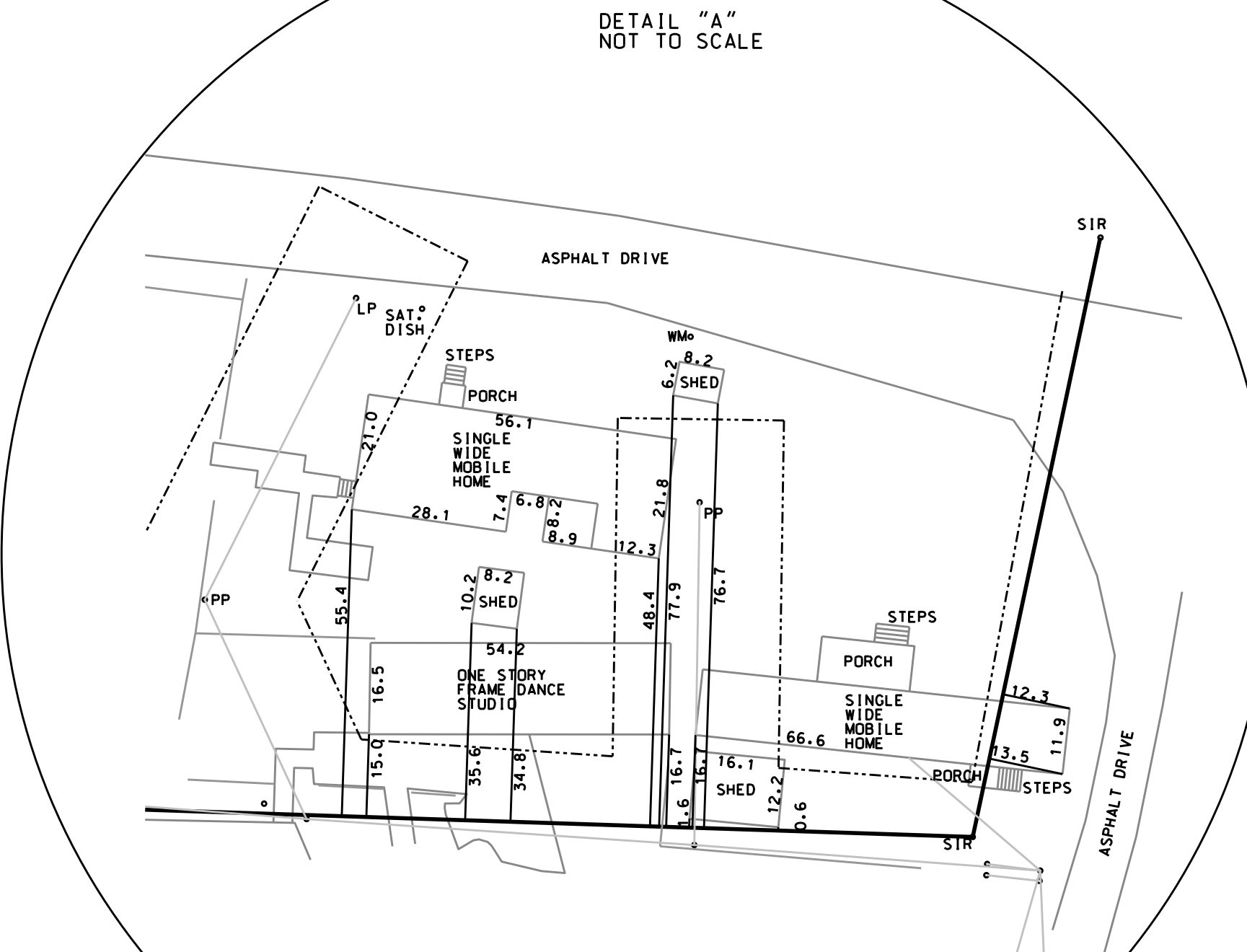
REFERENCE MAP
SEE SURVEY FOR WILLIS MOBILE HOME PARK #1
FOR LOIS MATTHEWS C/O HARVEY L. AND COLINS
P.A. BY PRESTIGE LAND SURVEYING, P.A. DATED
JUNE 29, 2016.

TO, ELIJAH'S LANDING OF MOREHEAD CITY, LLC, CHURCHILL MORTGAGE INVESTMENT LLC, A FLORIDA LIMITED LIABILITY COMPANY, CHURCHILL MORTGAGE CONSTRUCTION, LLC, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT(HUD), CHICAGO TITLE INSURANCE COMPANY AND, COMMUNITY EQUITY FUND XXV LIMITED PARTNERSHIP:
DATE OF PLAT OR MAP: 10/8/2021 AND LAST REVISED: 12/1/21



SURVEYOR'S COMMENTS - SCHEDULE B, PART II
RELATIVE TO CHICAGO TITLE INSURANCE COMPANY
COMMITMENT NUMBER: 21-20231NB
COMMITMENT DATE: 9/16/211 REVISED 11/23/21

1. TAXES OR ASSESSMENTS FOR THE YEAR 2022, AND SUBSEQUENT YEARS, A LIEN NOT YET DUE OR PAYABLE
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
2. ANY RIGHT, EASEMENT, SETBACK, INTEREST, CLAIM, ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATIONS OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE DISCLOSED BY PLAT(S) RECORDED IN MAP BOOK 33, PAGE 993, NOTWITHSTANDING THE FOREGOING, THE POLICY INSURES AGAINST LOSS OR DAMAGE RESULTING FROM A FINAL DETERMINATION BY A COURT OF COMPETENT JURISDICTION THAT PARTIES OTHER THAN THE INSURED, AND THOSE CLAIMING BY THROUGH AND UNDER THE INSURED, HAVE RIGHTS IN AND TO THE USE OF THE PORTION OF THE ASPHALT DRIVE LOCATED ON THE LAND AND SHOWN THEREON. (LOAN POLICY ONLY)
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
3. ANY DISCREPANCY, CONFLICT, MATTERS REGARDING ACCESS, SHORTAGE IN AREA OR BOUNDARY LINES, ENCROACHMENT, ENCUMBRANCE, VIOLATION, OVERLAP, SETBACK, EASEMENT OR CLAIMS OF EASEMENT, RIPARIAN RIGHT, AND TITLE TO LAND WITHIN ROADS, WAYS, RAILROADS, WATERCOURSES, BURIAL GROUNDS, MARSHES, DREDGED OR FILLED AREAS OR LAND BELOW THE MEAN HIGHWATER MARK OR WITHIN THE BOUNDS OF ANY ADJOINING BODY OF WATER, OR OTHER ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY A CURRENT INSPECTION AND ACCURATE AND COMPLETE LAND SURVEY OF THE LAND, UPON RECEIPT OF A CURRENT LAND SURVEY AND SURVEYOR'S REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS SHOWN THEREBY.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
4. RIGHTS OF WAY TO CAROLINA POWER AND LIGHT COMPANY RECORDED IN BOOK 535, PAGE 315; BOOK 650, PAGE 217.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
5. TITLE TO ANY PORTION OF THE LAND LYING WITHIN THE RIGHT OF WAY OF BRIDGES STREET.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
6. RIPARIAN AND/OR LITTORAL RIGHTS INCIDENT TO THE LAND; RIGHTS OF OTHERS IN AND TO THE CONTINUOUS AND UNINTERRUPTED FLOW OF THE WATERS OVER CROSSING THE LAND; AND TITLE TO ANY PORTION OF THE LAND OWNED BY ANY GOVERNMENTAL ENTITY INCLUDING, BUT NOT LIMITED TO, MARSH, DREDGED AND/OR FILLED AREAS AND LAND BELOW THE MEAN HIGH-WATER MARK.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
7. THE LAND SHALL NOT BE DEEMED TO INCLUDE ANY HOUSE TRAILER, MANUFACTURED HOME, MOBILE HOME, OR MOBILE DWELLING ON THE LAND.
SURVEYOR'S COMMENTS: SEE CURRENT SURVEY - SHOWN GRAPHICALLY AND LABELED.
8. ORDINANCE FOR ANNEXATION RECORDED IN BOOK 1671, PAGE 120.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.
9. EASEMENT FROM ELIJAH'S LANDING OF MOREHEAD CITY, LLC TO DUKE ENERGY PROGRESS, LLC RECORDED JUNE 2, 2021, IN FILE #1724386, CARTERET COUNTY REGISTRY.
SURVEYOR'S COMMENTS: NOT RELATED TO MATTERS OF LAND SURVEY.

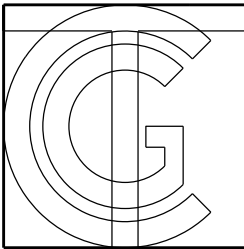


NOTES:

1. THIS SURVEY IS OF AN EXISTING PARCEL OF LAND
2. AREA BY COORDINATES
3. THIS MAP IS NOT FOR RECORDING.
4. TRACT AREA = 11.64 ACRES = 506,964.36 SF
5. NO POINTS SET IN CALICO CREEK.
6. NO TREES LOCATED OR SHOWN.
7. NO EASEMENTS FOR WATER, SEWER, TELEPHONE OR DRAINAGE PROVIDED.
8. FLOOD ZONE LINES SCALED FROM FIRM NUMBER 3720637600J DATED 7/16/03.
9. NO PARKING SPACES OR STRIPING EXIST ON PROPERTY.
10. NO PARTY OR DIVISION WALLS EXIST ON PROPERTY.
11. WETLANDS LINES FIELD APPROVED BY TOM CHARLES OF USACE ON 3/18/18.
12. PROPERTY IS ZONED: RWF (RESIDENTIAL MULTI-FAMILY) ACCORDING TO THE ZONING VERIFICATION LETTER PROVIDED BY THE TOWN OF MOREHEAD CITY, DATED 10/27/2021.
13. AT TIME OF FIELD WORK, THERE WAS NO EVIDENCE OF EARTH MOVING, CONSTRUCTION, ETC.
14. AT TIME OF FIELD WORK, THERE WAS NO EVIDENCE OF STREET OR RIGHT-OF-WAY CHANGES.
15. PARCEL HAS TWO ADDRESS NUMBERS DUE TO OLD TAX NUMBERS.
16. THE SURVEY CORRECTLY SHOWS THE LOCATION OF ALL BUILDINGS, STRUCTURES, AND OTHER IMPROVEMENTS SITUATED ON THE PROPERTY.
17. EXCEPT AS SHOWN, ALL UTILITIES SERVING THE PROPERTY ENTER THROUGH ADJOINING PUBLIC STREETS AND OR EASEMENTS OF RECORD; THAT, EXCEPT AS SHOWN, THERE ARE NO VISIBLE EASEMENTS OR RIGHTS OF WAY ACROSS SAID PROPERTY; THAT THE PROPERTY IS THE SAME AS THE PROPERTY DESCRIBED IN INVESTORS TITLE INSURANCE COMPANY, COMMITMENT NO. 21-20231NB WITH AN EFFECTIVE DATE OF 09/16/2021 AND A DATE OF SECOND REVISION OF 11/23/2021; AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT, OR EASEMENTS OF WHICH THE UNDERSIGNED HAS BEEN ADVISED OR HAS KNOWLEDGE, HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR AFFECT ON THE PROPERTY.
18. EXCEPT AS SHOWN, THERE ARE NO ENCROACHMENTS ONTO ADJOINING PREMISES, STREETS OR ALLEYS BY ANY BUILDING, STRUCTURES OR OTHER IMPROVEMENTS, AND NO ENCROACHMENTS ONTO SAID PROPERTY BY BUILDINGS, STRUCTURES OR OTHER IMPROVEMENTS SITUATED ON ADJOINING PREMISES.
19. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN ZONE X (UNSHADED) AND AE(6) OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 3720637600J, WHICH BEARS AN EFFECTIVE DATE OF 07/16/03, AND A PORTION OF THE PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA, THIS COMMUNITY DOES PARTICIPATE IN THE PROGRAM, NO FIELD SURVEYING PERFORMED TO DETERMINE BASE FLOOD ELEVATION OR ESTABLISH BENCHMARK.
20. THE PROPERTY HAS DIRECT PHYSICAL ACCESS TO A PUBLICLY DEDICATED STEET OR HIGHWAY KNOWN AS BRIDGES STREET AND IS A 60' PUBLIC RIGHT OF WAY.
21. THE NUMBER OF CURBS OR PARKING SPACES LOCATED ON THE PROPERTY IS INCLUDING HANDICAPPED SPACES AND TO THE EXTENT POSSIBLE ARE GRAPHICALLY SHOWN HEREON. N/A
22. THIS PROPERTY IS A SINGLE TAX PARCEL.

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
1440
101-A NC HIGHWAY 84
NORTH CAROLINA, N.C. 28557
(252) 773-0080

PRELIMINARY PLAT
NOT FOR RECORDATION,
CONVEYANCE OR SALE.
FOR REVIEW ONLY!

100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	EGC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
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4	PER NCDPS

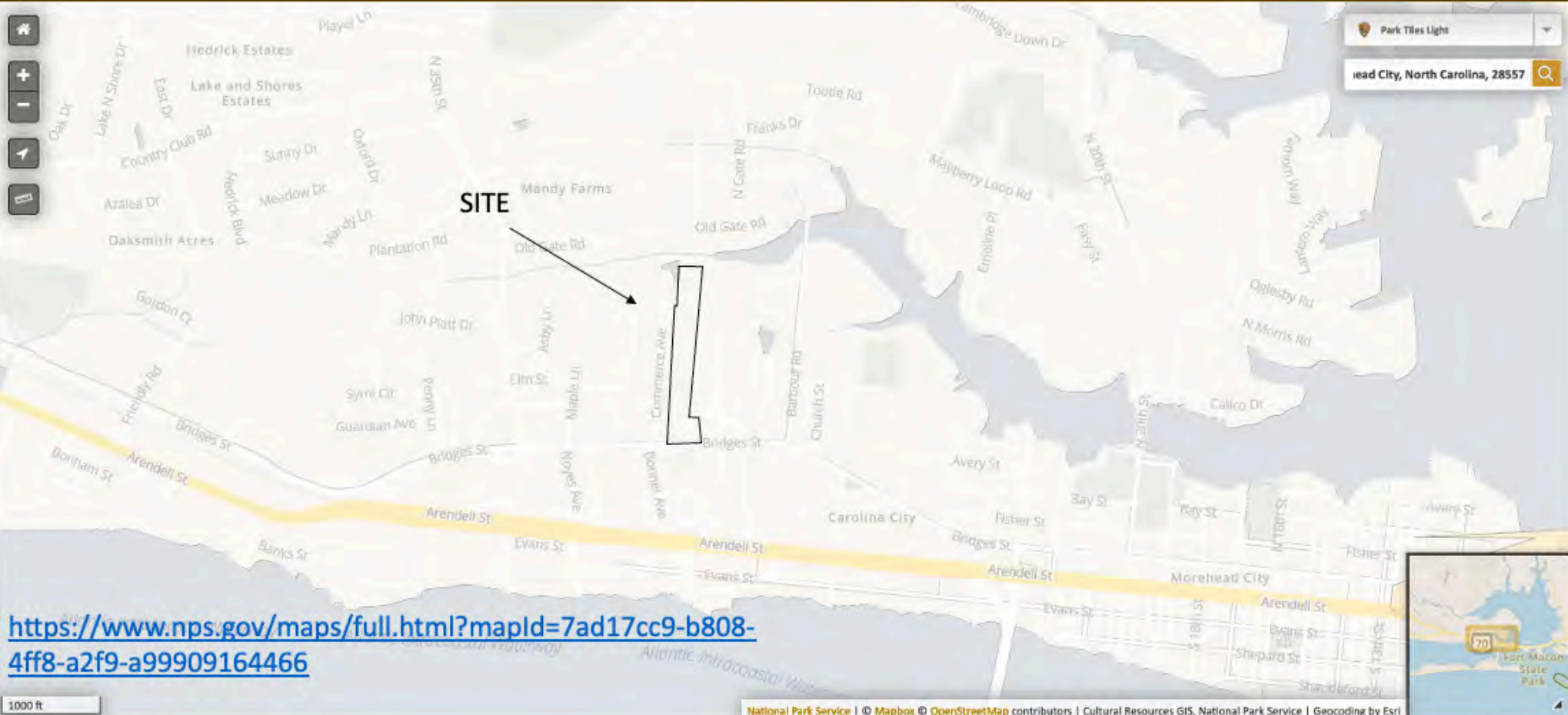
ALTA/NSPS
LAND TITLE
SURVEY

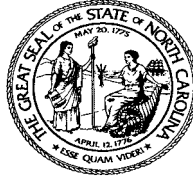
C2.0

National Register of Historic Places

Public, non-restricted data depicting National Register spatial data processed by the Cultural Resources GIS facility. Last minor update, September 2020.

National Park Service
U.S. Department of the Interior





**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

January 23, 2023

Cheryl J. Moody, PE, REM, CIEC, CMRS
Atlantic Shores Environmental Services, Ltd.
175-1 Venture Drive
Belville, NC 28451

cmoody@atlanticshoresenv.com

Re: Demolish Buildings & Construct Elijahs Landing Multi Family Housing, 3200 Bridges Street,
Morehead City, Carteret County, ER 18-1037

Dear Ms. Moody:

Thank you for your letter of December 12, 2022, concerning the above-referenced undertaking. We have reviewed the submittal and offer the following comments.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

for Ramona Bartos, Deputy
State Historic Preservation Officer



Tribal Directory Assessment Information



Contact Information for Tribes with Interests in Carteret County, North Carolina

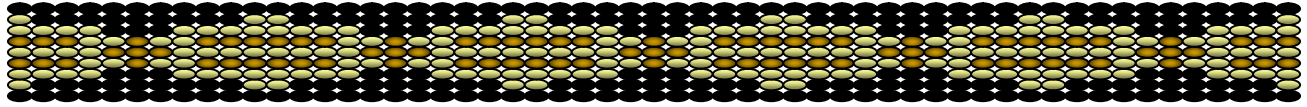
Tribal Name				County Name			
Catawba Indian Nation				Carteret			
Contact Name	Title	Mailing Address	Work Phone	Fax Number	Cell Phone	Email Address	URL
Dr. Wenonah G. Haire	THPO and Catawba Cultural Center Executive Director	1536 Tom Steven Road Rock Hill, SC 29730	(803) 328-2427 ext. 224	(803) 328-5791		wenonah.haire@catawba.com	http://www.catawbaindian.net/
Bill Harris	Chief	996 Avenue of the Nations Rock Hill, SC 29730	(803) 366-4792	(803) 327-4853		bill.harris@catawbaindian.net	http://www.catawbaindian.net/

1 - 1 of 1 results

« ‹ 1 › » 10 ▾

Catawba Indian Nation
Tribal Historic Preservation Office
1536 Tom Steven Road
Rock Hill, South Carolina 29730

Office 803-328-2427
Fax 803-328-5791



May 24, 2023

Attention: Andrea Gievers
NCORR – Environmental
P.O. Box 110465
Durham, NC 27709

Re. THPO #	TCNS #	Project Description
2023-1119-5		Elijah's Landing Apartments – 3200 Bridges Street, Morehead City, NC

Dear Ms. Gievers,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. **However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.**

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Wenonah G. Haire
Tribal Historic Preservation Officer



North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Laura H. Hogshead, Director

April 25, 2023

Chief Bill Harris
Catawba Indian Nation
996 Avenue of the Nations
Rock Hill, SC 29730

RE: Section 106 Review - HUD CDBG-DR Program
Elijah's Landing Apartments
3200 Bridges Street
Morehead City, NC 28557
Parcel #637615648235000

Dear Chief Bill Harris:

The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is serving as the responsible entity for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. NCORR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Nation.

NCORR processes environmental reviews for proposed projects funded with HUD CDBG-DR on a case-by-case basis. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470f), and its implementing regulations, 36 CFR Part 800, this letter serves as notification of the proposed action. This letter also serves as an invitation to discussion as a consulting party in this review to help identify historic properties in the proposed project area that may have religious and cultural significance to your Nation, and if such properties exist, to help assess how the proposed project might affect them. If the proposed project might have an adverse effect, we would like to discuss possible ways to avoid, minimize or mitigate potential adverse effects.

Mailing Address:
Post Office Box 110465
Durham, NC 27709



An Equal Opportunity Employer

Phone: (984) 833-5350
www.ncdps.gov
www.rebuild.nc.gov

The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes, worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low- and moderate-income families.

Area of Potential Effects (APE) under §800.16(d): We have defined the APE as the boundary of the Subject Property consisting of an approximately 11.64-acre site identified as Carteret County Parcel ID # 637615648235000, located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 (Subject Property). The Subject Property has frontage along Bridges Street to the south. The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. The proposed project location maps are included in **Attachment 1** for your review.

Proposed Project Description: Elijah's Landing Apartments ("proposed project") involves new construction of a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. The proposed project site plans are included in **Attachment 1**.

We have completed an initial review of this project in compliance with Section 106 of the NHPA and its implementing regulations 36 CFR Part 800. Based on our research of the Subject Property in the National Register of Historic Places, North Carolina State Historic Preservation Office's (NC SHPO) HPOWEB, and site review performed by Atlantic Shores Environmental Services Ltd., no publicly recorded historic properties which are locally designated or listed in or eligible for inclusion in the State or National Register of Historic Places are located on or adjacent to the Subject Property. The Willis House (CR1260) is the closest historical property (SO) identified 0.10-mile to the east of the Subject Property. The results are included in **Attachment 1**.

The proposed project information has been sent to the NC SHPO in accordance with Section 106 of the NHPA and its implementing regulations, 36 CFR Part 800. The Subject Property is currently vacant land, with a dilapidated storage building constructed in 1982. The Subject Property and a portion of the eastern adjoining and western adjoining properties appear to have been initially developed as agricultural property some time prior to 1938. A single-wide trailer park was constructed on the southern portion of the Subject Property sometime between 1957 and 1964. Agricultural practices appear to have stopped at the site in the mid-1970's. The northern portion of the Subject Property was used for commercial and industrial uses after the commercial structure was constructed in 1982. The structures in the trailer park were removed from the Subject Property between 2006 and 2009. The southern part of the Subject Property has been vacant since that time. The proposed development will be a multifamily apartment complex and, therefore, typical clearing and grading will take place on the Subject Property during construction. The Subject Property photographs are included in **Attachment 2**.

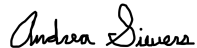
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Sincerely,



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NCORR Environmental Subject Matter Expert

Enclosures:

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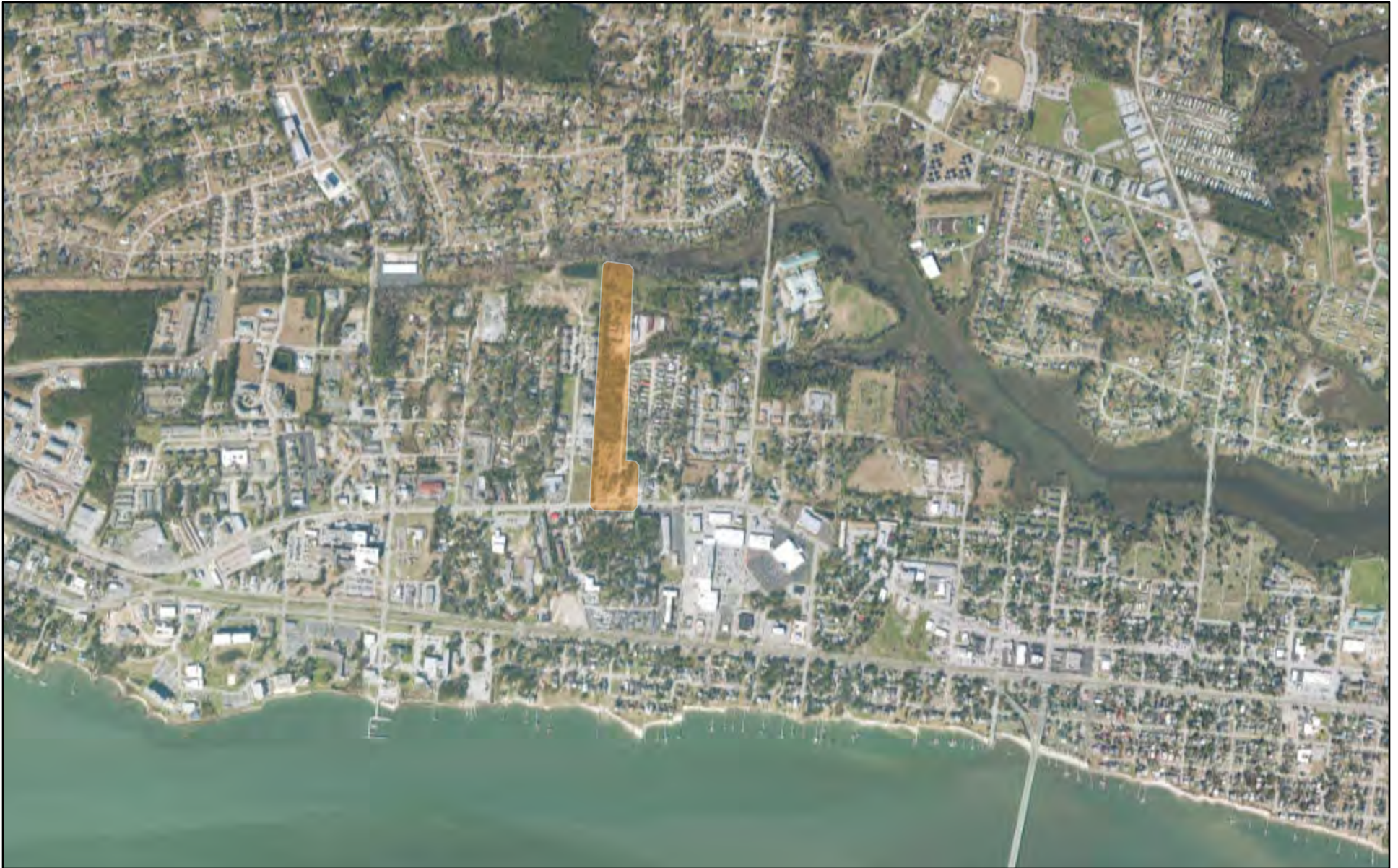
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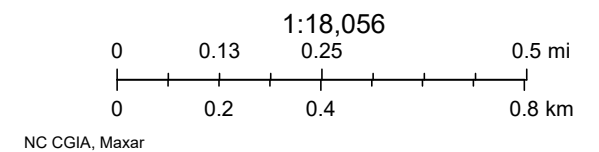
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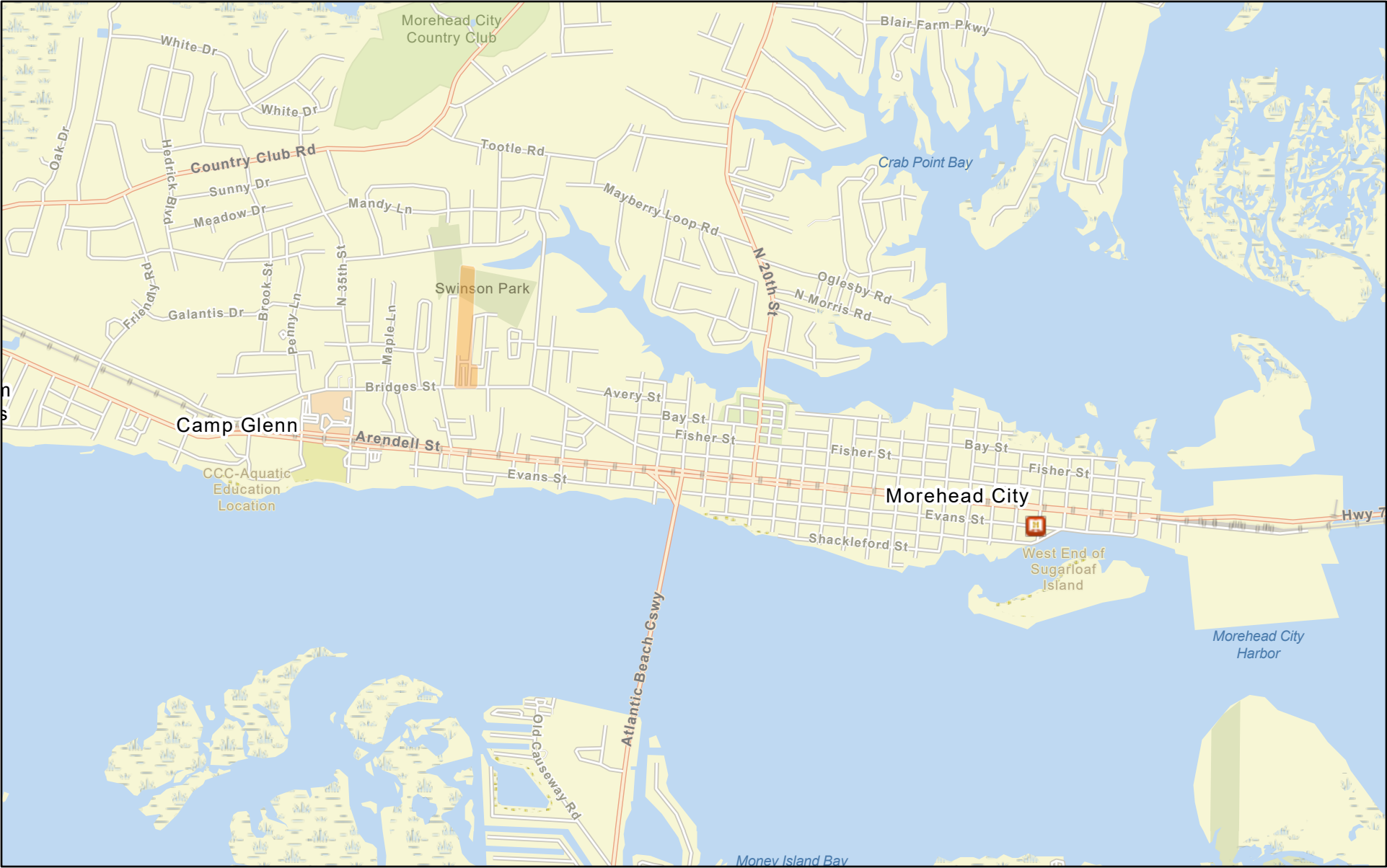


January 17, 2023

 elijahs's landing



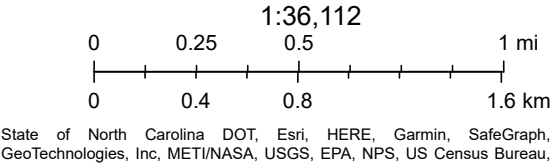
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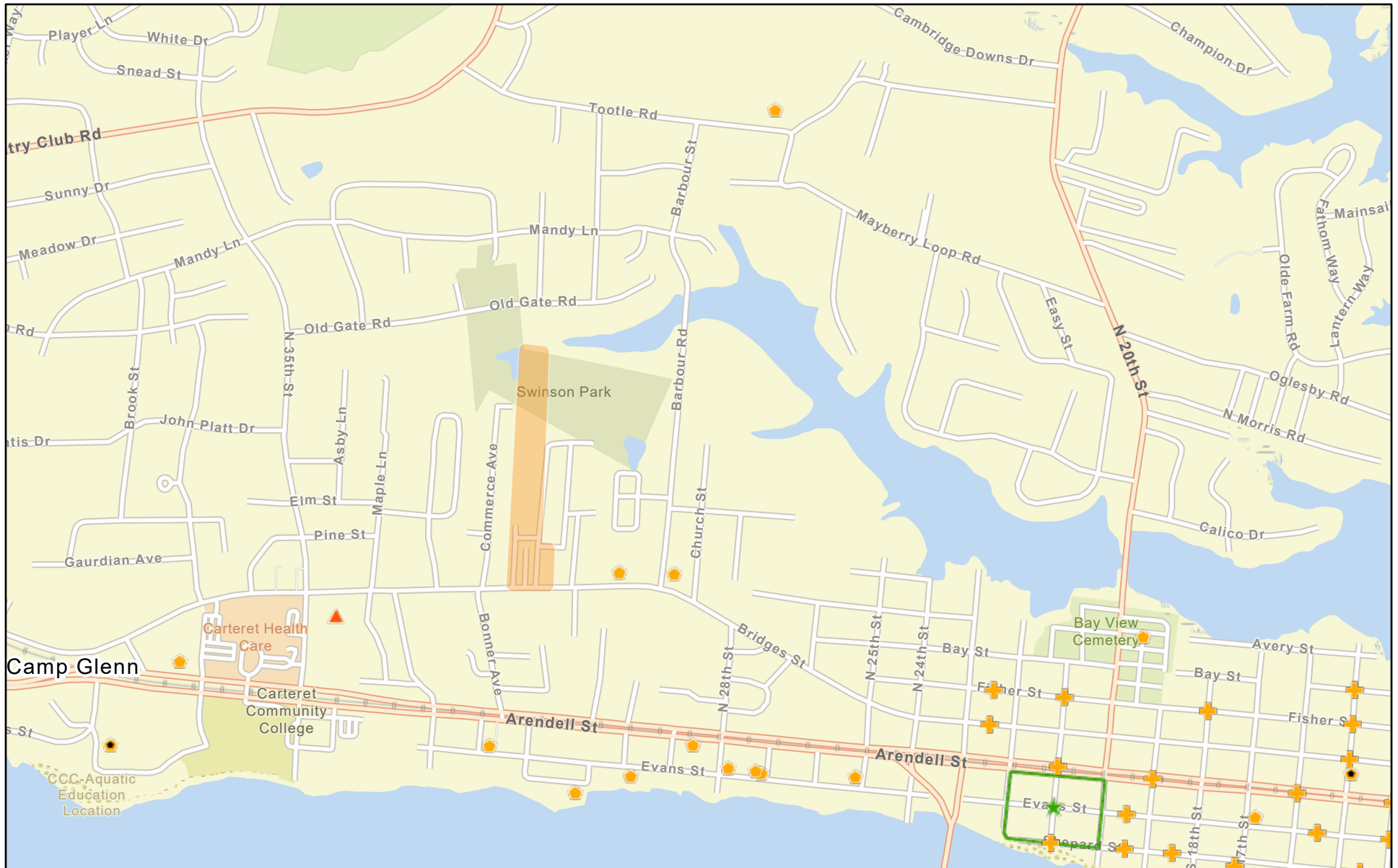
January 17, 2023

 elijah's landing

 National Register of Historic Places



State and Local Historic Places



January 17, 2023

Designated

▲ Determined Eligible - DOE

★ SL Historic District center point

Undesignated

★ Surveyed Only

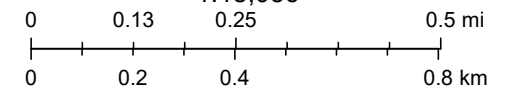
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Blockface

elijahs's landing

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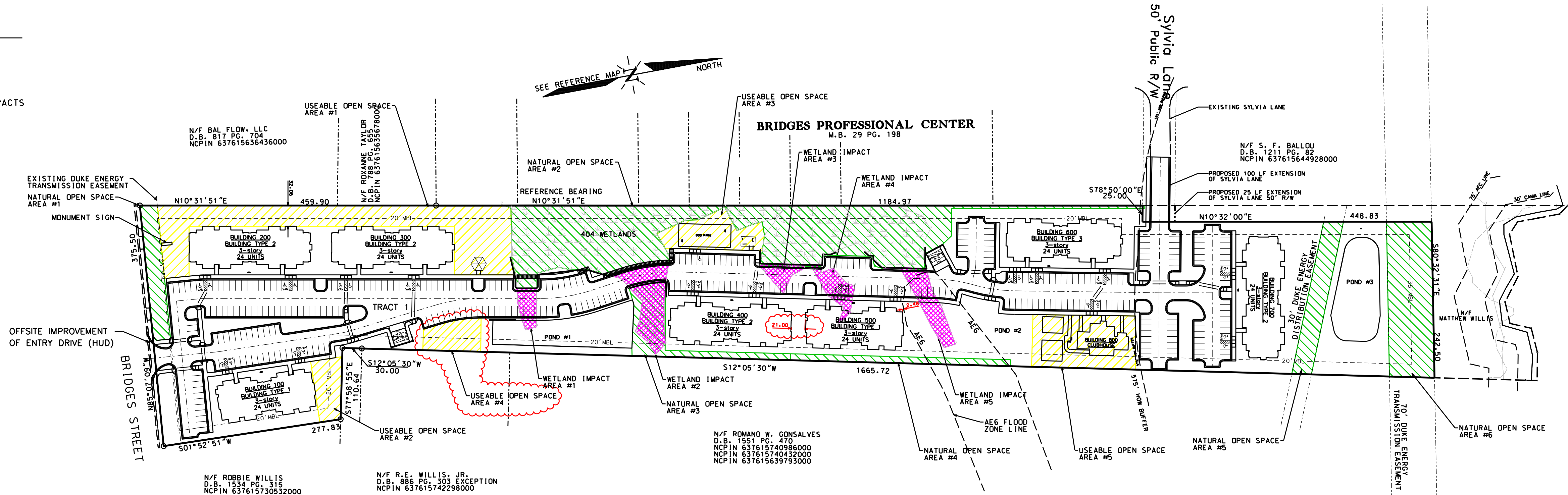
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VICINITY MAP N.T.S.

LEGEND

- EXISTING WETLANDS
- PROPOSED WETLAND IMPACTS
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- NATURAL OPEN SPACE
- REVISIONS REQUESTED FOR REVIEW



AREA TABULATIONS

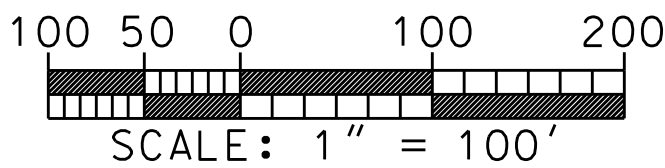
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2	3,933.28	2	54,784.37	2	0.139
3	7,045.84	3	1,711.15	3	0.055
4	4,020.67	4	3,110.77	4	0.055
5	55,858.03	5	16,913.42	5	0.083
TOTAL AREA = 55,858.03 SF		TOTAL AREA = 95,341.48 SF		TOTAL AREA = 0.349 AC	

SITE DATA

TRACT AREA = 11.74 AC = 506,966.36 SF
MAXIMUM BUILDING COVERAGE ALLOWED IS 40% OF TRACT AREA = 202,786.54 SF
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MAXIMUM BUILDING HEIGHT PROPOSED = 34' 3"

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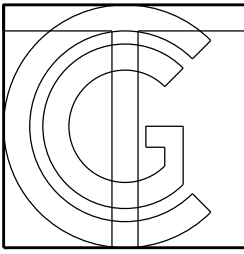


SCALE: 1" = 100'

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C15.0	SELF INSPECTION

Elijah's Landing
3140 & 3200 Bridges St.
Morehead City, Careteret
County, NC 28557
FHA Project #:053-36291

Elijah's
Landing
Overall
Site Plan



THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
C-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0080



100%
CONSTRUCTION
DRAWINGS

date	9/28/22
drafter	CMC
checked by	CMC
proj. no.	PM858-29
revisions	
1	PER NCFHA
2	PER TOWN
3	PER TITLE/LENDER
4	PER NCDPS

OVERALL
SITE PLAN

C1.0

ATTACHMENT 2:

Subject Property Photographs



Photograph 1 – View of the site looking northeast from Bridges Street



Photograph 2 – View of typical vegetation centrally on the site



Photograph 3 – Typical vegetation on the northern portion of the site



Photograph 4 – View of the site looking northeast toward on-site derelict structure



Photograph 5 – View of debris south of the on-site structure



Photograph 6 – View of debris south of the on-site structure



Photograph 7 – On-site pole mounted transformer north of the site structure



Photograph 8 – View of on-site structure



Photograph 13 – Five-gallon bucket of oil just outside the on-site structure



Photograph 14 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 15 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 16 – Soil pile north of the on-site structure



Photograph 17 – Debris north of the on-site structure



Photograph 18 – Debris and dirt piles north of the on-site structure
and view of eastern adjoining property



Photograph 19 – View of eastern adjoining property (The Wood Yard)



Photograph 20 – View of eastern adjoining property (residential)



Photograph 21 – View of eastern adjoining property (food pantry)



Photograph 22 – View of southern adjoining property (residential)



North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor
Eddie M. Buffaloe, Jr., Secretary

Laura H. Hogshead, Director

April 25, 2023

Dr. Wenonah George Haire
ATTN: THPO
Catawba Indian Nation
1536 Tom Steven Road
Rock Hill, SC 29730

RE: Section 106 Review - HUD CDBG-DR Program
Elijah's Landing Apartments
3200 Bridges Street
Morehead City, NC 28557
Parcel #637615648235000

Dear Dr. Wenonah George Haire:

The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is serving as the responsible entity for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. NCORR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Nation.

NCORR processes environmental reviews for proposed projects funded with HUD CDBG-DR on a case-by-case basis. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470f), and its implementing regulations, 36 CFR Part 800, this letter serves as notification of the proposed action. This letter also serves as an invitation to discussion as a consulting party in this review to help identify historic properties in the proposed project area that may have religious and cultural significance to your Nation, and if such properties exist, to help assess how the proposed project might affect them. If the proposed project might have an adverse effect, we would like to discuss possible ways to avoid, minimize or mitigate potential adverse effects.

Mailing Address:
Post Office Box 110465
Durham, NC 27709



An Equal Opportunity Employer

Phone: (984) 833-5350
www.ncdps.gov
www.rebuild.nc.gov

The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes, worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low- and moderate-income families.

Area of Potential Effects (APE) under §800.16(d): We have defined the APE as the boundary of the Subject Property consisting of an approximately 11.64-acre site identified as Carteret County Parcel ID # 637615648235000, located at 3200 Bridges Street, Morehead City, Carteret County, NC 28557 (Subject Property). The Subject Property has frontage along Bridges Street to the south. The Subject Property is centrally located in a mixed-use area of Morehead City that has pedestrian access to shops, grocery stores, the hospital, and the post office. The proposed project location maps are included in **Attachment 1** for your review.

Proposed Project Description: Elijah's Landing Apartments ("proposed project") involves new construction of a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. The proposed project site plans are included in **Attachment 1**.

We have completed an initial review of this project in compliance with Section 106 of the NHPA and its implementing regulations 36 CFR Part 800. Based on our research of the Subject Property in the National Register of Historic Places, North Carolina State Historic Preservation Office's (NC SHPO) HPOWEB, and site review performed by Atlantic Shores Environmental Services Ltd., no publicly recorded historic properties which are locally designated or listed in or eligible for inclusion in the State or National Register of Historic Places are located on or adjacent to the Subject Property. The Willis House (CR1260) is the closest historical property (SO) identified 0.10-mile to the east of the Subject Property. The results are included in **Attachment 1**.

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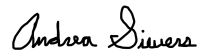
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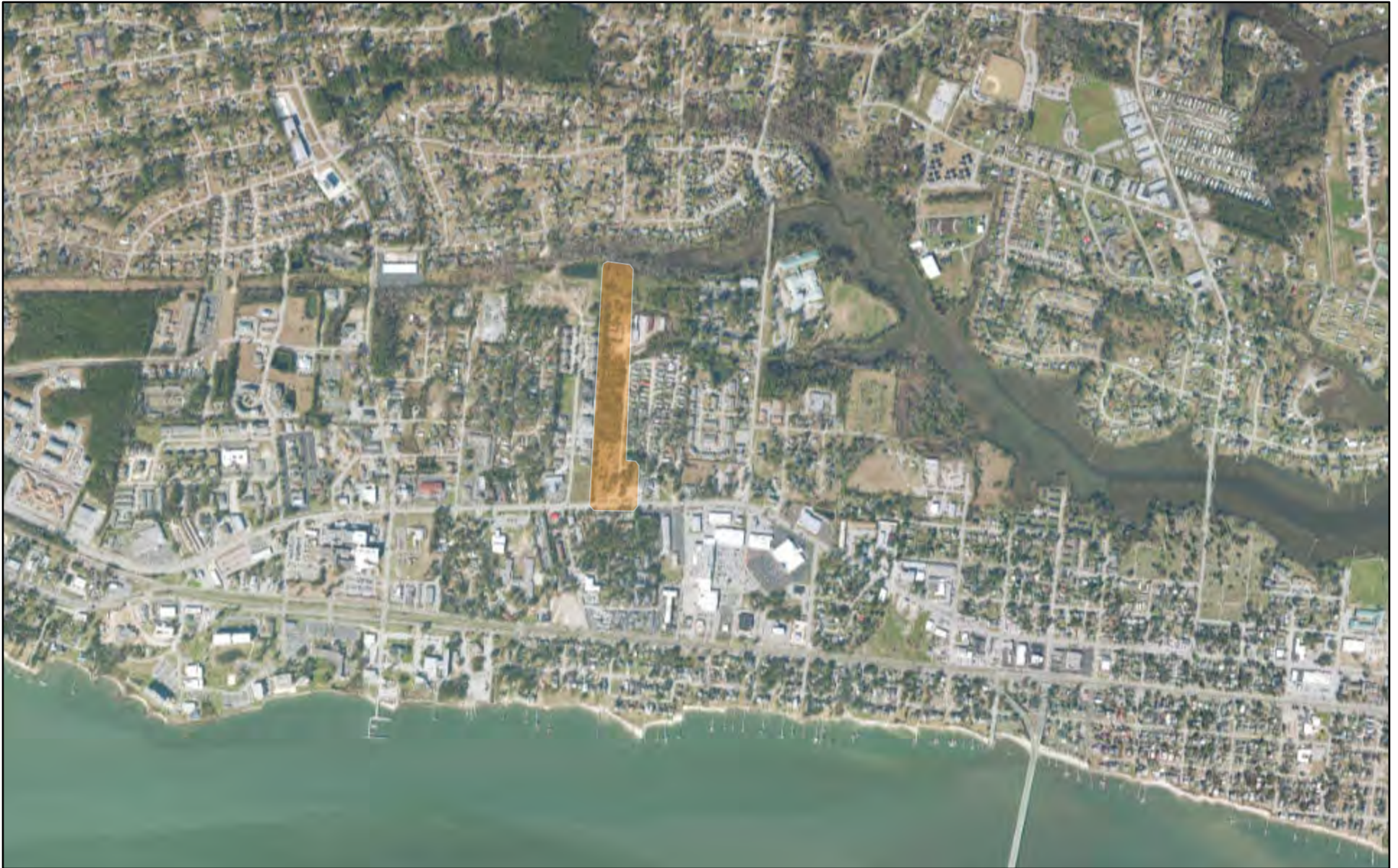
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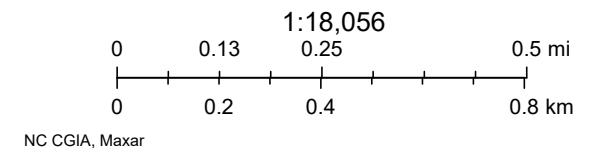
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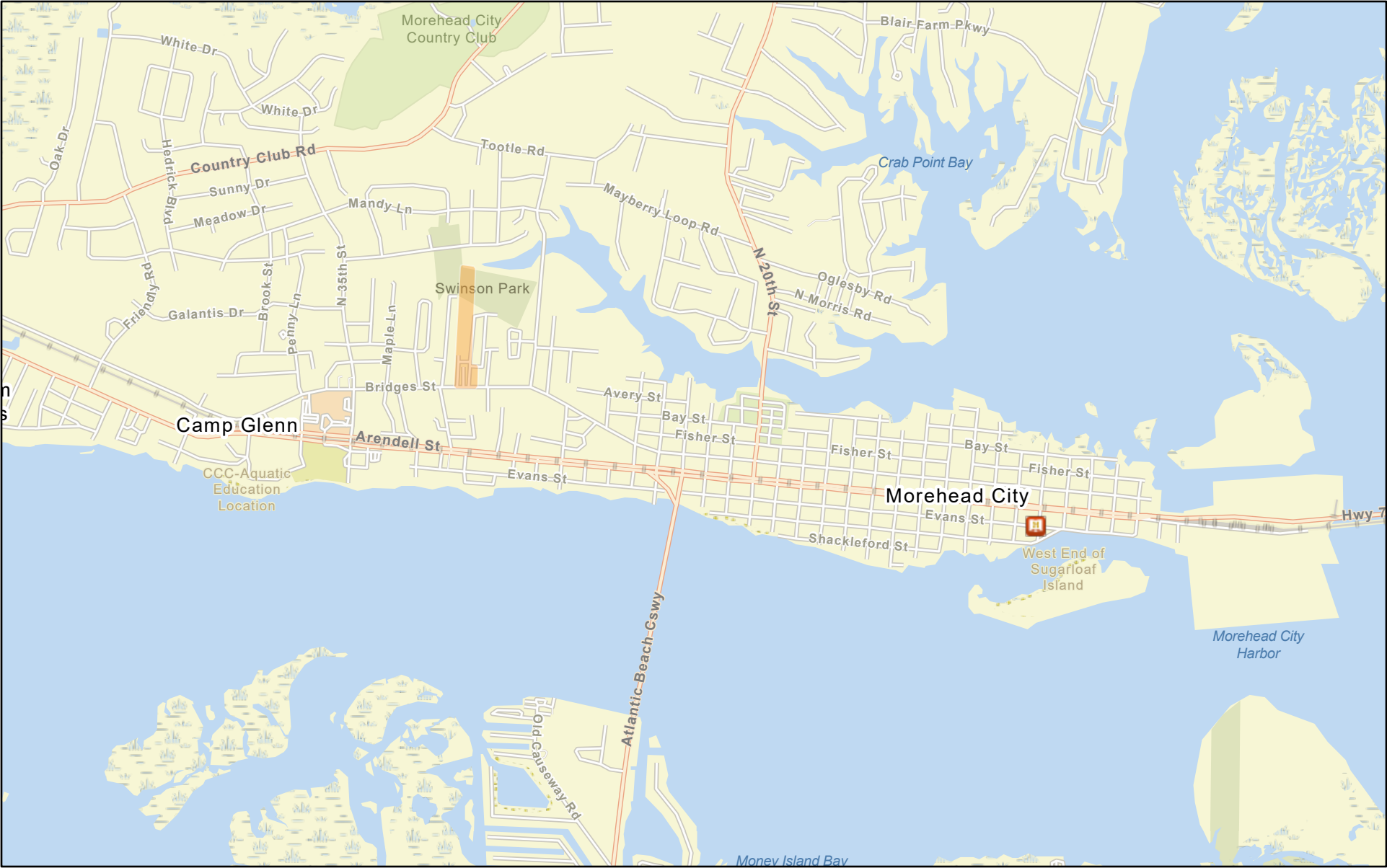


January 17, 2023


 elijahs's landing



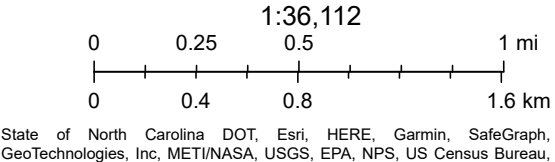
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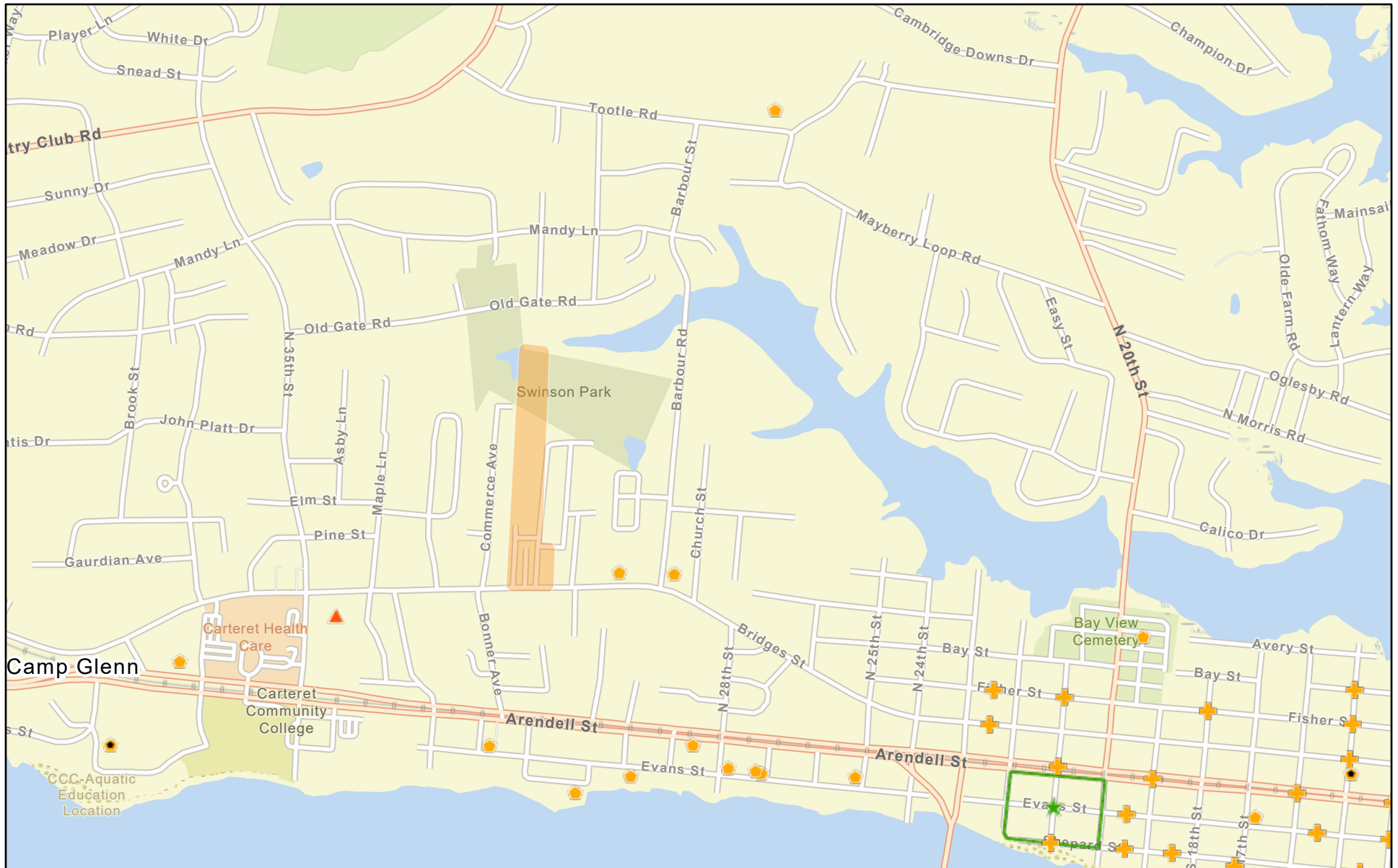
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January 17, 2023

Designated

▲ Determined Eligible - DOE

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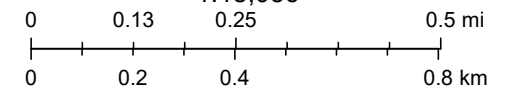
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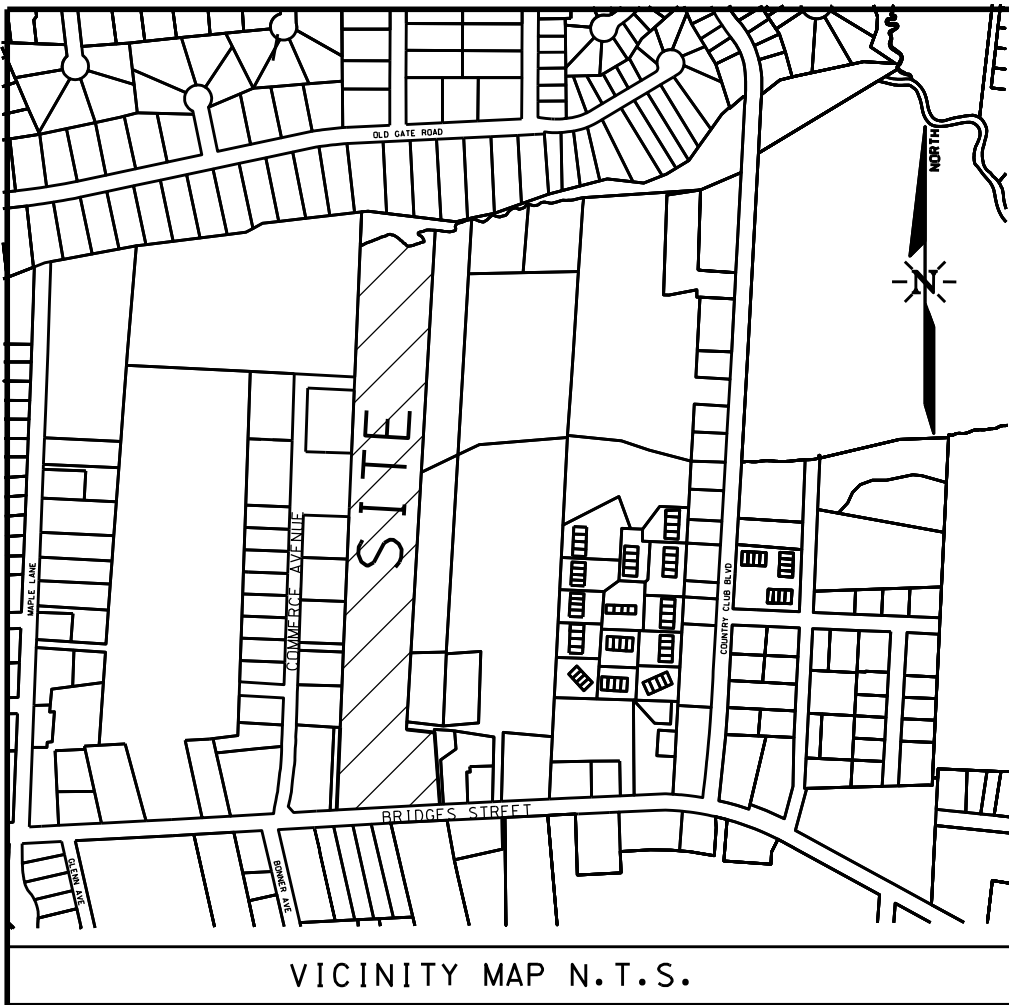
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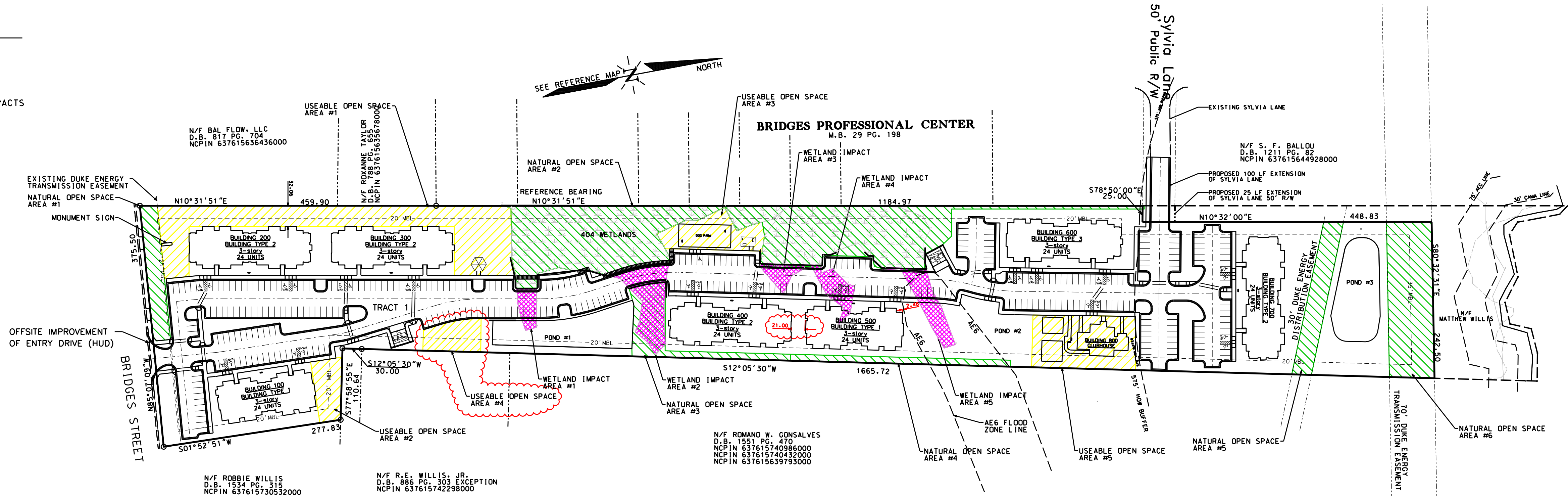
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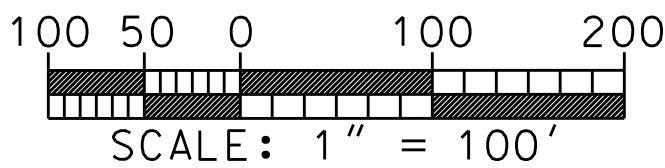
VICINITY MAP N.T.S.

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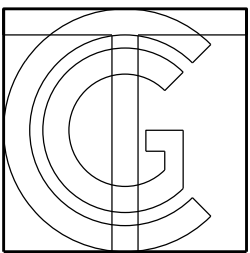


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FHA Project #:053-36291

Elijah's
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Overall
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C-4492
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ATTACHMENT 2:

Subject Property Photographs



Photograph 1 – View of the site looking northeast from Bridges Street



Photograph 2 – View of typical vegetation centrally on the site



Photograph 3 – Typical vegetation on the northern portion of the site



Photograph 4 – View of the site looking northeast toward on-site derelict structure



Photograph 5 – View of debris south of the on-site structure



Photograph 6 – View of debris south of the on-site structure



Photograph 7 – On-site pole mounted transformer north of the site structure



Photograph 8 – View of on-site structure



Photograph 13 – Five-gallon bucket of oil just outside the on-site structure



Photograph 14 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 15 – Suspect corrugated transite roofing sheets north of the on-site structure, along the western property boundary.



Photograph 16 – Soil pile north of the on-site structure



Photograph 17 – Debris north of the on-site structure



Photograph 18 – Debris and dirt piles north of the on-site structure
and view of eastern adjoining property



Photograph 19 – View of eastern adjoining property (The Wood Yard)



Photograph 20 – View of eastern adjoining property (residential)



Photograph 21 – View of eastern adjoining property (food pantry)



Photograph 22 – View of southern adjoining property (residential)

ATTACHMENT 13:

Noise Abatement and Control

Project Architect's Noise Mitigation Letter,
HUD Noise Assessment
dated February 22, 2023 by Partner, and
NCORR Noise Assessment with NC DOT
AADT Trend Analysis, FAA 5010 Master
Record, National Transportation Noise
Map, HUD Airport Noise Worksheet, and
DNL Calculations Current 2021 and
Future 2035 Projections

Project Architect's Noise Mitigation Letter



Noise Letter Form

August 10, 2023

Keith Walker
East Carolina Community Development, Inc.
PO Box 2400
Beaufort, NC 28516
252-504-3996

Subject: Elijah's Landing: Building Noise Mitigation
HUD Project Number: 053-36438
3200 Bridges Street
Morehead City, NC 28557

Dear Mr. Walker,

We have reviewed the HUD Noise Assessment Report for Elijah's Landing Apartments (Partner Project No. 20-286380.9, dated February 22, 2023) and subsequent DNL Calculations (dated February 22, 2023) performed by Partner Assessment Corporation (Partner). Per their report, site noise levels from the nearby railroad and Bridges Street total 69dB, which is "normally unacceptable" per HUD guidelines (above 65dB but not exceeding 75dB).

HUD requires that building interior sound attenuation must ensure a maximum of 45dB for quality of life, and for our site the HUD STraCAT and Partner's Report specifically requires 27dB attenuation. Our proposed exterior wall system consists of 3-1/2" wood studs at 16" o.c. with R-15 batt insulation and 7/16" exterior wood structural panels with brick on the lower portion of wall and vinyl siding above the brick, and 1/2" gypsum wall board on the interior face. Per the STraCAT analysis for Buildings #100 & #200, our wall system provides a total attenuation of 30.0dB, which meets the required amount of attenuation. See attached documents for STraCAT data.

If there are any questions, please let us know.

Sincerely,

Sound Transmission Classification Assessment Tool (STraCAT)

Part I - Description			
Project		Sponsor/Developer	
Elijah's Landing - #100		ECCDI	
Location		Prepared by	
Morehead City, North Carolina		Rebecca Morris	
Noise Level	Date	Primary Source(s)	
69.479	2018-07-26	Bridges Street & Railroad	

Part II - Wall Components			
Wall Construction Detail	Area	STC	
Face brick	1768	50	
"2x4" studs with 16" o.c.	16650	35	
gypsum board and plywood	16650	28	
35,068 Sq. Feet		30.44	
Window Construction Detail	Quantity	Sq Ft/Unit	STC
3x5ft double hung	46	15	26
3x5ft double hung	46	15	26
-- select window --	0	0	
Door Construction Detail	Quantity	Sq Ft/Unit	STC
3x7ft solid-core wood	48	21	27
-- select door --	0	0	
-- select door --	0	0	

Part III - Results			
Wall Statistics			
Stat	Value		
Area:	35068 ft²		
Wall STC:	30.44		
Aperture Statistics			
Aperture	Count	Area	% of wall
Windows:	92	ft²	3.94%
Doors:	48	ft²	2.87%
Evaluation Criteria			
Criteria	Value		
Noise source sound level(dB):	69.479		
Combined attenuation for wall component:	30.01 dB		
Required attenuation:	27.479		
Do Wall components meet requirements?	Yes		

Sound Transmission Classification Assessment Tool (STraCAT)

Part I - Description			
Project		Sponsor/Developer	
Elijah's Landing - #200		ECCDI	
Location		Prepared by	
Morehead City, North Carolina		Rebecca Morris	
Noise Level	Date	Primary Source(s)	
69.479	2018-07-27	Bridges Street & Railroad	

Part II - Wall Components			
Wall Construction Detail	Area	STC	
Face brick	2215	50	
2x4" studs with 16" o.c.	18684	35	
gypsum board and plywood	18684	28	
39,583 Sq. Feet		30.47	
Window Construction Detail	Quantity	Sq Ft/Unit	STC
3x5ft double hung	60	15	26
3x5ft double hung	60	15	26
-- select window --	0	0	
Door Construction Detail	Quantity	Sq Ft/Unit	STC
3x7ft solid-core wood	48	21	27
-- select door --	0	0	
-- select door --	0	0	

Part III - Results			
Wall Statistics			
Stat	Value		
Area:	39583 ft²		
Wall STC:	30.47		
Aperture Statistics			
Aperture	Count	Area	% of wall
Windows:	120	ft²	4.55%
Doors:	48	ft²	2.55%
Evaluation Criteria			
Criteria	Value		
Noise source sound level(dB):	69.479		
Combined attenuation for wall component:	30 dB		
Required attenuation:	27.479		
Do Wall components meet requirements?	Yes		
 Print			

HUD Noise Assessment
dated February 22, 2023 by Partner



February 22, 2023

Subject: **HUD Noise Assessment**
Elijah's Landing
3200 Bridges Street
Morehead City, North Carolina 28557
Partner Project No. 20-286380.9
HUD Program: MAP 221(d)(4) New Construction

Partner Assessment Corporation (Partner) assessed the subject property in general accordance with HUD guidelines, as specified in "The Noise Guidebook". According to these guidelines, the subject property was assessed to determine whether it is located within 1,000 feet of a roadway with available traffic data; within 3,000 feet of a railroad; or within 15 miles of a civil airport or military airfield.

The acceptability of noise for the HUD criteria calls for a day-night average sound level (DNL) of 65 decibels or less. Any DNL above 75 decibels is deemed unacceptable. DNL values between 65 and 75 decibels may be acceptable through engineering adjustments to the subject property.

In accordance with HUD requirements, Partner assessed the 10-year projected noise levels for the subject property. As a prudent measure for planning purposes, Partner also assessed the 11-year projected noise levels for the subject property.

Noise assessment location (NAL) points were denoted in various areas at the subject property that were determined based on site plan(s)/information outlining a change in noise sensitive uses/areas.

Online HUD calculations providing visual indications of DNL currently affecting the subject property have been prepared and are included in the appendices herein. Furthermore, additional supporting documentation (i.e. published traffic county information, client provided documentation, etc.) utilized in preparing the noise calculations are also included in the appendices.

Prepared By:

Angelique Crews
HUD NEPA Professional

Reviewed By:

Michael Lawlor
Senior Author

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1.0 PROJECT INFORMATION

1.1 Existing Property Conditions

The subject property consists of 11.71 acres of that is currently vacant land with a delapidated building formerly utilized as a personal storage area, wetland areas and fallow / wooded land. No onsite operations are conducted at the subject property. In addition to the current structure, the subject property is also improved with a chain-link metal fence along the north, west and portions of the east perimeter. Numerous areas of construction debris were noted predominately within the central-northern portion of the site.

1.2 Proposed Property Conditions

The proposed multi-family development will consist of seven (7), 3-story apartment buildings containing a total of 168 residential units. Each building, of which there are two proposed types, will contain 12, 1-bedroom and 12, 2-bedroom units per building. In addition to the apartment buildings, the project will contain one, single-story clubhouse comprised of 2,902-square feet (Gross building area). The clubhouse will contain a multipurpose area, office(s), computer area, laundry, exercise and maintenance areas. In addition to the proposed onsite buildings, the project will contain two dumpster areas, two gazebos, a dog park, playground, tot lot, asphalt-paved, surface parking areas and landscaped areas.

2.0 ROADWAY INFORMATION

2.1 Roadway(s) Data Assessment

Roadways with published traffic counts were assessed within a 1,000-foot radius of the subject property.

<u>Bridges Street</u>		
	Value	Data Source Notes
Average Annual Daily Traffic (2018)	15,000	North Carolina Department of Transportation (NCDOT) website
Medium Truck %	4%	HUD default value
Heavy Truck %	4%	HUD default value
Nighttime %	15%	HUD default value
Road Gradient %	0%	No steep grades observed
Speed Limit (MPH)	35	Speed limit obtained from Google Earth streetview
Annual Growth Rate %	1%	Historic AADTs have not changed or have decreased between 2002 and 2021. The most consistent AADT of 15,000 was utilized herein
10-Year Projected Traffic Counts (2033)		
Car Count	16,021	
Medium Truck Count	697	
Heavy Truck Count	697	
11-Year Projected Traffic Counts (2034)		
Car Count	16,182	
Medium Truck Count	704	
Heavy Truck Count	704	

Projected AADTS were requested from the contact(s) indicated above; however, no response has been received. A copy of the related traffic data outlined above, as well as communications for data requests, is included within the supporting documentation of this report.

2.2 Roadway 10-Year Noise Calculations

Partner assessed the 10-year projected noise levels at multiple noise assessment locations (NALs), as depicted on the attached site plan. No additional roadways were noted within a 1,000-foot radius of the subject property. The following table summarizes the calculated noise levels for each roadway, as applicable:

NAL #	Bridges Street	
	Effective Distance (ft)	Calculated Noise Level (dB)
1 - front (south end)	93	69
1 - middle	197	64
1 - back (north end)	287	61
2	315	61
3	1057	53
4	1736	50
5 ^a	538	57
6 ^b	864	54
7 ^c	962	54
8 ^d	1373	52

*a = gazebo south;
b = dog park;
c = gazebo north;
d = tot lot/playground area*

3.0 RAILWAY INFORMATION

3.1 Railway(s) Data Information

Railways were assessed within a 3,000-foot radius of the subject property.

Norfolk Southern Railway Company		
	Value	Data Source Notes
Diesel or Electric?	Diesel	Confirmed via Google Earth streetview and online research
Train Speed (MPH)	35	FRA Crossing Inventory website (https://fragis.fra.dot.gov/gisfrasafety/)
Engines per Train	2	HUD default value for diesel freight trains
Rail Cars per Train	50	HUD default value for diesel freight trains
Train Operations per Day	1	FRA Crossing Inventory website (https://fragis.fra.dot.gov/gisfrasafety/)
Nighttime %	0%	Calculated based on night trains count from FRA Crossing Inventory website (https://fragis.fra.dot.gov/gisfrasafety/)
Whistles or Horns Applicable?	Yes	Based on an at-grade crossing located within 0.25 miles of the subject property
Bolted or Welded Tracks?	Welded	Based on observations via Google Earth streetview

A copy of the related railroad data outlined above, as well as communications for data requests, is included within the supporting documentation of this report.

3.2 Railway Noise Calculations

Partner assessed the 10-year projected noise levels at multiple noise assessment locations (NALs), as depicted on the attached site plan. The following table summarizes the calculated noise levels for each railroad noise source, as applicable:

NAL #	Norfolk Southern Railway Company	
	Effective Distance (ft)	Calculated Noise Level (dB)
1 - front (south end)	1244	43
1 - middle	1350	42
1 - back (north end)	1443	42
2	1468	42
3	2218	39
4	2882	37
5 ^a	1694	41
6 ^b	2011	40
7 ^c	2108	40
8 ^d	2545	38

*a = gazebo south;
b = dog park;
c = gazebo north;
d = tot lot/playground area*

There are no additional railroad tracks within a 3,000-foot radius of the subject property.

4.0 AIRPORT / AIRFIELD INFORMATION

4.1 Airport(s) Data Information

Airports / airfields were assessed within a 15-mile radius of the subject property.

Airport/Airfield Name	Distance (miles)	Noise Map Available?	Year of Map	Estimated DNL (dB)	Data Source Notes
Michael J. Smith Airport	4.44	Yes	2011	< 65	Airport Environmental Assessment Report https://files.nc.gov/ncdcr/historic-preservation-office/PDFs/ER_99-7108.pdf
Cherry Point Cunningham Field	12.69	Yes	1998	< 65	Airport AICUZ Study https://www.cherrypoint.marines.mil/Portals/86/Docs/AICUZ/AICUZ2.pdf

A copy of the related airport/airfield data outlined above, as well as communications for data requests, is included within the supporting documentation of this report.

There are no additional airports or military airfields within a 15-mile radius of the subject property.

5.0 NOISE CALCULATION RESULTS

5.1 10-Year Noise Calculations (Total Noise)

A total 10-year day-night sound level (DNL) was calculated for multiple noise assessment locations (NALs), as depicted on the attached site plan, combining roadways with available traffic data within 1,000 feet; railways within 3,000-feet; and airports/military airfields within a 15-mile radius of the subject property, where applicable. The following table summarizes the calculated noise levels for the combined noise sources, as well as the minimum attenuation required for elevated interior noise when utilizing the HUD Sound Transmission Classification Assessment Tool (STraCAT), where applicable, accounting for the 3-dB margin of error as stipulated in the HUD Noise Guidelines:

NAL #	Combined Projected Noise Level (dB)	HUD Acceptability Category	Attenuation Required (dB)
1 - front (south end)	69	Normally unacceptable	27
1 - middle	64	Acceptable	No attenuation required
1 – back (north end)	61	Acceptable	No attenuation required
2	61	Acceptable	No attenuation required
3	53	Acceptable	No attenuation required
4	50	Acceptable	No attenuation required
5 ^a	57	Acceptable	N/A (exterior area)
6 ^b	54	Acceptable	N/A (exterior area)
7 ^c	54	Acceptable	N/A (exterior area)
8 ^d	52	Acceptable	N/A (exterior area)

*a = gazebo south;
b – dog park;
c = gazebo north;
d = tot lot/playground area*

6.0 RECOMMENDATIONS

Recommendation(s):

- Based on the “Normally Unacceptable” noise levels for the proposed tenant structures, which are Buildings 100 and 200, completion of the HUD Sound Transmission Classification Assessment Tool (STraCAT) should be conducted to evaluate the interior noise levels for the subject property. The STraCAT determines interior noise levels combining wall systems, windows and doors, which assists in choosing construction materials to reduce interior noise levels. Of note, the elevated noise levels appear to be associated with the southern portion of the buildings and not the central (breezeway) and northern portions.
- Based on the “Acceptable” projected noise calculations for the year 2033, for NALs 2 through 9, further action regarding noise at the subject property is not warranted at this time.
- Confirmation regarding unit balconies has not been provided at this time. In the event balconies are proposed within the southern portion of Buildings 100 and 200, in accordance with 24 CFR 51.101(a)(3), for new construction projects in “Unacceptable” and “Normally Unacceptable” noise areas, tenant bedrooms and studio apartments may have direct access to balconies if the three following requirements are met:
 1. The interior noise levels have been mitigated to not exceed a day-night average noise level of 45 decibels as documented by the Sound Transmission Classification of the dwelling unit’s exterior walls factoring in fenestration.
 2. Appropriate ventilation is provided by a mechanical ventilation system and not by opening doors or windows, and
 3. An Operations and Maintenance plan is in place that requires periodically inspecting seals and repairing or replacing building components when their performance diminishes.

Of note, per HUD 2021 MAP guidelines, Section 9.6.8.I.3, *“HUD Approving Officials may require additional mitigation measures or deny approval of balconies based on noise or other concern. In addition, Environmental Assessment or Environmental Impact Statement levels of environmental review must consider potential health effects stemming from issues related to noise sources, such as air quality, and toxic hazard exposure near transportation.”*

7.0 LIMITATIONS

Partner warrants the findings and conclusions contained herein were completed in general accordance with HUD guidelines, as specified in "The Noise Guidebook". Partner believes the information obtained from the applicable agencies regarding obtained noise data is accurate and up to date. However, Partner cannot and does not warrant or guarantee the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations.

This noise report consists of a two-dimensional assessment of the applicable noise sources and does not address topographic elevations or attenuation of existing barriers. Noise levels will be calculated utilizing the most recent reasonably ascertainable noise data available from local, state, and federal resources. The utilized aforementioned data is subject to availability from the agencies during the project timeline.

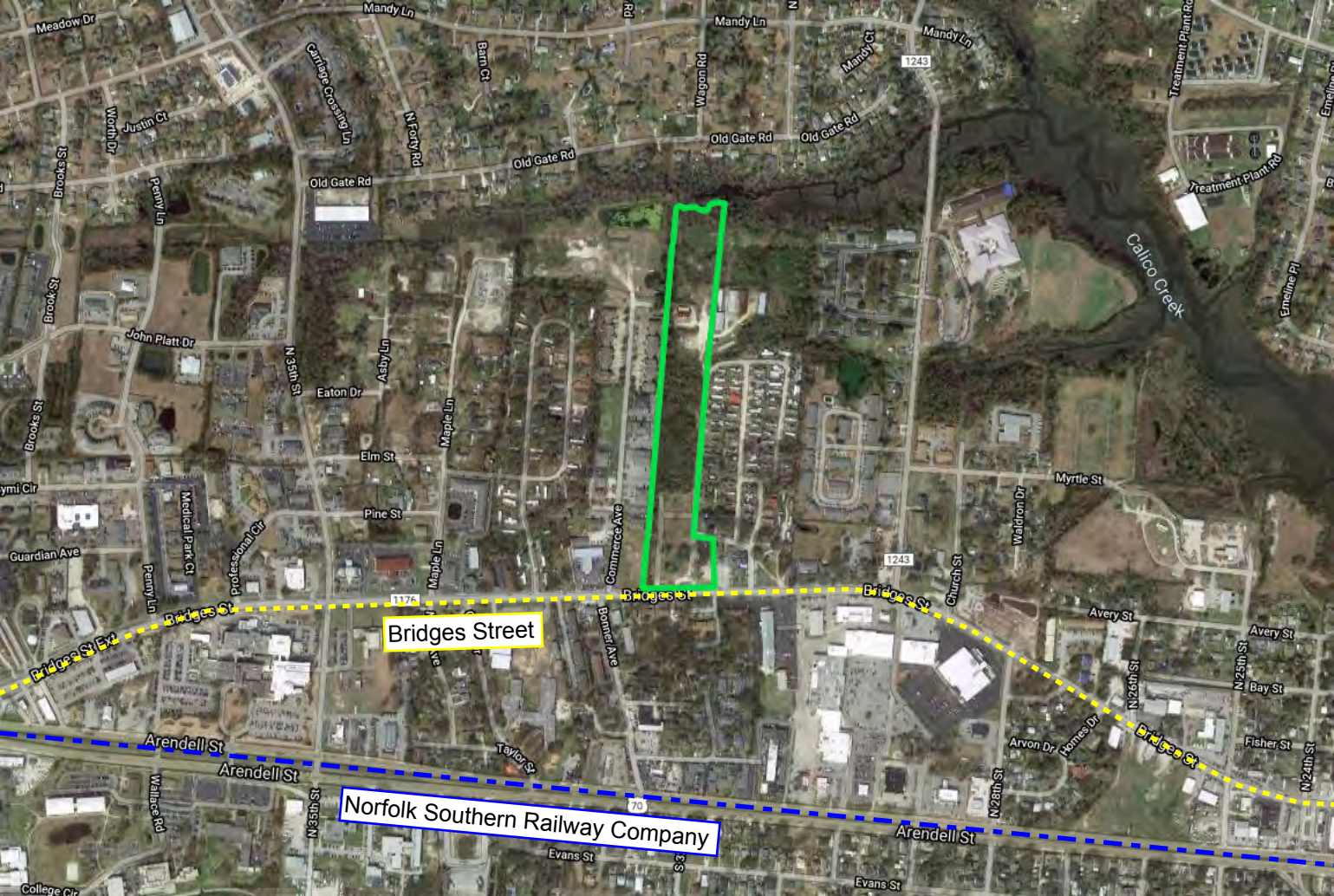
Additional scopes of work not included within the scope of this noise assessment, include but not limited to the following: 65 dB or 75 dB line location determination, barrier attenuation calculations, Sound Transmission Classification Assessment Tool (STraCAT) calculations, Noise O&M Plan, Noise Waiver, etc.

The use of HUD's night fraction (L_{day}) removes nighttime weighting for outdoor amenities closed at night. Based on the calculations herein, use of HUD's L_{day} was not considered warranted at this time.

Civil Plan and/or architectural plan set(s) were provided to Partner for use herein. The site plan is dated July 23, 2018. Updated Civil Plan and/or architectural plan set(s) may warrant a revision to the *Noise Assessment* outlined herein. Furthermore, updated plan set(s) may be warranted for Firm Commitment vs Pre-Application, which may result in revisions to the noise assessment outlined herein.

SUPPORTING DOCUMENTATION

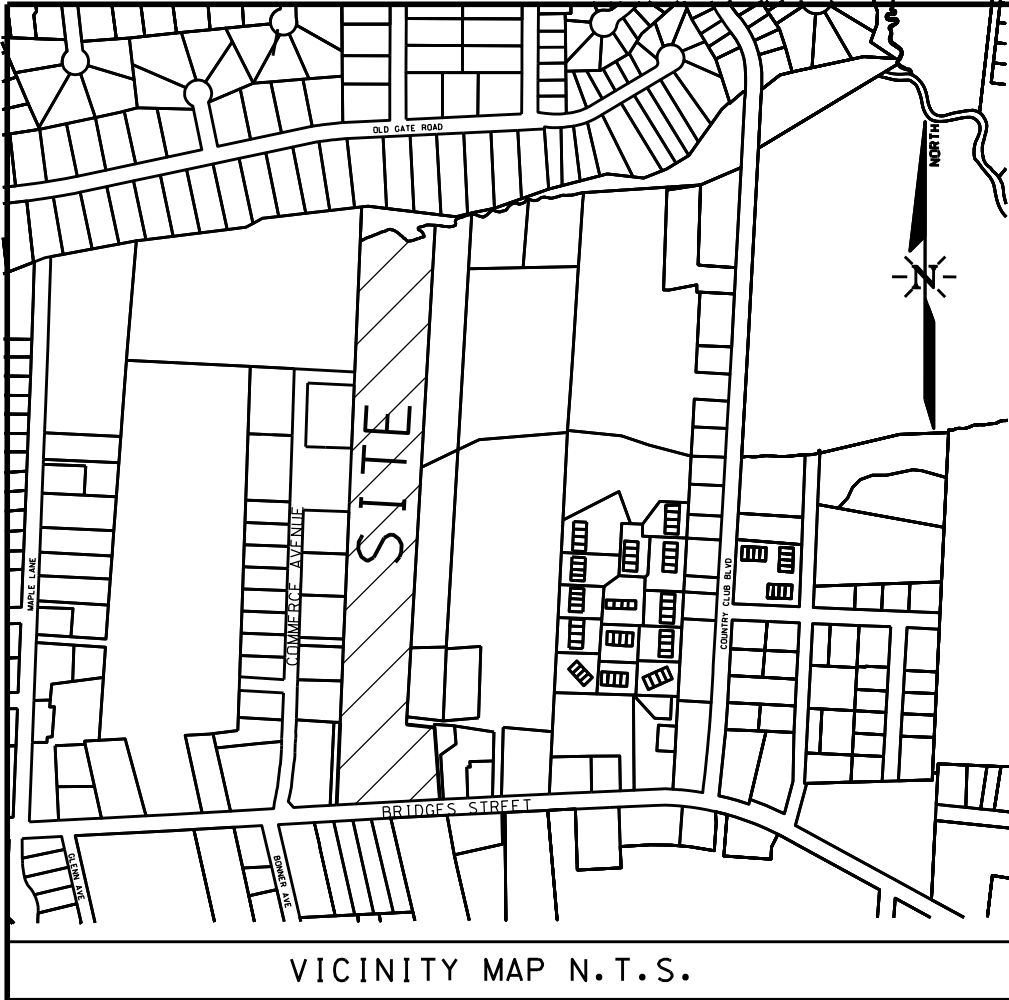
SITE PLAN WITH NOISE SOURCES



Bridges Street

Norfolk Southern Railway Company

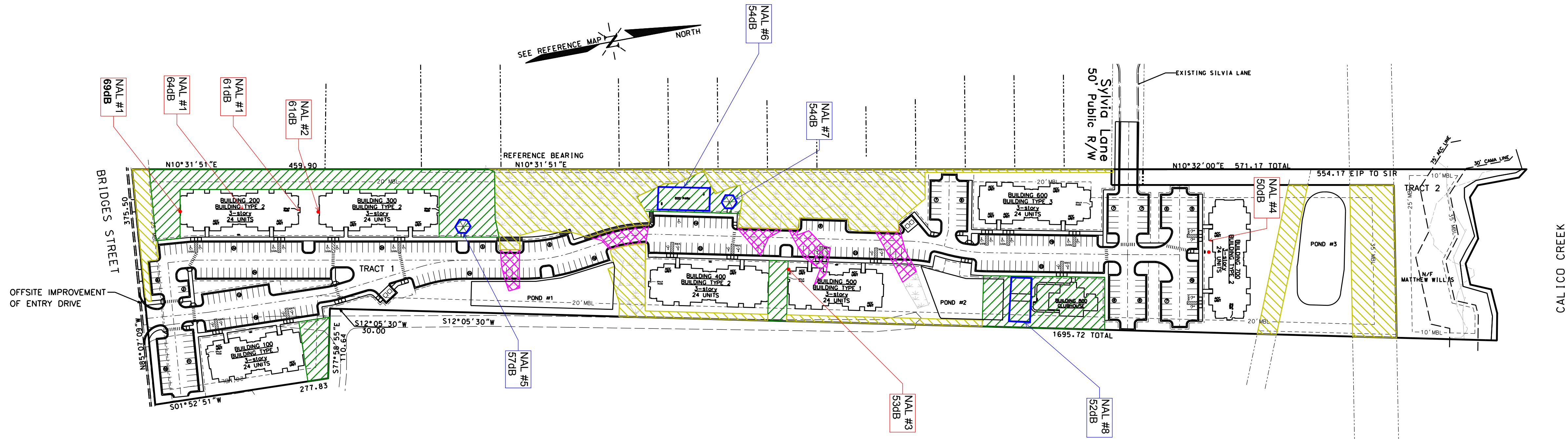
SITE PLAN WITH NALS



SHEET INDEX	
SHEET NO.	DESCRIPTION
C1.0	OVERALL SITE PLAN
C2.0	EXISTING CONDITIONS SURVEY
C3.0	ENLARGED SITE PLAN
C4.0	EROSION CONTROL PLAN
C5.0	GRADING & DRAINAGE PLAN
C6.0	UTILITY PLAN
C6.1-6.3	UTILITY PLAN & PROFILES
C7.0	LANDSCAPE PLAN
C8.0	STORMWATER POND #1 DETAILS
C8.1	STORMWATER POND #2 DETAILS
C8.2	STORMWATER POND #3 DETAILS
C8.3	STORMWATER PONDS PLANTING PLAN
C9.0	SITE DETAILS
C10.0	PLAYGROUND DETAILS
C11.0	EROSION CONTROL DETAILS
C12.0	UTILITY DETAILS

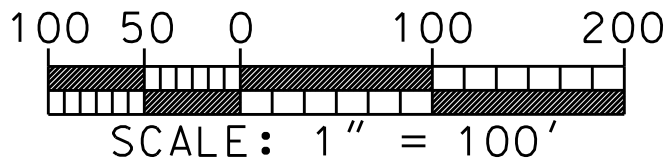
Elijah's Landing Apartments
3200 Bridges St.
Morehead City, NC 28557

168 UNITS



LEGEND	
	EXISTING WETLANDS
	PROPOSED WETLAND IMPACTS
	USEABLE OPEN SPACE
	NATURAL OPEN SPACE

SITE DATA	
TRACT 1 AREA = 11.74 AC = 506,966.36 SF TRACT 2 AREA = 1.12 AC = 48,787.20 SF (SUBDIVIDED OUT - NOT PART OF PROJECT AREA) MAXIMUM BUILDING COVERAGE ALLOWED IS 40% OF TRACT AREA = 202,786.54 SF PROPOSED BUILDING COVERAGE (BUILDINGS 100 THRU 700 & CLUBHOUSE) = 64,051.28 SF MINIMUM LOT SIZE PER UNITS = 5,000 SF FOR FIRST UNIT, EACH 2+ BEDROOM UNIT REQUIRES 3,000 SF PER UNIT AND EACH 1 BEDROOM UNIT REQUIRES 2,500 SF PER UNIT. PROPOSED (30) 1 BEDROOM UNITS, (78) 2 BEDROOM UNITS AND (60) 3 BEDROOM UNITS REQUIRED AREA = 5,000 SF + [138 UNITS X 3,000 SF] + [29 X 2,500 SF] = 491,500 SF = 11.28 AC TRACT AREA IS GREATER THAN MINIMUM LOT AREA REQUIRED	
OPEN SPACE REQUIREMENTS = 18% OF TRACT MUST BE NATURAL OPEN SPACE AND 10% USEABLE OPEN SPACE NATURAL OPEN SPACE REQUIRES (18% OF TRACT) = 91,253.94 SF USEABLE OPEN SPACE REQUIRED (10% OF TRACT) = 50,696.64 SF NATURAL OPEN SPACE PROVIDED = 94,071.63 SF USEABLE OPEN SPACE PROVIDED = 57,392.97 SF	
MINIMUM SETBACK REQUIREMENTS FRONT = 25', 25' PROVIDED REAR = 25' + 5' PER ADDITIONAL STORY = 35', 35' PROVIDED SIDE = 20' AGGREGATE = 5' PER ADDITIONAL STORY = 40' AGGREGATE SIDE SETBACKS ARE 20' FOR ENTIRE PROPERTY	
PARKING DATA	
PARKING SPACES REQ'D = 2 PARKING SPACES PER RESIDENTIAL UNIT (NCHFA 2017 OAP) PARKING SPACES REQ'D = 168 UNITS X 2 SPACES PER UNIT = 336 SPACES TOTAL	
PARKING REQ'D (MOREHEAD CITY) = 2 SPACES PER UNIT PLUS 1 ADDITIONAL SPACE PER 6 UNITS PARKING SPACES REQ'D = 336 SPACES + 28 SPACES = 364 TOTAL SPACES PARKING SPACES PROVIDED = 366 SPACES	
HANDICAP(H/C) PARKING REQ'D (MOREHEAD CITY) = 2% OF 364 = 8 SPACES REQ'D HANDICAP(H/C) PARKING REQ'D (NCHFA) = 1 PER TYPE 'A' UNITS, 2% OF TYPE 'B' UNITS, 1 PER LOCATIONS OF AMENITIES, VAN ACCESSIBLE SPACES REQ'D AT EACH AMENITIES LOCATION AND THE 1ST HANDICAP SPACE PER TYPE 'A' UNIT TYPE 'A' UNITS = 18, 18 HANDICAP SPACES REQ'D TYPE 'B' UNITS = 38, 1 HANDICAP SPACES REQ'D AMENITIES LOCATION = 3, 3 HANDICAP SPACES REQ'D HANDICAP(H/C) PARKING REQ'D = 21 VAN SPACES + 1 SPACES = 22 HANDICAP SPACES TOTAL HANDICAP PARKING SPACES PROVIDED = 33 SPACES	



Elijah's Landing Overall Site Plan

THE CULLIPHER GROUP, P.A.
ENGINEERING & SURVEYING SERVICES
C-4492
101-A NC HIGHWAY 24
MOREHEAD CITY, N.C. 28557
(252) 773-0060

80%
PRELIMINARY
FOR
REVIEW

date	7/23/18
drafter	CMC
checked by	CMC
proj. no.	PM858-29
revisions	date

OVERALL
SITE PLAN

C1.0

ROADWAY INFORMATION

Roadway Map 1 000 Ft Radius

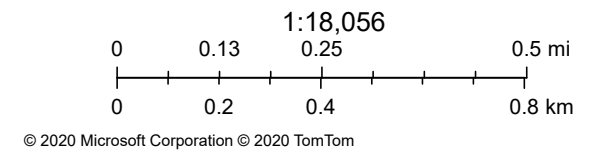


December 22, 2020

 Project Buffer

 Search Result (point)

 Roadway Map 1 000 Ft Radius



ROADWAY DISTANCES / TRAFFIC DATA / FOIA(S)

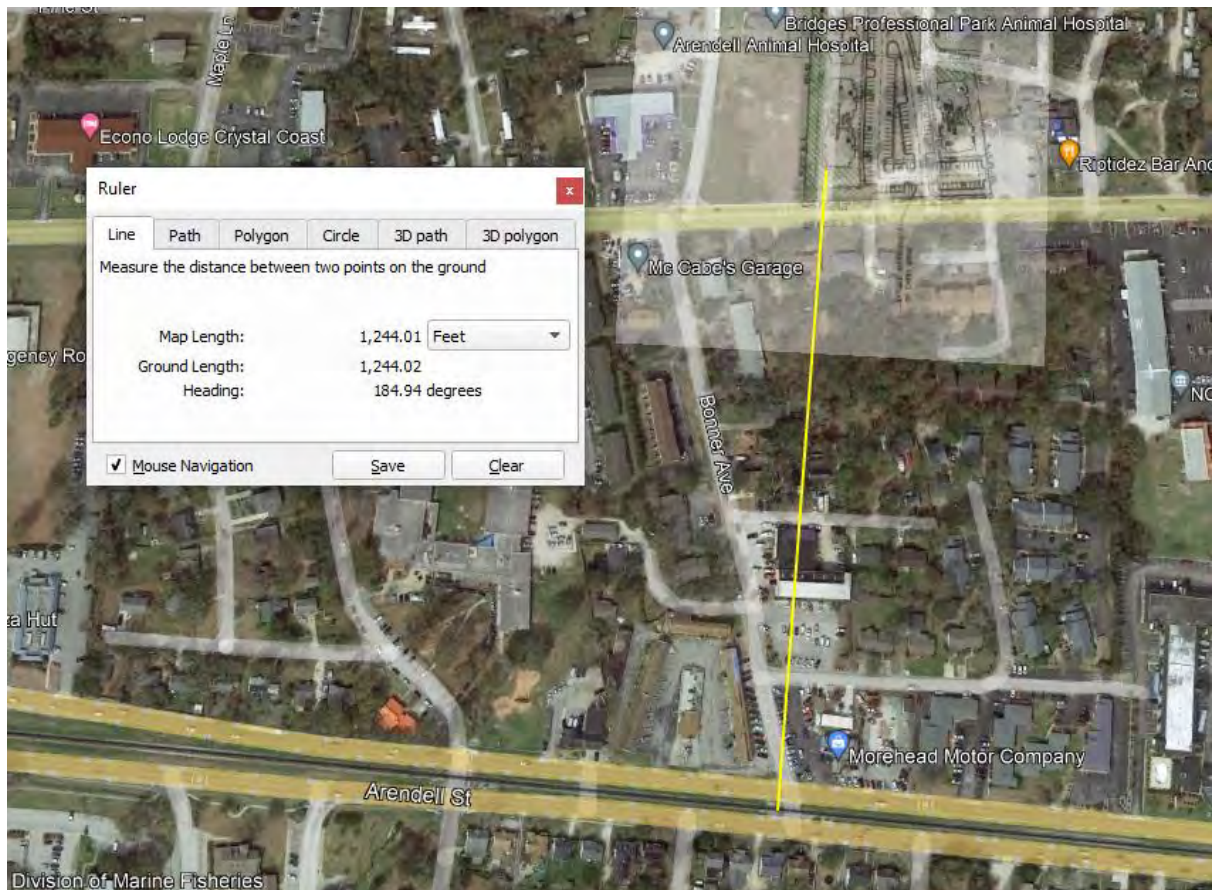
NAL #1

Bridges Street

(Distance measured was 6.5 feet from end of building, per Noise guidelines)



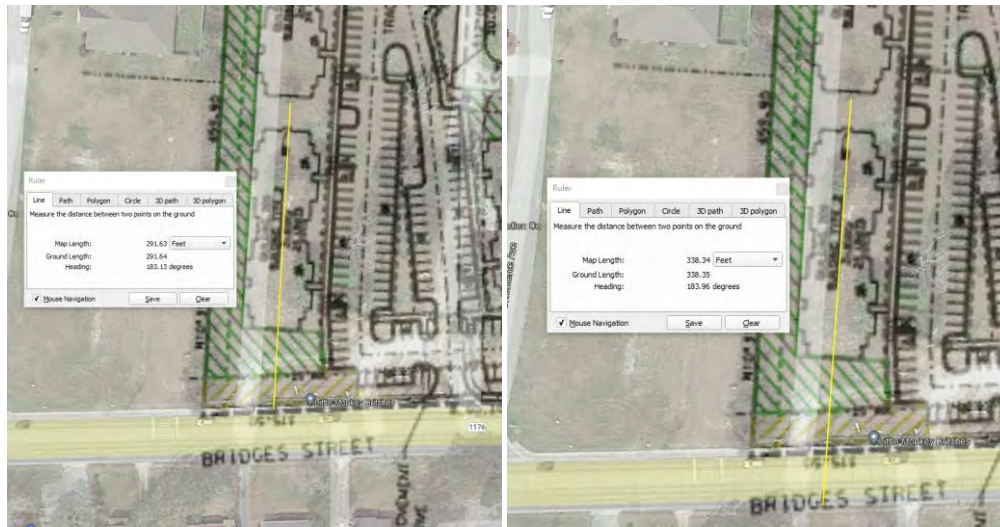
Norfolk Southern Railway Company



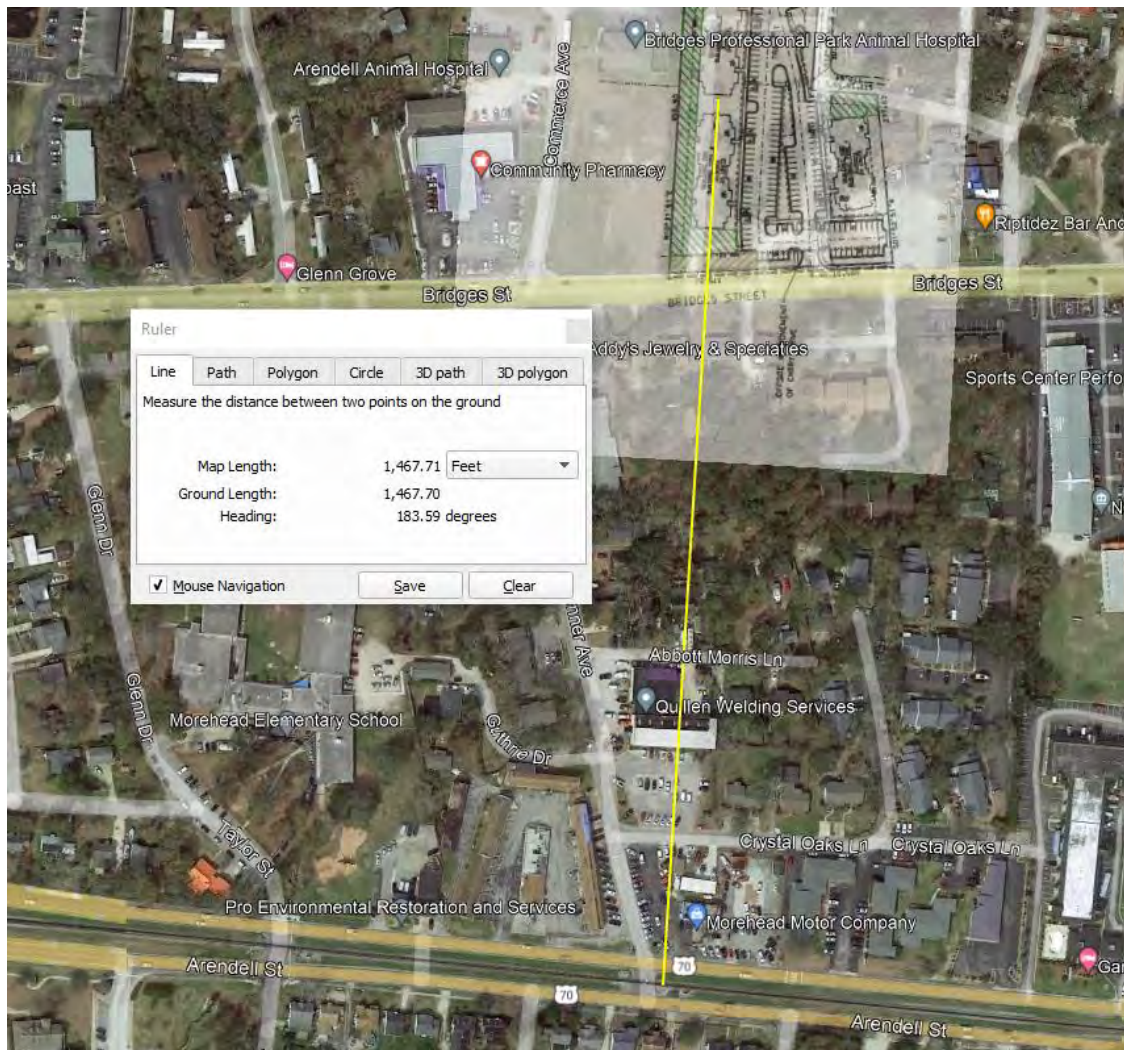
NAL #2

Bridges Street

(Distance measured was 6.5 feet from end of building, per Noise guidelines)



Norfolk Southern Railway Company



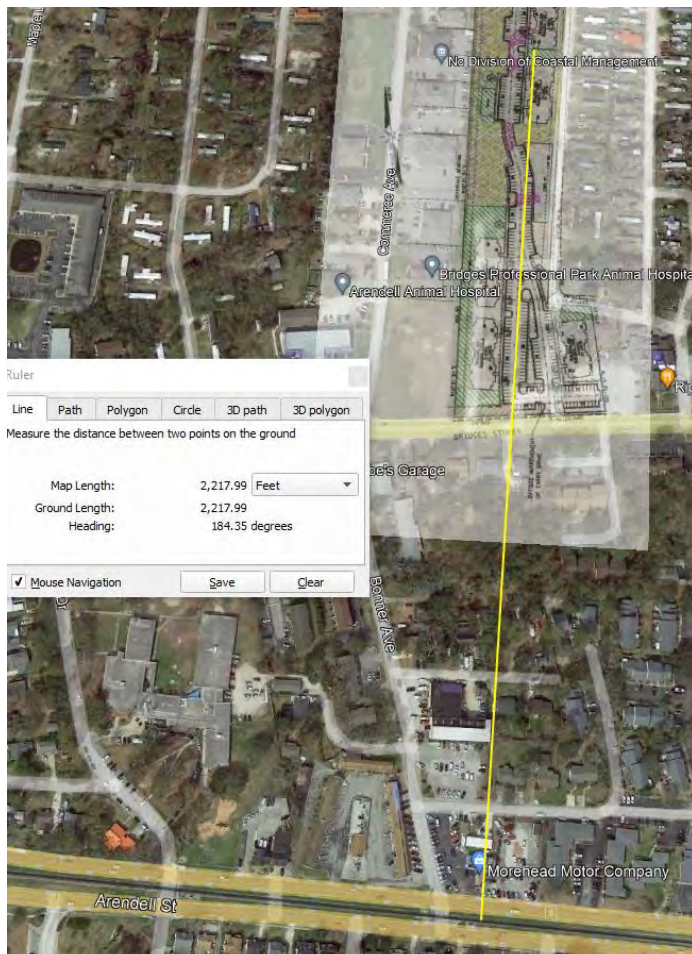
NAL #3

Bridges Street

(Distance measured was 6.5 feet from end of building, per Noise guidelines)



Norfolk Southern Railway Company

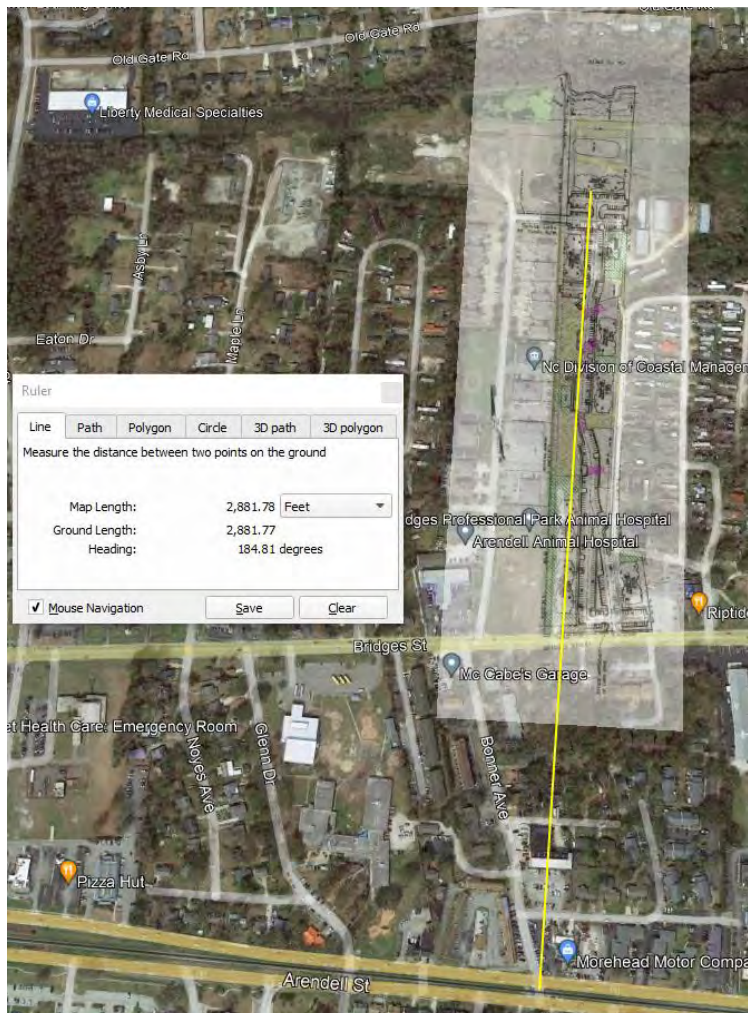


NAL #4

Bridges Street

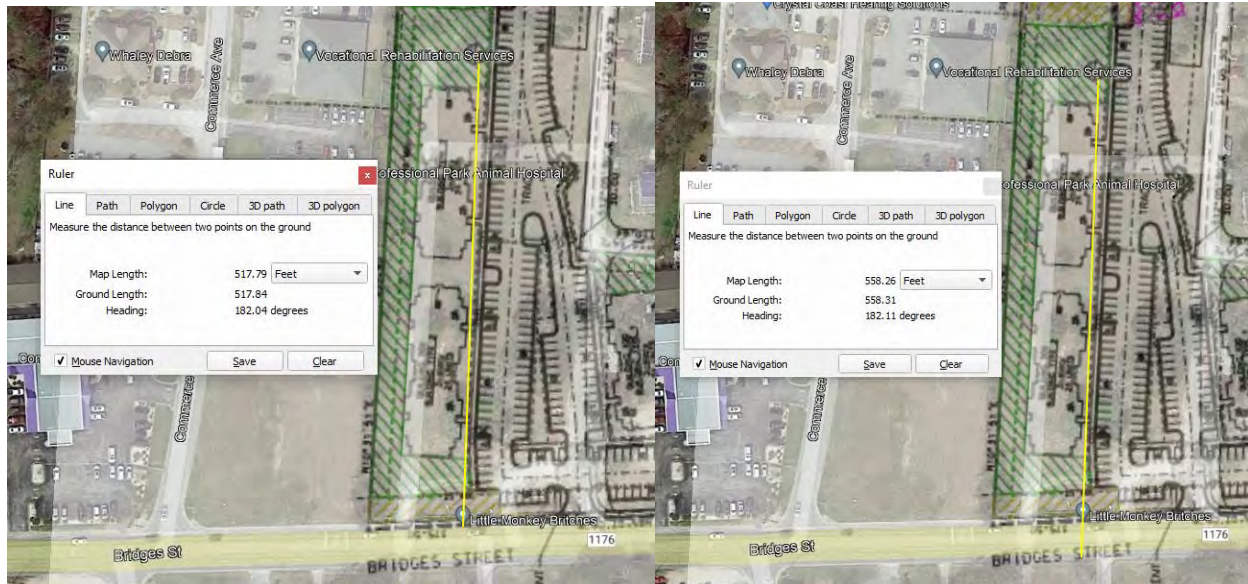


Norfolk Southern Railway Company

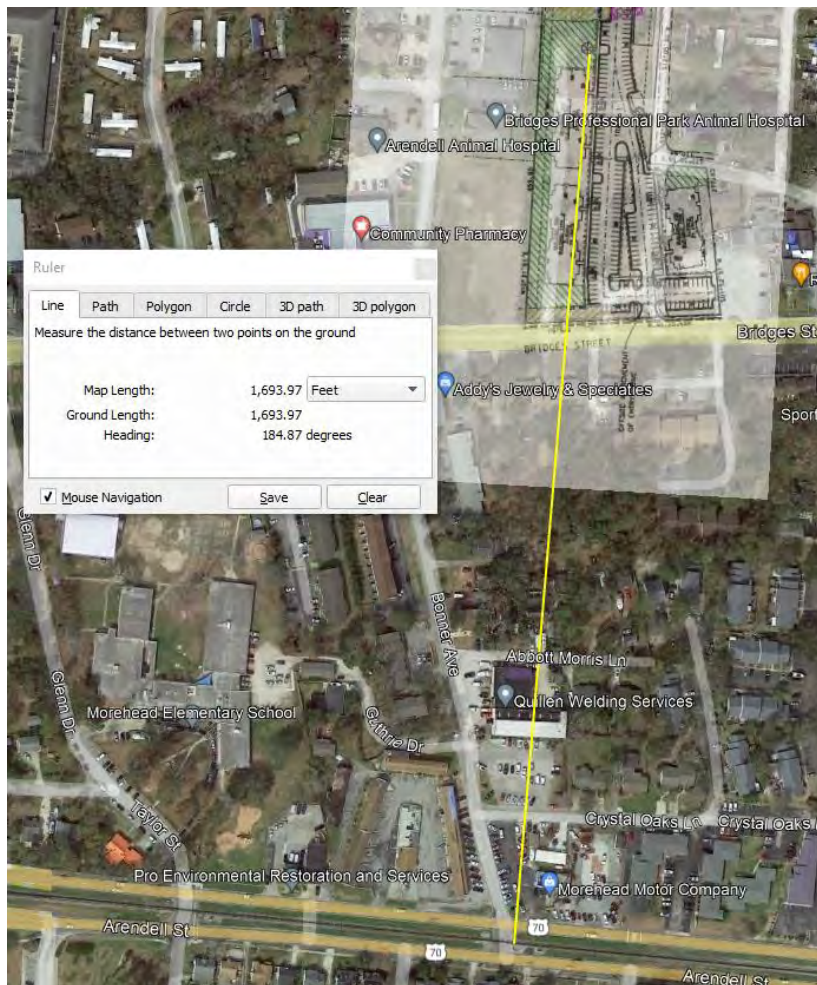


NAL #5 (gazebo south)

Bridges Street

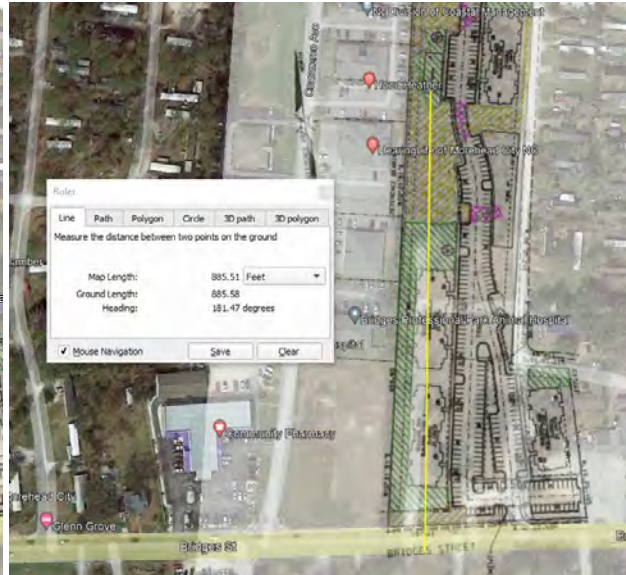
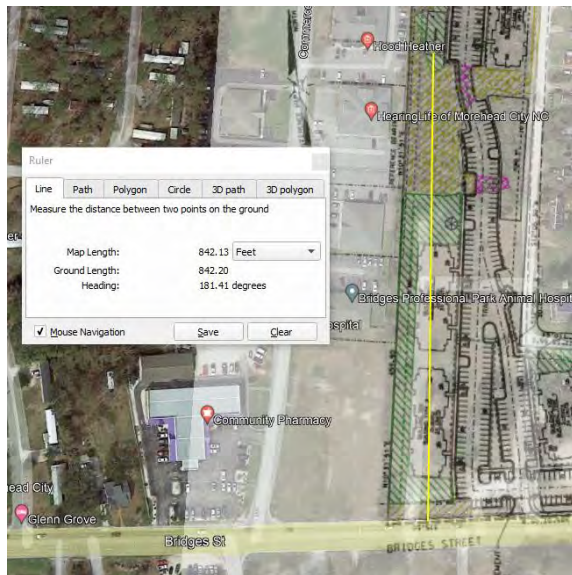


Norfolk Southern Railway Company

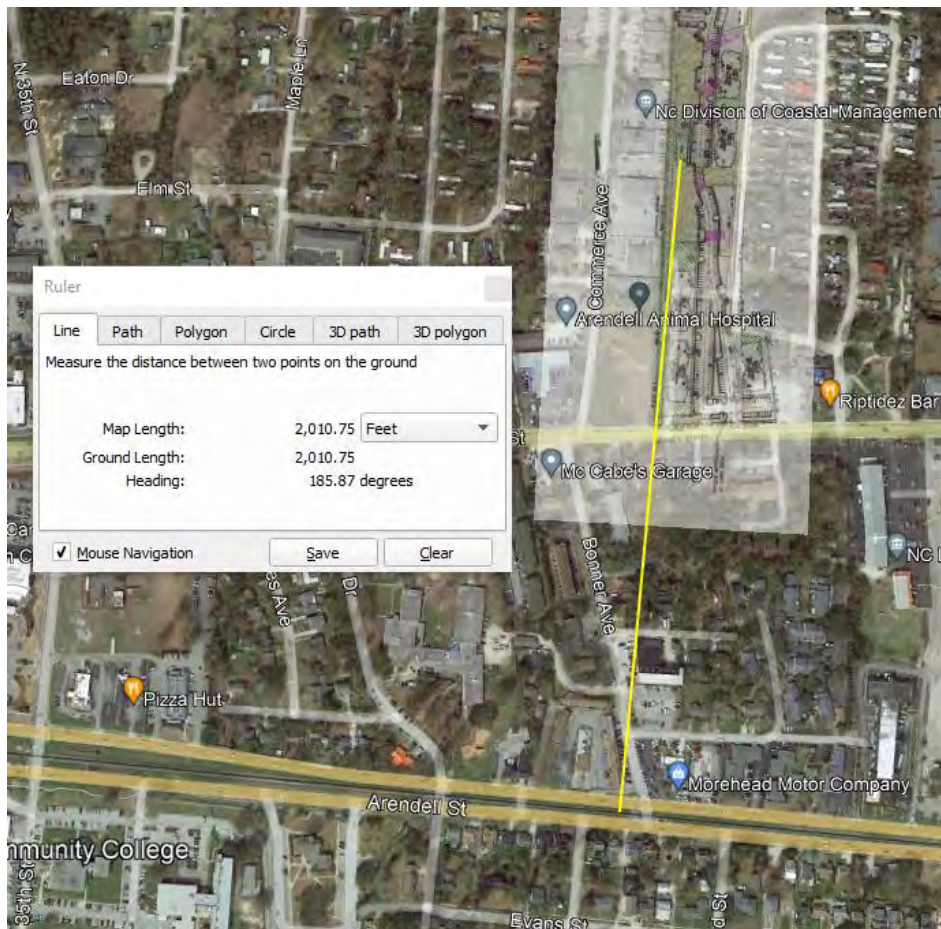


NAL #6 (dog park)

Bridges Street

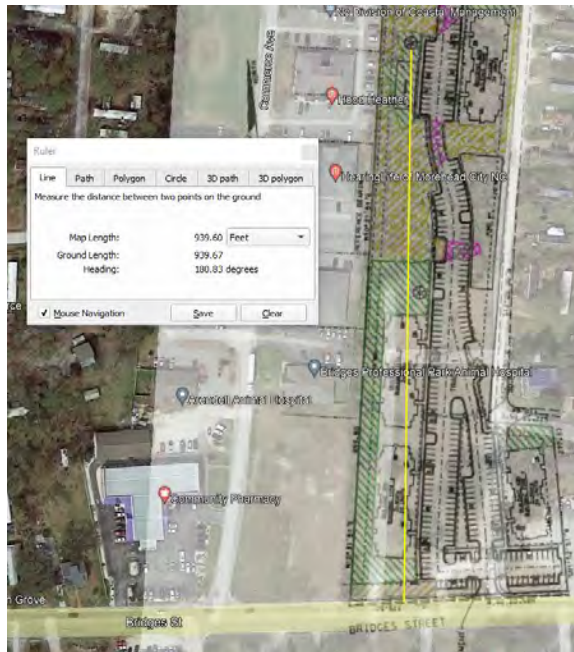


Norfolk Southern Railway Company

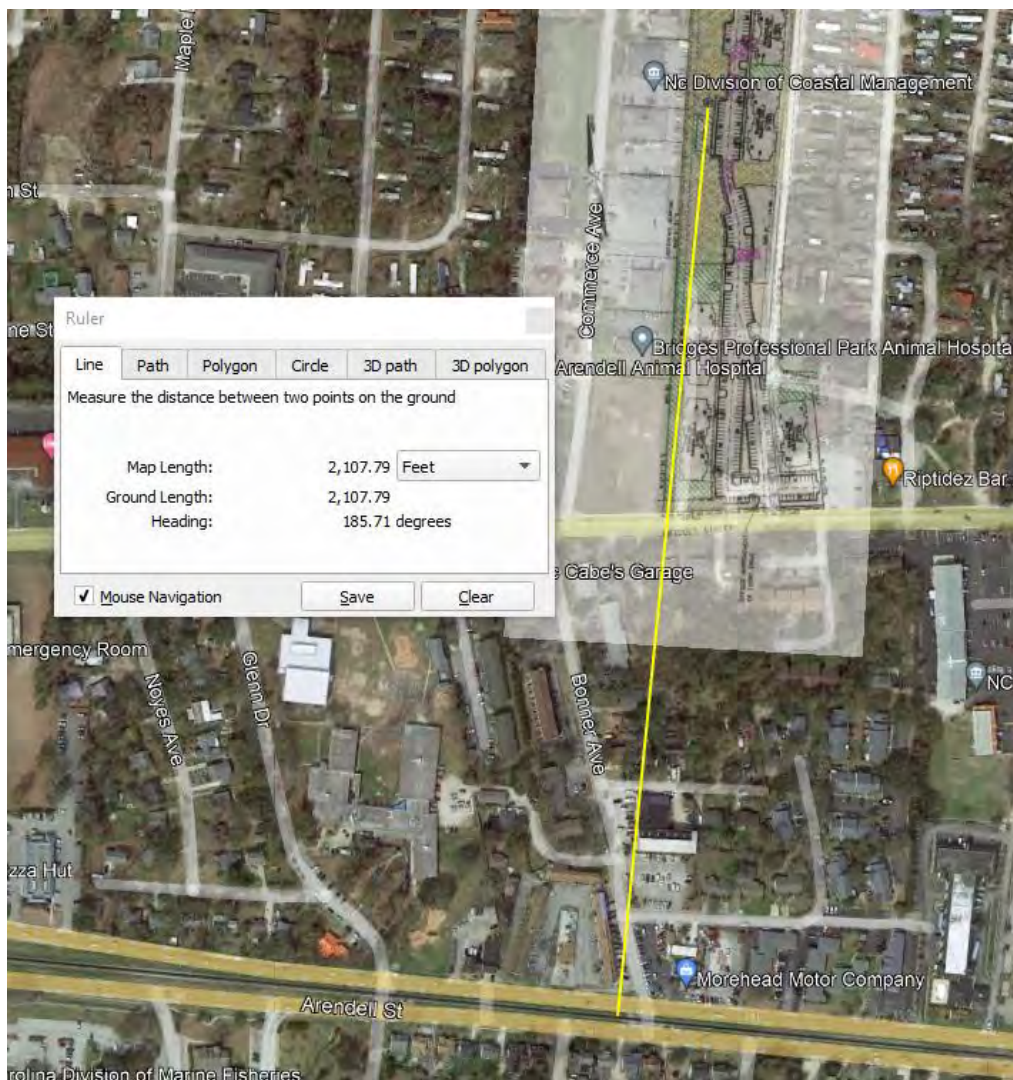


NAL #7 (gazebo north)

Bridges Street

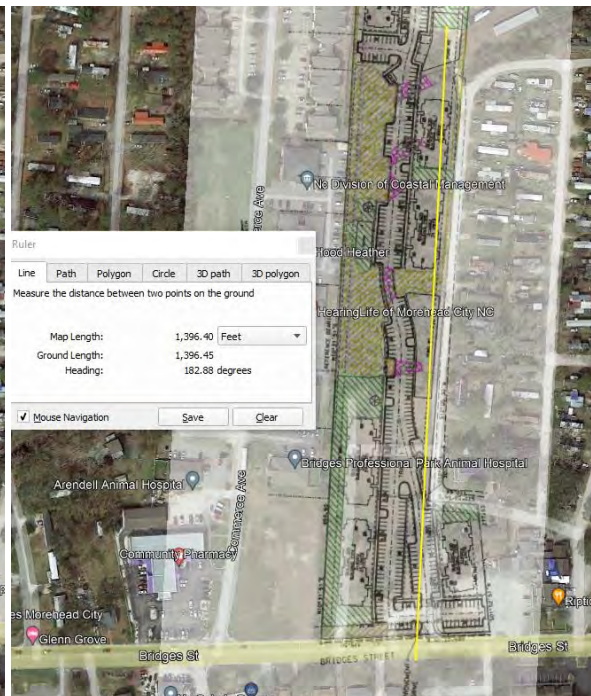
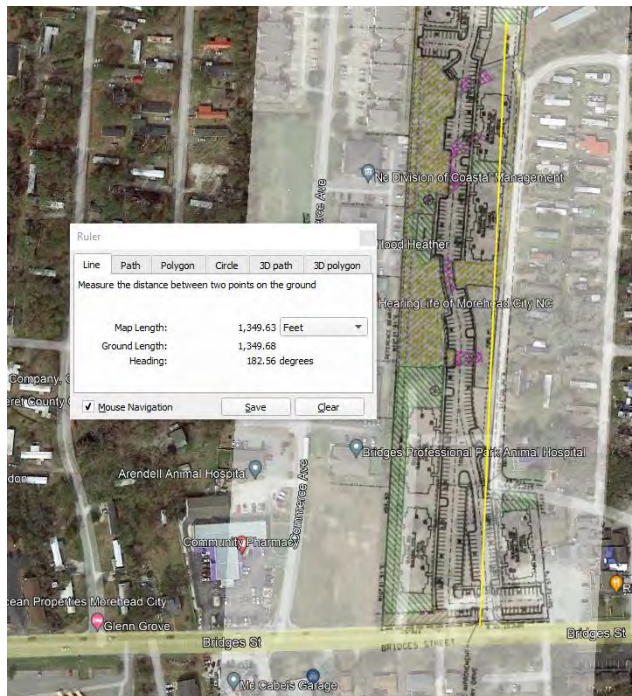


Norfolk Southern Railway Company

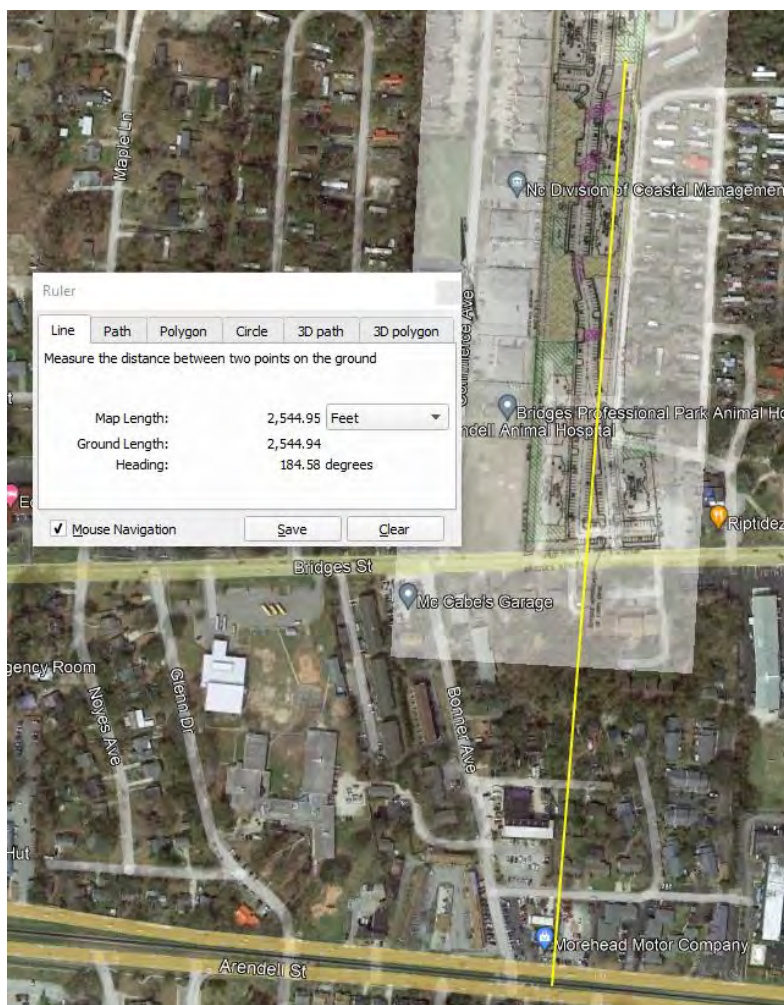


NAL #8 (tot lot/playground area)

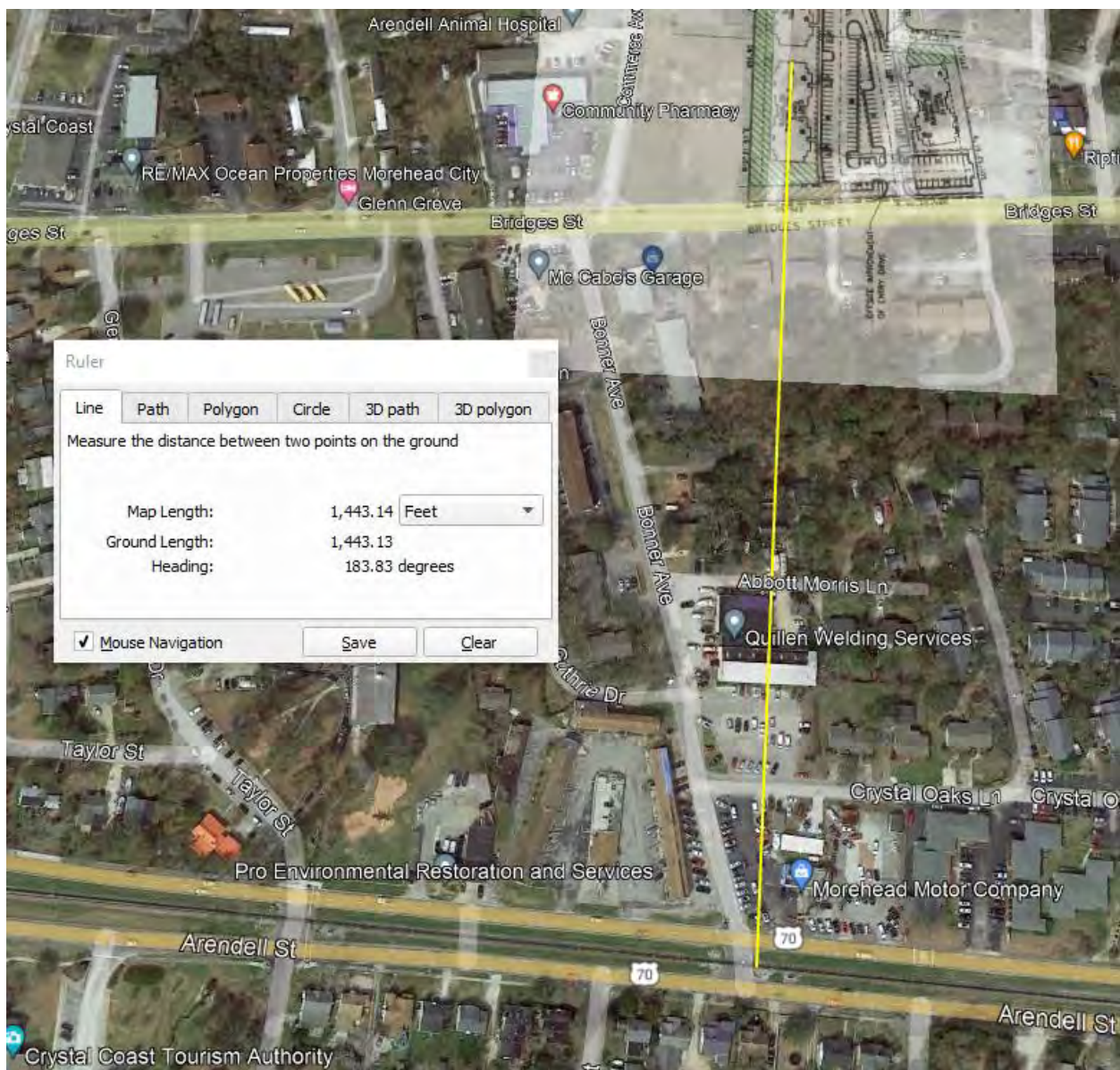
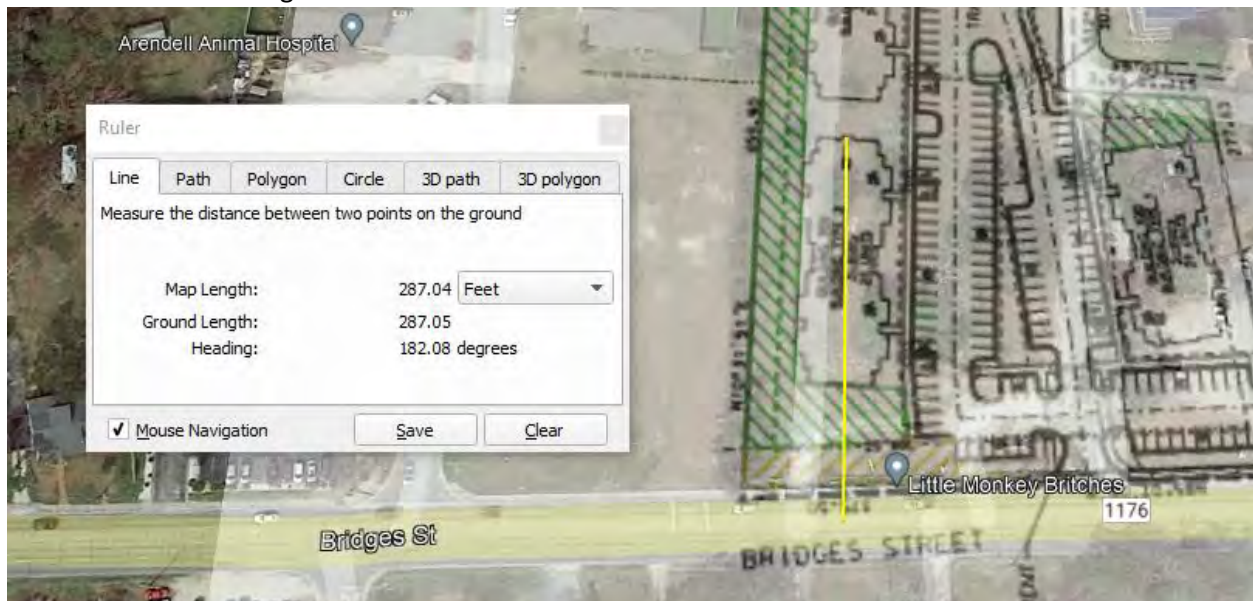
Bridges Street



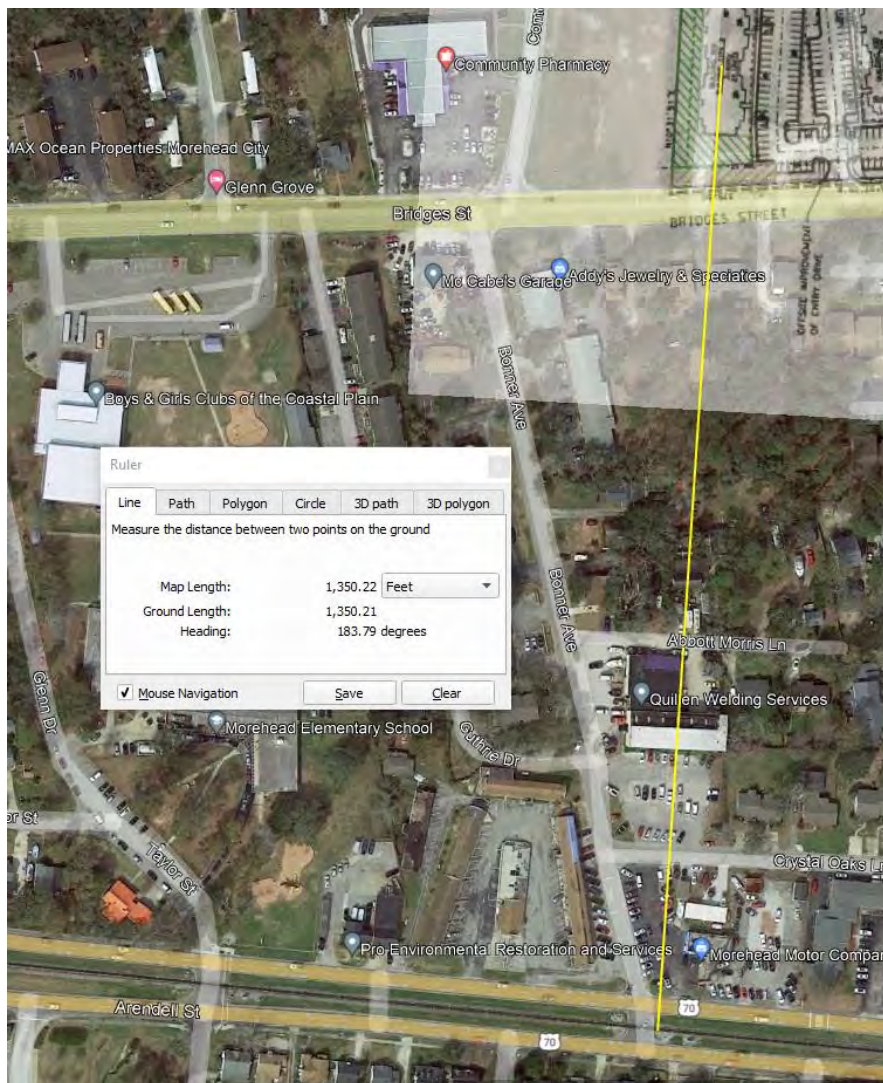
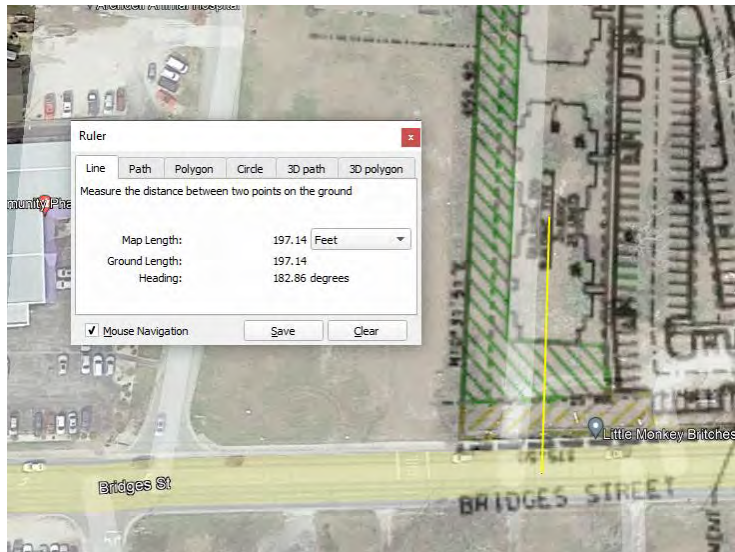
Norfolk Southern Railway Company



NAL 1 – Back of building 1



NAL 1 – Middle of Building 1



Bridges Street



(1 of 3)

0160000170

LocationID 0160000170

COUNTY CARTERET

RTE_CLS Secondary Routes

ROUTE SR 1176

LOCATION WEST OF SR 1749

AADT_2002 13000

AADT_2003

AADT_2004 11000

AADT_2005

AADT_2006 13000

AADT_2007

AADT_2008 15000

AADT_2009

AADT_2010 13000

AADT_2011

AADT_2012 16000

AADT_2013

AADT_2014

AADT_2015

AADT_2016 15000

AADT_2017

AADT_2018 15000

AADT_2019

AADT_2020

AADT_2021

Zoom to

(1 of 3)

AADT_2008 15000

AADT_2009

AADT_2010 13000

AADT_2011

AADT_2012 16000

AADT_2013

AADT_2014

AADT_2015

AADT_2016 15000

AADT_2017

AADT_2018 15000

AADT_2019

AADT_2020

AADT_2021

Zoom to

(2 of 2)

NCDOT_AADT_Segments_Secondary_Non-System: 40001176016

RouteID 40001176016

BeginMP 0.37

EndMP 1.77

SU_PCT 0.00

MU_PCT 0.00

SU_AADT 0

MU_AADT 0

SOURCE MAINTENANCE

AADT_2021 13000

AADT_2021 0

Zoom to





NCDOT Annual Average Daily Traffic (AADT) Mapping Application



TRAFFIC COUNT PROJECTION WORKSHEET

Bridges Street

AADT: 15,000

YEAR	CAR COUNT	1.00%	NEW CC	MEDIUM TRUCK COUNT	HEAVY TRUCK COUNT	1.00%	NEW MEDIUM TC	NEW HEAVY TC
2019	13,800.00	1.01	13,938.00	600.00	600.00	1.01	606.00	606.00
2020	13,938.00	1.01	14,077.38	606.00	606.00	1.01	612.06	612.06
2021	14,077.38	1.01	14,218.15	612.06	612.06	1.01	618.18	618.18
2022	14,218.15	1.01	14,360.34	618.18	618.18	1.01	624.36	624.36
2023	14,360.34	1.01	14,503.94	624.36	624.36	1.01	630.61	630.61
2024	14,503.94	1.01	14,648.98	630.61	630.61	1.01	636.91	636.91
2025	14,648.98	1.01	14,795.47	636.91	636.91	1.01	643.28	643.28
2026	14,795.47	1.01	14,943.42	643.28	643.28	1.01	649.71	649.71
2027	14,943.42	1.01	15,092.86	649.71	649.71	1.01	656.21	656.21
2028	15,092.86	1.01	15,243.79	656.21	656.21	1.01	662.77	662.77
2029	15,243.79	1.01	15,396.22	662.77	662.77	1.01	669.40	669.40
2030	15,396.22	1.01	15,550.19	669.40	669.40	1.01	676.10	676.10
2031	15,550.19	1.01	15,705.69	676.10	676.10	1.01	682.86	682.86
2032	15,705.69	1.01	15,862.74	682.86	682.86	1.01	689.68	689.68
2033	15,862.74	1.01	16,021.37	689.68	689.68	1.01	696.58	696.58
			16,021				697	697
2034	16,021.37	1.01	16,181.59	696.58	696.58	1.01	703.55	703.55
			16,182				704	704

- Current AADT/traffic count (2019)

Did not utilized 2021 as traffic count was lower

NOTES: Nighttime Traffic = 15%
Road Gradient = 0%
Annual Growth Rate = 1%

15,000 (13,000)

600 - Current Medium Truck Count (4%)

600 - Current Heavy Truck Count (4%)

13,800 - Current Car Count (92%)

Crews, Angelique

From: Crews, Angelique
Sent: Wednesday, February 22, 2023 9:32 AM
To: publicrecords@ncdot.gov
Subject: Traffic data for Bridges Street (Location ID: 0160000170 / Route ID: 40001176016)
(Partner PN: 22-286380.7)

Hello! We are conducting a noise assessment in accordance with the U.S. Housing and Urban Development (HUD) guidelines.

The proposed project is located along Bridges Street, between Noyes Avenue and Barbour Road (Rt. 1243).

We are requesting traffic data along the above noted reach of Bridges Street to satisfy HUD guidelines. The requested traffic data should include the following:

- Annual growth rates,
- Recent AADT FHWA vehicle classification counts or truck percentages utilizing FHWA Class 5 for medium trucks and Classes 4 and 6-12 for heavy trucks
- Hourly volume counts (per class), if available.

Thank you in advance for your time and assistance.

Respectfully,

Angelique Crews

Principal | Technical Director – HUD Environmental Services

PARTNER ENGINEERING AND SCIENCE, INC.

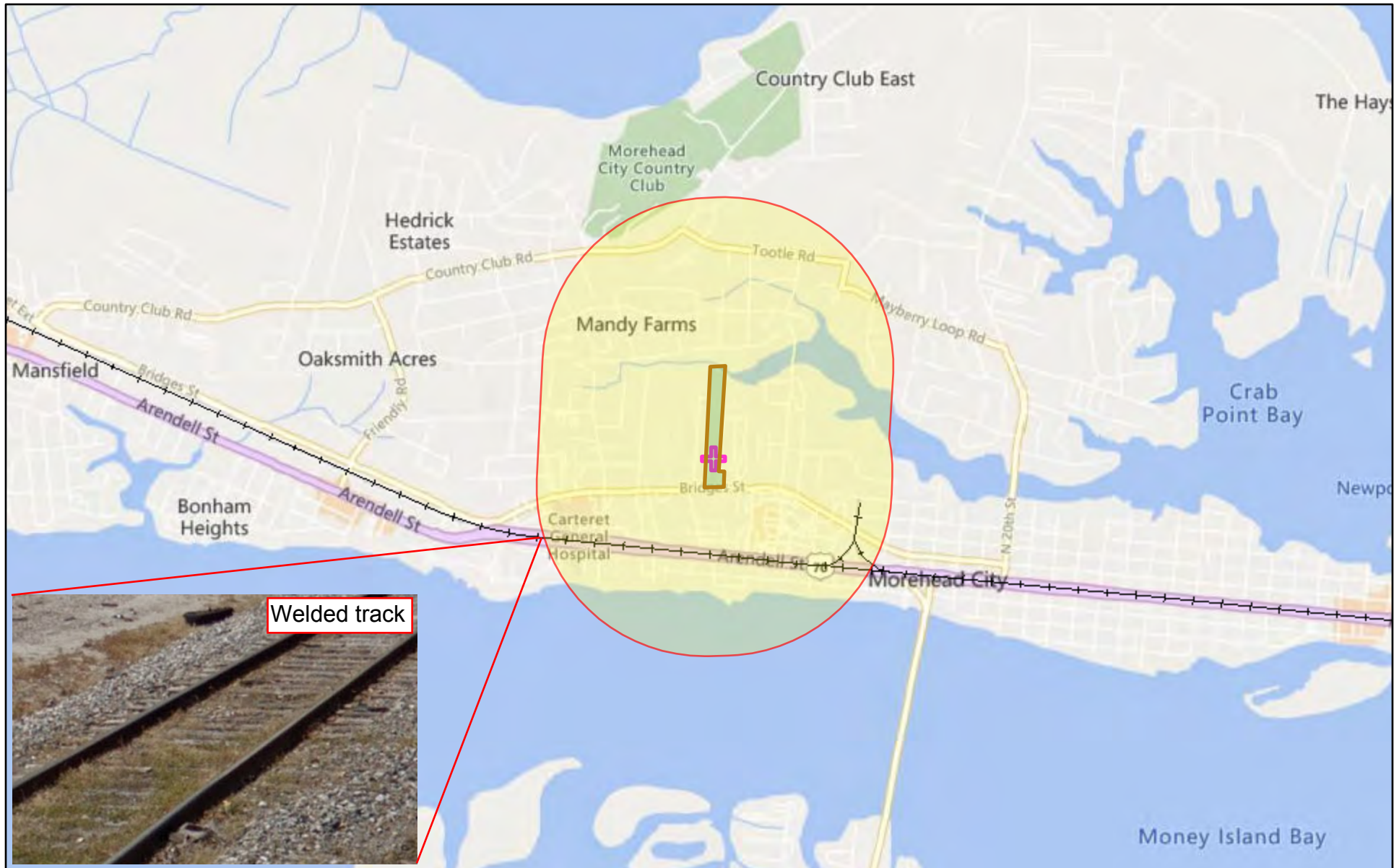
Myrtle Beach, South Carolina 29579

C: 843-360-0182 | F: 843-636-5695

More Than Just Assessments. *Solutions* – For a complete list of services, [click here](#)

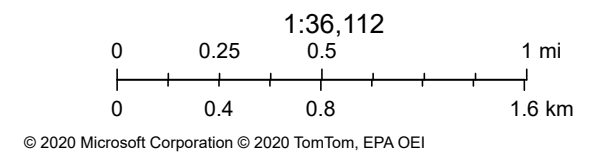
RAILROAD DISTANCES / DATA / FOIA(S)

Railroad Map 3 000 Ft Radius



December 22, 2020

- Project Buffer
- + Search Result (point)
- Railroad Map 3 000 Ft Radius
- +— Railroads



HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

OMB Approval No. 2130-0500

Name Of				Alphabetic Code		RR Accident/Incident No.	
1. Reporting Railroad Norfolk Southern Railway Company [NS]				1a. NS		1b. 016491	
2. Other Railroad Involved in Train Accident/Incident				2a.		2b.	
3. Railroad Responsible for Track Maintenance Norfolk Southern Railway Company [NS]				3a. NS		3b. 016491	
4. U.S. DOT-AAR Grade Crossing ID No. 722636E		5. Date of Accident/Incident 04/16/04		6. Time of Accident/Incident 07:10 AM			
7. Nearest Railroad Station CAMP GLEN		8. Division EAST		9. County CARTERET		10. State Abbr. 37 Code NC	
11. City (if in a city) MOREHEAD CITY		12. Highway Name or No. BONNER AVE				<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
Highway User Involved				Rail Equipment Involved			
13. Type C. Truck-trailer F. Bus J. Other Motor Vehicle Code A. Auto D. Pick-up truck G. School Bus K. Pedestrian B. Truck E. Van H. Motorcycle M. Other (specify) B				17. Equipment 4. Car(s) (moving) 8. Other (specify) Code 1. Train (units pulling) 5. Car(s) (standing) A. Train pulling- RCL 2. Train (units pushing) 6. Light loco(s) (moving) B. Train pushing- RCL 3. Train (standing) 7. Light loco(s) (standing) C. Train standing- RCL 1			
14. Vehicle Speed (est. mph at impact) 0		15. Direction (geographical) 1. North 2. South 3. East 4. West 1		18. Position of Car Unit in Train 1			
16. Position 1. Stalled on crossing 3. Moving over crossing 2. Stopped on Crossing 4. Trapped 2		Code 2		19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user 1			
20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither 2		Code 2		20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither 4			
Code 2							
20c. State the name and quantity of the hazardous material released, if any							
21. Temperature (specify if minus) 65 °F		22. Visibility (single entry) Code 1. Dawn 2. Day 3. Dusk 4. Dark 2		23. Weather (single entry) Code 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow 1			
24. Type of Equipment Consist 1. Freight train 4. Work train 7. Yard/Switching (single entry) 2. Passenger train 5. Single car 8. Light loco(s) 3. Commuter train 6. Cut of cars 9. Main./inspect. car 1		Code 1		25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry 1		26. Track Number or Name EC MAIN TRACK	
27. FRA Track Class 2		28. Number of Locomotive Units 1		29. Number of Cars 11		30. Consist Speed (Recorded if available) Code R. Recorded 14 mph E	
31. Time Table Direction 1. North 2. South 3. East 4. West 3		Code 3					
32. Type of Crossing 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (specify) Warning 3. Standard FLS 6. Audible 9. Watchman 12. None		Code 12		33. Signaled Crossing Warning		34. Whistle Ban 1. Yes 2. No 3. Unknown 2	
35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach		Code		36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown 2		37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown 2	
38. Driver's Age 41		39. Driver's Gender 1. Male 1 2. Female		40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown 2		41. Driver 1. Drove around or thru the gate 4. Stopped on crossing 2. Stopped and then proceeded 5. Other (specify) 3. Did not stop 4	
42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown 2		Code 2		43. View of Track Obscured by (primary obstruction) 1. Permanent Structure 3. Passing Train 5. Vegetation 7. Other (specify) 2. Standing railroad equipment 4. Topography 6. Highway Vehicles 8. Not Obstructed 8			
Casualties to:		Killed		Injured		44. Driver was 1. Killed 2. Injured 3. Uninjured 3	
45. Was Driver in the Vehicle? 1. Yes 2. No 1		Code 1					
46. Highway-Rail Crossing Users 0		0		47. Highway Vehicle Property Damage (est. dollar damage) \$200		48. Total Number of Highway-Rail Crossing Users (include driver) 1	
49. Railroad Employees 0		0		50. Total Number of People on Train (include passengers and crew) 3		51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No 2	
52. Passengers on Train							
53a. Special Study Block				53b. Special Study Block			
54. Narrative Description							
55. Typed Name and Title				56. Signature			
				57. Date			

HIGHWAY-RAIL GRADE CROSSING ACCIDENT/INCIDENT REPORT

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION (FRA)

OMB Approval No. 2130-0500

Name Of				Alphabetic Code		RR Accident/Incident No.	
1. Reporting Railroad Atlantic & East Carolina Railway [AEC]				1a. AEC		1b. GC0183052	
2. Other Railroad Involved in Train Accident/Incident				2a.		2b.	
3. Railroad Responsible for Track Maintenance Atlantic & East Carolina Railway [AEC]				3a. AEC		3b. GC0183052	
4. U.S. DOT-AAR Grade Crossing ID No. 722636E		5. Date of Accident/Incident 09/16/83		6. Time of Accident/Incident 10:45 PM			
7. Nearest Railroad Station MOREHEAD CITY		8. Division		9. County CARTERET		10. State Abbr. 37 Code NC	
11. City (if in a city) MOREHEAD CITY		12. Highway Name or No. BONNER AVE				<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	
Highway User Involved				Rail Equipment Involved			
13. Type C. Truck-trailer F. Bus J. Other Motor Vehicle Code A. Auto D. Pick-up truck G. School Bus K. Pedestrian B. Truck E. Van H. Motorcycle M. Other (specify) A				17. Equipment 4. Car(s) (moving) 8. Other (specify) Code 1. Train (units pulling) 5. Car(s) (standing) A. Train pulling- RCL 2. Train (units pushing) 6. Light loco(s) (moving) B. Train pushing- RCL 3. Train (standing) 7. Light loco(s) (standing) C. Train standing- RCL 1			
14. Vehicle Speed (est. mph at impact) 4		15. Direction (geographical) 1. North 2. South 3. East 4. West 2		18. Position of Car Unit in Train 1			
16. Position 1. Stalled on crossing 3. Moving over crossing 2. Stopped on Crossing 4. Trapped 3		Code		19. Circumstance 1. Rail equipment struck highway user 2. Rail equipment struck by highway user 1			
20a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither 4		Code		20b. Was there a hazardous materials release by 1. Highway User 2. Rail Equipment 3. Both 4. Neither			
20c. State the name and quantity of the hazardous material released, if any							
21. Temperature (specify if minus) 70 °F		22. Visibility (single entry) Code 1. Dawn 2. Day 3. Dusk 4. Dark 4		23. Weather (single entry) Code 1. Clear 2. Cloudy 3. Rain 4. Fog 5. Sleet 6. Snow 2			
24. Type of Equipment Consist 1. Freight train 4. Work train 7. Yard/Switching (single entry) 2. Passenger train 5. Single car 8. Light loco(s) 3. Commuter train 6. Cut of cars 9. Main./inspect. car 1		A. Spec. MoW Equip Code		25. Track Type Used by Rail Equipment Involved 1. Main 2. Yard 3. Siding 4. Industry 1		26. Track Number or Name MAIN	
27. FRA Track Class 3		28. Number of Locomotive Units 2		29. Number of Cars 92		30. Consist Speed (Recorded if available) Code R. Recorded 12 mph R E. Estimated	
31. Time Table Direction 1. North 2. South 3. East 4. West 3		Code		32. Type of Crossing 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (specify) Warning 3. Standard FLS 6. Audible 9. Watchman 12. None			
33. Signaled Crossing Warning		34. Whistle Ban 1. Yes 2. No 3. Unknown		Code			
35. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach 1		Code		36. Crossing Warning Interconnected with Highway Signals 1. Yes 2. No 3. Unknown 2		37. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown 2	
38. Driver's Age		39. Driver's Gender 1. Male 2. Female		40. Driver Drove Behind or in Front of Train and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown 2		41. Driver 1. Drove around or thru the gate 4. Stopped on crossing 2. Stopped and then proceeded 5. Other (specify) 3. Did not stop 3	
42. Driver Passed Standing Highway Vehicle 1. Yes 2. No 3. Unknown 2		Code		43. View of Track Obscured by (primary obstruction) 1. Permanent Structure 3. Passing Train 5. Vegetation 7. Other (specify) 2. Standing railroad equipment 4. Topography 6. Highway Vehicles 8. Not Obstructed 8			
Casualties to:		Killed Injured		44. Driver was 1. Killed 2. Injured 3. Uninjured 3		45. Was Driver in the Vehicle? 1. Yes 2. No 1	
46. Highway-Rail Crossing Users 0		0		47. Highway Vehicle Property Damage (est. dollar damage) \$1,500		48. Total Number of Highway-Rail Crossing Users (include driver) 2	
49. Railroad Employees 0		0		50. Total Number of People on Train (include passengers and crew)		51. Is a Rail Equipment Accident / Incident Report Being Filed 1. Yes 2. No 2	
52. Passengers on Train 0		0					
53a. Special Study Block				53b. Special Study Block			
54. Narrative Description							
55. Typed Name and Title				56. Signature		57. Date	

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 05 / 14 / 2022	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <input checked="" type="checkbox"/> Change in Data <input type="checkbox"/> New Crossing <input type="checkbox"/> Closed <input type="checkbox"/> Re-Open <input type="checkbox"/> Date Change Only <input type="checkbox"/> Change in Primary Operating RR <input type="checkbox"/> No Train Traffic <input type="checkbox"/> Quiet Zone Update <input type="checkbox"/> Admin. Correction	D. DOT Crossing Inventory Number 722636E
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Part I: Location and Classification Information

1. Primary Operating Railroad Norfolk Southern Railway Company [NS]		2. State NORTH CAROLINA	3. County CARTERET
4. City / Municipality <input checked="" type="checkbox"/> In <input type="checkbox"/> Near MOREHEAD CITY	5. Street/Road Name & Block Number BONNER AVENUE (Street/Road Name) * (Block Number)		6. Highway Type & No. US 70
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR	
9. Railroad Division or Region <input type="checkbox"/> None BLUE RIDGE	10. Railroad Subdivision or District <input type="checkbox"/> None ECBU	11. Branch or Line Name <input type="checkbox"/> None A&EC	12. RR Milepost EC 0091.750 (prefix) (nnnn.nnn) (suffix)
13. Line Segment *	14. Nearest RR Timetable Station * MOREHEAD CITY	15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A	16. Crossing Owner (if applicable) <input checked="" type="checkbox"/> N/A
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.	19. Crossing Position <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No
		21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter	22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0

23. Type of Land Use <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard			
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number		25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established	
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A	27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 34.7240901	28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -76.747634	29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated
30.A. Railroad Use *		31.A. State Use *	
30.B. Railroad Use *		31.B. State Use *	
30.C. Railroad Use *		31.C. State Use *	
30.D. Railroad Use *		31.D. State Use *	
32.A. Narrative (Railroad Use) *		32.B. Narrative (State Use) * crossing is state maintained since in US 70 Right-of-	
33. Emergency Notification Telephone No. (posted) 800-946-4744		34. Railroad Contact (Telephone No.) 800-946-4744	35. State Contact (Telephone No.) 919-715-8803

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 1	1.B. Total Night Thru Trains (6 PM to 6 AM) 0	1.C. Total Switching Trains 1	1.D. Total Transit Trains 0	1.E. Check if Less Than One Movement Per Day How many trains per week? <input type="checkbox"/>
2. Year of Train Count Data (YYYY) 2021		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 35 3.B. Typical Speed Range Over Crossing (mph) From 25 to 35		
4. Type and Count of Tracks Main 1 Siding 0 Yard 0 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input checked="" type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.A. Event Recorder <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 05/14/2022		PAGE 2		D. Crossing Inventory Number (7 char.) 722636E	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count) 0	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 0 <input checked="" type="checkbox"/> W10-3 0 <input checked="" type="checkbox"/> W10-11 0 <input checked="" type="checkbox"/> W10-2 0 <input checked="" type="checkbox"/> W10-4 0 <input checked="" type="checkbox"/> W10-12 0	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count 0) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input checked="" type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input checked="" type="checkbox"/> None	
2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.I. ENS Sign (I-13) Displayed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
2.J. Other MUTCD Signs Specify Type R8-8 Count 2 Specify Type Count 0 Specify Type Count 0		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian 0		3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates <input type="checkbox"/> 4 Quad		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) 2 <input checked="" type="checkbox"/> Incandescent <input type="checkbox"/> LED <input checked="" type="checkbox"/> Back Lights Included <input checked="" type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs 5			
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) ____/____/____ <input type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/____ <input checked="" type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3.I. Bells (count) 1		3.J. Non-Train Active Warning <input checked="" type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None			
3.K. Other Flashing Lights or Warning Devices Count 1 Specify type "Do Not Stop On Tracks"					
4.A. Does nearby Hwy Intersection have Traffic Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input checked="" type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs		4.C. Hwy Traffic Signal Preemption <input checked="" type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	
5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * 0 Stop Line Distance * 0		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input checked="" type="checkbox"/> None			
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad Number of Lanes 2 <input type="checkbox"/> One-way Traffic <input checked="" type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/____ Width * ____ Length * ____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input checked="" type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____			
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) _____		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
4. Highway Speed Limit 25 MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *			
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 2015 AADT 614		8. Estimated Percent Trucks 0 %		9. Regularly Used by School Buses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Average Number per Day 5	
10. Emergency Services Route <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____ Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

Crews, Angelique

From: Crews, Angelique
Sent: Wednesday, February 22, 2023 10:01 AM
To: FRAFOIA@dot.gov
Subject: Traffic County Data for DOT Crossing Inventory Number 722636E / RR Milepost EC 0091.750 (Partner PN: 22-286380.7)

Hello! We are conducting a noise assessment in accordance with the U.S. Housing and Urban Development (HUD) guidelines.

The proposed project is located along Bridges Street, between Noyes Avenue and Barbour Road (Rt. 1243).

We are requesting railroad data from the primary operating railroad in this area, which is listed as Norfolk Southern Railway Company (NS). The requested data should include the following:

- Is the train type primarily freight?
- Is there a passenger train on this railroad and if so, how many per day?
- Is there a Quiet Zone for this area?
- What are the total day thru trains (6AM to 6 PM)?
- What are the total night thru trains (6PM to 6AM)?
- What is the speed of the train at crossing?
- Are the tracks welded or bolted in this area?

Thank you in advance for your time and assistance.

Respectfully,

Angelique Crews

Principal | Technical Director – HUD Environmental Services

PARTNER ENGINEERING AND SCIENCE, INC.

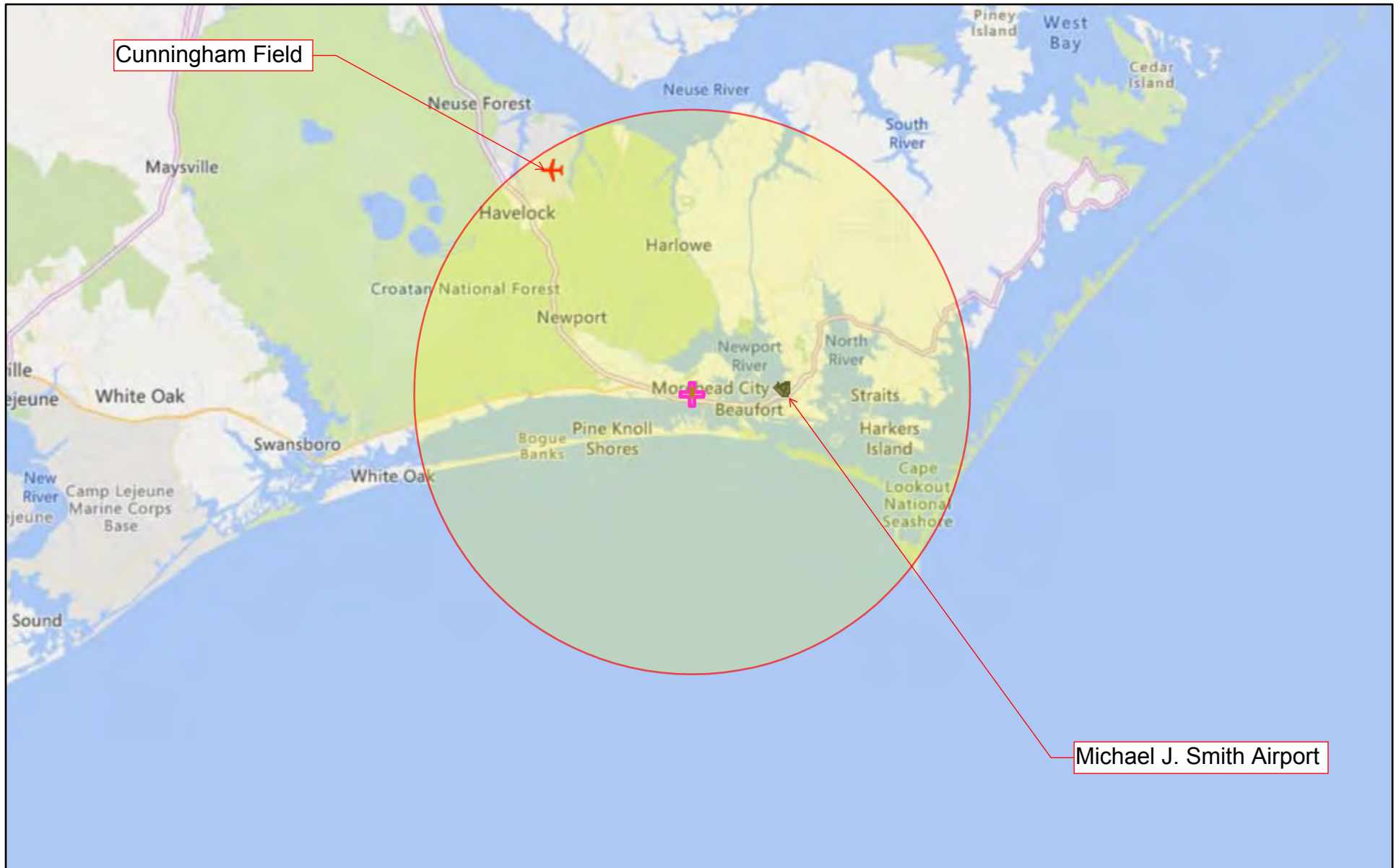
Myrtle Beach, South Carolina 29579

C: 843-360-0182 | F: 843-636-5695






More Than Just Assessments. *Solutions* – For a complete list of services, [click here](#)

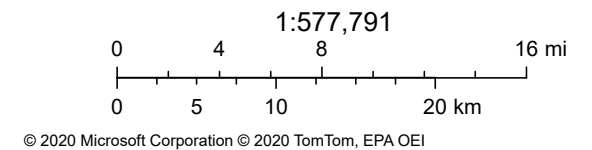
AIRPORT DATA

Airport Map 15 Mi Radius

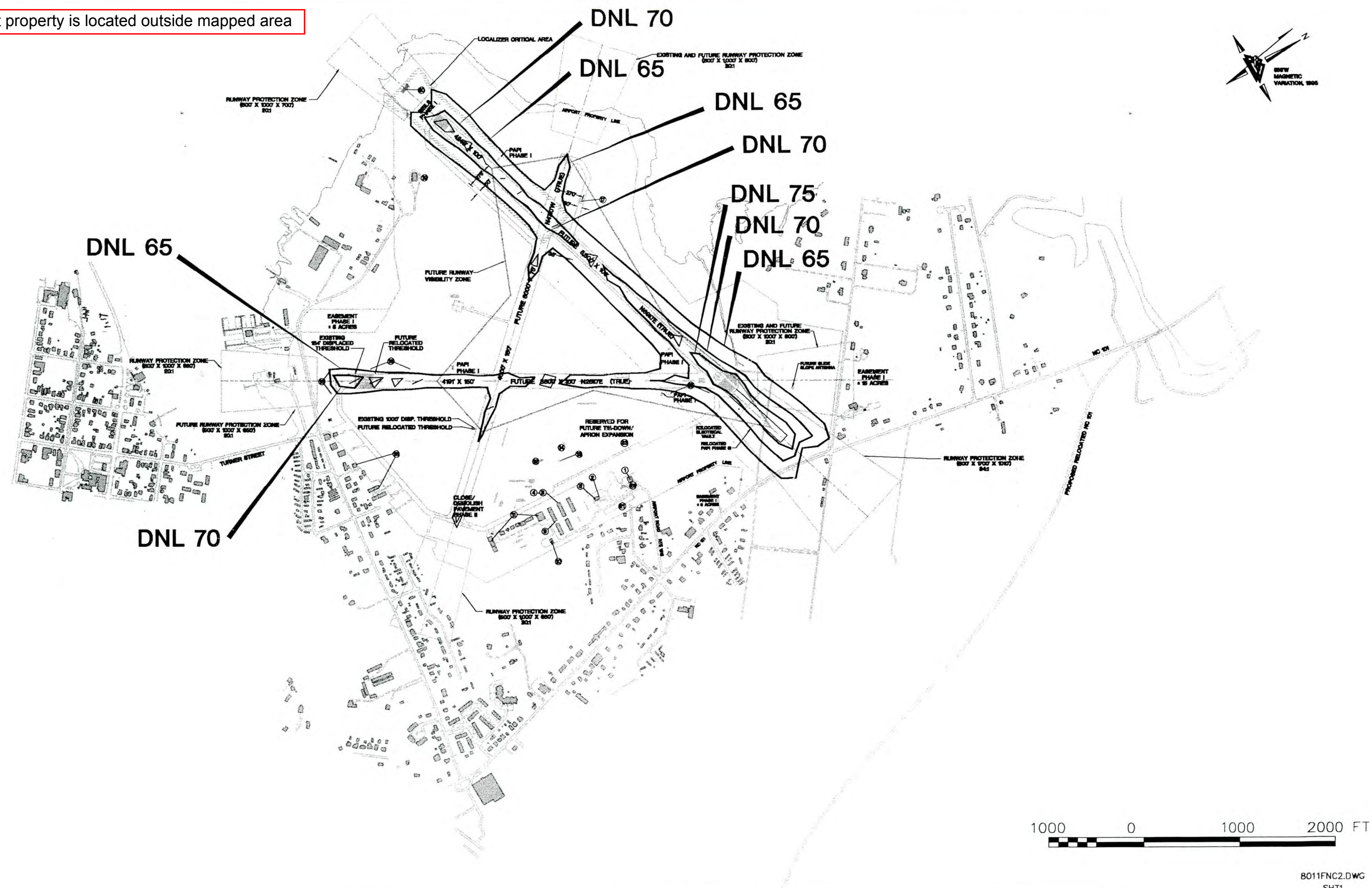


December 22, 2020

-  Project Buffer
-  Search Result (point)
-  Airport Polygons
-  Airport Map 15 Mi Radius
-  Airport Points



The subject property is located outside mapped area



MICHAEL J. SMITH AIRPORT FUTURE NOISE CONTOURS

8011FNC2.DWG
SHT1

EXHIBIT
4-2



KMRH Michael J Smith Field Airport

Beaufort, North Carolina, USA



GOING TO BEAUFORT?



[Reserve a Hotel Room](#)

FAA INFORMATION EFFECTIVE 03 DECEMBER 2020

Location

FAA Identifier: MRH

Lat/Long: 34-44-01.5310N 076-39-37.2770W

34-44.025517N 076-39.621283W

34.7337586,-76.6603547

(estimated)

Elevation: 10.1 ft. / 3.1 m (surveyed)

Variation: 08W (1985)

From city: 1 mile N of BEAUFORT, NC

Time zone: UTC -5 (UTC -4 during Daylight Saving Time)

Zip code: 28516



Road maps at: [MapQuest](#) [Bing](#) [Google](#)

Airport Operations

Airport use: Open to the public

Activation date: 06/1949

Control tower: no

ARTCC: WASHINGTON CENTER

FSS: RALEIGH FLIGHT SERVICE STATION

NOTAMs facility: MRH (NOTAM-D service available)

Attendance: 0800-DUSK

FOR SERVICE AFTER HOURS CALL 252-728-2323.

Pattern altitude: TPA: SINGLE ENGINE 1,000 FT AGL, TWIN ENGINE 1,500 FT AGL.

Wind indicator: lighted

Segmented circle: yes

Lights: ACTVT REIL RWY 08 & 26; PAPI RWY 03 & 21;

MIRL RWY 03/21 & RWY 08/26 - CTAF. PAPI

RWY 08 & 26 OPER CONSLY.

Beacon: white-green (lighted land airport)

Operates sunset to sunrise.

International operations: customs landing rights airport

Aerial photo

WARNING: Photo may not be current or correct



Photo by Brian Corley
Photo taken 20-Jan-2015
looking southeast.

Do you have a better or more recent aerial photo of Michael J Smith Field Airport that you would like to share? If so, please [send us your photo](#).

Sectional chart



Airport diagram

Airport Communications

CTAF/UNICOM: 122.8

WX ASOS: 135.375 (252-728-2055)

CHERRY POINT APPROACH: 124.1 [0630-2300]

CHERRY POINT DEPARTURE: 124.1 [0630-2300]

CLEARANCE DELIVERY: 125.65

Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
EWN r145/27.8	NEW BERN VOR/DME	113.60	08W

Airport Services

Fuel available: 100LL JET-A1+

Parking: hangars and tie-downs

Airframe service: MAJOR

Powerplant service: MAJOR

Bottled oxygen: HIGH/LOW

Bulk oxygen: NONE

Runway Information

Runway 8/26

Dimensions: 5004 x 100 ft. / 1525 x 30 m

Surface: asphalt, in good condition

Weight bearing capacity: Double wheel: 60.0

Runway edge lights: medium intensity

Runway edge markings: FADED TO NONEXISTENT

RUNWAY 8

Latitude: 34-43.987585N

Longitude: 076-40.143842W

Elevation: 6.4 ft.

Traffic pattern: left

Runway heading: 076 magnetic, 068 true

Displaced threshold: no

Markings: nonprecision, in poor condition

Visual slope indicator: 2-light PAPI on left (3.00 degrees glide path)

Runway end identifier lights: yes

Touchdown point: yes, no lights

Obstructions: 11 ft. brush, 315 ft. from runway, 124 ft. left of centerline, 10:1 slope to clear

10 FT BRUSH 100-200 FT
FM THLD OFFSET 108 FT
R OF CNTRLN.

RUNWAY 26

Latitude: 34-44.296187N

Longitude: 076-39.217192W

Elevation: 9.6 ft.

Traffic pattern: right

Runway heading: 256 magnetic, 248 true

Displaced threshold: 289 ft.

Markings: nonprecision, in poor condition

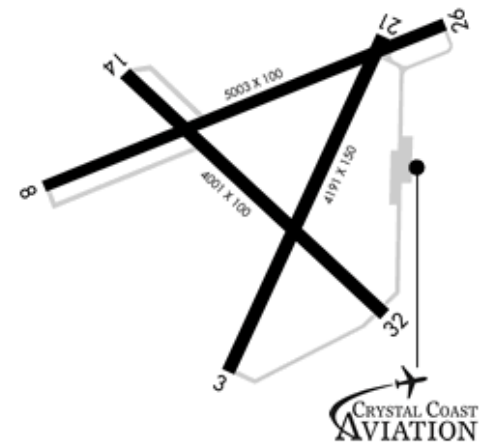
Visual slope indicator: 2-light PAPI on right (3.00 degrees glide path)

Runway end identifier lights: yes

Touchdown point: yes, no lights

Obstructions: 20 ft. road, 325 ft. from runway, 6:1 slope to clear

CAUTION: Diagram may not be current



Airport distance calculator

Flying to Michael J Smith Field Airport?
Find the distance to fly.

From to KMRH

[▶ CALCULATE DISTANCE](#)

Sunrise and sunset

Times for 28-Dec-2020

	Local (UTC-5)	Zulu (UTC)
Morning civil twilight	06:46	11:46
Sunrise	07:14	12:14
Sunset	17:03	22:03
Evening civil twilight	17:31	22:31

Current date and time

Zulu (UTC)	28-Dec-2020 09:32:54
Local (UTC-5)	28-Dec-2020 04:32:54

METAR

KMRH 280858Z AUTO 00000KT 10SM CLR
05/04 A3029 RMK AO2 SLP257
I1000 I3/// T00500039 53000

KNKT 280854Z 00000KT 7SM BKN038
14nm NW OVC045 03/03 A3030 RMK SLP257
T00330033 58000

KNJM 280857Z AUTO 30003KT 10SM CLR
18nm W 04/03 A3030 RMK AO2 SLP263
T00440028 56001 \$

KQAJ 280756Z 34005KT 9999 BKN140
19nm W 12/01 A3028 RMK AO2A SLP268
WND DATA ESTMD T01240008

KNBT 280856Z AUTO A3029 RMK AO2
19nm NE SLP263 54000 PWINO \$

TAF

KNKT 2803/2903 10008KT 9999 FEW030
14nm NW SCT250 QNH3027INS BECMG
2812/2814 VRB06KT 9999 SKC
QNH3024INS T02/2812Z
T15/2819Z

NOTAMs

[▶ Click for the latest NOTAMs](#)

NOTAMs are issued by the DoD/FAA and will open in a separate window not controlled by AirNav.

Runway 3/21

Dimensions: 4192 x 150 ft. / 1278 x 46 m

Surface: asphalt, in good condition

Weight bearing capacity: Single wheel: 12.5

Runway edge lights: medium intensity

RUNWAY 3

Latitude: 34-43.647803N

Longitude: 076-39.714480W

Elevation: 6.0 ft.

Traffic pattern: left

Runway heading: 033 magnetic, 025 true

Displaced threshold: 864 ft.

Markings: nonprecision, in good condition

Visual slope indicator: 2-light PAPI on left (4.00 degrees glide path)

Runway end identifier lights: no

Touchdown point: yes, no lights

Obstructions: 20 ft. road, 312 ft.

from runway, 5:1

slope to clear

9 FT FENCE 191 FT

FM THLD BOTH

SIDES OF

CNTRLN.

RUNWAY 21

34-44.272613N

076-39.356975W

6.5 ft.

right

213 magnetic, 205 true

516 ft.

nonprecision, in good condition

2-light PAPI on left (4.00 degrees glide path)

no

yes, no lights

63 ft. trees, 1131 ft. from

runway, 129 ft. left of

centerline, 14:1 slope to

clear

8 FT BRUSH 48 FT FM

THLD OFFSET 170 FT

R OF CNTRLN.

Runway 14/32

Dimensions: 4001 x 100 ft. / 1220 x 30 m

Surface: asphalt, in good condition

Weight bearing capacity: Single wheel: 12.5

RUNWAY 14

Latitude: 34-44.171438N

Longitude: 076-39.931157W

Elevation: 6.1 ft.

Traffic pattern: left

Runway heading: 141 magnetic, 133 true

Displaced threshold: no

Markings: basic, in good condition

Touchdown point: yes, no lights

Obstructions: 10 ft. brush, 245 ft. from runway,

159 ft. right of centerline, 4:1

slope to clear

15 FT BRUSH 0-200 FT FM

THLD OFFSET 200 FT R OF

CNTRLN AND 36 FT TREES

140 FT FM THLD OFFSET 213

FT R OF CNTRLN.

RUNWAY 32

34-43.725350N

076-

39.342540W

10.1 ft.

left

321 magnetic,

313 true

490 ft.

basic, in good condition

yes, no lights

53 ft. trees, 505

ft. from runway,

82 ft. right of

centerline, 5:1

slope to clear

24 FT TREES

164 FT FM

THLD OFFSET

138 FT L OF
CNTRLN.

Airport Ownership and Management from official FAA records

Ownership: Publicly-owned

Owner: BEAUFORT-MOREHEAD ARPT AUTH
180 AIRPORT ROAD
BEAUFORT, NC 28516
Phone 252-728-1928

Manager: RENEE A. ROGERS
180 AIRPORT ROAD
BEAUFORT, NC 28516
Phone 252-728-1928

Airport Operational Statistics

Aircraft based on the field: 61	Aircraft operations: avg 120/day *
Single engine airplanes: 53	77% local general aviation
Multi engine airplanes: 5	9% transient general aviation
Jet airplanes: 2	9% air taxi
Helicopters: 1	6% military

* for 12-month period ending 20 August 2018

Additional Remarks

- NO LINE OF SIGHT BTWN RY ENDS.
- DEER AND BIRDS ON & INVOF ARPT AND BIRD-DROPPED SHELLS MAY CAUSE FOD.
- NOISE ABATEMENT PROCEDURES IN EFFECT, CTC AMGR 252-728-1928.
- AVOID OVERFLIGHTS OF BEAUFORT WATERFRONT AND BEAUFORT NATIONAL REGISTER HISTORIC DISTRICT.
- FOR CD CTC CHERRY POINT APCH AT 252-466-5960.
- MIL ACFT RWY 08/26 REQUIRED FOR NOISE ABATEMENT.

Instrument Procedures

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should [download](#) the free Adobe Reader.

NOT FOR NAVIGATION. Please procure official charts for flight.

FAA instrument procedures published for use from 03 December 2020 at 0901Z to 31 December 2020 at 0900Z.





IAPs - Instrument Approach Procedures

RNAV (GPS) RWY 03	download (301KB)
RNAV (GPS) RWY 08	download (299KB)
RNAV (GPS) RWY 14	download (237KB)
RNAV (GPS) RWY 21	download (319KB)
RNAV (GPS) RWY 26	download (301KB)
RNAV (GPS) RWY 32	download (291KB)
NOTE: Special Alternate Minimums apply	download (39KB)
NOTE: Special Take-Off Minimums/Departure Procedures apply	download (141KB)

Other nearby airports with instrument procedures:

[KNKT](#) - Cherry Point Marine Corps Air Station (Cunningham Field) (15 nm NW)
[KEWN](#) - Coastal Carolina Regional Airport (28 nm NW)
[KNCA](#) - New River Marine Corps Air Station (H) (McCutcheon Field) (38 nm W)
[W95](#) - Ocracoke Island Airport (41 nm NE)
[KOAJ](#) - Albert J Ellis Airport (47 nm W)

FBO, Fuel Providers, and Aircraft Ground Support

Business Name	Contact	Services / Description	Fuel Prices	Comments
	UNICOM 122.80 252-728-2323 [web site] [email] 	Aviation fuel, Aircraft ground handling, Aircraft parking (ramp or tiedown), Hangars, Passenger terminal and lounge, Flight training, Aircraft rental, ... More info and photos of Crystal Coast Aviation	 100LL Jet A FS \$4.71 \$4.28 <u>GUARANTEED</u>	★★★★★ 9 read write
				
FS= Full service UPDATE PRICES				

Would you like to see your business listed on this page?

If your business provides an interesting product or service to pilots, flight crews, aircraft, or users of the Michael J Smith Field Airport, you should consider listing it here. To start the listing process, click on the button below

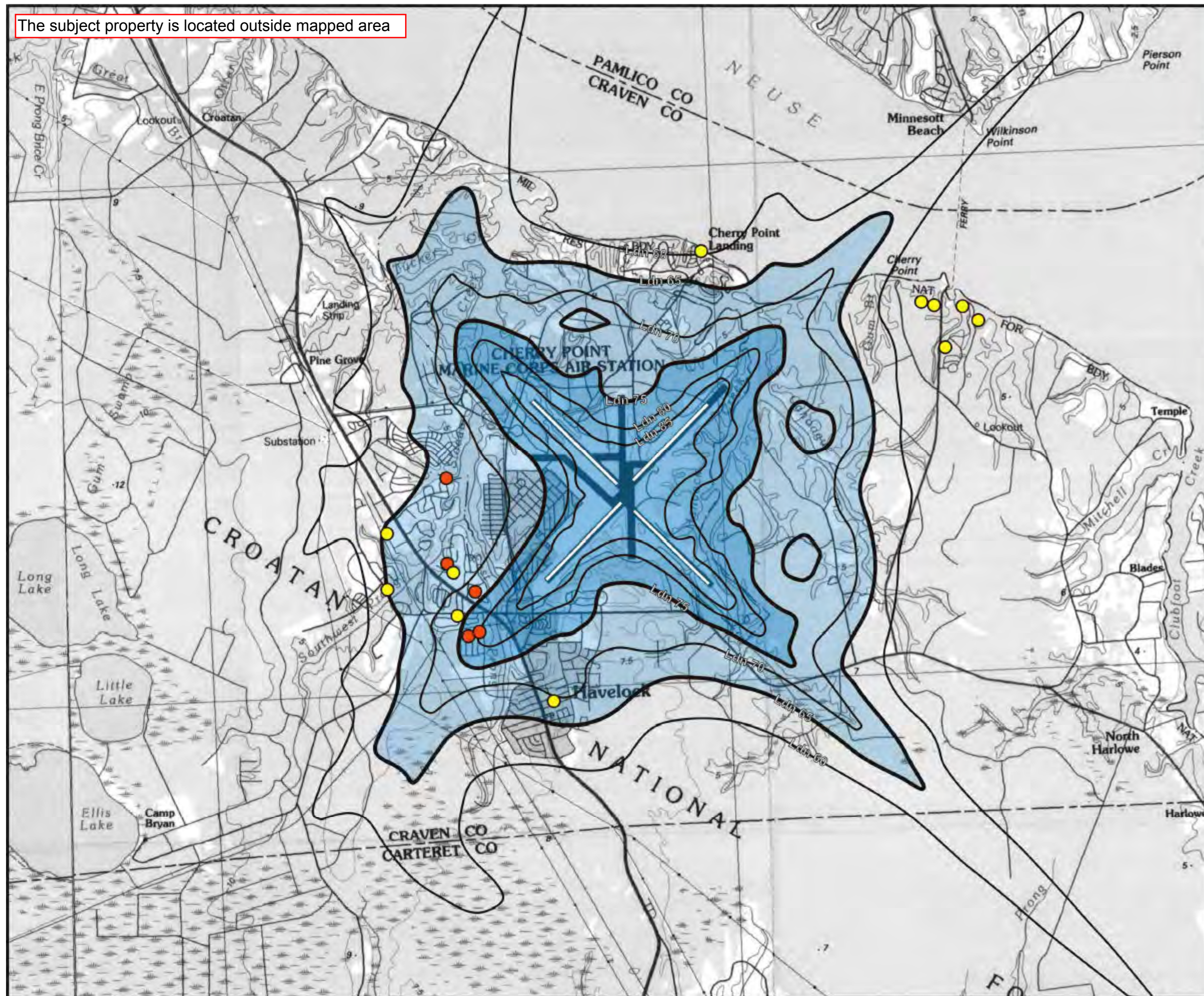
[ADD YOUR BUSINESS OR SERVICE](#)

Other Pages about Michael J Smith Field Airport

[historicbeaufort.com/airport.htm](#)

[UPDATE, REMOVE OR ADD A LINK](#)

The subject property is located outside mapped area



Marine Corps Air Station Cherry Point, NC



AICUZ Update

Noise Contours

— MCAS Cherry Point —

Legend

- Noise Exposure Zone 2 (Ldn 65 to 75)
- Noise Exposure Zone 3 (Ldn greater than 75)
- Runways
- Noise Complaints
- Multiple Complaints

Sources:
1. Noise Contours - The Onyx Group and HPE Inc. in association with: Wyle Labs, 1998
2. Base Map - USGS, 1:100,000 scale quad

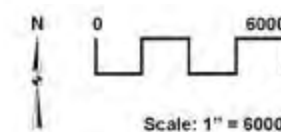
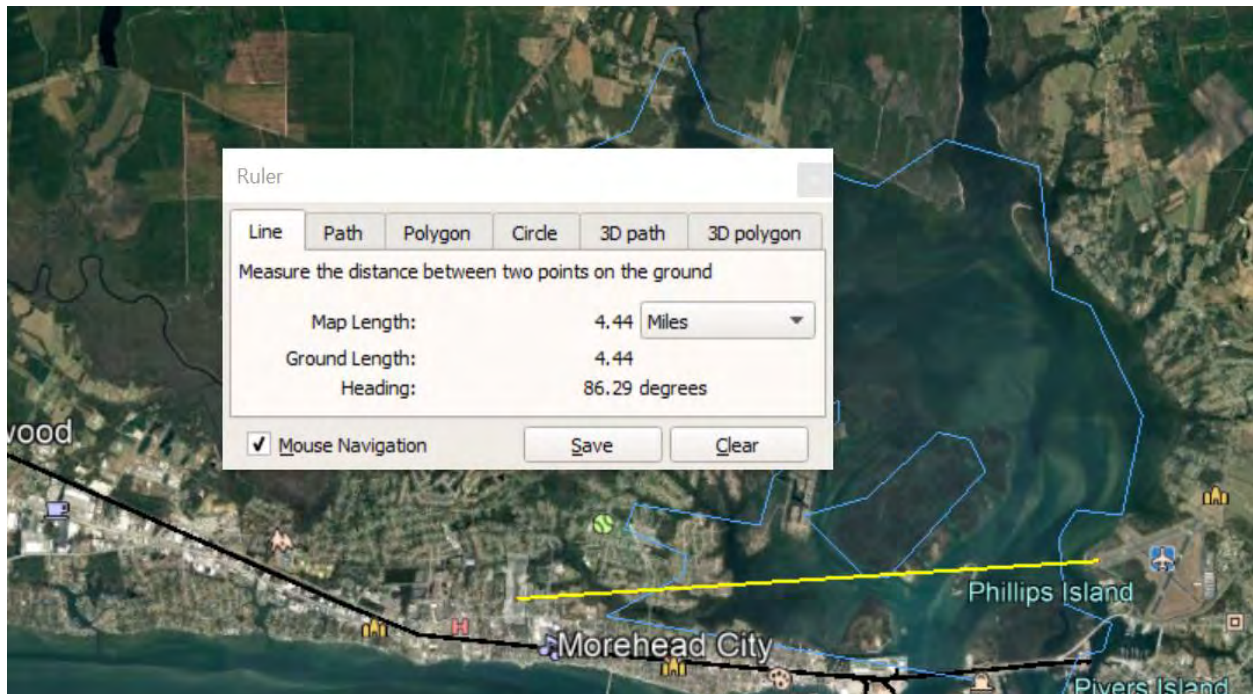
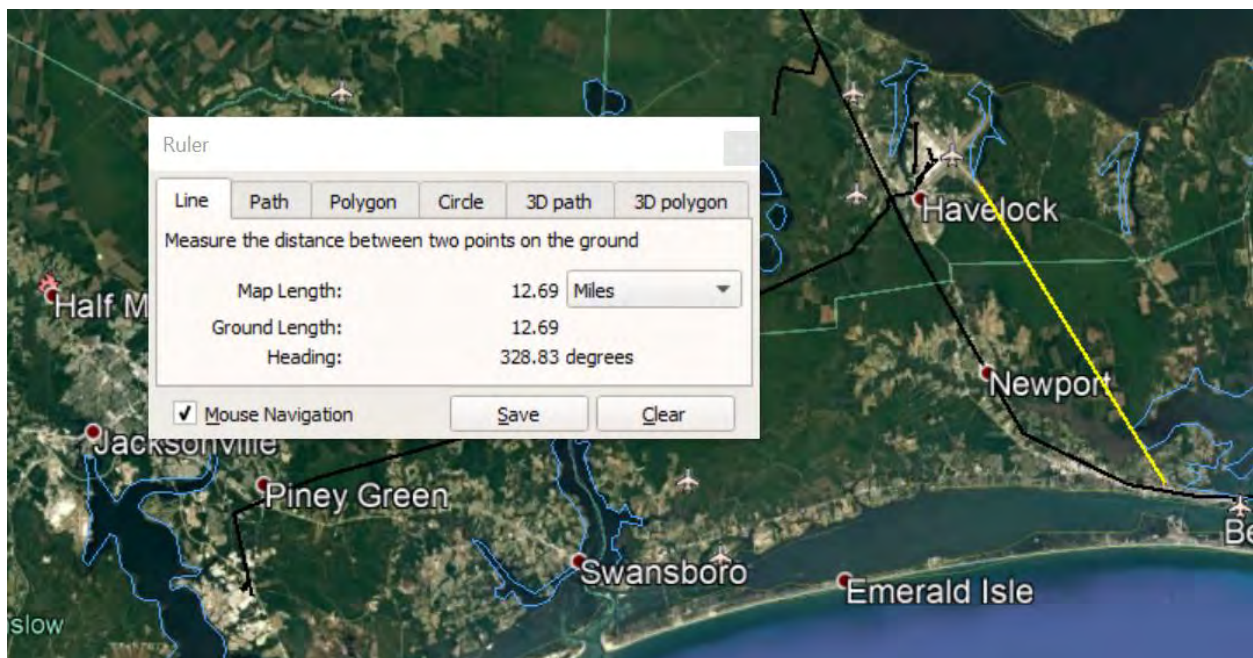


Figure
D-1

Michael J. Smith Airport



Cherry Point Cunningham Field



10-YEAR PROJECTED NOISE CALCULATION(S)

NAL #1

(SOUTH, MIDDLE, AND NORTH ENDS)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 1		
Record Date	02/22/2023		
User's Name	Partner ESI		

Road # 1 Name:	Bridges Street		
----------------	----------------	--	--

Road #1			
Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	93	93	93
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	16021	697	697
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	62	58	67
Calculate Road #1 DNL	Reset		
	69		

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1

Train Type

Electric ☐

Diesel ☒

Effective Distance

1244

Average Train Speed

35

Engines per Train

2

Railway cars per Train

50

Average Train Operations (ATO)

1

Night Fraction of ATO

0

Railway whistles or horns?

Yes: ☐ No: ☐

Yes: ☒ No: ☐

Bolted Tracks?

Yes: ☐ No: ☐

Yes: ☐ No: ☒

Train DNL

0

43

Calculate Rail #1 DNL

43

Reset

Add Road Source

Add Rail Source

Airport Noise Level

<65 dB

Loud Impulse Sounds?

☐ Yes ☒ No

Combined DNL for all
Road and Rail sources

69

Combined DNL including Airport

NaN

Site DNL with Loud Impulse Sound

Calculate

Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

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- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 1 (back of bldg)
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
----------------	----------------

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="197"/>	<input type="text" value="197"/>	<input type="text" value="197"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="57"/>	<input type="text" value="53"/>	<input type="text" value="62"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="64"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="1350"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	0	42
Calculate Rail #1 DNL	42	Reset
<div>Add Road Source</div> <div>Add Rail Source</div>		
Airport Noise Level	< 65 dB	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	64	
Combined DNL including Airport	NaN	
Site DNL with Loud Impulse Sound		
<div>Calculate</div> <div>Reset</div>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the Barrier Performance Module (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 1 (back of bldg)
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="287"/>	<input type="text" value="287"/>	<input type="text" value="287"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="54"/>	<input type="text" value="51"/>	<input type="text" value="60"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="61"/>	<div>Reset</div>	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="1443"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	0	42
Calculate Rail #1 DNL	42	Reset
<div>Add Road SourceAdd Rail Source</div>		
Airport Noise Level	< 65 dB	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	61	
Combined DNL including Airport	NaN	
Site DNL with Loud Impulse Sound		
<div>CalculateReset</div>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

NAL #2

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 2
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="315"/>	<input type="text" value="315"/>	<input type="text" value="315"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="54"/>	<input type="text" value="50"/>	<input type="text" value="59"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="61"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="1468"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	<input type="text" value="0"/>	<input type="text" value="42"/>
<input type="button" value="Calculate Rail #1 DNL"/>	<input type="text" value="42"/>	<input type="button" value="Reset"/>
<div><input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/></div>		
Airport Noise Level	<input type="text" value=" <65 dB"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="61"/>	
Combined DNL including Airport	<input type="text" value="NaN"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<div><input type="button" value="Calculate"/> <input type="button" value="Reset"/></div>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

NAL #3

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 3
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="1057"/>	<input type="text" value="1057"/>	<input type="text" value="1057"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="46"/>	<input type="text" value="42"/>	<input type="text" value="51"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="53"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="2218"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	0	39
Calculate Rail #1 DNL	39	Reset
<div>Add Road Source</div> <div>Add Rail Source</div>		
Airport Noise Level	<65 dB	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	53	
Combined DNL including Airport	NaN	
Site DNL with Loud Impulse Sound		
<div>Calculate</div> <div>Reset</div>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the Barrier Performance Module (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

NAL #4

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 4
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="1736"/>	<input type="text" value="1736"/>	<input type="text" value="1736"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="43"/>	<input type="text" value="39"/>	<input type="text" value="48"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="50"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="2882"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	0	37
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Calculate Rail #1 DNL	37	Reset
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Add Road Source	Add Rail Source
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Airport Noise Level	<65 dB
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Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No
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Combined DNL for all Road and Rail sources	50
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Combined DNL including Airport	NaN
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Site DNL with Loud Impulse Sound	
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Calculate	Reset
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Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

NAL #5

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 5 (Gazebo South)
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="538"/>	<input type="text" value="538"/>	<input type="text" value="538"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="50"/>	<input type="text" value="47"/>	<input type="text" value="56"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="57"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="1694"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	0	41
Calculate Rail #1 DNL	41	Reset
Add Road Source	Add Rail Source	
Airport Noise Level	<65 dB	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	57	
Combined DNL including Airport	NaN	
Site DNL with Loud Impulse Sound		
Calculate	Reset	

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

NAL #6

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 6 (Dog Park)
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="864"/>	<input type="text" value="864"/>	<input type="text" value="864"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="47"/>	<input type="text" value="44"/>	<input type="text" value="53"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="54"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="2011"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	<input type="text" value="0"/>	<input type="text" value="40"/>
<input type="button" value="Calculate Rail #1 DNL"/>	<input type="text" value="40"/>	<input type="button" value="Reset"/>
<div><input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/></div>		
Airport Noise Level	<input type="text" value=" <65 dB"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value=" 54"/>	
Combined DNL including Airport	<input type="text" value=" NaN"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>	

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

NAL #7

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 7 (Gazebo North)
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="962"/>	<input type="text" value="962"/>	<input type="text" value="962"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="47"/>	<input type="text" value="43"/>	<input type="text" value="52"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="54"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="2108"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	0	40
Calculate Rail #1 DNL	40	Reset
<div>Add Road Source</div> <div>Add Rail Source</div>		
Airport Noise Level	<65 dB	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	54	
Combined DNL including Airport	NaN	
Site DNL with Loud Impulse Sound		
<div>Calculate</div> <div>Reset</div>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

NAL #8

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	20-286380.7 Elijah's Landing 10-yr NAL 8 (Tot Lot/Playground Area)
Record Date	02/22/2023
User's Name	Partner ESI

Road # 1 Name:	Bridges Street
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Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	<input type="text" value="1373"/>	<input type="text" value="1373"/>	<input type="text" value="1373"/>
Distance to Stop Sign	<input type="text"/>	<input type="text"/>	<input type="text"/>
Average Speed	<input type="text" value="35"/>	<input type="text" value="35"/>	<input type="text" value="35"/>
Average Daily Trips (ADT)	<input type="text" value="16021"/>	<input type="text" value="697"/>	<input type="text" value="697"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text" value="15"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>
Vehicle DNL	<input type="text" value="44"/>	<input type="text" value="41"/>	<input type="text" value="50"/>
<div>Calculate Road #1 DNL</div>	<input type="text" value="51"/>	<div>Reset</div>	

Railroad #1 Track Identifier:	<input type="text" value="Norfolk Southern Railway Company"/>
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Rail # 1

Train Type	Electric <input type="checkbox"/>	Diesel <input checked="" type="checkbox"/>
Effective Distance	<input type="text"/>	<input type="text" value="2545"/>
Average Train Speed	<input type="text"/>	<input type="text" value="35"/>
Engines per Train	<input type="text"/>	<input type="text" value="2"/>
Railway cars per Train	<input type="text"/>	<input type="text" value="50"/>
Average Train Operations (ATO)	<input type="text"/>	<input type="text" value="1"/>
Night Fraction of ATO	<input type="text"/>	<input type="text" value="0"/>
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>

Train DNL	0	38
Calculate Rail #1 DNL	38	Reset
<div>Add Road Source</div> <div>Add Rail Source</div>		
Airport Noise Level	<65 dB	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	52	
Combined DNL including Airport	NaN	
Site DNL with Loud Impulse Sound		
<div>Calculate</div> <div>Reset</div>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location

- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - Contact your Field or Regional Environmental Officer (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the Barrier Performance Module (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

**NCORR Noise Assessment with NC DOT
AADT Trend Analysis, FAA 5010 Master
Record, National Transportation Noise
Map, HUD Airport Noise Worksheet, and
DNL Calculations Current 2021 and
Future 2035 Projections**

HUD NOISE ASSESSMENT - 24 CFR 51 Subpart B

Project Name: Elijah's Landing Apartments Project

Project Location: 3200 Bridges Street, Morehead City, Carteret County, NC 28557

Project Activities:

☒ New construction for residential use.

NOTE: HUD assistance to new construction projects is generally prohibited if they are located in an Unacceptable zone, and HUD discourages assistance for new construction projects in Normally Unacceptable zones. See 24 CFR 51.101(a)(3) for further details.

Preliminary Screening Results (1000' from a major road, 3000' from a railroad, or 15 miles from an airport):

1. HUD Noise Assessment by Partner. Partner completed a HUD Noise Assessment dated February 22, 2023 for the proposed development. Partner calculated 10-year projected traffic noise levels for ten noise assessment locations (NALs) per the site plans for residential and outdoor spaces. Partner's HUD Day/Night Noise Level (DNL) assessment resulted in the **10-year Projected Combined DNLs including airport** for the ten NALs in the table below.

NAL #	Combined Projected Noise Level (dB)	HUD Acceptability Category	Attenuation Required (dB)
1 - front (south end)	69	Normally unacceptable	27
1 - middle	64	Acceptable	No attenuation required
1 – back (north end)	61	Acceptable	No attenuation required
2	61	Acceptable	No attenuation required
3	53	Acceptable	No attenuation required
4	50	Acceptable	No attenuation required
5 ^a	57	Acceptable	N/A (exterior area)
6 ^b	54	Acceptable	N/A (exterior area)
7 ^c	54	Acceptable	N/A (exterior area)
8 ^d	52	Acceptable	N/A (exterior area)

2. NCORR Noise Assessment. NCORR completed a HUD DNL assessment using current Average Annual Daily Traffic (AADT) data received from NC DOT. The 2021 AADT data was used for Current DNL calculations and 2035 projected DNL calculations were made based on linear regression AADT Trend Analysis. There is no data from NC DOT on truck usage so HUD Field Officer Lenwood Smith's Major Arterial Urban traffic mix percentages were used (Automobiles - 92%; Medium Trucks - 4%; Heavy Trucks – 4%) which was also used by Partner.

- a. **Roads within 1,000 feet with NC DOT Average Annual Daily Traffic (AADT) data.** Bridges Street is the only road with NC DOT AADT data located within 1,000 feet of the Subject Property.
 - b. **Railroads within 3,000 feet.** One railroad track was located within 3,000 feet of the Subject Property. Operations data on RR Crossings ID# 722636E Bonner Avenue were obtained by Partner from the Norfolk Southern Railway Company (NS).
 - c. **Airports within 15-miles.** One airport was located within 15 miles of the Subject Property. The Michael J. Smith (MRH) Airport's FAA Master Record 5010 and National Transportation Noise Map were obtained by NCORR and reviewed for the proposed project site. NCORR completed the attached HUD Airport Noise Worksheet and it was determined based on annual operations data that the airport noise would not extend to the Subject Property which is corroborated by the National Transportation Noise Map. Note that Partner had entered less than 65 dB on their DNL combined calculations.
3. **Noise Assessment Locations and Results.** NCORR used the NALs chosen and measured by Partner based on their close proximity to noise generating sources. *NAL #1a* is the front of Buildings 100 and 200 on southern side, *NAL #1b* is the middle of Buildings 100 and 200, *NAL #1c* is back of Buildings 100 and 200 on northern side, *NAL #2* is Building 300 on southern side, *NAL #3* is Building 500 on southern side, *NAL #4* is Building 700 on southern side, *NAL #5a* is the southern gazebo, *NAL #6b* is the dog park, *NAL #7c* is the northern gazebo, and *NAL #8d* is the playground area and tot lot.

For *NAL #1a* (front of Buildings 100 and 200 on southern side), the HUD DNL Assessment resulted in a Current and a Projected 2035 combined DNL of **68** dB. For *NAL #1b* (middle of Buildings 100 and 200), the HUD DNL Assessment resulted in a Current combined DNL of **63** dB and a Projected 2035 combined DNL of **64** dB. For *NAL #1c* (back of Buildings 100 and 200 on northern side), the HUD DNL Assessment resulted in a Current combined DNL of **60** dB and a Projected 2035 combined DNL of **61** dB. For *NAL #2* (Building 300 on southern side), the HUD DNL Assessment resulted in a Current and a Projected 2035 combined DNL including airport of **60** dB. For *NAL #3* (Building 500 on southern side), the HUD DNL Assessment resulted in a Current combined DNL of **52** dB and a Projected 2035 combined DNL of **53** dB. For *NAL #4* (Building 700 on southern side), the HUD DNL Assessment resulted in a Current combined DNL of **49** dB and a Projected 2035 combined DNL of **50** dB. For *NAL #5a* (southern gazebo), the HUD DNL Assessment resulted in a Current combined DNL of **56** dB and a Projected 2035 combined DNL of **57** dB. For *NAL #6b* (dog park), the HUD DNL Assessment resulted in a Current combined DNL of **53** dB and a Projected 2035 combined DNL of **54** dB. For *NAL #7c* (northern gazebo), the HUD DNL Assessment resulted in a Current and a Projected 2035 combined DNL including airport of **53** dB. For *NAL #8d* (playground area and tot lot), the HUD DNL Assessment resulted in a Current combined DNL of **50** dB and a Projected 2035 combined DNL of **51** dB. NCORR's HUD DNL Assessment resulted in 2035 Combined DNLs that were the same or one decibel lower than Partner's 10-year Projected Combined DNLs including airport.

NAL #	2021 Combined DNL	2035 Combined DNL	Partner 10- year Combined DNL
1a - Front 100 & 200	68	68	69
1b - Middle 100 & 200	63	64	64
1c - Back 100 & 200	60	61	61
2 - 300 south	60	60	61
3 - 500 south	52	53	53
4 - 700 south	49	50	50
5a - Southern Gazebo	56	57	57
6b - Dog Park	53	54	54
7c - Northern Gazebo	53	53	54
8d - Playground	50	51	52

NCORR and Partner both reached Combined DNLs for *NALs #1b* through *#8d* within the HUD **Acceptable** noise level range (65 dB or less) for current, 2035 and 10-year traffic projections. NCORR and Partner both reached a Combined DNL of 68dB and 69 dB, respectively, for *NAL #1a* (front of Buildings 100 and 200 on southern side) within the HUD **Normally Unacceptable** noise level range (above 65 dB but not exceeding 75 dB) for current, 2035 and 10-year traffic projections. Normally, HUD discourages assistance for new construction projects in Normally Unacceptable zones. However, only the portion of the Subject Property located closest to Bridges Street is within the HUD Normally Unacceptable noise level range and the remainder of the site is located within the Acceptable noise level range. The Project Architect reviewed Partner's HUD Noise Assessment and subsequent DNL Calculations. The HUD Sound Transmission Classification Assessment Tool (STraCAT) is an electronic version of Figures 17 and 19 in The HUD Noise Guidebook was used in conjunction with Partner's HUD Noise Assessment to determine 27 dB noise attenuation needed for *NAL #1a* to meet HUD's building interior requirements of a 45 dB DNL maximum. According to the Project Architect, "[o]ur proposed exterior wall system consists of 3-1/2" wood studs at 16" o.c. with R-15 batt insulation and 7/16" exterior wood structural panels with brick on the lower portion of wall and vinyl siding above the brick, and 1/2" gypsum wall board on the interior face. Per the STraCAT analysis for Buildings #100 & #200, our wall system provides a total attenuation of **30.0dB**, which meets the required amount of attenuation. See attached documents for STraCAT data."

*HUD Notice: CPD-16-19 dated December 22, 2016 on "Balcony Policy under 24 CFR 51, Subpart B as it Applies to Parts 50 and 58 Regarding Building Facades Exposed to Noise" also applies to patios, the equivalent ground-level space, and similar spaces such as porches, decks, and terraces constructed integrally to a building. Such private spaces extend the interior living space, but are ancillary to indoor environments. **Because their use is optional, the negative effects of noise exposure are not an important determinant of overall project viability.***

Based on these concerns, it has been an informal Departmental policy for several years to not allow bedrooms or studio apartments in noise-impacted areas that directly access balconies. Through consultation with the Office of Housing and industry representatives concerned about accommodating areas with high market demand for balconies, it has become clear that the risk may be better managed through periodic inspection of door and window seals as an explicit requirement in Operation and Maintenance plans with the provision for repair or replacement as needed. The dwelling units must not rely on opening windows or doors for ventilation. Mechanical ventilation systems must be provided, and the design of those systems must be such that they do not transmit exterior noise to the interior of the units. Solutions that provide ventilation and quiet are the goal.

*Balconies are not "locations where it is determined that quiet outdoor space is required in an area ancillary to the principal use on the site" (24 CFR 51.103(c)). Furthermore, balconies are **not** indicative of an "outdoor noise sensitive activity" for the purpose of eligibility for the discretionary waiver of the Environmental Impact Statement offered in 24 CFR 51.104(b)(2) since spaces inside the dwelling unit can accommodate activities that may occur on balconies. For new construction projects in Unacceptable and **Normally Unacceptable** noise areas (in accordance with 24 CFR 51.101(a)(3)) and major or substantial rehabilitation that results in a change of land use, **bedrooms and studio apartments may have direct access to balconies if:***

- 1. The **interior noise levels have been mitigated to not exceed a day-night average noise level of 45 decibels** as documented by the Sound Transmission Classification of the dwelling unit's exterior walls factoring in fenestration.*

2. Appropriate ventilation is provided by a **mechanical ventilation system** and not by opening doors or windows, and
3. An **Operations and Maintenance plan** is in place that **requires periodically inspecting seals and repairing or replacing building components when their performance diminishes.**

Bedrooms and studio apartments may not have direct access to balconies if there is no mechanical ventilation and there is no Operations and Maintenance plan requiring periodic inspection and repair or replacement of all window and door seals as needed. This Notice does not limit the ability of HUD Approving Officials or Part 58 Certifying Officers to require additional mitigation measures not articulated in this Notice, or to deny approval of balconies based on noise or other concerns. In addition, Environmental Assessment or Environmental Impact Statement levels of environmental review must consider potential health effects stemming from issues related to noise sources, such as air quality (24 CFR 50.4(h) and 24 CFR 58.5(g)) and toxic hazard exposure near transportation (24 CFR 50.3(i) and 24 CFR 58.5(i)(2)).

Summary: NCORR and Partner both reached Combined DNLs for **NALs #1b** through **#8d** within the HUD **Acceptable** noise level range (65 dB or less). No further action is required at **NALs #1b** through **#8d**. NCORR and Partner both reached a Combined DNL for **NAL #1a** (front of Buildings 100 and 200 on southern side) within the HUD **Normally Unacceptable** noise level range (above 65 dB but not exceeding 75 dB). For new construction projects in **Normally Unacceptable** noise areas (in accordance with 24 CFR 51.101(a)(3)), **bedrooms and studio apartments may have direct access to balconies if:** 1) the **interior noise levels have been mitigated to not exceed a day-night average noise level of 45 decibels** as documented by STraCAT of the dwelling unit's exterior walls factoring in fenestration; 2) appropriate ventilation is provided by a **mechanical ventilation system** and not by opening doors or windows; and 3) an **Operations and Maintenance plan** is in place that **requires periodically inspecting seals and repairing or replacing building components when their performance diminishes.** These three requirements for noise attenuation will be met. According to the Project Architect, "[o]ur proposed exterior wall system consists of 3-1/2" wood studs at 16" o.c. with R-15 batt insulation and 7/16" exterior wood structural panels with brick on the lower portion of wall and vinyl siding above the brick, and 1/2" gypsum wall board on the interior face. Per the STraCAT analysis for Buildings #100 & #200, our wall system provides a total attenuation of 30.0dB, which meets the required amount of attenuation. Thus, the new construction will meet HUD's building interior requirements of a 45 dB DNL maximum. In addition, mechanical ventilation systems must be provided, and the design of those systems must be such that they do not transmit exterior noise to the interior of the units. Periodic inspection of door and window seals will be made an explicit requirement in Operation and Maintenance plans with the provision for repair or replacement as needed. With these three requirements met, bedrooms and studio apartments may have direct access to balconies. The proposed project is in compliance with HUD's noise regulations in 24 CFR 51 Subpart B.

References:

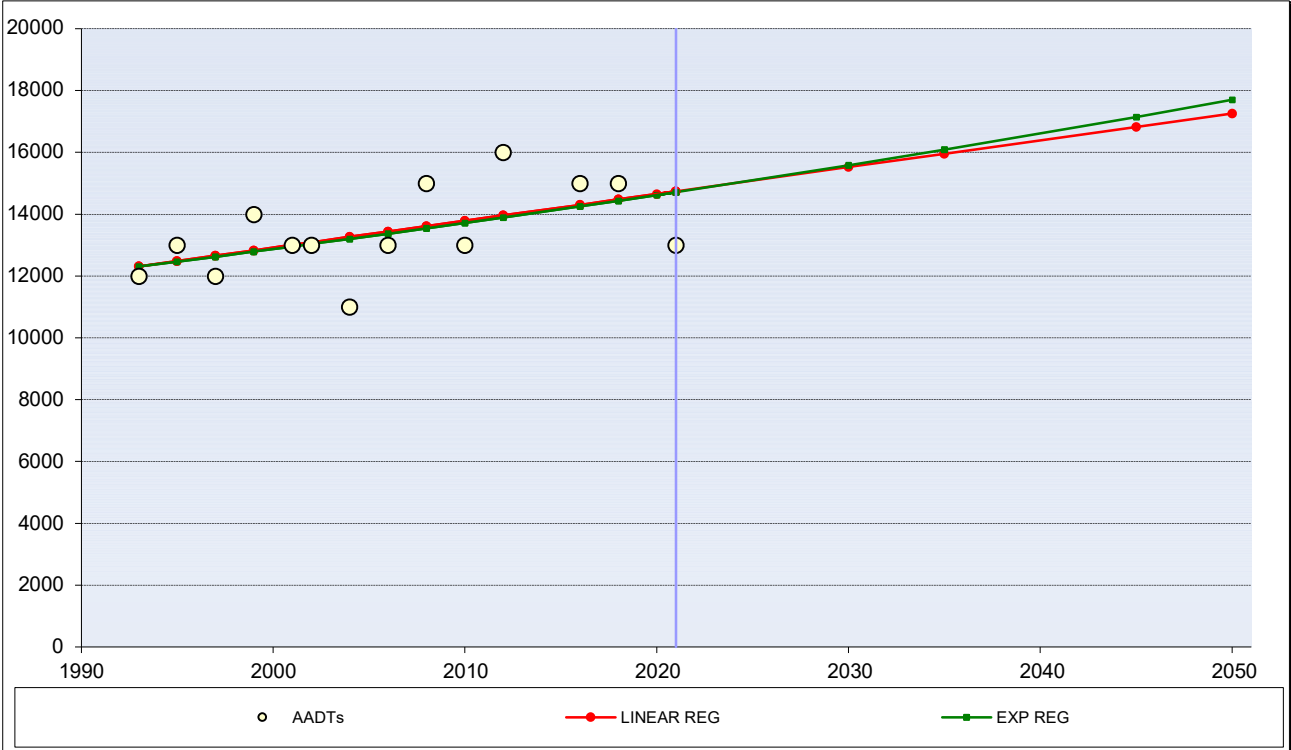
- The HUD Noise Guidebook, at (<https://www.hudexchange.info/resource/313/hud-noise-guidebook/>)
- HUD Day/Night Noise Level Electronic Assessment Tool, at <https://www.hudexchange.info/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/>
- NC DOT Staff, at <https://www.ncdot.gov/divisions/highways/Pages/contact.aspx>
- NC DOT AADT Mapping Application, at <https://ncdot.maps.arcgis.com/apps/webappviewer/index.html?id=964881960f0549de8c3583bf46ef5ed4>
- NC DOT North Carolina Speed Limits Map, at <https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=978abf2f2fe341c78f6d52636a60ebff>
- NCDOT North Carolina Truck Network, at <https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=a8f091b8fadc4c5d8bb905bf44556a5d>
- NCDOT Traffic Forecasting Data Map, at <https://ncdot.maps.arcgis.com/home/webmap/viewer.html?webmap=dd4fe2927b924bbb81cbd5d9075108c1>
- NC DOT Planning, at <https://connect.ncdot.gov/projects/planning/Pages/default.aspx>
- National Transportation Noise Map, at <https://www.bts.gov/geospatial/national-transportation-noise-map>
- Federal Aviation Administration (FAA) Airport Data and Information Portal, at <https://adip.faa.gov/agis/public/#/airportSearch>
- HUD Barrier Performance Module, at <https://www.hudexchange.info/environmental-review/bpm-calculator/#scenarios>
- USGS National Map Viewer, at <https://apps.nationalmap.gov/viewer/>
- Google Earth
- Sound Transmission Classification Assessment Tool (STraCAT), at <https://www.hudexchange.info/stracat/>

Attachments:

- NC DOT AADT Trend Analysis for Bridges Street station near Subject Property
- FAA 5010 Master Record
- National Transportation Noise Map
- HUD Airport Noise Worksheet
- DNL Calculations Current 2021 and Future 2035 (12-year) Projections

AADT TREND ANALYSIS

#1 -- SR 1176 W OF SR 1182



HISTORIC DATA		STATISTICAL RESULTS	
Year	AADT	LINEAR REG:	86.7
1993	12000	LINEAR %:	0.65%
1995	13000	EXPONENTIAL REG:	0.64%
1997	12000		
1999	14000		
2001	13000	R-SQUARED	
2002	13000	LINEAR:	0.2929
2004	11000	EXPONENTIAL:	0.2870
2006	13000		
2008	15000		
2010	13000	NUMBER OF DATA POINTS:	
2012	16000		14
2016	15000		
2018	15000		
2021	13000		

SHOW HISTORIC DATA:	SHOW FUTURE DATA:	SHOW STATION #:
<input checked="" type="checkbox"/> LINEAR REGRESSION	<input checked="" type="checkbox"/> LINEAR REGRESSION	1- SR 1176 W OF SR 1182
<input checked="" type="checkbox"/> EXPONENTIAL REGRESSION	<input checked="" type="checkbox"/> EXPONENTIAL REGRESSION	
<input checked="" type="checkbox"/> HISTORIC DATA		
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION / TRANSP. PLANNING BRANCH		

FUTURE PROJECTIONS:				
Linear Reg	Exp Reg			
14742	14716			
14655	14622			
15523	15585			
15957	16090			
16824	17150			
17258	17705			

Title - Replace with text
Title - Replace with text or delete

> 1 ASSOC CITY:	BEAUFORT	4 STATE: NC	LOC ID: MRH	FAA SITE NR:	16533.*A
> 2 AIRPORT NAME:	MICHAEL J SMITH FLD		5 COUNTY: CARTERET, NC		
3 CBD TO AIRPORT (NM): 1 N		6 REGION/ADO: ASO /MEM	7 SECT AERO CHT: CHARLOTTE		

GENERAL

10 OWNERSHIP: PUBLIC
> 11 OWNER: BEAUFORT-MOREHEAD ARPT AUTH
> 12 ADDRESS: 180 AIRPORT ROAD
BEAUFORT, NC 28516
> 13 PHONE NR: 252-728-1928
> 14 MANAGER: JESSE VINSON
> 15 ADDRESS: 180 AIRPORT ROAD
BEAUFORT, NC 28516

> 16 PHONE NR: 252-728-1928
> 17 ATTENDANCE SCHEDULE:

MONTHS

ALL

DAYS

ALL

HOURS

0800-DUSK

SERVICES

> 70 FUEL: 100LL A1+

> 71 AIRFRAME RPRS: MAJOR

> 72 PWR PLANT RPRS: MAJOR

> 73 BOTTLE OXYGEN: HIGH/LOW

> 74 BULK OXYGEN: NONE

75 TSNT STORAGE: HGR TIE

76 OTHER SERVICES: CHTR, INSTR, PAJA,
RNTL, SURV

BASED AIRCRAFT

90 SINGLE ENG:	45
91 MULTI ENG:	6
92 JET:	3
93 HELICOPTERS:	0
TOTAL:	<u>54</u>
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT:	0

FACILITIES

> 80 ARPT BCN:	WG
> 81 ARPT LGT SKED:	SEE RMK
BCN LGT SKED:	SS-SR
> 82 UNICOM:	122.800
> 83 WIND INDICATOR:	YES-L
84 SEGMENTED CIRCLE:	YES
85 CONTROL TWR:	NO
86 FSS:	RALEIGH
87 FSS ON ARPT:	NO
88 FSS PHONE NR:	
89 TOLL FREE NR:	1-800-WX-BRIEF

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	3,728
103 G A LOCAL:	33,549
104 G A ITNRNT:	3,728
105 MILITARY:	2,795
TOTAL:	<u>43,800</u>

OPERATIONS FOR 12
MONTHS ENDING 07/24/2021

RUNWAY DATA

> 30 RUNWAY IDENT:
> 31 LENGTH:
> 32 WIDTH:
> 33 SURF TYPE-COND:
> 34 SURF TREATMENT:
35 GROSS WT: S
36 (IN THSDS) D
37 2D
38 2D/2DS
> 39 PCN / PCR:

LIGHTING/APCH AIDS

- > 40 EDGE INTENSITY:
- > 42 RWY MARK TYPE-COND:
- > 43 VGSi:
 - 44 THR CROSSING HGT:
 - 45 VISUAL GLIDE ANGLE:
- > 46 CNTRLN-TDZ:
- > 47 RVR-RVV:
- > 48 REIL:
- > 49 APCH LIGHTS:

OBSTRUCTION DATA

50 FAR 77 CATEGORY:
> 51 DISPLACED THR:
> 52 CTLG OBSTN:
> 53 OBSTN MARKED/LGTD:
> 54 HGT ABOVE RWY END:
> 55 DIST FROM RWY END:
> 56 CNTRLN OFFSET:
57 OBSTN CLNC SLOPE:
58 CLOSE-IN OBSTN:

DECLARED DISTANCES

- > 60 TAKE OFF RUN AVBL (TORA):
- > 61 TAKE OFF DIST AVBL (TODA):
- > 62 ACLT STOP DIST AVBL (ASDA):
- > 63 LNDG DIST AVBL (LDA):

08/26	14/32	03/21
5,004	4,001	4,192
100	100	150
ASPH-G	ASPH-G	ASPH-F
NONE	NONE	NONE
	12.5	12.5
60.0		
MED		MED
NPI- G / NPI- G	BSC- G / BSC- G	NPI- G / NPI- G
P2L / P2R	/	P2L / P2L
45 / 43	/	44 / 54
3.00 / 3.00	/	4.00 / 4.00
- / -	- / -	- / -
- / -	- / -	- / -
Y / Y	/	N / N
/	/	/
C / C	A(NP) / A(NP)	A(NP) / A(NP)
/ 289	/ 490	864 / 516
BRUSH / ROAD	BRUSH / TREES	ROAD / TREES
/	/	/
12 / 20	6 / 55	20 / 55
321 / 325	268 / 505	312 / 1,118
142R / 0B	46L / 79R	0B / 137L
10:1 / 6:1	11:1 / 5:1	5:1 / 16:1
Y / N	Y / Y	Y / Y
/	/	/
/	/	/
/	/	/
/	/	/

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 017 FOR SERVICE AFTER HOURS CALL 843-465-2846.
A 052 RWY 14 45 FT MAST HGT.
A 052 RWY 08 45 FT MAST HGT.
A 057 RWY 03 APCH RATIO 21:1 AT DSPLCD THR DUE TO 81 FT MAST 1938 FT FM DSPLCD THR OFFSET 748 FT L OF CNTRLN.
A 057 RWY 32 APCH RATIO 13:1 AT DSPLCD THR DUE TO 61 FT TREES 995 FT FM DSPLCD THR OFFSET 85 FT R OF CNTRLN.
A 057 RWY 08 APCH RATIO 20:1 AT DSPLCD THR DUE TO 21 FT ROAD 627 FT FM DSPLCD THR BOTH SIDES OF CNTRLN.
A 057 RWY 21 APCH RATIO 22:1 AT DSPLCD THR DUE TO 76 FT TREES 1916 FT FM DSPLCD THR OFFSET 249 FT R OF CNTRLN.

111 INSPECTOR: (S)	112 LAST INSP: 07/24/2021	113 LAST INFO RES:
--------------------	---------------------------	--------------------

> 1 ASSOC CITY:	BEAUFORT	4 STATE: NC	LOC ID: MRH	FAA SITE NR:	16533.*A
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> 13 PHONE NR: 252-728-1928
> 14 MANAGER: JESSE VINSON
> 15 ADDRESS: 180 AIRPORT ROAD
BEAUFORT, NC 28516

> 16 PHONE NR: 252-728-1928

> 17 ATTENDANCE SCHEDULE:

MONTHS

DAYS

HOURS

ALL

ALL

0800-DUSK

18 AIRPORT USE:	PUBLIC
19 ARPT LAT:	34-44-1.531N ESTIMATED
20 ARPT LONG:	76-39-37.277W
21 ARPT ELEV:	10.1 SURVEYED
22 ACREAGE:	412
> 23 RIGHT TRAFFIC:	26 21
> 24 NON-COMM LANDING:	NO
25 NPIAS/FED AGREEMENTS:	YES / NGPY3
> 26 FAR 139 INDEX:	/

SERVICES

> 70 FUEL: 100LL A1+

> 71 AIRFRAME RPRS: MAJOR

> 72 PWR PLANT RPRS: MAJOR

> 73 BOTTLE OXYGEN: HIGH/LOW

> 74 BULK OXYGEN: NONE

75 TSNT STORAGE: HGR TIE

76 OTHER SERVICES: CHTR, INSTR, PAJA,
RNTL, SURV

BASED AIRCRAFT

90 SINGLE ENG:	45
91 MULTI ENG:	6
92 JET:	3
93 HELICOPTERS:	0
TOTAL:	<u>54</u>
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT:	0

FACILITIES

> 80 ARPT BCN:	WG
> 81 ARPT LGT SKED:	SEE RMK
BCN LGT SKED:	SS-SR
> 82 UNICOM:	122.800
> 83 WIND INDICATOR:	YES-L
84 SEGMENTED CIRCLE:	YES
85 CONTROL TWR:	NO
86 FSS:	RALEIGH
87 FSS ON ARPT:	NO
88 FSS PHONE NR:	
89 TOLL FREE NR:	1-800-WX-BRIEF

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	3,728
103 G A LOCAL:	33,549
104 G A ITNRNT:	3,728
105 MILITARY:	2,795
TOTAL:	<u>43,800</u>

OPERATIONS FOR 12
MONTHS ENDING 07/24/2021

RUNWAY DATA

> 30 RUNWAY IDENT:
> 31 LENGTH:
> 32 WIDTH:
> 33 SURF TYPE-COND:
> 34 SURF TREATMENT:
35 GROSS WT: S
36 (IN THSDS) D
37 2D
38 2D/2DS
> 39 PCN / PCR:

LIGHTING/APCH AIDS

- > 40 EDGE INTENSITY:
- > 42 RWY MARK TYPE-COND:
- > 43 VGSi:
 - 44 THR CROSSING HGT:
 - 45 VISUAL GLIDE ANGLE:
- > 46 CNTRLN-TDZ:
- > 47 RVR-RVV:
- > 48 REIL:
- > 49 APCH LIGHTS:

OBSTRUCTION DATA

50 FAR 77 CATEGORY:
> 51 DISPLACED THR:
> 52 CTLG OBSTN:
> 53 OBSTN MARKED/LGTD:
> 54 HGT ABOVE RWY END:
> 55 DIST FROM RWY END:
> 56 CNTRLN OFFSET:
57 OBSTN CLNC SLOPE:
58 CLOSE-IN OBSTN:

DECLARED DISTANCES

- > 60 TAKE OFF RUN AVBL (TORA):
- > 61 TAKE OFF DIST AVBL (TODA):
- > 62 ACLT STOP DIST AVBL (ASDA):
- > 63 LNDG DIST AVBL (LDA):

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 058	RWY 32 7 FT FENCE 121 FT FM END RWY BOTH SIDES OF CNTRLN.
A 058	RWY 03 9 FT FENCE 191 FT FM END OF RWY BOTH SIDES OF CNTRLN.
A 058	RWY 08 7 FT BRUSH 100-200 FT FM THR OFFSET 113 FT R OF CNTRLN.
A 058	RWY 21 8 FT BRUSH 48 FT FM END OF RWY OFFSET 170 FT R OF CNTRLN.
A 058	RWY 14 10 FT BRUSH 0-200 FT FM THR OFFSET 171 FT R OF CNTRLN, AND 11 FT TREES 43 FT FM THR OFFSET 206 FT R OF CNTRLN.
A 075	CHECK IF HANGAR SPACE IS AVAIL W/ ARPT MAN.
A 081	ACTVT REIL RWY 08 & 26: PAPI RWY 03 & 21: MIRL RWY 03/21 & RWY 08/26 - CTAf. PAPI RWY 08 & 26 OPER CONSLY.

111 INSPECTOR: (S)	112 LAST INSP: 07/24/2021	113 LAST INFO RES:
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1 ASSOC CITY:	BEAUFORT	4 STATE: NC	LOC ID: MRH	FAA SITE NR:	16533: A
> 2 AIRPORT NAME:	MICHAEL J SMITH FLD		5 COUNTY: CARTERET, NC		
3 CBD TO AIRPORT (NM): 1 N		6 REGION/ADO: ASO /MEM	7 SECT AERO CHT: CHARLOTTE		

GENERAL

10 OWNERSHIP: PUBLIC
> 11 OWNER: BEAUFORT-MOREHEAD ARPT AUTH
> 12 ADDRESS: 180 AIRPORT ROAD
BEAUFORT, NC 28516
> 13 PHONE NR: 252-728-1928
> 14 MANAGER: JESSE VINSON
> 15 ADDRESS: 180 AIRPORT ROAD
BEAUFORT, NC 28516

> 16 PHONE NR: 252-728-1928

> 17 ATTENDANCE SCHEDULE:

MONTHS

DAYS

HOURS

ALL

ALL

0800-DUSK

18 AIRPORT USE:	PUBLIC
19 ARPT LAT:	34-44-1.531N ESTIMATED
20 ARPT LONG:	76-39-37.277W
21 ARPT ELEV:	10.1 SURVEYED
22 ACREAGE:	412
> 23 RIGHT TRAFFIC:	26 21
> 24 NON-COMM LANDING:	NO
25 NPIAS/FED AGREEMENTS:	YES / NGPY3
> 26 FAR 139 INDEX:	/

SERVICES

> 70 FUEL:	100LL A1+
> 71 AIRFRAME RPRS:	MAJOR
> 72 PWR PLANT RPRS:	MAJOR
> 73 BOTTLE OXYGEN:	HIGH/LOW
> 74 BULK OXYGEN:	NONE
75 TSNT STORAGE:	HGR TIE
76 OTHER SERVICES:	CHTR, INSTR, PAJA, RNTL, SURV

BASED AIRCRAFT

90 SINGLE ENG:	45
91 MULTI ENG:	6
92 JET:	3
93 HELICOPTERS:	0
TOTAL:	<u>54</u>
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT:	0

FACILITIES

> 80 ARPT BCN:	WG
> 81 ARPT LGT SKED:	SEE RMK
BCN LGT SKED:	SS-SR
> 82 UNICOM:	122.800
> 83 WIND INDICATOR:	YES-L
84 SEGMENTED CIRCLE:	YES
85 CONTROL TWR:	NO
86 FSS:	RALEIGH
87 FSS ON ARPT:	NO
88 FSS PHONE NR:	
89 TOLL FREE NR:	1-800-WX-BRIEF

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	3,728
103 G A LOCAL:	33,549
104 G A ITNRNT:	3,728
105 MILITARY:	2,795
TOTAL:	<u>43,800</u>

OPERATIONS FOR 12
MONTHS ENDING 07/24/2021

RUNWAY DATA

> 30 RUNWAY IDENT:
> 31 LENGTH:
> 32 WIDTH:
> 33 SURF TYPE-COND:
> 34 SURF TREATMENT:
35 GROSS WT: S
36 (IN THSDS) D
37 2D
38 2D/2DS
> 39 PCN / PCR:

LIGHTING/APCH AIDS

- > 40 EDGE INTENSITY:
- > 42 RWY MARK TYPE-COND:
- > 43 VGSi:
 - 44 THR CROSSING HGT:
 - 45 VISUAL GLIDE ANGLE:
- > 46 CNTRLN-TDZ:
- > 47 RVR-RVV:
- > 48 REIL:
- > 49 APCH LIGHTS:

OBSTRUCTION DATA

50 FAR 77 CATEGORY:
> 51 DISPLACED THR:
> 52 CTLG OBSTN:
> 53 OBSTN MARKED/LGTD:
> 54 HGT ABOVE RWY END:
> 55 DIST FROM RWY END:
> 56 CNTRLN OFFSET:
57 OBSTN CLNC SLOPE:
58 CLOSE-IN OBSTN:

DECLARED DISTANCES


- > 60 TAKE OFF RUN AVBL (TORA):
- > 61 TAKE OFF DIST AVBL (TODA):
- > 62 ACLT STOP DIST AVBL (ASDA):
- > 63 LNDG DIST AVBL (LDA):

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 110-001	NO LINE OF SIGHT BTWN RWY ENDS.
A 110-003	DEER AND BIRDS ON & INVOF ARPT AND BIRD-DROPPED SHELLS MAY CAUSE FOD.
A 110-004	NOISE ABATEMENT PROCEDURES IN EFFECT, CTC AMGR 252-728-1928.
A 110-005	AVOID OVERFLIGHTS OF BEAUFORT WATERFRONT AND BEAUFORT NATIONAL REGISTER HISTORIC DISTRICT.
A 110-006	FOR CD CTC CHERRY POINT APCH AT 252-466-5960.
A 110-007	MIL ACFT RWY 08/26 REQUIRED FOR NOISE ABATEMENT.
A 110-008	SKYDIVING OPERATIONS - DO NOT OVERFLY ARPT.

111 INSPECTOR: (S)	112 LAST INSP: 07/24/2021	113 LAST INFO RES:
--------------------	---------------------------	--------------------

 U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		AIRPORT MASTER RECORD		PRINT DATE: 08/10/2023 AFD EFF 08/10/2023 FORM APPROVED OMB 2120-0015	
> 1 ASSOC CITY: BEAUFORT		4 STATE: NC		LOC ID: MRH	
> 2 AIRPORT NAME: MICHAEL J SMITH FLD				5 COUNTY: CARTERET, NC	
3 CBD TO AIRPORT (NM): 1 N		6 REGION/ADO: ASO /MEM		7 SECT AERO CHT: CHARLOTTE	
10 OWNERSHIP: PUBLIC		> 70 FUEL: 100LL A1+		90 SINGLE ENG: 45	
> 11 OWNER: BEAUFORT-MOREHEAD ARPT AUTH		> 71 AIRFRAME RPRS: MAJOR		91 MULTI ENG: 6	
> 12 ADDRESS: 180 AIRPORT ROAD		> 72 PWR PLANT RPRS: MAJOR		92 JET: 3	
BEAUFORT, NC 28516		> 73 BOTTLE OXYGEN: HIGH/LOW		93 HELICOPTERS: 0	
> 13 PHONE NR: 252-728-1928		> 74 BULK OXYGEN: NONE		TOTAL: 54	
> 14 MANAGER: JESSE VINSON		75 TSNT STORAGE: HGR TIE		94 GLIDERS: 0	
> 15 ADDRESS: 180 AIRPORT ROAD		76 OTHER SERVICES: CHTR,INSTR,PAJA,		95 MILITARY: 0	
BEAUFORT, NC 28516		RNTL,SURV		96 ULTRA-LIGHT: 0	
> 16 PHONE NR: 252-728-1928					
> 17 ATTENDANCE SCHEDULE:					
MONTHS	DAYS	HOURS			
ALL	ALL	0800-DUSK			
18 AIRPORT USE: PUBLIC		> 80 ARPT BCN: WG		100 AIR CARRIER: 0	
19 ARPT LAT: 34-44-1.531N ESTIMATED		> 81 ARPT LGT SKED: SEE RMK		102 AIR TAXI: 3,728	
20 ARPT LONG: 76-39-37.277W		BCN LGT SKED: SS-SR		103 G A LOCAL: 33,549	
21 ARPT ELEV: 10.1 SURVEYED		> 82 UNICOM: 122.800		104 G A ITNRNT: 3,728	
22 ACREAGE: 412		> 83 WIND INDICATOR: YES-L		105 MILITARY: 2,795	
> 23 RIGHT TRAFFIC: 26 21		84 SEGMENTED CIRCLE: YES		TOTAL: 43,800	
> 24 NON-COMM LANDING: NO		85 CONTROL TWR: NO		OPERATIONS FOR 12	
25 NPIAS/FED AGREEMENTS: YES / NGPY3		86 FSS: RALEIGH		MONTHS ENDING 07/24/2021	
> 26 FAR 139 INDEX: /		87 FSS ON ARPT: NO			
		88 FSS PHONE NR:			
		89 TOLL FREE NR: 1-800-WX-BRIEF			
RUNWAY DATA					
> 30 RUNWAY IDENT:					
> 31 LENGTH:					
> 32 WIDTH:					
> 33 SURF TYPE-COND:					
> 34 SURF TREATMENT:					
35 GROSS WT: S					
36 (IN THSDS) D					
37 2D					
38 2D/2DS					
> 39 PCN / PCR:					
LIGHTING/APCH AIDS					
> 40 EDGE INTENSITY:					
> 42 RWY MARK TYPE-COND:					
> 43 VGSi:					
44 THR CROSSING HGT:					
45 VISUAL GLIDE ANGLE:					
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> 48 REIL:					
> 49 APCH LIGHTS:					
OBSTRUCTION DATA					
50 FAR 77 CATEGORY:					
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> 55 DIST FROM RWY END:					
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DECLARED DISTANCES					
> 60 TAKE OFF RUN AVBL (TORA):					
> 61 TAKE OFF DIST AVBL (TODA):					
> 62 ACLT STOP DIST AVBL (ASDA):					
> 63 LNDG DIST AVBL (LDA):					
> ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >					
> 110 REMARKS:					
A 110-009 DUE TO VOLUME OF MIL TFC AND TRNG RCMD ALL ACFT USING MRH CTC CHERRY POINT APP 132.57 AB AND 125.65 PRIOR TO MRH DEP.					
111 INSPECTOR: (S) 112 LAST INSP: 07/24/2021 113 LAST INFO RES:					

Airport Noise Worksheet

Use this worksheet to identify information needed to evaluate a site's exposure to aircraft noise.

Name and Location of Project: Elijah's Landing Apartments, 3200 Bridges Street, Morehead City, Carteret County, NC 28557

Name of Airport: Michael J. Smith (MRH)

Person completing worksheet: Andrea Gievers

Date: 8/10/23

1. Determine if the proposed site/project is within 15 miles of a civil or military airport.

☐ No. Attach a map identifying the location of the proposed project site and the location of any airports. This worksheet is not required.

☒ Yes. Attach a map identifying the location of the proposed project site and the location of any airports. Continue

2. Determine the number of operations at the airport by:

- Going to: <http://www.gcr1.com/5010web/>
- Type in the name of the city press search
- Find your airport.
- Open the report under "Print 5010"
- Complete section 3 below by using the information found in the report (see arrow #1 in the example below)

3. Determine if the annual number of operations for air carriers (#100), air taxis (#102), military (#105), and general aviation (#103 plus #104) exceeds thresholds.

Annual air carrier operations 0. Is this 9000 or more? ☐ Yes ☒ No

Annual air taxi operations 3,728. Is this 18,000 or more? ☐ Yes ☒ No

Annual general aviation operations 37,277. Is this 72000 or more? ☐ Yes ☒ No

Annual military operations 2,795. Is this 18,000 or more? ☐ Yes ☒ No

A. If you answer "No" on each of the questions above, it is assumed that the noise attributed to the airplanes will not extend beyond the boundaries of the airport. Maintain the documentation in your Environmental Review Record. You are finished with the evaluation of airport noise for this airport. If you have marked any question in #3 with "Yes," continue to 5.

B. Contact the airport manager, (see arrow #2 above) and ask them if the airport has noise contour maps. Are contour maps available?

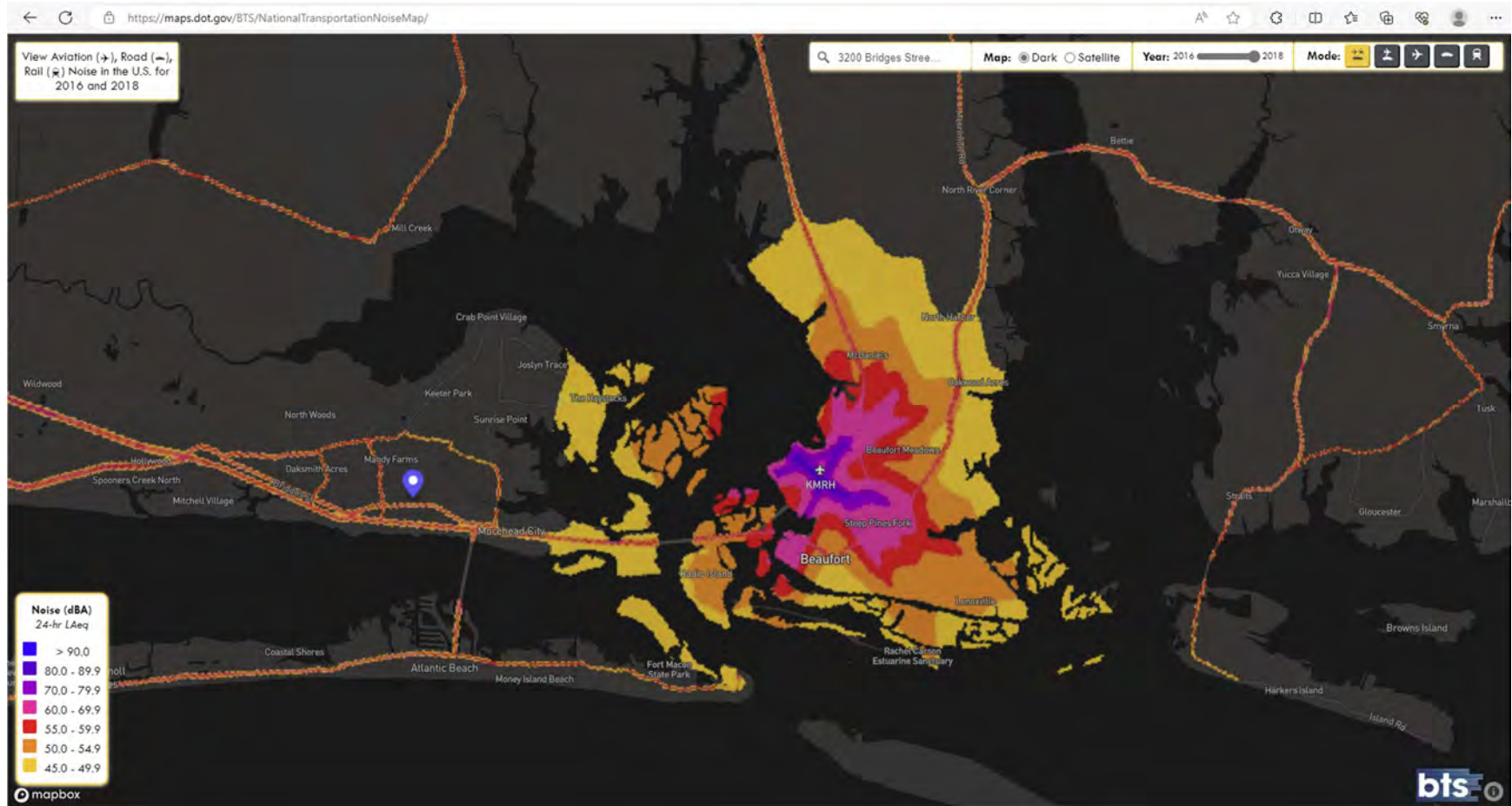
☐ Yes. Locate your project on the noise contour map. If there are no roads or railroads that are being considered for noise, utilize the information from the contour map to determine if the site is acceptable. If roads or railroads are being considered input the

Airport Noise Worksheet

information obtained from the airport noise contours, along with the road and railroad information in the HUD [Noise Assessment Guidelines](#) (NAG) or the online tool at <https://www.hudexchange.info/environmental-review/dnl-calculator>.

☐ No. Construct the approximate DNL contours by using the guidance on page 52 and 53 of the [NAG](#). You will need to obtain the following information from the airport: 1). The number of nighttime jet operations (10pm to 7 am) 2). The number of daytime jet operations (7 am to 10 pm) 3). The flight paths of the major runways. 4). Any available information about expected changes in airport traffic (e.g. will the number of operations Increase or decrease in the next 10 to 15 years).

3200 Bridges St, Morehead City, NC 28557 – National Transportation Noise Map



[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Elijah's Landing NAL 1 Front (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	93	93	93
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	11960	520	520
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	61	57	66
Calculate Road #1 DNL	68	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	1244
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="43"/>
Calculate Rail #1 DNL	<input type="text" value="43"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>	
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="68"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>	

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the [Day/Night Noise Level Calculator Electronic Assessment Tool Overview \(/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/\)](#).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Elijah's Landing NAL 1 Front (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	93	93	93
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	14681	638	638
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	61	58	67
Calculate Road #1 DNL	68	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	1244
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="43"/>
Calculate Rail #1 DNL	<input type="text" value="43"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="68"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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Tools and Guidance

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DNL Calculator

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DNL Calculator

Site ID

Elijah's Landing NAL 1 Middle (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:**Bridges Street****Road #1****Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

197

197

197

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

11960

520

520

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

56

52

61

Calculate Road #1 DNL

63

Reset

Railroad #1 Track Identifier:**Norfolk Southern Railway Company****Rail # 1****Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	1350
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="42"/>
<div>Calculate Rail #1 DNL</div>	<input type="text" value="42"/>	<div>Reset</div>
<div><div>Add Road Source</div><div>Add Rail Source</div></div>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="63"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<div>Calculate</div>	<div>Reset</div>	

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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- **Other Reasonable Alternatives:** Choose an alternate site
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Tools and Guidance

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DNL Calculator

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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Elijah's Landing NAL 1 Middle (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	197	197	197
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	14681	638	638
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	57	53	62
Calculate Road #1 DNL	64	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	1350
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="42"/>
Calculate Rail #1 DNL	<input type="text" value="42"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	64	
Combined DNL including Airport	N/A	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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Tools and Guidance

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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DNL Calculator

Site ID

Elijah's Landing NAL 1 Back (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:**Bridges Street****Road #1****Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

287

287

287

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

11960

520

520

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

53

50

59

Calculate Road #1 DNL

60

Reset

Railroad #1 Track Identifier:**Norfolk Southern Railway Company****Rail # 1****Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	1443
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="42"/>
Calculate Rail #1 DNL	<input type="text" value="42"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="60"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
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Tools and Guidance

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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Guidelines

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- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
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DNL Calculator

Site ID

Elijah's Landing NAL 1 Back (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:**Bridges Street****Road #1**

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	287	287	287
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	14681	638	638
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	54	50	59
Calculate Road #1 DNL	61	Reset	

Railroad #1 Track Identifier:**Norfolk Southern Railway Company****Rail # 1****Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	1443
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="42"/>
<input type="button" value="Calculate Rail #1 DNL"/>	<input type="text" value="42"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="61"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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DNL Calculator

Site ID

Elijah's Landing NAL 2 (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:**Bridges Street****Road #1****Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

315

315

315

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

11960

520

520

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

53

49

58

Calculate Road #1 DNL

60

Reset

Railroad #1 Track Identifier:**Norfolk Southern Railway Company****Rail # 1****Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	1468
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="42"/>
Calculate Rail #1 DNL	<input type="text" value="42"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="60"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

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 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

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DNL Calculator

Site ID

Elijah's Landing NAL 2 (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	315	315	315
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	14681	638	638
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	53	50	59
Calculate Road #1 DNL	60	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	1468
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="42"/>
Calculate Rail #1 DNL	<input type="text" value="42"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="60"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
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Tools and Guidance

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DNL Calculator

Site ID

Elijah's Landing NAL 3 (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1**Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

1057

1057

1057

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

11960

520

520

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

45

41

50

Calculate Road #1 DNL

52

Reset

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	2218
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="39"/>
<div>Calculate Rail #1 DNL</div>	<input type="text" value="39"/>	<div>Reset</div>
<div>Add Road Source</div>	<div>Add Rail Source</div>	
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="52"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<div>Calculate</div>	<div>Reset</div>	

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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DNL Calculator

Site ID

Elijah's Landing NAL 3 (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:**Bridges Street****Road #1****Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

1057

1057

1057

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

14681

638

638

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

46

42

51

Calculate Road #1 DNL

53

Reset

Railroad #1 Track Identifier:**Norfolk Southern Railway Company****Rail # 1****Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	2218
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="39"/>
<div>Calculate Rail #1 DNL</div>	<input type="text" value="39"/>	<div>Reset</div>
<div><div>Add Road Source</div><div>Add Rail Source</div></div>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="53"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<div>Calculate</div>	<div>Reset</div>	

Mitigation Options

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DNL Calculator

Site ID

Elijah's Landing NAL 4 (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1**Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

1736

1736

1736

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

11960

520

520

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

41

38

47

Calculate Road #1 DNL

48

Reset

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	2882
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="37"/>
Calculate Rail #1 DNL	<input type="text" value="37"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>	
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="49"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>	

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DNL Calculator

Site ID

Elijah's Landing NAL 4 (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	1736	1736	1736
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	14681	638	638
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	42	39	48
Calculate Road #1 DNL	49	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	2882
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="37"/>
Calculate Rail #1 DNL	<input type="text" value="37"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>	
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="50"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>	

Mitigation Options

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DNL Calculator

Site ID

Elijah's Landing NAL 5a Gazebo South (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	538	538	538
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	11960	520	520
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	49	45	55
Calculate Road #1 DNL	56	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	1694
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="41"/>
Calculate Rail #1 DNL	<input type="text" value="41"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="56"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

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DNL Calculator

Site ID

Elijah's Landing NAL 5a Gazebo South (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	538	538	538
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	14681	638	638
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	50	46	55
Calculate Road #1 DNL	57	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	1694
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="41"/>
Calculate Rail #1 DNL	<input type="text" value="41"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="57"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (</resource/313/hud-noise-guidebook/>)
 - Construct noise barrier. See the **Barrier Performance Module** (</programs/environmental-review/bpm-calculator/>)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (</resource/3822/day-night-noise-level-assessment-tool-user-guide/>)

Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator

DNL Calculator

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Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
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- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Elijah's Landing NAL 6b Dog Park (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1**Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

864

864

864

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

11960

520

520

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

46

42

51

Calculate Road #1 DNL

53

Reset

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	2011
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="40"/>
Calculate Rail #1 DNL	<input type="text" value="40"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	53	
Combined DNL including Airport	N/A	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
- **Other Reasonable Alternatives:** Choose an alternate site
- **Mitigation**
 - **Contact your Field or Regional Environmental Officer** (</programs/environmental-review/hud-environmental-staff-contacts/>)
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Tools and Guidance

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[Home \(/\)](#) > [Programs \(/programs/\)](#) > [Environmental Review \(/programs/environmental-review/\)](#) > DNL Calculator

DNL Calculator

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- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
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- **Note #2:** DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID

Elijah's Landing NAL 6b Dog Park (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	864	864	864
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	14681	638	638
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	47	43	52
Calculate Road #1 DNL	54	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	2011
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="40"/>
Calculate Rail #1 DNL	<input type="text" value="40"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	54	
Combined DNL including Airport	N/A	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
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Tools and Guidance

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DNL Calculator

Site ID

Elijah's Landing NAL 7c Gazebo North (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1**Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

962

962

962

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

11960

520

520

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

45

42

51

Calculate Road #1 DNL

52

Reset

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	2108
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="40"/>
Calculate Rail #1 DNL	<input type="text" value="40"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/>	<input type="button" value="Add Rail Source"/>	
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="53"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/>	<input type="button" value="Reset"/>	

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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Tools and Guidance

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

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DNL Calculator

Site ID

Elijah's Landing NAL 7c Gazebo North (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1**Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

962

962

962

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

14681

638

638

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

46

43

52

Calculate Road #1 DNL

53

Reset

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	2108
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="40"/>
Calculate Rail #1 DNL	<input type="text" value="40"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	53	
Combined DNL including Airport	N/A	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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Tools and Guidance

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DNL Calculator

Site ID

Elijah's Landing NAL 8d Tot Lot/Playground (Current 2021)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:

Bridges Street

Road #1

Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input checked="" type="checkbox"/>
Effective Distance	1373	1373	1373
Distance to Stop Sign			
Average Speed	35	35	35
Average Daily Trips (ADT)	11960	520	520
Night Fraction of ADT	15	15	15
Road Gradient (%)			0
Vehicle DNL	43	39	48
Calculate Road #1 DNL	50	Reset	

Railroad #1 Track Identifier:

Norfolk Southern Railway Company

Rail # 1**Train Type**Electric ☐Diesel ☒

Effective Distance	<input type="text"/>	2545
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	0	38
Calculate Rail #1 DNL	38	Reset
<div>Add Road Source</div> <div>Add Rail Source</div>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	50	
Combined DNL including Airport	N/A	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<div>Calculate</div> <div>Reset</div>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative:** Cancel the project at this location
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- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
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DNL Calculator

Site ID

Elijah's Landing NAL 8d Tot Lot/Playground (2035)

Record Date

08/10/2023

User's Name

Andrea Gievers

Road # 1 Name:**Bridges Street****Road #1****Vehicle Type****Cars** ☒**Medium Trucks** ☒**Heavy Trucks** ☒

Effective Distance

1373

1373

1373

Distance to Stop Sign

Average Speed

35

35

35

Average Daily Trips (ADT)

14681

638

638

Night Fraction of ADT

15

15

15

Road Gradient (%)

0

Vehicle DNL

44

40

49

Calculate Road #1 DNL

51

Reset

Railroad #1 Track Identifier:**Norfolk Southern Railway Company****Rail # 1****Train Type****Electric** ☐**Diesel** ☒

Effective Distance	<input type="text"/>	2545
Average Train Speed	<input type="text"/>	35
Engines per Train	<input type="text"/>	2
Railway cars per Train	<input type="text"/>	50
Average Train Operations (ATO)	<input type="text"/>	1
Night Fraction of ATO	<input type="text"/>	0
Railway whistles or horns?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Bolted Tracks?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Train DNL	<input type="text" value="0"/>	<input type="text" value="38"/>
<input type="button" value="Calculate Rail #1 DNL"/>	<input type="text" value="38"/>	<input type="button" value="Reset"/>
<input type="button" value="Add Road Source"/> <input type="button" value="Add Rail Source"/>		
Airport Noise Level	<input type="text" value="0"/>	
Loud Impulse Sounds?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
Combined DNL for all Road and Rail sources	<input type="text" value="51"/>	
Combined DNL including Airport	<input type="text" value="N/A"/>	
Site DNL with Loud Impulse Sound	<input type="text"/>	
<input type="button" value="Calculate"/> <input type="button" value="Reset"/>		

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

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Day/Night Noise Level Assessment Tool Flowcharts (</resource/3823/day-night-noise-level-assessment-tool-flowcharts/>)

ATTACHMENT 14:


Sole Source Aquifers

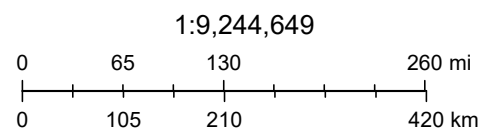
EPA Sole Source Aquifer Map

U.S. EPA Sole Source Aquifer Map



4/17/2023, 4:12:52 PM

 Sole_Source_Aquifers



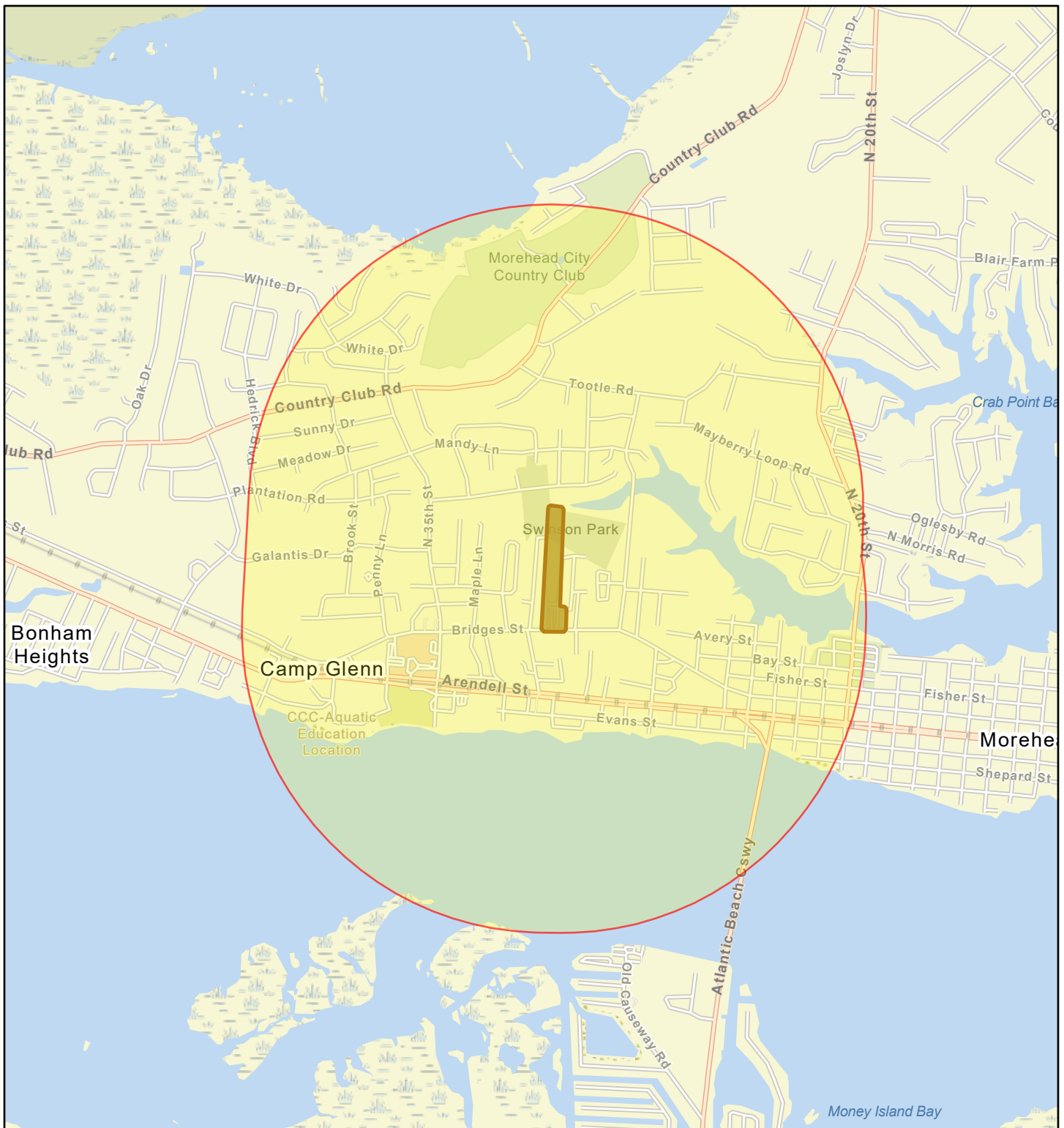
Esri, HERE, Garmin, NGA, USGS, NPS

ATTACHMENT 15:

Wild and Scenic Rivers

NEPAssist Maps of DOI NPS Nationwide Rivers
Inventory and National Wild and Scenic Rivers System
Showing 1-mile Buffer from the Subject Property

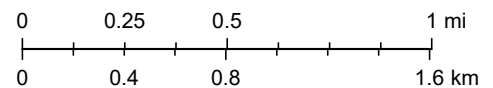
Elijah's Landing Apartments - WSR Map with 1-mile Buffer



July 27, 2023

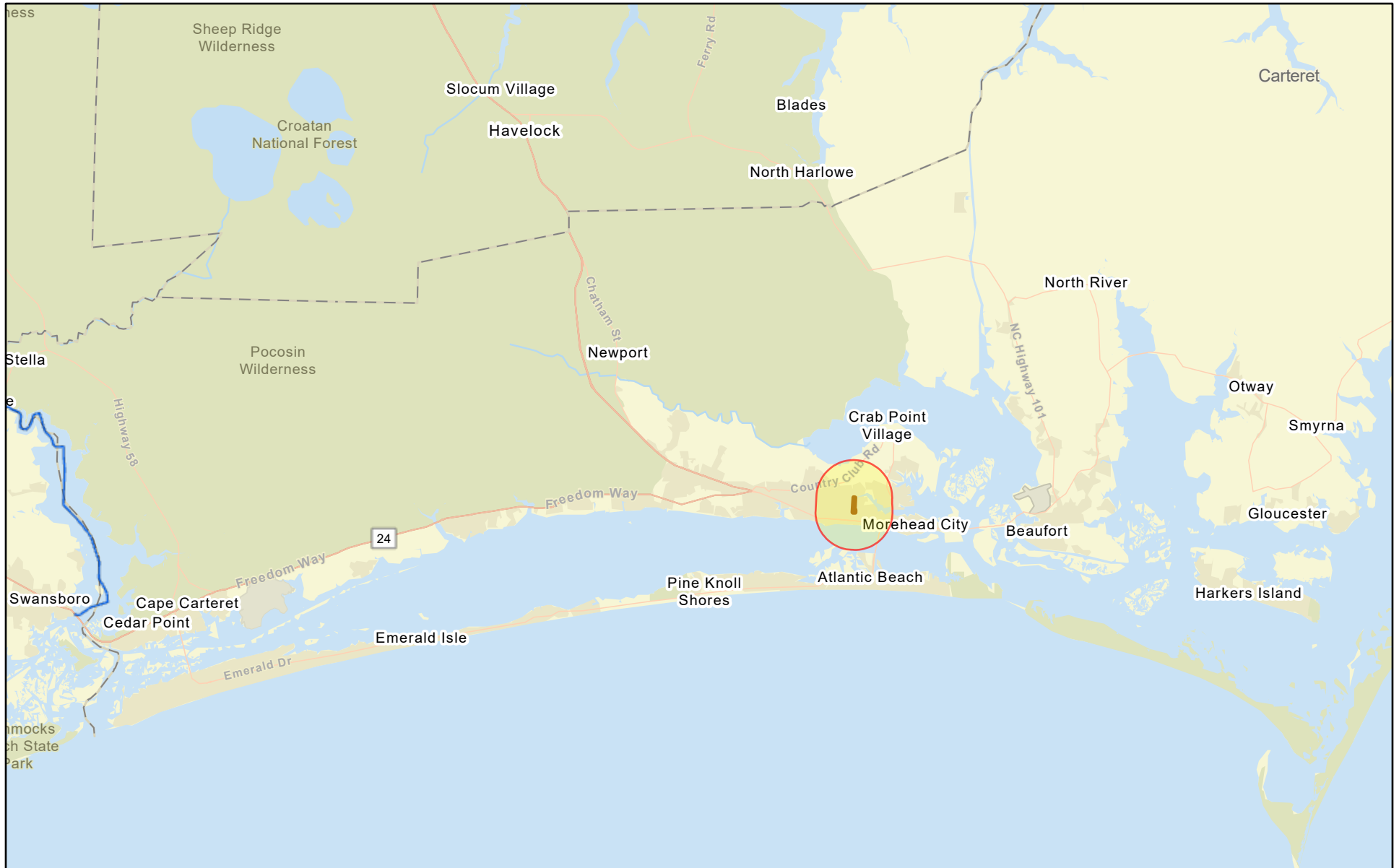
1:36,112

- Project Buffer
- Elijah's Landing Apartments
- elijahs's landing
- Wild and Scenic Rivers



National Park Service, peter_bonsall@nps.gov, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Elijah's Landing Apartments - WSR Map with 1-mile Buffer




July 27, 2023

 Project Buffer

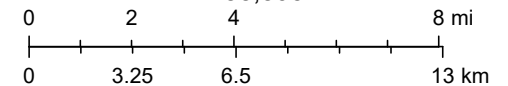
 Elijah's Landing Apartments

 HYDRO_NationwideRiversInventory_In

 elijahs's landing

 Wild and Scenic Rivers

1:288,895



National Park Service, peter_bonsall@nps.gov, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

ATTACHMENT 16:

Environmental Justice

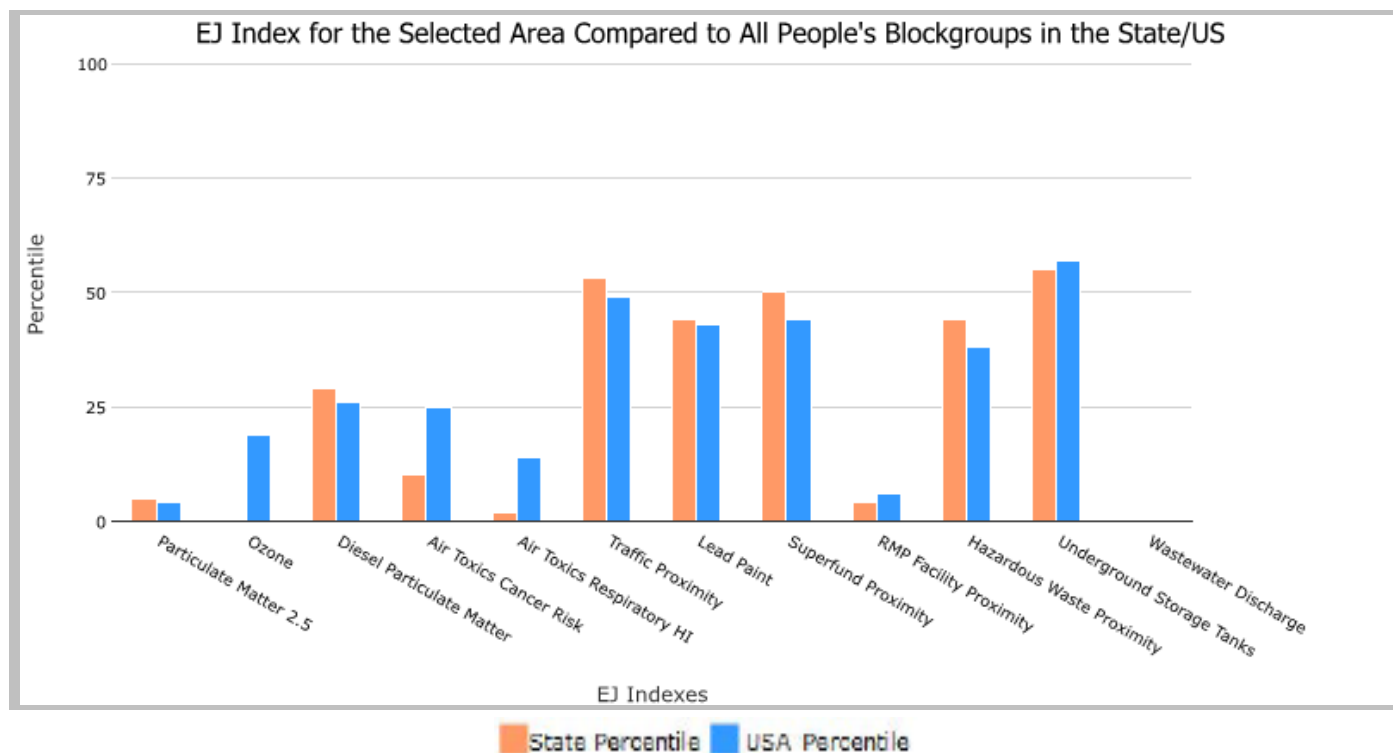
1 mile Ring around the Area, NORTH CAROLINA, EPA Region 4

Approximate Population: 5,280

Input Area (sq. miles): 4.12

Elijah

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	5	4
EJ Index for Ozone	0	19
EJ Index for Diesel Particulate Matter*	29	26
EJ Index for Air Toxics Cancer Risk*	10	25
EJ Index for Air Toxics Respiratory HI*	2	14
EJ Index for Traffic Proximity	53	49
EJ Index for Lead Paint	44	43
EJ Index for Superfund Proximity	50	44
EJ Index for RMP Facility Proximity	4	6
EJ Index for Hazardous Waste Proximity	44	38
EJ Index for Underground Storage Tanks	55	57
EJ Index for Wastewater Discharge	N/A	N/A



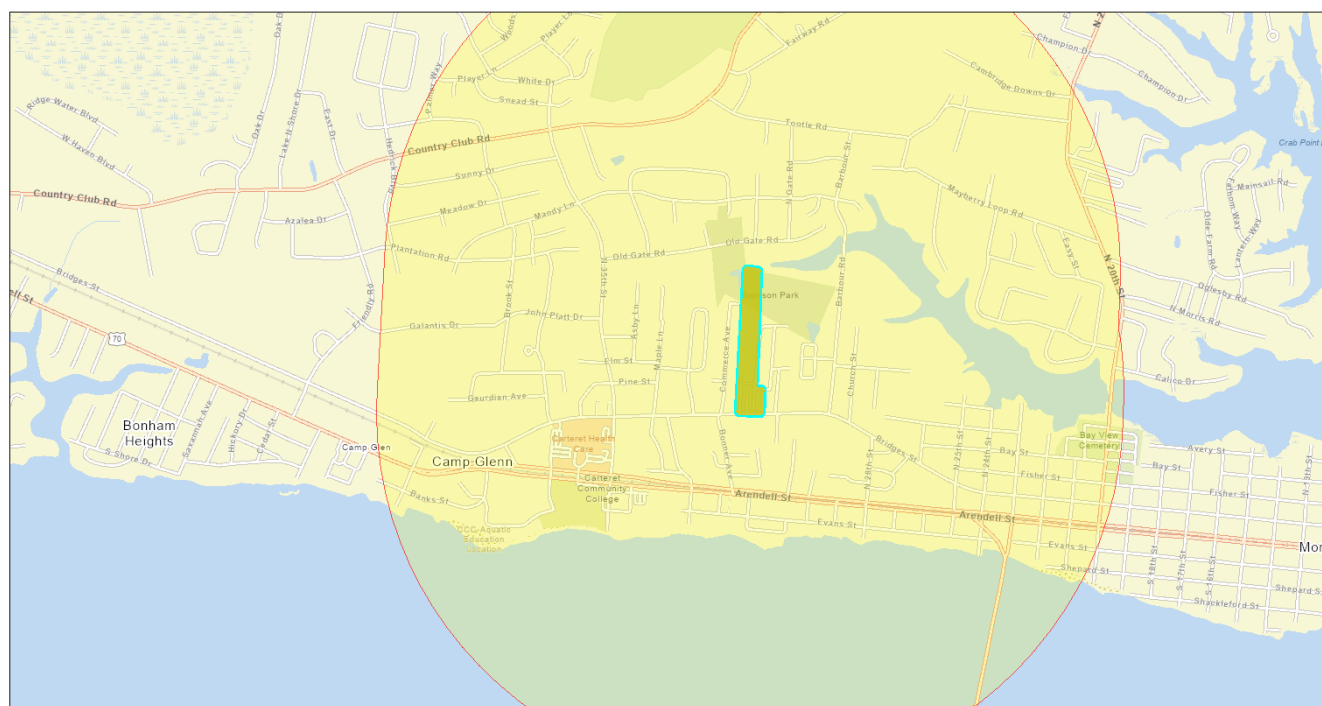
This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

1 mile Ring around the Area, NORTH CAROLINA, EPA Region 4

Approximate Population: 5,280

Input Area (sq. miles): 4.12

Elijah



February 28, 2023

Elijah's Landing
elijahs's landing

1:18,056
0 0.17 0.35 0.7 mi
0 0.28 0.55 1.1 km

Eari Community Maps Contributors, State of North Carolina DOT, Eari, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METINASA, USGS, EPA, NPS, US Census Bureau, USDA

Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.1)

1 mile Ring around the Area, NORTH CAROLINA, EPA Region 4

Approximate Population: 5,280

Input Area (sq. miles): 4.12

Elijah

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)	5.5	7.67	4	8.67	2
Ozone (ppb)	36.4	41.5	0	42.5	15
Diesel Particulate Matter* ($\mu\text{g}/\text{m}^3$)	0.114	0.178	27	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	20	28	21	28	<50th
Air Toxics Respiratory HI*	0.2	0.36	3	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	370	400	71	760	60
Lead Paint (% Pre-1960 Housing)	0.15	0.15	58	0.27	42
Superfund Proximity (site count/km distance)	0.044	0.08	52	0.13	39
RMP Facility Proximity (facility count/km distance)	0.043	0.41	4	0.77	4
Hazardous Waste Proximity (facility count/km distance)	0.24	0.83	44	2.2	35
Underground Storage Tanks (count/km ²)	2.8	3.9	65	3.9	65
Wastewater Discharge (toxicity-weighted concentration/m distance)	N/A	0.28	N/A	12	N/A
Socioeconomic Indicators					
Demographic Index	24%	35%	35	35%	41
People of Color	19%	37%	34	40%	37
Low Income	29%	33%	43	30%	52
Unemployment Rate	4%	5%	53	5%	54
Limited English Speaking Households	1%	2%	70	5%	59
Less Than High School Education	11%	11%	53	12%	60
Under Age 5	4%	6%	41	6%	38
Over Age 64	25%	16%	79	16%	81

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

Location: User-specified polygonal location
 Ring (buffer): 1-miles radius
 Description: Elijah

Summary of ACS Estimates		2016 - 2020	
Population		5,280	
Population Density (per sq. mile)		1,970	
People of Color Population		982	
% People of Color Population		19%	
Households		2,635	
Housing Units		3,169	
Housing Units Built Before 1950		306	
Per Capita Income		34,600	
Land Area (sq. miles) (Source: SF1)		2.68	
% Land Area		68%	
Water Area (sq. miles) (Source: SF1)		1.25	
% Water Area		32%	
		2016 - 2020 ACS Estimates	Percent MOE (±)
Population by Race			
Total		5,280	100% 228
Population Reporting One Race		5,068	96% 514
White		4,422	84% 219
Black		408	8% 100
American Indian		36	1% 41
Asian		154	3% 75
Pacific Islander		1	0% 13
Some Other Race		47	1% 66
Population Reporting Two or More Races		212	4% 111
Total Hispanic Population		249	5% 122
Total Non-Hispanic Population		5,031	
White Alone		4,298	81% 217
Black Alone		408	8% 100
American Indian Alone		34	1% 41
Non-Hispanic Asian Alone		154	3% 75
Pacific Islander Alone		1	0% 13
Other Race Alone		0	0% 13
Two or More Races Alone		135	3% 61
Population by Sex			
Male		2,529	48% 155
Female		2,751	52% 135
Population by Age			
Age 0-4		203	4% 65
Age 0-17		779	15% 102
Age 18+		4,500	85% 233
Age 65+		1,318	25% 110

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2016 - 2020

Location: User-specified polygonal location

Ring (buffer): 1-miles radius

Description: Elijah

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	4,094	100%	184
Less than 9th Grade	143	3%	61
9th - 12th Grade, No Diploma	305	7%	117
High School Graduate	1,046	26%	115
Some College, No Degree	995	24%	113
Associate Degree	499	12%	85
Bachelor's Degree or more	1,106	27%	100
Population Age 5+ Years by Ability to Speak English			
Total	5,077	100%	231
Speak only English	4,766	94%	233
Non-English at Home ¹⁺²⁺³⁺⁴	311	6%	115
¹ Speak English "very well"	211	4%	115
² Speak English "well"	13	0%	21
³ Speak English "not well"	49	1%	47
⁴ Speak English "not at all"	38	1%	42
³⁺⁴ Speak English "less than well"	87	2%	62
²⁺³⁺⁴ Speak English "less than very well"	99	2%	62
Linguistically Isolated Households*			
Total	30	100%	32
Speak Spanish	2	7%	13
Speak Other Indo-European Languages	5	16%	13
Speak Asian-Pacific Island Languages	22	74%	28
Speak Other Languages	1	3%	13
Households by Household Income			
Household Income Base	2,635	100%	158
< \$15,000	347	13%	67
\$15,000 - \$25,000	350	13%	69
\$25,000 - \$50,000	723	27%	121
\$50,000 - \$75,000	328	12%	121
\$75,000 +	887	34%	114
Occupied Housing Units by Tenure			
Total	2,635	100%	158
Owner Occupied	1,377	52%	89
Renter Occupied	1,257	48%	161
Employed Population Age 16+ Years			
Total	4,606	100%	221
In Labor Force	2,723	59%	214
Civilian Unemployed in Labor Force	115	2%	37
Not In Labor Force	1,883	41%	128

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: User-specified polygonal location

Ring (buffer): 1-miles radius

Description: Elijah

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home*			
Total (persons age 5 and above)	3,689	100%	242
English	3,474	94%	236
Spanish	111	3%	122
French, Haitian, or Cajun	11	0%	27
German or other West Germanic	15	0%	9
Russian, Polish, or Other Slavic	0	0%	13
Other Indo-European	46	1%	27
Korean	0	0%	13
Chinese (including Mandarin, Cantonese)	32	1%	40
Vietnamese	0	0%	13
Tagalog (including Filipino)	0	0%	13
Other Asian and Pacific Island	0	0%	13
Arabic	0	0%	13
Other and Unspecified	0	0%	13
Total Non-English	215	6%	338

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2016 - 2020.

*Population by Language Spoken at Home is available at the census tract summary level and up.

Location: User-specified polygonal location
 Ring (buffer): 1-miles radius
 Description: Elijah

Summary	Census 2010
Population	5,896
Population Density (per sq. mile)	1,761
People of Color Population	1,214
% People of Color Population	21%
Households	2,722
Housing Units	3,135
Land Area (sq. miles)	3.35
% Land Area	77%
Water Area (sq. miles)	0.99
% Water Area	23%

Population by Race	Number	Percent
Total	5,896	-----
Population Reporting One Race	5,726	97%
White	4,813	82%
Black	615	10%
American Indian	34	1%
Asian	69	1%
Pacific Islander	16	0%
Some Other Race	179	3%
Population Reporting Two or More Races	170	3%
Total Hispanic Population	337	6%
Total Non-Hispanic Population	5,559	94%
White Alone	4,682	79%
Black Alone	608	10%
American Indian Alone	28	0%
Non-Hispanic Asian Alone	69	1%
Pacific Islander Alone	16	0%
Other Race Alone	16	0%
Two or More Races Alone	140	2%

Population by Sex	Number	Percent
Male	2,736	46%
Female	3,160	54%

Population by Age	Number	Percent
Age 0-4	347	6%
Age 0-17	1,145	19%
Age 18+	4,751	81%
Age 65+	1,086	18%

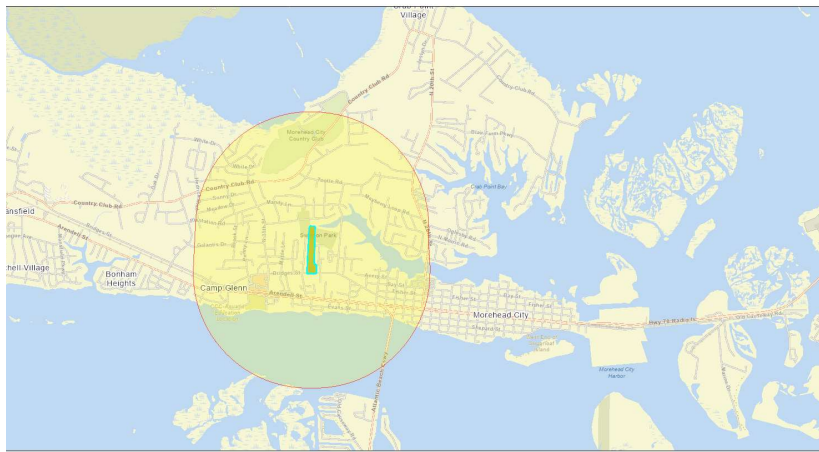
Households by Tenure	Number	Percent
Total	2,722	
Owner Occupied	1,516	56%
Renter Occupied	1,206	44%

EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Morehead City, NC

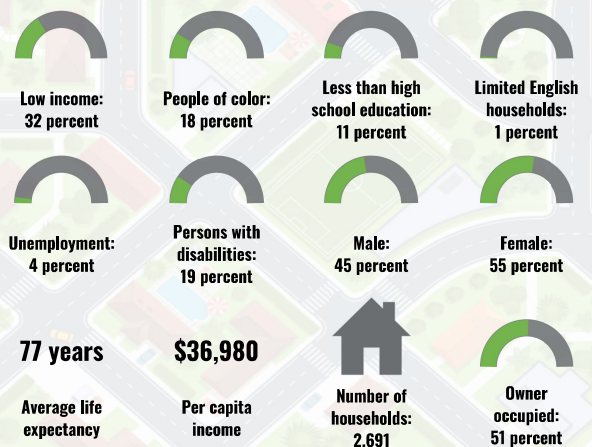
1 mile Ring around the Area
Population: 5,135
Area in square miles: 4.12



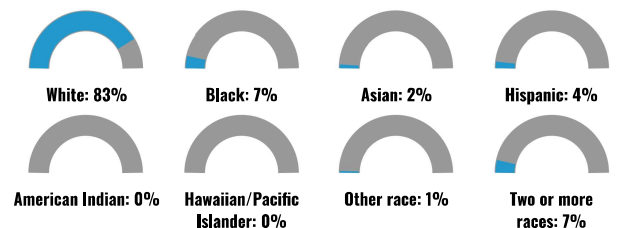
27, 2023
Eljah's Landing Apartments
Eljah's Landing

1:36, 1.12, 0.75, 0.38, 0.19, 0.09
State of North Carolina DOT, Esri, HERE, Garmin, Swisstopo, DeLorme, GeoBridges, Inc., METRAC, USGS, EPA, NPS, US Census Bureau, USDA

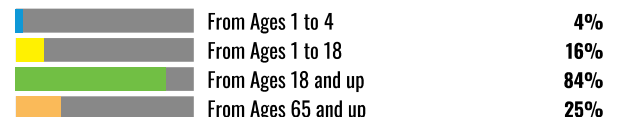
COMMUNITY INFORMATION



BREAKDOWN BY RACE



BREAKDOWN BY AGE



LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017-2021. Life expectancy data comes from the Centers for Disease Control.

LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	98%
Spanish	1%
Other Indo-European	1%
Total Non-English	2%

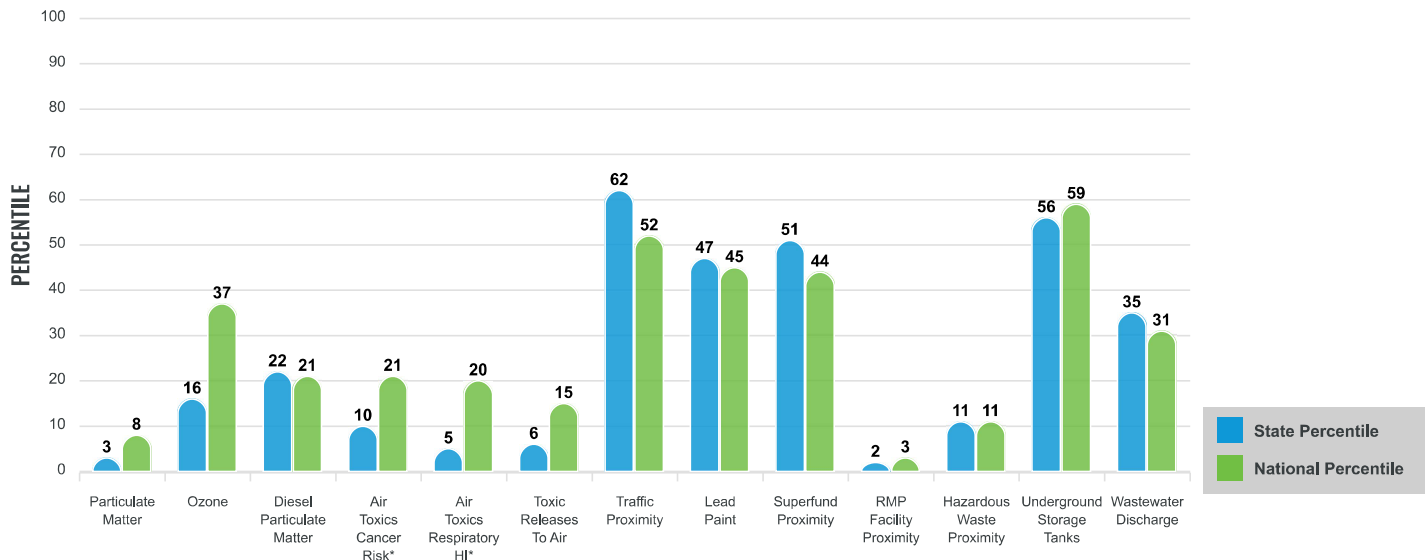
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

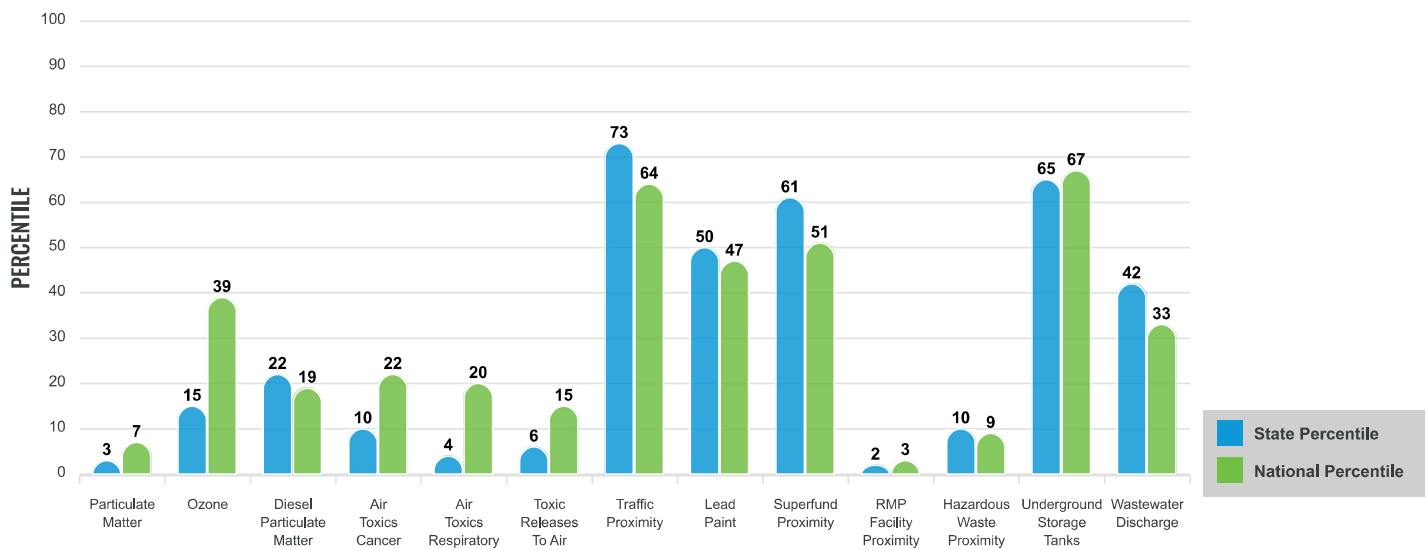
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for 1 mile Ring around the Area

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	5.38	7.8	2	8.08	5
Ozone (ppb)	58.8	61.7	12	61.6	30
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.0936	0.168	19	0.261	14
Air Toxics Cancer Risk* (lifetime risk per million)	20	28	1	28	3
Air Toxics Respiratory HI*	0.2	0.34	1	0.31	4
Toxic Releases to Air	19	3,100	5	4,600	11
Traffic Proximity (daily traffic count/distance to road)	120	79	79	210	61
Lead Paint (% Pre-1960 Housing)	0.16	0.17	60	0.3	43
Superfund Proximity (site count/km distance)	0.044	0.081	52	0.13	39
RMP Facility Proximity (facility count/km distance)	0.022	0.26	1	0.43	2
Hazardous Waste Proximity (facility count/km distance)	0.043	0.52	9	1.9	7
Underground Storage Tanks (count/km ²)	2.9	3.9	66	3.9	66
Wastewater Discharge (toxicity-weighted concentration/m distance)	5.1E-05	0.25	36	22	26
SOCIOECONOMIC INDICATORS					
Demographic Index	25%	36%	38	35%	42
Supplemental Demographic Index	14%	15%	48	14%	55
People of Color	18%	37%	33	39%	35
Low Income	32%	34%	49	31%	58
Unemployment Rate	4%	6%	50	6%	48
Limited English Speaking Households	1%	2%	67	5%	57
Less Than High School Education	11%	12%	55	12%	60
Under Age 5	4%	5%	44	6%	43
Over Age 64	25%	18%	79	17%	81
Low Life Expectancy	21%	21%	56	20%	68

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	5
Air Pollution	2
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools	3
Hospitals	1
Places of Worship	0

Other environmental data:

Air Non-attainment	No
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	Yes
Selected location contains an EPA IRA disadvantaged community	Yes

Report for 1 mile Ring around the Area

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	21%	21%	56	20%	68
Heart Disease	7.6	6.5	67	6.1	77
Asthma	9.2	9.4	40	10	27
Cancer	7.9	6.2	89	6.1	86
Persons with Disabilities	18.4%	14%	77	13.4%	80

CLIMATE INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	26%	10%	94	12%	89
Wildfire Risk	84%	9%	94	14%	89

CRITICAL SERVICE GAPS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	17%	16%	61	14%	67
Lack of Health Insurance	12%	11%	60	9%	75
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Footnotes

Report for 1 mile Ring around the Area



by Block Group: NC

According to the American Community Survey, this census block group has a total population of 1,770.

Approximately 32.82% of the population is a minority, and approximately 58.29% is classified as low-income.

To find more detailed information using the Environmental Justice Tool, [click here](#).

[Zoom to](#)

SITE

Carteret



The places where you live, work, and play may affect your health.
You can use this **Info by Location** tool to get a snapshot of some of
the environmental health issues for your area.

Enter a county name.

Carteret, NC

Don't know the county name? Type in a zip code
instead.

SUBMIT

Select Topics (optional) »

Carteret County, North Carolina[†]



POPULATION: 68,516

INCOME

Average Household Income

Carteret County: \$63,475

North Carolina: \$59,616

Residents who live below the poverty line



9.3%

Carteret County

12.9%

North Carolina

QUICK FACTS:

Out of 10 people living in this county

SEX



5 are male & 5 are female

AGE



About 2 are between the ages of 0 and 19 years

About 2 are between the ages of 20 and 34 years

About 2 are between the ages of 35 and 49 years

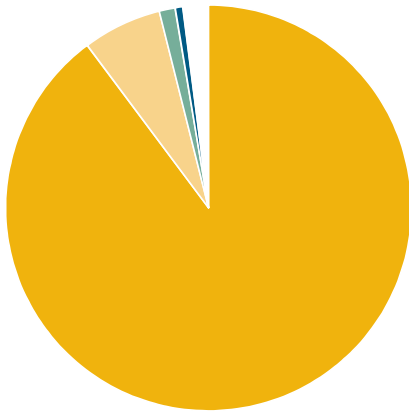
About 4 are 50 years and older

ETHNICITY



Less than 1 are Hispanic and 10 are non-Hispanic

RACE



<https://twitter.com/share?>

[%3A%2F%2Fephrtracking.cdc.gov%2FInfoByLocation%2F&text=Check%20out%20environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking](https://twitter.com/share?%3A%2F%2Fephrtracking.cdc.gov%2FInfoByLocation%2F&text=Check%20out%20environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking)

out%20the%20people%20in%20my%20county.%20Visit%20<https://ephrtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county>.)

Discover the data ([../DataExplorer?query=C7380B65-728D-4621-A122-47283CF8B444&G5=9999](https://ephrtracking.cdc.gov/DataExplorer?query=C7380B65-728D-4621-A122-47283CF8B444&G5=9999)) | Learn more about this topic ([/showPcMain.action](#))

† 2021 data from the National Environmental Public Health Tracking Network ([/showHome.action](#))



Asthma[†]

Percent of **adults** who currently have asthma

7.8%

7.0%

North Carolina

National

Asthma is a chronic disease that affects the airways that carry oxygen in and out of the lungs. Asthma can cause

- shortness of breath,
- wheezing,
- coughing, and
- tightness in the chest.

Asthma attacks have been linked to many factors, including exposure to environmental hazards like

- allergens,
- tobacco smoke, and
- indoor and outdoor air pollution.

Asthma can be controlled by taking medication and avoiding triggers that can cause an attack.

<https://twitter.com/share?>

<https://twitter.com/share?text=Check%20out%20environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking>

<https://twitter.com/share?text=Check%20out%20environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking>

Discover the data ([/ ../DataExplorer/?query=1F12A3B5-E744-4857-9110-401524CC8D8E&fips=37&G5=9999](https://ephrtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county)) | Learn more about this topic ([/showAsthma.action](#))

† 2020 data from the National Environmental Public Health Tracking Network ([/showHome.action](#))



Air Quality: Ground-Level Ozone[†]



Carteret County residents were exposed to unhealthy levels of ozone for **0 Days** in 2019.

Ozone occurs naturally in the sky and helps protect us from the sun's harmful rays. But ground-level ozone can be bad for your health and the environment. Ground-level ozone is one of the biggest parts of smog.

When ozone levels are above the national standard, everyone should try to limit their contact with it by reducing the amount of time spent outside.

Carteret County residents were exposed to unhealthy levels of ozone for **0 Days** in 2019.

Check the EPA's Air Quality Index (AQI) at AirNow.gov (<http://www.AirNow.gov>) to see the current air quality conditions for your location. You can use the AQI to plan your daily activities to reduce exposure to ozone.

[https://twitter.com/share?](https://twitter.com/share?%3A%2F%2Fephrtracking.cdc.gov%2FInfoByLocation%2F&text=Check%20out%20environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking)

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† 2019 data from the National Environmental Public Health Tracking Network (</showHome.action>)



Air Quality: Particulate Matter[†]

ANNUAL AMBIENT CONCENTRATION OF PM_{2.5}

5.8 $\mu\text{g}/\text{m}^3$ *

Carteret County, North Carolina

12.0 $\mu\text{g}/\text{m}^3$ *

Annual National Standard

*Micrograms Per Cubic Meter ($\mu\text{g}/\text{m}^3$)

Air pollution is a leading environmental threat to

human health. Particles in the air like dust, dirt, soot, and smoke are one kind of air pollution called particulate matter. Fine particulate matter, or PM_{2.5}, is so small that it cannot be seen in the air. Breathing in PM_{2.5} may

- lead to breathing problems,
- make asthma symptoms or some heart conditions worse, and

- lead to low birth weight.

The national standard for annual PM_{2.5} levels is 12.0µg/m³. When PM_{2.5} levels are above 12, this means that air quality is more likely to affect your health.

In 2019, the annual level of PM_{2.5} in **Carteret County** was 5.8µg/m³. *

* Micrograms per cubic meter (./images/content/PM2-5_5.jpg) (µg/m³)

<https://twitter.com/share?>

<https://ephrtracking.cdc.gov/InfoByLocation%2F&text=Check%20out%20environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking>

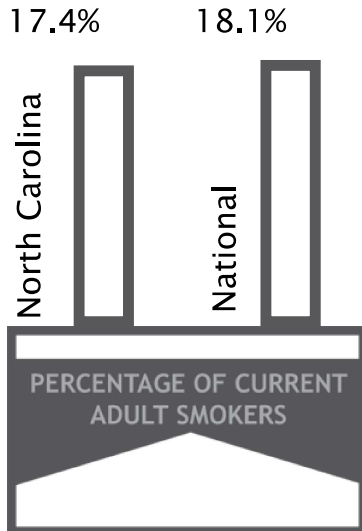
<https://ephrtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county.>

Discover the data (./DataExplorer/?query=4E04F504-A4A2-405C-85AB-9BC6B3F7325D&fips=37031&G5=9999) | Learn more about this topic (/showAirLanding.action)

† 2019 data from the National Environmental Public Health Tracking Network (/showHome.action)



Smoking[†]



Tobacco use is the single most preventable cause of death and disease in the United States. Smoking harms nearly every organ of the body. It causes many diseases and reduces the health of smokers in general. The negative health effects from cigarette smoking account for an estimated 500,000 deaths, or nearly 1 of every 5 deaths, each year in the United States.



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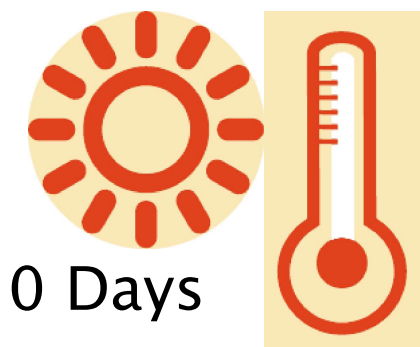
out%20the%20people%20in%20my%20county.%20Visit%20https://ephrtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county.)

Discover the data (/../DataExplorer/?query=2B83BA8E-9849-47BF-92C2-2CA0D51CC90C&fips=37&G5=9999) | Learn more about this topic (/showHBSmokingPrevalence.action)

† 2018 data from the National Environmental Public Health Tracking Network (/showHome.action)



Extreme Heat[†]



0 Days

with temperatures above 90°F

Extreme summer heat is increasing in the United States, and climate projections indicate that extreme heat events will be more frequent and intense in coming decades. Extremely hot weather can cause illness or even death. Knowing how hot it gets in your area can help you prepare for extremely hot temperatures and prevent heat related illness (<http://emergency.cdc.gov/disasters/extremeheat/heattips.asp>).

Carteret County had **0 Days** with maximum temperatures above 90°F during May–September 2021.

Heat-related death or illnesses are preventable if you follow a few simple steps.

- Stay cool.
- Stay hydrated.
- Stay informed.

https://twitter.com/share?

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Discover the data (</../DataExplorer/?query=51ED8370-BE00-4813-A4F8-AE641EF61672&fips=37031&G5=9999>) | Learn more about this topic (</showClimateChangeExtremeHeat.action>)

† 2021 data from the National Environmental Public Health Tracking Network (</showHome.action>)



Heart Attacks[†]



The environment is one of several factors (</showHeartExpRisk.action>) that can lead to an increased risk for heart disease. High levels of air pollution and extreme hot and cold temperatures have been linked to increases in heart disease and deaths from heart attacks. A heart attack happens when a part of the heart muscle dies or gets damaged because of reduced blood supply.

In 2020, there were

- **26 deaths** from heart attacks in Carteret County.
- **3,231 deaths** from heart attacks in North Carolina.

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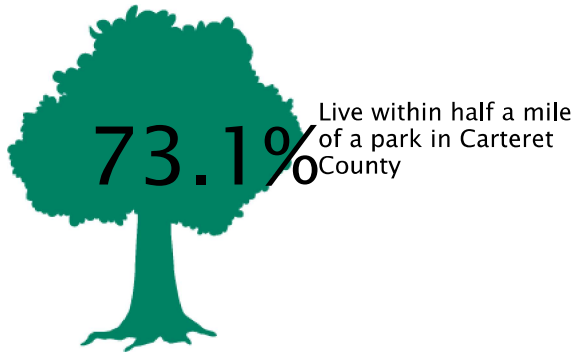
<https://twitter.com/share?out%20the%20people%20in%20my%20county.%20Visit%20https://ephtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county.>

Discover the data (</../DataExplorer/?query=19D1C8B6-45AB-4216-A2CC-2DCC250FD1FE&fips=37031&G5=9999>) | Learn more about this topic (</showHeartAttack.action>)

† 2020 data from the National Environmental Public Health Tracking Network (</showHome.action>)



Access To Parks[†]



Having access to places for physical activity, like parks, encourages people to get active and do so more often. The closer you live to a park, the more likely you are to walk or bike there. Walking and biking to parks can decrease air pollution and car crashes, which in turn, can reduce chronic disease rates and traffic-related injuries.

In 2020,

73.1% of people living in **Carteret County** lived within half a mile of a park.

58.7% of people living in **North Carolina** lived within half a mile of a park.

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[3A%2F%2Fephrtracking.cdc.gov%2FInfoByLocation%2F&text=Check%20out%20#environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking\)](https://twitter.com/share?text=Check%20out%20#environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking)

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[†] 2020 data from the National Environmental Public Health Tracking Network ([/showHome.action](https://ephrtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county))



Proximity To Highways[†]



4.7%



of Carteret County population that live within 150m of a highway

Traffic-related air pollution is a major cause of unhealthy air quality, especially in urban areas. Many health problems have been linked to exposure to traffic-related air pollution. The closer your home or school is to a major highway, the more likely you and your family are to be exposed to traffic-related air pollution.

In 2020, **4.7%** of the population of Carteret County lived within 150 meters* of a major highway.

In 2020, **15.4%** of Carteret County public schools were sited within 150 meters* of a major highway.

* 150 meters is about 2 blocks.

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<https://twitter.com/share?out%20the%20people%20in%20my%20county.%20Visit%20https://ephtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county.>

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† 2020 data from the National Environmental Public Health Tracking Network ([/showHome.action](https://ephtracking.cdc.gov/showHome.action))



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serv.&body=Please%20fill%20in%20the%20information%20bel](mailto:EPHT@LISTSERV.CDC.GOV?subject=Please%20add%20me%20to%20CDC's%20Environmen%20serv.&body=Please%20fill%20in%20the%20information%20bel)



ATTACHMENT 17:

**Zoning Certification, Map and
Correspondence**



March 1, 2023

Keith Walker
East Carolina Community Development, Inc.
108 Professional Park Drive
Beaufort, NC 28516

RE: Elijah's Landing Apartments, Tax PIN # 637615648235000
3200 Bridges Street, Morehead City, NC

Dear Mr. Walker:

This zoning compliance letter is provided per your request. The property in question is located at 3200 Bridges Street in Morehead City, NC (Tax PIN # 637615648235000). The owner is listed as Elijah's Landing of Morehead City, LLC.

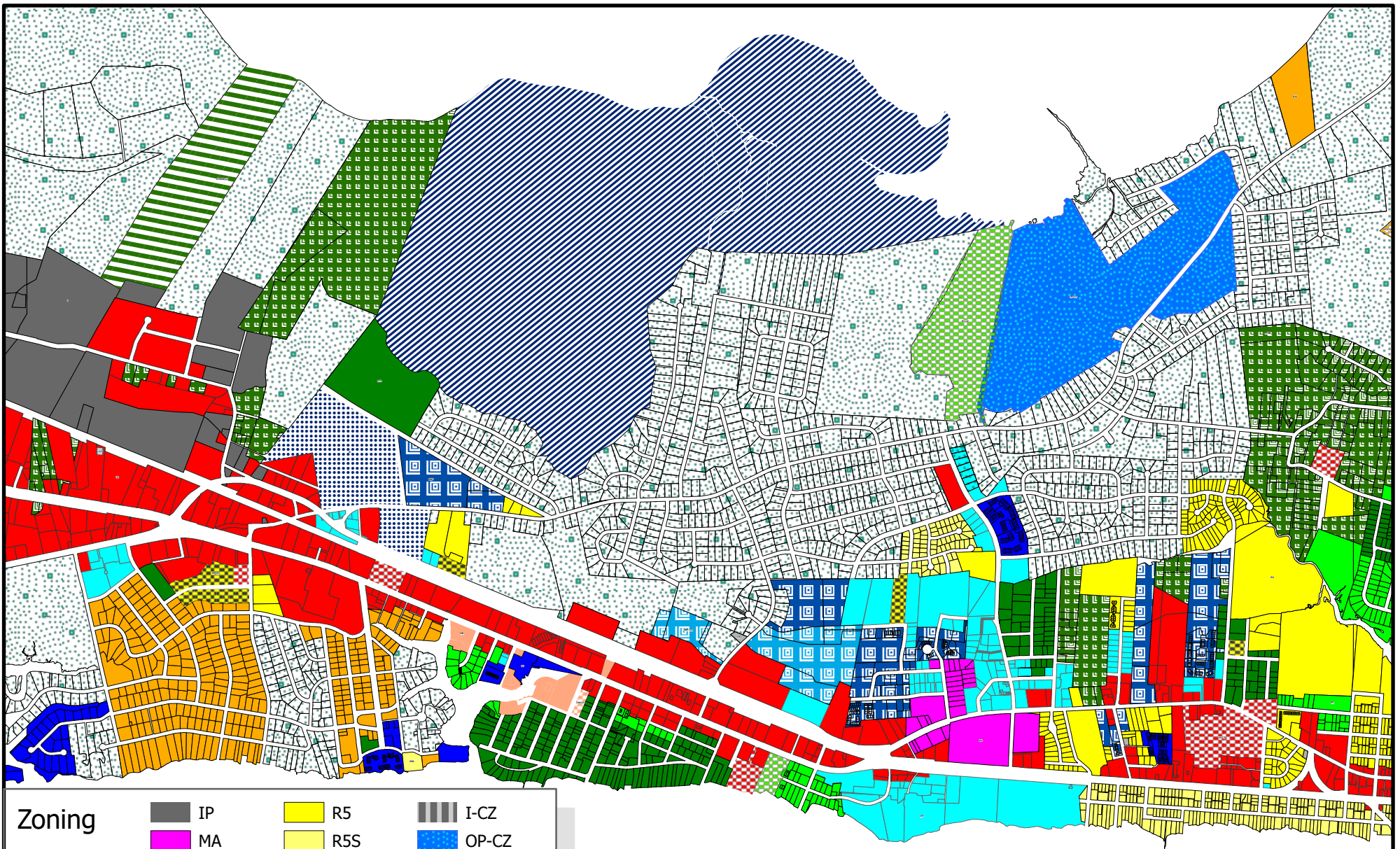
The parcel is within the corporate limits of Morehead City and is subject to Morehead City's planning and zoning regulations. The parcel is zoned RMF (Residential Multifamily District). The developer has received approval for Elijah's Landing Apartments to include seven 24-unit apartment buildings (168 apartments), a clubhouse, gazebo, and covered picnic area. Building permit applications have been approved for the seven apartment buildings and the clubhouse.

Should you have additional questions, please do not hesitate to contact me at (252) 726-6848, ext.138.

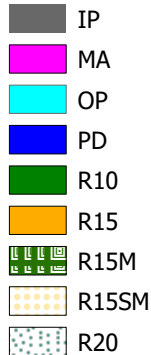
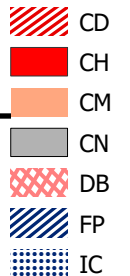
Respectfully,

A handwritten signature in blue ink that reads "Jeannie Drake". The signature is fluid and cursive, with the first name "Jeannie" being more prominent than the last name "Drake".

Jeannie Drake, CZO
Zoning Enforcement Officer
Town of Morehead City



Zoning



Zoning Map



Prepared by: Town of Morehead City
Planning Department
April 2022





Atlantic Shores Environmental Services, Ltd.

December 22, 2022

Sandi Watkins
Director of Planning and Inspections
1100 Bridges Street
Morehead City, North Carolina 28557
Sandi.Watkins@moreheadcitync.org

Reference: Elijah's Landing Apartments
3140 and 3200 Bridges Street
Morehead City, North Carolina

Dear Ms. Watkins:

To facilitate compliance with the National Environmental Policy Act of 1969 and HUD Regulations at 24 CFR Part 58, an Environmental Assessment must be completed prior to releasing funds for the proposed project. The proposed multi-family development will consist of seven (7), 3-story apartment buildings containing a total of 168 residential units. This letter is a formal request to determine what effect(s) the proposed activity may have on Zoning.

The subject property is located on the north side of Bridges Street, to the east of Commerce Avenue, within a mixed commercial and residential area of Carteret County. The subject property consists of one (1) parcel (Carteret County PIN 637615648235000) totaling 11.64 acres and currently contains a vacant building utilized as a personal storage area, a vacant lot, and leased parking for a local septic company. In addition to the current structure, the subject property is also improved with gravel parking, grassy/wooded areas and numerous areas of construction debris.

Please complete the attached Zoning Certification and e-mail it to cmoody@atlanticshoresenv.com. If there are questions regarding this request, or a need for further information, please contact us at 910-371-5980.

Respectfully submitted,
ATLANTIC SHORES ENVIRONMENTAL SERVICES, LTD.

Cheryl J. Moody, PE
Principal Engineer

Attachments: Site Maps
Certification

ZONING CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or landmark: Commerce Avenue

The above project site is zoned _____ and permits ☐ or does
not permit ☐ the proposed use; or, zoning is not present, and the proposed use has ☐
has not ☐ been approved for the site.

Additional
Comments/Conditions/Concerns _____

_____ Date	_____ (Officials Signature)
	_____ (Officials Name – Print or Type)
	_____ (Official's Title)
	_____ (Department Name)

Note: Copying official letterhead onto this certification is encouraged.

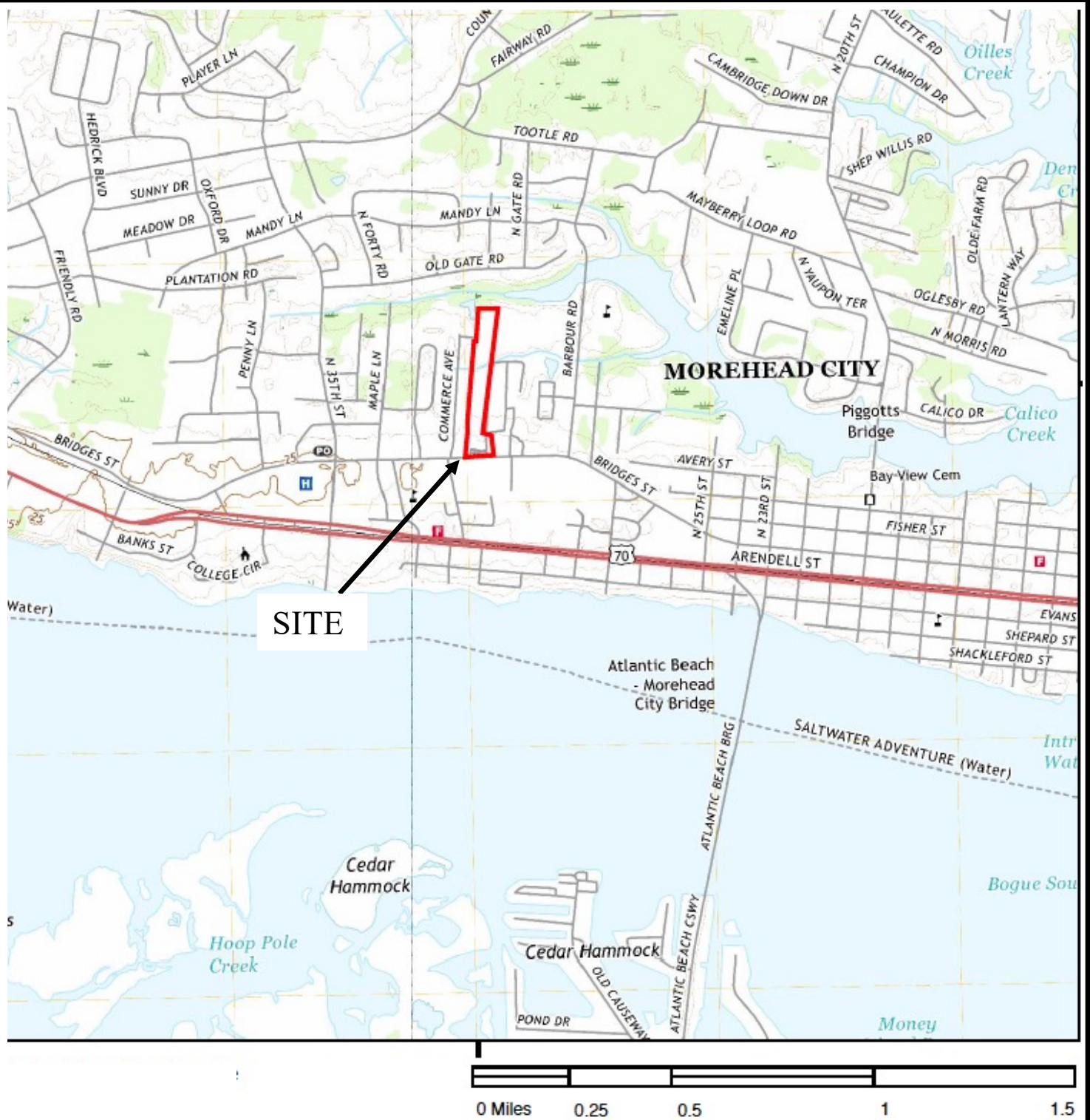


FIGURE 1: TOPOGRAPHIC MAP

Source: USGS Beaufort North Carolina 2019



Phase I Environmental Site Assessment
5 North 12th Street
Morehead City, North Carolina



ASE Project No. 1591
December 2022




Approximate Scale (Ft)
0  375

FIGURE 2: AERIAL MAP

Source: New Hanover County GIS 2021 Aerial



Phase I Environmental Site Assessment
3200 Bridges Street
Morehead City, North Carolina



ASE Project No. 1591
December 2022

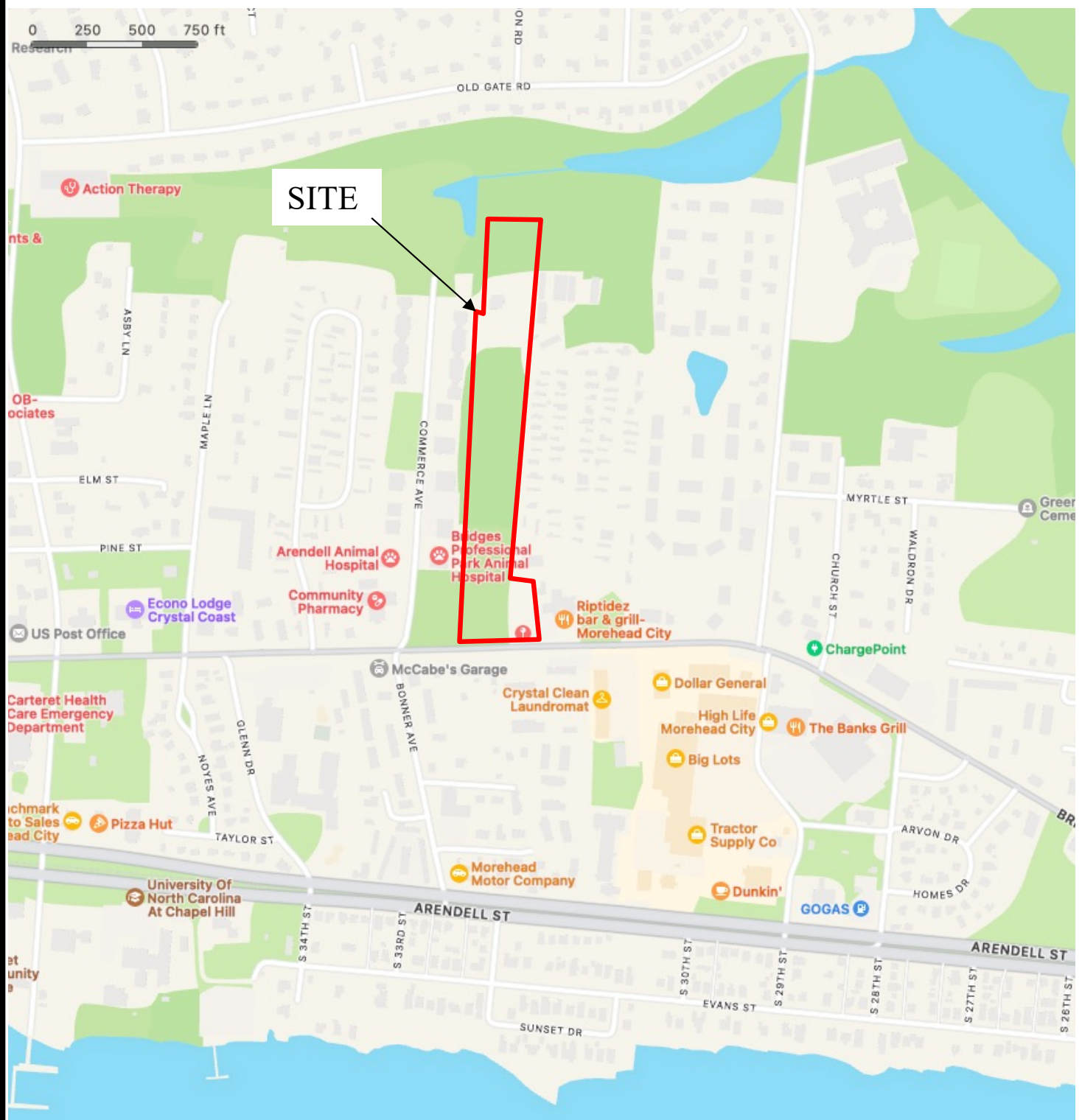


FIGURE 3: STREET MAP

Source: Maps



**Phase I Environmental Site Assessment
3200 Bridges Street
Morehead City, North Carolina**



**ASE Project No. 1591
December 2022**

ATTACHMENT 18:

**Soil Suitability/ Slope/ Erosion/ Drainage/
Storm Water Runoff**

Geotechnical Engineering Report

Geotechnical Engineering Report

Elijah's Landing
Bridges Street and Sylvia Lane
Morehead City, North Carolina

July 13, 2018

Project No. 72185063

Prepared for:

East Carolina Community Development, Inc.
Beaufort, North Carolina

Prepared by:

Terracon Consultants, Inc.
Winterville, North Carolina

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

July 13, 2018



East Carolina Community Development, Inc.
108 Professional Park Drive
Beaufort, North Carolina 28516

Attn: Mr. Keith Walker

Re: Geotechnical Engineering Report
Elijah's Landing
Bridges St and Sylvia Ln
Morehead City, NC
Terracon Project No. 72185063

Dear Mr. Walker:

Terracon Consultants, Inc. (Terracon) has completed the geotechnical engineering services for the above referenced project. This study was performed in general accordance with our proposal P72185063 dated June 12, 2018.

This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs, and pavements for the proposed development.

We appreciate the opportunity to be of service to you on this project. Materials testing services are provided by Terracon. We would be pleased to discuss these services with you. If you have any questions concerning this report, or if we may be of further service, please contact us.

Sincerely,

Terracon Consultants, Inc.

Andrew J. Gliniak, P.E.
Geotechnical Project Engineer
Registered NC 042183

For: Philip C. Lambe, P.E.
Senior Geotechnical Engineer

Enclosures



Terracon Consultants, Inc. 314 Beacon Drive Winterville, North Carolina 28590
P [252] 353 1600 F [252] 353 0002 Terracon.com NC Registration Number F-0869

Geotechnical



Environmental



Construction Materials



Facilities

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APPENDIX A – FIELD EXPLORATION

Exhibit A-1	Site Location Plan
Exhibit A-2	Boring Location Plan
Exhibit A-3	Field Exploration Description
Exhibits A-4 thru A-24	Boring Logs

APPENDIX B – LABORATORY TESTING

Exhibit B-1	Laboratory Test Description
Exhibits B-2 and B-3	Laboratory Test Data

APPENDIX C – SUPPORTING DOCUMENTS

Exhibit C-1	General Notes
Exhibit C-2	Unified Soil Classification System
Exhibit C-3	CPT General Notes

EXECUTIVE SUMMARY

The following items represent a brief summary of the findings of our subsurface exploration and recommendations for the proposed development to be located at Bridges Street and Sylvia Lane in Morehead City, North Carolina. A total of fifteen borings were advanced to depths of 5 to 20 feet below the existing ground surface.

- The borings encountered near surface loose to medium dense relatively clean sands underlain by denser sands and stiffer clay. Surface water and shallow groundwater should be anticipated at the site. Most of the surface water is around the center of the site near the wetlands.
- This is a wet site and construction impacts from wet soil conditions will influence construction. Groundwater/surface water controls should be installed at the start of site preparation.
- Proposed pavements in the designated 404 wetlands area will likely require 2 feet of undercut and the installation of a geosynthetic before placing engineered fill up to design grades. The subgrade should be observed by a representative of the geotechnical engineer before placement of the geosynthetic. Additional overexcavation could be required.
- We recommend raising grades approximately 2 feet above existing grades near the wetlands and areas with shallow groundwater near the center of the site. We understand building pads will be raised approximately 3 feet above existing grades.
- After site preparation, the surface soils in the building and parking lot footprints that are not too wet should be densified in place using a medium weight vibratory roller. The areas too wet for vibratory rolling should be sufficiently dewatered and repaired as directed by the field representative of the geotechnical engineer.
- Following the placement of engineered fill to design grades. Construction should be delayed approximately 2 weeks to allow the fill to consolidate the underlying soils.
- After completing the recommended earthwork, the structure can be supported on shallow foundations bearing on approved native soils or new engineered fill compacted as recommended sized for a maximum net allowable soil bearing pressure of 2,000 psf.
- An IBC seismic site classification of "D" is appropriate for this site.
- We recommend Terracon be retained to observe and test the foundation bearing materials as well as other construction materials at the site.

This summary should be used in conjunction with the entire report for design purposes. Details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **GENERAL COMMENTS** should be read for an understanding of report limitations.

GEOTECHNICAL ENGINEERING REPORT
ELIJAH'S LANDING
BRIDGES STREET AND SYLVIA LANE
MOREHEAD CITY, NORTH CAROLINA
Terracon Project No. 72185063
July 13, 2018

1.0 INTRODUCTION

We have completed the geotechnical engineering report for the proposed development to be located at Bridges Street and Sylvia Lane in Morehead City, North Carolina. A total of fifteen borings were advanced to depths of 5 to 20 feet below the existing ground surface. Macro cores were offset as required from the CPT locations for collection of soil samples. Logs of the borings along with site location and boring location plans are included in Appendix A of this report.

The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface Soil Conditions
- Groundwater Conditions
- Earthwork
- Pavements
- Floor slab design and construction
- Foundation recommendations
- Seismic considerations
- Lateral earth pressures

2.0 PROJECT INFORMATION

2.1 Project Description

ITEM	DESCRIPTION
Site Location	See Appendix A, Exhibit A-1, Site Location Plan
Site layout	See Appendix A, Exhibit A-2, Boring Location Plan
Structures	The project includes seven multi-story apartment buildings a clubhouse and associated parking lots and driveways. Three stormwater BMPs are proposed.
Building Construction	Wood framed buildings bearing post tensioned slabs on grade.

ITEM	DESCRIPTION
Maximum loads	Columns: Up to 50 kips (assumed) Walls: Up to 3 kips lf (assumed) Floor: less than 100 psf (assumed) Post-tensioned concrete slab: Allowable bearing capacity of 2,000 psf (assumed)
Finished Floor Elevation	Building pads will be about 3 feet above existing grades, no grading plan was provided.
Grading	About 3 feet of fill in the building footprints. A retaining wall could be required around one of the buildings. Up to 2 feet of fill for general earthwork (assumed).

2.2 Site Location and Description

ITEM	DESCRIPTION
Location	An approximate 11.71 acre site off of Bridges Street and Sylvia Ln in Morehead City, Carteret County, North Carolina.
Site Coordinates	Latitude: 34.7288° Longitude: -76.7470°
Existing improvements	The site is partially developed next to Bridges Street with two mobile homes and a one story dance studio with asphalt parking. A single story metal building is located adjacent to Sylvia Lane. Portions of the site are designated 404 Wetlands in the proposed pavement areas.
Current ground cover	About 1/3 rd of the site is wooded. The remainder of the site excluding the existing development has grass and small brush. The northern portion of the site contained concrete rubble and debris.
Existing topography	Relatively level.

3.0 SUBSURFACE CONDITIONS

3.1 Site Geology

The subject site is located in the Coastal Plain Physiographic Province. The Coastal Plain soils consist mainly of marine sediments that were deposited during successive periods of fluctuating sea level and moving shoreline. The soils include sands, silts, and clays with irregular deposits of shells, which are typical of those lain down in a shallow sloping sea bottom. Recent alluvial sands, silts, and clays are typically present near rivers and creeks.

According to USGS Mineral Resources On-Line Spatial Data based on the 1998 digital equivalent of the 1985 Geologic Map of North Carolina updated in 1998, the site is mapped within Surficial Deposits, Undivided (Quaternary).

3.2 Typical Profile

Based on the results of the borings, subsurface conditions on the project site can be generalized as shown on the following table:

Description	Approximate Depth to Bottom of Stratum (feet)	Material Encountered	Consistency/Density
Stratum 1	0.00 to 0.17 (0 to 2 inches)	Vegetation and Topsoil	NA
Stratum 2	2 to 3	Poorly Graded Sand (SP)	Loose to Medium Dense
Stratum 3	4 to 10	Lean Clay (CL), Clayey Sand (SC), Poorly Graded Sand (SP), Poorly Graded Sand with Silt (SP-SM), Silty Sand (SM)	Medium Stiff to Stiff/ Very Loose to Medium Dense
Stratum 4	Boring Terminated – 20	Predominately: Poorly Graded Sand (SP)	Loose to Medium Dense

Laboratory tests for moisture content, Atterberg limits, and grain size were conducted on selected soil samples. The test results are presented in the Appendix B of this report and in the boring logs. Stratification boundaries on the boring logs represent the approximate location of changes in soil types; in-situ, the transition between materials may be gradual. For a comprehensive description of the conditions encountered in the borings, refer to the boring logs in Appendix A of this report.

3.3 Groundwater

Based on the CPT Borings, measured water levels in the borings, and moisture condition of the soil samples in the macro cores, groundwater was encountered at the surface and at varying depths to 5 feet below the existing ground surface. Ponded surface water was present in the northern portions of the site during our site visit on June 16, 2018 near the existing metal building and between the proposed Building 400 and 500 near the center of the site. Most of the ponded surface water along the northern portion of the site had receded during our field exploration on June 27, 2018, however the center of the site retained much of the water.

The groundwater level can change due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

We understand that the seasonal high water table (SHWT) and infiltration rates for the proposed stormwater BMPs are not required.

4.0 RECOMMENDATIONS FOR DESIGN AND CONSTRUCTION

4.1 Geotechnical Considerations

There was ponded surface water during site exploration, groundwater was encountered at existing grades and at varying depths to 5 feet. Portions of the site are designated wetlands. Groundwater/surface water will be encountered during site preparation and in excavations impacting construction. Groundwater/surface water controls should be installed at the start of site preparation. Pumping water, as required, should continue until grades are raised above the groundwater water and excavations are completely backfilled.

The center of the site near Buildings 400 and 500, the designated wetlands, and Borings B-8 and B-6 encountered groundwater at the surface and to depths of about 1 foot. We understand building footprint grades will be raised approximately 3 feet above existing grades. We recommend grades for pavements in this area near the shallower groundwater and surface water be raised a minimum of 2 feet above existing grades to separate pavements from the groundwater.

After site preparation, the building and parking lot footprints should be densified in place using a medium weight vibratory roller in areas that are not too wet. The purpose of the vibratory rolling is to densify the loose, near surface soils and potentially improve floor slab and foundation support. The areas too wet for vibratory rolling should be sufficiently dewatered and repaired as directed by the field representative of the geotechnical engineer.

We recommend 2 feet of undercut in the wetland areas and the installation of a geosynthetic prior to raising grades in these areas. The type of geosynthetic will be determined after initial subgrade observations of the site. A woven geosynthetic fabric or geogrid should give the most support as non-woven fabric is typically used only for separation.

Due to the amount of fill required in the building footprints and some of the pavement areas, settlement of the underlying existing soil is anticipated. Following the placement of engineered fill to design subgrade elevations, construction should be delayed approximately 2 weeks to allow the fill to consolidate the underlying soils.

Following the recommended earthwork, the structures can be supported on shallow foundations bearing on approved native soils or new engineered fill compacted as recommended sized for a maximum net allowable soil bearing pressure of 2,000 psf.

A more complete discussion of these points and additional information is included in the following sections.

4.2 Earthwork

Portions of the site are wet and some of the pavement areas are in designated wetlands. These wet soil conditions will influence construction. Groundwater/surface water controls should be installed at the start of site preparation as required. The site should remain dewatered until the completion of backfilling above the water table. Well points and or sumps could be used.

4.2.1 Wetlands and Wet Areas

After dewatering the wet areas and wetlands in the proposed pavement areas. The organics and sediment or muck in the wetlands should be removed. Based on our experience, about 2 feet of muck will need to be removed. The subgrade should be observed by a representative of the geotechnical engineer that could include probing or proofrolling with an empty dump truck or a combination of these two procedures. Excessively loose or soft areas should be overexcavated. After removing the muck and overexcavating any areas designated by the field representative, a geosynthetic fabric should be placed followed by engineered fill. The excavation should remain dewatered during construction.

4.2.2 General Earthwork

Site preparation should begin with the complete demolition and removal of the existing buildings including their foundations, pavements, surface vegetation, and topsoil in the building footprints and pavement areas outside of the wet site conditions and designated wetlands. Stone base course can remain in-place if it withstands proofrolling. Based on site observations during the drilling process, topsoil should be stripped to a depth of approximately 3 to 6 inches. A Terracon representative should field verify the stripping depth and the fill has been removed during construction. Topsoil may be reused in areas of the site to be landscaped but should not be used as engineered fill or backfill. Stump holes should be backfilled with engineered fill.

After stripping, the exposed subgrade soils in the building and pavement footprints should be densified in place using a medium weight vibratory roller. Areas too wet for vibratory rolling should be repaired as directed by the field representative of the geotechnical engineer. The purpose of the vibratory rolling is to densify the exposed subgrade soils for floor slab and pavement support and to potentially improve the foundation bearing soils. The roller should make at least 6 passes across the site, with the second set of 3 passes perpendicular to the first set of 3 passes. If water is brought to the surface by the vibratory rolling, the operation should be discontinued until the water subsides. Vibratory rolling should be completed during dry weather.

After the vibratory rolling, pore pressures should be allowed to dissipate for a minimum of 16 hours. After the waiting period, proofrolling should be performed on the exposed subgrade soils in areas to receive fill or at the subgrade elevation with a fully loaded, tandem-axle dump truck or

similar rubber-tired construction equipment. Proofrolling is recommended as a means of detecting areas of soft or unstable subgrade soils. The proofrolling should be performed during a period of dry weather to avoid degrading an otherwise suitable subgrade. The proofrolling operations should be observed by a representative of the geotechnical engineer. Subgrade soils that exhibit excessive rutting or deflection during proofrolling should be repaired as directed by the field representative. Typical repairs include overexcavation followed by replacement with either properly compacted fill or by a subgrade stabilization fabric in conjunction with a clean sand fill or crushed stone.

Groundwater will be encountered during site preparation and in excavations. The water should be pumped out with sumps and or well points if applicable. Pumping water, as required, should continue until grades are raised above the groundwater water and excavations are completely backfilled.

Existing utilities and drainage structures that will not be kept in service should be abandoned. Terracon considers removing the remaining utilities/structures and backfilling the resulting trenches to be the preferred method of abandonment. In-place abandonment by filling piping with grout should only be considered in the building footprint after the location of the piping has been checked in both plan and elevation space for potential conflict with the proposed foundations, floor slabs, pavements, and new utilities.

4.2.3 Engineered Fill

After proofrolling and making any necessary repairs, grades can be raised with engineered fill in the building and pavement footprints. Construction should be delayed approximately 2 weeks prior after reaching design subgrade elevations with engineered fill. Engineered fill should meet the following material property requirements:

Fill Type ^{1,2}	USCS Classification	Acceptable Location for Placement
Imported Soil	Sand: SC, SM, SP, SP-SM	All locations and elevations.
On-site Soils ²	Sand: SP, SP-SM	All locations and elevations.

1. Controlled, compacted fill should consist of approved materials that are free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the geotechnical engineer for evaluation.
2. On site soils that meet the above soil classifications are generally suitable for fill if properly moisture conditioned.

4.2.4 Geosynthetic Fabric or Geogrid

After installing the fabric or grid, loose fill should be dumped onto the geosynthetic and spread with track/low ground pressure equipment that will not damage the geosynthetic. No wheel or track traffic should operate directly on the geosynthetic. The initial lift should be loose and 10 to 12 inches thick. A thicker initial lift could be required depending on construction traffic.

Construction traffic may operate on top of the fill layer. A woven geosynthetic fabric that provides adequate drainage relative to the subgrade or geogrid should be used.

4.2.5 Compaction Requirements

We recommend that the engineered fill be placed as recommended in the following table:

ITEM	DESCRIPTION
Fill Lift Thickness	9-inches or less in loose thickness (4" to 6" lifts when hand-operated equipment is used).
Compaction Requirements ¹	Compact to a minimum of 95% of the material's standard Proctor maximum dry density (ASTM D 698). ²
Moisture Content – Structural Fill	Within the range of -2% to +2% of optimum moisture content as determined by the standard Proctor test at the time of placement and compaction.

1. Engineered fill should be tested for moisture content and compaction during placement. If in-place density tests indicate the specified moisture or compaction limits have not been met, the area represented by the tests should be reworked and retested as required until the specified moisture and compaction requirements are achieved.
2. It is not necessary to achieve 95% compaction on the existing ground prior to placing fill or beginning construction. However, the subgrade should be evaluated by a representative of the geotechnical engineer prior to placing fill or beginning construction.

It is important to note that the use of rubber tired traffic, such as lulls, may impact the prepared subgrade soils leading to re-grading. We recommend that the use of rubber tired traffic be limited on the prepared subgrades or that the stabilized area be prepared for their travel.

4.2.6 Grading and Drainage

During construction, grades should be sloped to promote runoff away from the construction area. Final surrounding grades should be sloped away from the structures on all sides to prevent ponding of water. If gutters / downspouts for the proposed buildings do not discharge directly onto pavement, they should not discharge directly adjacent to the building. This can be accomplished through the use of splash-blocks, downspout extensions, and flexible pipes that are designed to attach to the end of the downspout. Flexible pipe should only be used if it is daylighted in such a manner that it gravity-drains collected water. Splash-blocks should also be considered below hose bibs and water spigots.

4.2.7 Construction Considerations

Performing earthwork operations during warmer periods of the year (May through October) will reduce the potential for problems associated with wet unstable subgrades. Site drying conditions are typically enhanced when it is warm. The moisture sensitivity of the on-site soils does not preclude performing earthwork at other times of the year, but does lead to an increased potential for having to perform some other form of remedial work.

The site should be graded to prevent ponding of surface water on the prepared subgrades or in excavations. If the subgrade should become frozen, desiccated, saturated, or disturbed, the affected material should be removed or these materials should be scarified, moisture conditioned, and recompacted.

As a minimum, all temporary excavations should be sloped or braced as required by Occupational Safety and Health Administration (OSHA) regulations to provide stability and safe working conditions. Temporary excavations will most likely be required during grading operations. The grading contractor, by his contract, is usually responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required, to maintain stability of both the excavation sides and bottom. All excavations should comply with applicable local, state and federal safety regulations, including the current OSHA Excavation and Trench Safety Standards. Excavations will require dewatering based on the groundwater table encountered in the borings.

The geotechnical engineer should be retained during the construction phase of the project to observe earthwork and to perform necessary tests and observations during subgrade preparation; vibratory rolling, proofrolling; placement and compaction of controlled compacted fills; and backfilling of excavations.

4.3 Foundation Recommendations

4.3.1 Shallow Foundations

In our opinion, the proposed structures can be supported by the proposed post-tensioned concrete shallow foundations after the recommended earthwork is completed. The shallow foundations can consist of either isolated wall footings, thickened portions of a monolithic slab, or a post-tensioned slab. Design recommendations are presented in the following table and paragraphs.

DESCRIPTION	VALUE
Maximum Net allowable bearing pressure ¹	2,000 psf
The required embedment below lowest adjacent finished grade for frost protection and protective embedment ²	12 inches
Minimum width for continuous wall footings	12 inches for thickened slab 16 inches for strip footings
Minimum width for isolated column footings	24 inches
Approximate total settlement ³	Up to 1 inch
Estimated differential settlement ³	Up to 1/2 inch between columns and along 40 feet of wall
Ultimate coefficient of sliding friction ⁴	0.35

1. The recommended net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. The maximum net allowable bearing pressure may be increased by 1/3 for temporary wind loads.
2. For frost protection and to reduce effects of seasonal moisture variations in subgrade soils. For perimeter footings and footings beneath unheated areas.
3. The actual magnitude of settlement that will occur beneath the foundations will depend upon the variations within the subsurface soil profile, the structural loading conditions and the quality of the foundation excavation. The estimated total and differential settlements listed assume that the foundation-related earthwork and the foundation design are completed in accordance with our recommendations.
4. For uplift resistance, use the weight of the foundation concrete plus the weight of the soil over the plan area of the footings. 110 pounds per cubic foot should be used for the density of the soil.

4.3.2 Construction Considerations

The foundation bearing materials should be evaluated at the time of the foundation excavation. This is an essential part of the construction process. A representative of the geotechnical engineer should use a combination of hand auger borings and dynamic cone penetrometer (DCP) testing to determine the suitability of the bearing materials for the design bearing pressure. DCP testing should be performed to a depth of 3 to 5 feet below the bottom of footing excavation. Excessively soft, loose or wet bearing soils should be overexcavated to a depth recommended by the geotechnical engineer. The excavated soils should be replaced with compacted soil fill or washed, crushed stone (NCDOT No. 57) wrapped in a geotextile fabric (Mirafi 140 N or equivalent). However, footings could bear directly on these soils at the lower level if approved by the geotechnical engineer.

The base of all foundation excavations should be free of water and loose soil prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Should the soils at bearing level become excessively disturbed or saturated, the affected soil should be removed prior to placing concrete.

4.4 Seismic Considerations

Code Used	Seismic Parameters
2009 International Building Code (IBC) referenced in the 2012 North Carolina State Building Code	Seismic Site Class D $S_s = 0.153$ $S_1 = 0.063$ $S_{ms} = 0.245$ $S_{m1} = 0.151$ $S_{DS} = 0.163$ $S_{D1} = 0.101$

Based on our experience with the geology of the area, it is our opinion that the subsurface characteristics reflect those of Site Class D as described in the 2012 North Carolina State Building Code. Based on the results of the borings, liquefaction is not expected based relatively low level of ground of ground motions associated with the design earthquake.

4.5 Floor Slabs

ITEM	DESCRIPTION
Floor slab support	Approved existing soils or new engineered fill.
Modulus of subgrade reaction	100 pounds per square inch per inch (psi/in) for point loading conditions.
Base Course	4 inches crushed stone (NCDOT No. 57) or CABC.

If isolated foundations are used versus a post-tensioned slab, saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations, refer to the ACI Design Manual.

The use of a vapor retarder should be considered beneath concrete slabs on grade that will be covered with wood, tile, carpet or other moisture sensitive or impervious coverings. The slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

4.6 Lateral Earth Pressures

We understand retaining walls could be braced and unbraced by the structure. These reinforced concrete walls with unbalanced backfill levels on should be designed for the earth pressures shown in the following table. Active and passive pressures should be used for unbraced walls and the at-rest condition should be used for walls braced by the structure.

Earth pressures will be influenced by structural design of the walls, conditions of wall restraint, methods of construction and/or compaction and the strength of the materials being restrained. Two wall restraint conditions are shown. Active earth pressure is commonly used for design of free-standing cantilever retaining walls and assumes wall movement. The "at-rest" condition

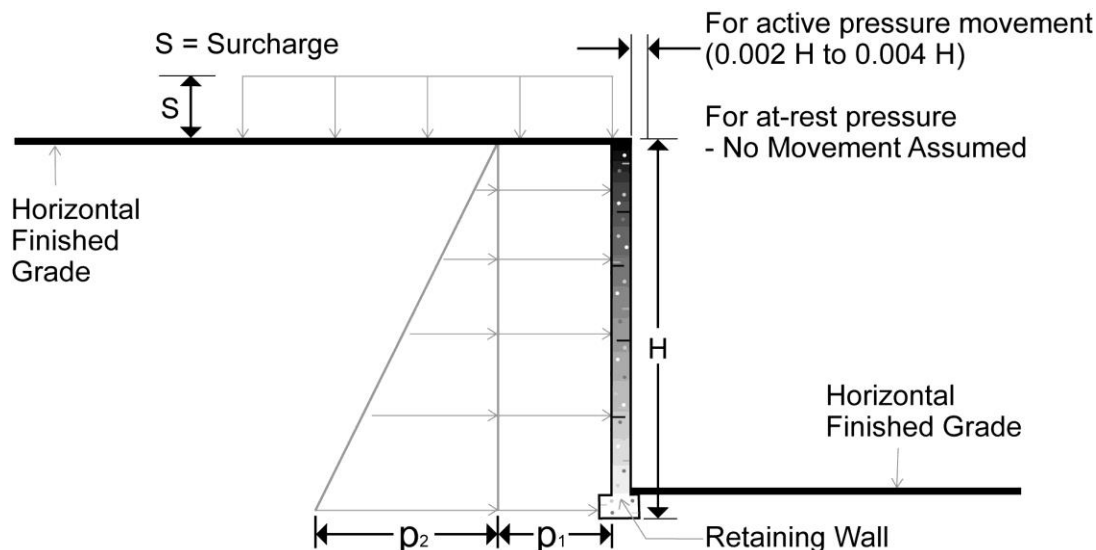
Geotechnical Engineering Report

Elijah's Landing ■ Morehead City, North Carolina

July 13, 2018 ■ Terracon Project No. 72185063

Terracon

assumes no wall movement and should be used for walls braced by the structure. The recommended design lateral earth pressures do not include a factor of safety and do not provide for possible hydrostatic pressure on the walls.



Earth Pressure Coefficients

Earth Pressure Conditions	Coefficient for Backfill Type	Equivalent Fluid Density (pcf)	Surcharge Pressure, p_1 (psf)	Earth Pressure, p_2 (psf)
Active (K_a)	Granular - 0.33	40	$(0.33)S$	$(40)H$
	No. 57 Crushed Stone - 0.25	30	$(0.25)S$	$(30)H$
At-Rest (K_o)	Granular - 0.5	60	$(0.50)S$	$(60)H$
	No. 57 Crushed Stone - 0.40	$(0.50)S$	$(0.40)S$	$(50)H$
Passive (K_p)	Granular - 3.0	360	---	---
	No. 57 Crushed Stone - 4.0	480	---	---

Applicable conditions to the above include:

- For active earth pressure, wall must rotate about base, with top lateral movements of about 0.002 H to 0.004 H , where H is wall height
- For passive earth pressure to develop, wall must move horizontally to mobilize resistance
- Uniform surcharge, where S is surcharge pressure
- In-situ soil backfill weight a maximum of 120 pcf
- Horizontal backfill, compacted between 95 and 98 percent of standard Proctor maximum dry density
- Loading from heavy compaction equipment not included
- No hydrostatic pressures acting on wall

- No dynamic loading
- No safety factor included
- Ignore passive pressure in frost zone

Foundation drains should be placed at the base of the walls to collect water transported through the wall drainage system. The foundation drains should be surrounded by No. 57 stone wrapped in a suitable filter fabric. The foundation drains should flow by gravity to “daylight” at a suitable discharge point. If the discharge point is a sump and pumping system that relies on electrical power, hydrostatic pressures should be included in the lateral earth pressure models described above to accommodate a potential accumulation of water behind the walls should the drainage system fail.

4.7 Pavements

The pavement subgrade should be thoroughly compacted and proofrolled as outlined in section **4.2 Earthwork** of this report. Loose soils delineated by the proofrolling operations should be undercut and backfilled as recommended by the geotechnical engineer. The use of a geosynthetic fabric or geogrid and additional crushed stone is also a potential option for subgrade improvement. Upon completion of any necessary remediation, the subgrade should be adequate for support of the pavement sections recommended below.

Pavement thickness design is dependent upon the following:

- Anticipated traffic conditions during the life of the pavement.
- Subgrade and paving material characteristics.
- Climatic conditions of the region.

We have assumed that traffic loads at the site will be produced primarily by delivery and garbage trucks in the heavy duty areas and by passenger cars and light delivery vehicles for the light duty areas. Two pavement section alternatives have been provided. The light-duty pavement sections are for car parking areas only. Heavy-duty pavement sections should be used for concentrated car traffic (drive lanes / entrance drives) and garbage/delivery truck traffic areas.

Recommended pavement sections are listed in the following table. For areas subject to concentrated and repetitive loading conditions, i.e. dumpster pads and ingress/egress aprons, or in areas where vehicles will turn at low speeds, we recommend using a Portland cement concrete pavement with a thickness of at least 7 inches underlain by at least 4 inches of crushed stone. For dumpster pads, the concrete pavement area should be large enough to support the container and tipping axle of the refuse truck.

Recommended Pavement Sections			
Pavement Type	Material	Layer Thickness (inches)	
		Light Duty	Heavy Duty
Rigid	Portland Cement Concrete (4,000 psi)	5	7
	Crushed Aggregate Base Course (NCDOT CABC Type 1 or Type 2)	4	4
Flexible (Superpave)	Asphalt Surface (NCDOT S-9.5B)	3 ¹	1.5
	Asphalt Binder (NCDOT I-19.0B)	--	2.5
	Crushed Aggregate Base Course (NCDOT CABC Type 1 or Type 2)	6	8
1. Placed in two 1.5 inch lifts			

The placement of a partial pavement thickness for use during construction is not suggested without a detailed pavement analysis incorporating construction traffic. In addition, we should be contacted to confirm the traffic assumptions outlined above. If the actual traffic varies from the assumptions outlined above, modification of the pavement section thickness will be required.

Recommendations for pavement construction presented depend upon compliance with recommended material specifications. To assess compliance, observation and testing should be performed under the direction of the geotechnical engineer.

Asphalt concrete and aggregate base course materials should conform to the North Carolina Department of Transportation (NCDOT) "Standard Specifications for Roads and Structures". Concrete pavement materials should conform to ACI 330.1 "Specifications for Unreinforced Parking Lots". Concrete pavement should be air-entrained and have a minimum compressive strength of 4,000 psi after 28 days of laboratory curing per ASTM C-31. ACI 330R-01 recommendations should be followed concerning control and expansion joints, as well as other concrete pavement practices.

The performance of all pavements can be enhanced by minimizing excess moisture which can reach the subgrade soils. The following recommendations should be considered a minimum:

- Site grading at a minimum 2 percent grade away from the pavements.
- Subgrade and pavement surface with a minimum 1/4 inch per foot slope to promote proper surface drainage.
- Installation of joint sealant to seal cracks immediately.

Preventative maintenance should be planned and provided for through an ongoing pavement management program to enhance future pavement performance. Preventative maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement

investment. Preventative maintenance, which consists of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing), is usually the first priority when implementing a planned pavement maintenance program and provides the highest return on investment for pavements.

5.0 GENERAL COMMENTS

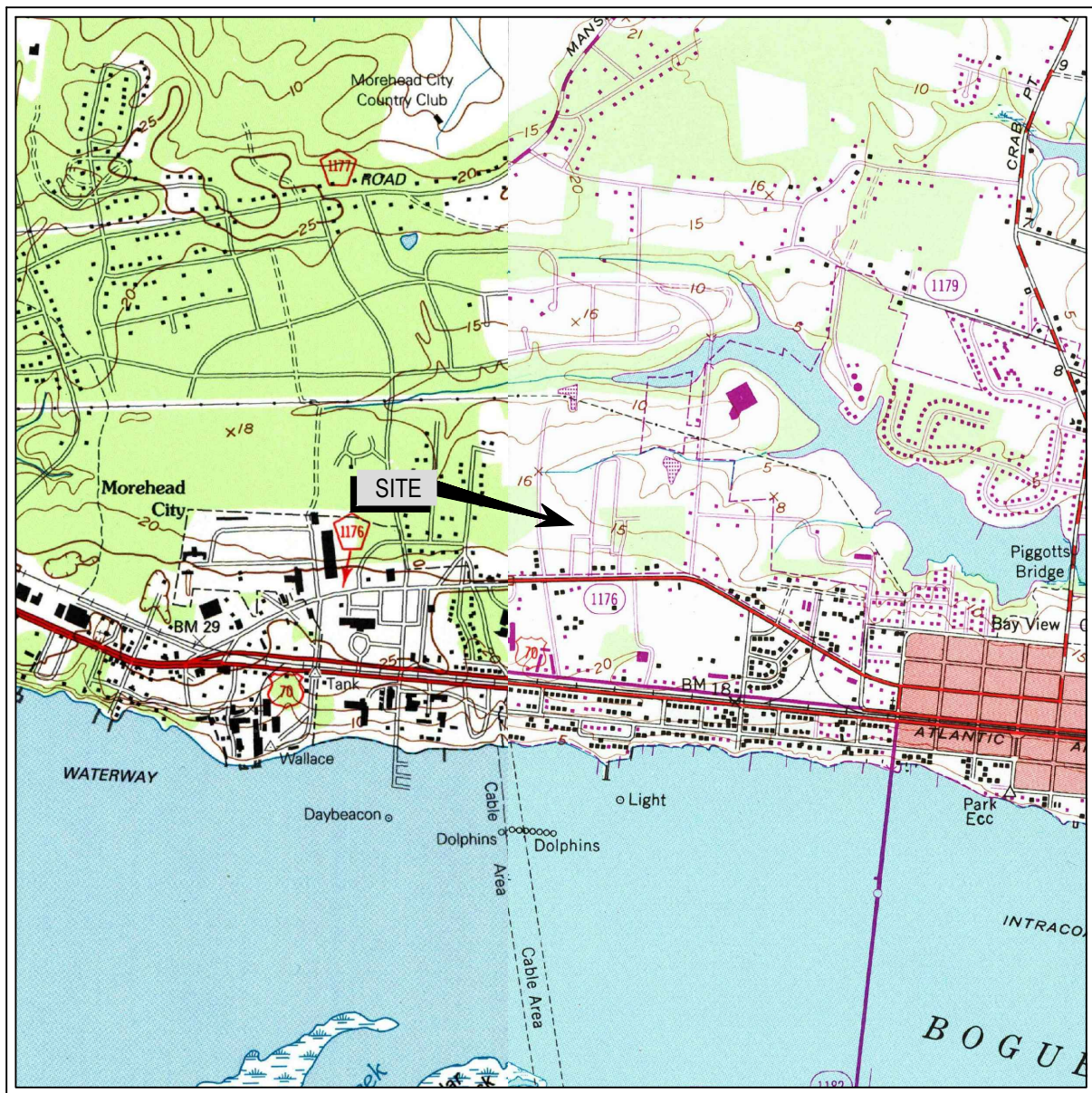
Terracon should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Terracon also should be retained to provide observation and testing services during grading, excavation, foundation construction and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

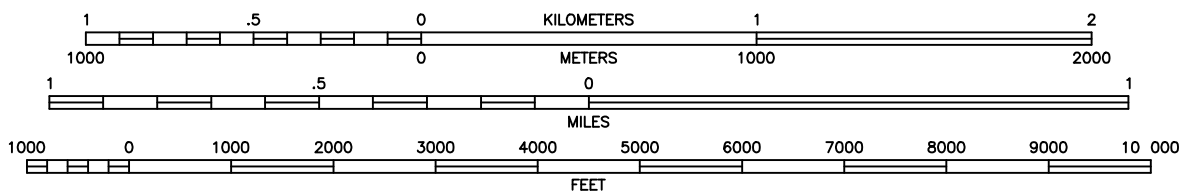
The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Terracon reviews the changes and either verifies or modifies the conclusions of this report in writing.

APPENDIX A
FIELD EXPLORATION



SCALE 1:24 000



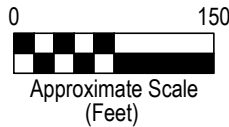
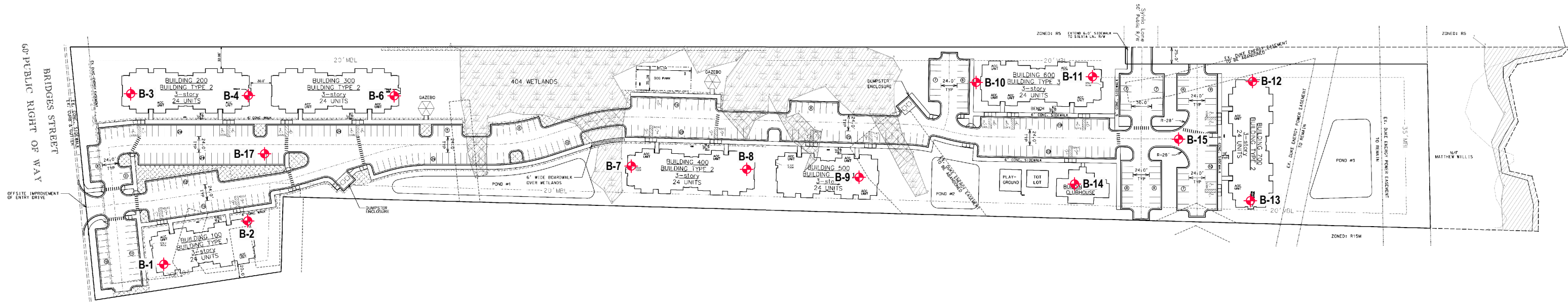
CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE
MANSFIELD, NC 1994
*BEAUFORT, NC 1949 PR1983
7.5 MINUTE SERIES (TOPOGRAPHIC)

*INDICATES WHICH MAP SITE IS LOCATED ON



Project Mng'r: A.J.G.	Project No. 72185063	 314 Beacon Drive Winterville, NC 28590 (252) 353-1600 (252) 353-0002	SITE LOCATION PLAN	EXHIBIT
Drawn By: RLW	Scale: AS SHOWN		GEOTECHNICAL ENGINEERING REPORT	
Checked By: A.J.G./MRF	File No. GEO72185063-1		ELIJAH'S LANDING	
Approved By: A.J.G.	Date: JULY 2018		BRIDGES STREET MOREHEAD CITY, NC	A-1



LEGEND



APPROXIMATE BORING LOCATION

THIS DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mgr:	AJG
Drawn By:	RLW
Checked By:	AJG/MRF
Approved By:	AJG

Project No.	72185063
Scale:	AS SHOWN
File No.	GE072185063-2
Date:	JULY 2018

Terracon
Consulting Engineers and Scientists

314 Beacon Drive Winterville, NC 28590
(252) 353-1600 (252) 353-0002

BORING LOCATION PLAN
GEOTECHNICAL ENGINEERING REPORT
ELIJAH'S LANDING
BRIDGES STREET
MOREHEAD CITY, NC

EXHIBIT

A-2

Field Exploration Description

Coordinates of the borings were determined by overlaying the plans provided on aerial photography by referencing common features. The boring locations were marked in the field by Terracon by referencing existing site features and a handheld GPS. Some of the proposed borings were offset due to the heavily wooded area. The location of the borings should be considered accurate only to the degree implied by the means and methods used to define it.

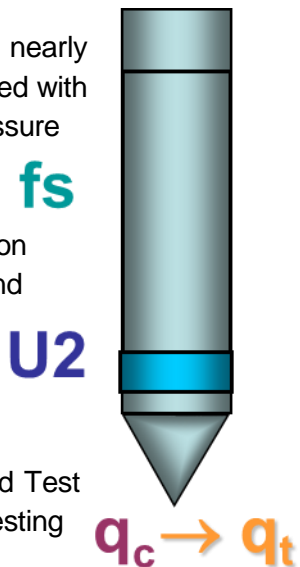
The soil test borings were performed by a track mounted power drilling rig utilizing cone penetration testing (CPT) to advance the borings. A macro core was also used to collect soil samples in select boring locations. A macro core sampler consists of a hollow tube with a removable liner which was vibrated into the ground. Samples taken during the drilling process were tagged for identification, sealed to reduce moisture loss, and taken to our laboratory for further examination, testing, and classification.

Cone Penetration Testing (CPT)

The CPT hydraulically pushes an instrumented cone through the soil while nearly continuous readings are recorded to a portable computer. The cone is equipped with electronic load cells to measure tip resistance and sleeve resistance and a pressure transducer to measure the generated ambient pore pressure. The face of the cone has an apex angle of 60° and an area of 10 cm². Digital data representing the tip resistance, friction resistance, pore water pressure, and probe inclination angle are recorded about every 2 centimeters while advancing through the ground at a rate between 1½ and 2½ centimeters per second. These measurements are correlated to various soil properties used for geotechnical design. No soil samples are gathered through this subsurface investigation technique.

CPT testing is conducted in general accordance with ASTM D5778 "Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils."

Upon completion, the data collected was downloaded and processed by the project engineer.



CPT LOG NO. B-1

Page 1 of 1

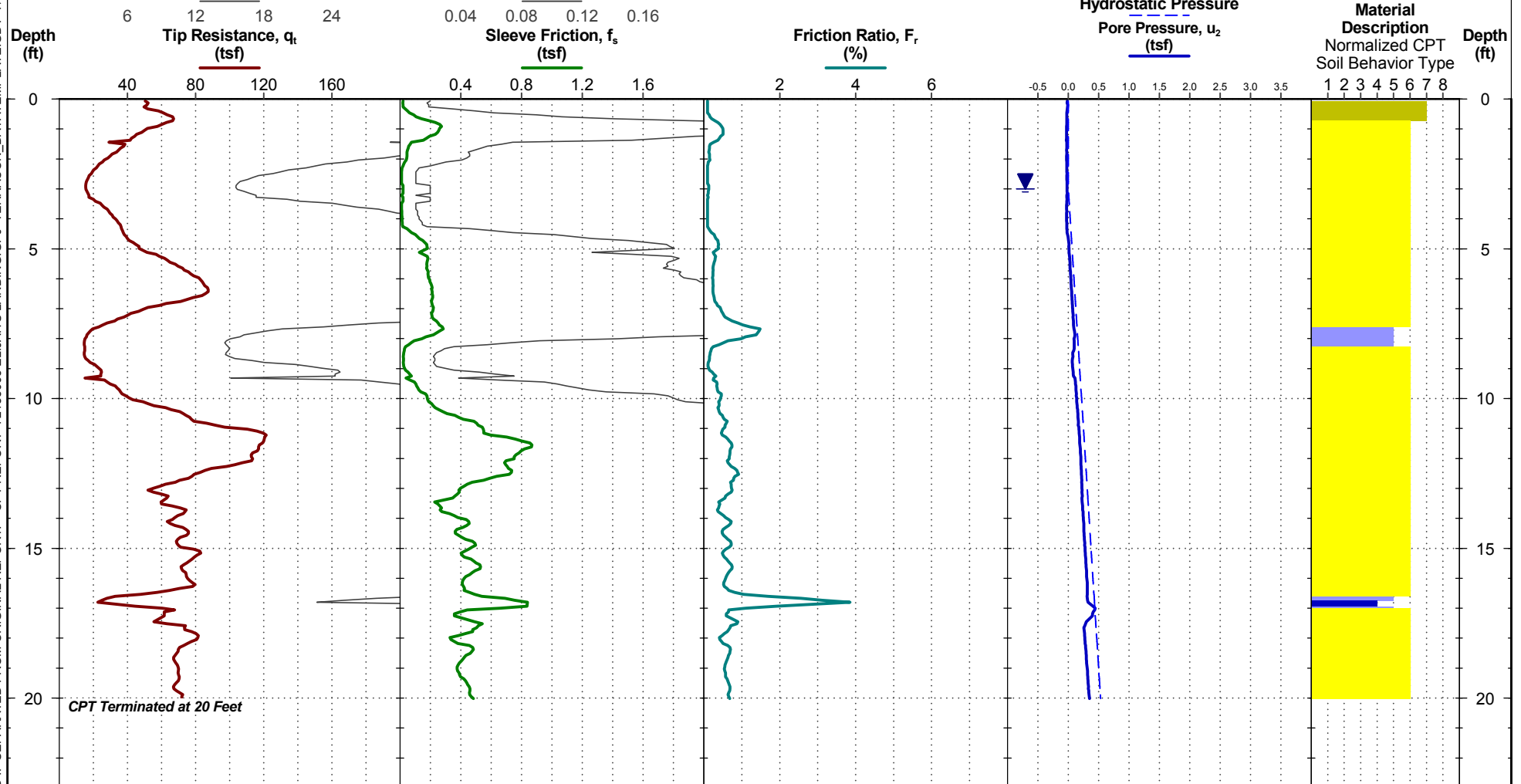
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.727615°
Longitude: -76.746462°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

3 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-4

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

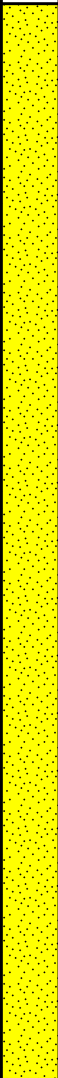
BORING LOG NO. B-1M

Page 1 of 1



PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 34.7276° Longitude: -76.7465°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS	PERCENT FINES
						LL-PL-PI	
DEPTH							
	POORLY GRADED SAND (SP) , dark gray, light brown, tan, and light gray						
	Boring Terminated at 10 Feet	10					

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.	Notes:	
Abandonment Method:			
WATER LEVEL OBSERVATIONS		Boring Started: 06-28-2018	Boring Completed: 06-28-2018
		Drill Rig: Geoprobe	Driller: Carolina Drilling, Inc.
		Project No.: 72185063	Exhibit: A-5

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 72185063 ELIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-2

Page 1 of 1

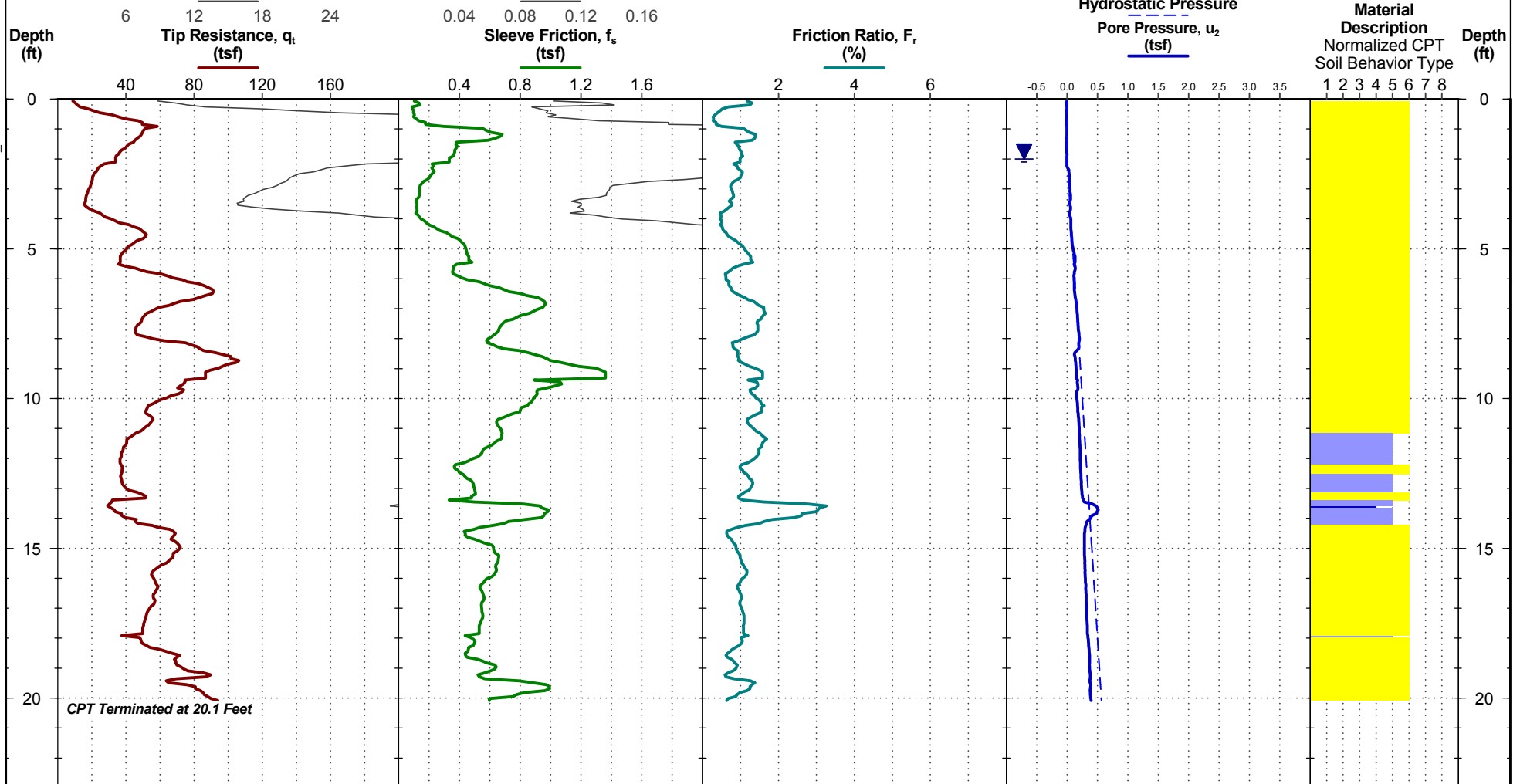
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.727968°
Longitude: -76.746646°



See Exhibit A-3 for description of field procedures.
See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.
CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

2 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-6

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-3

Page 1 of 1

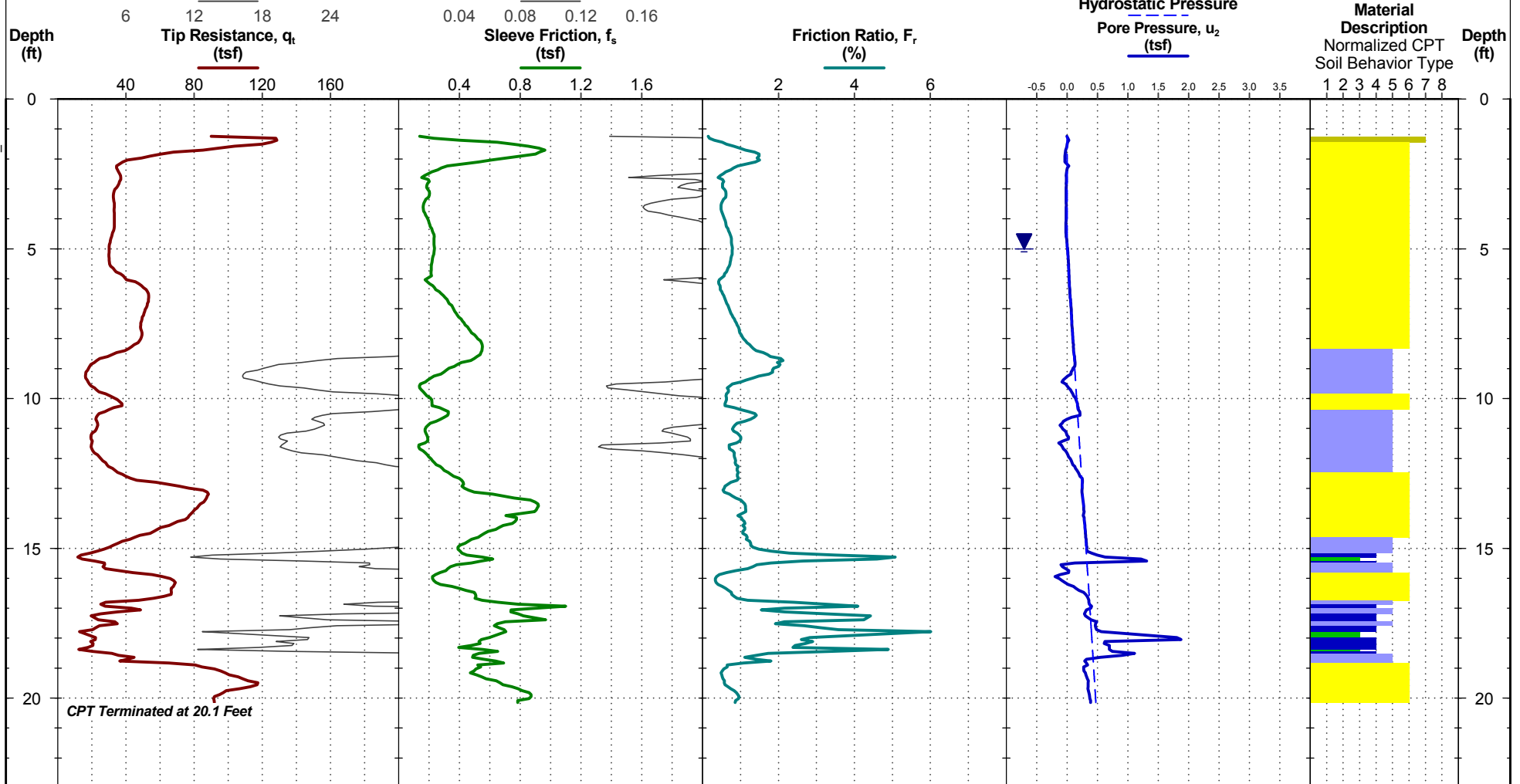
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.727532°
Longitude: -76.747337°



Dry cave at 5 feet

See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

5 ft estimated water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/27/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/27/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-7

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-4

Page 1 of 1

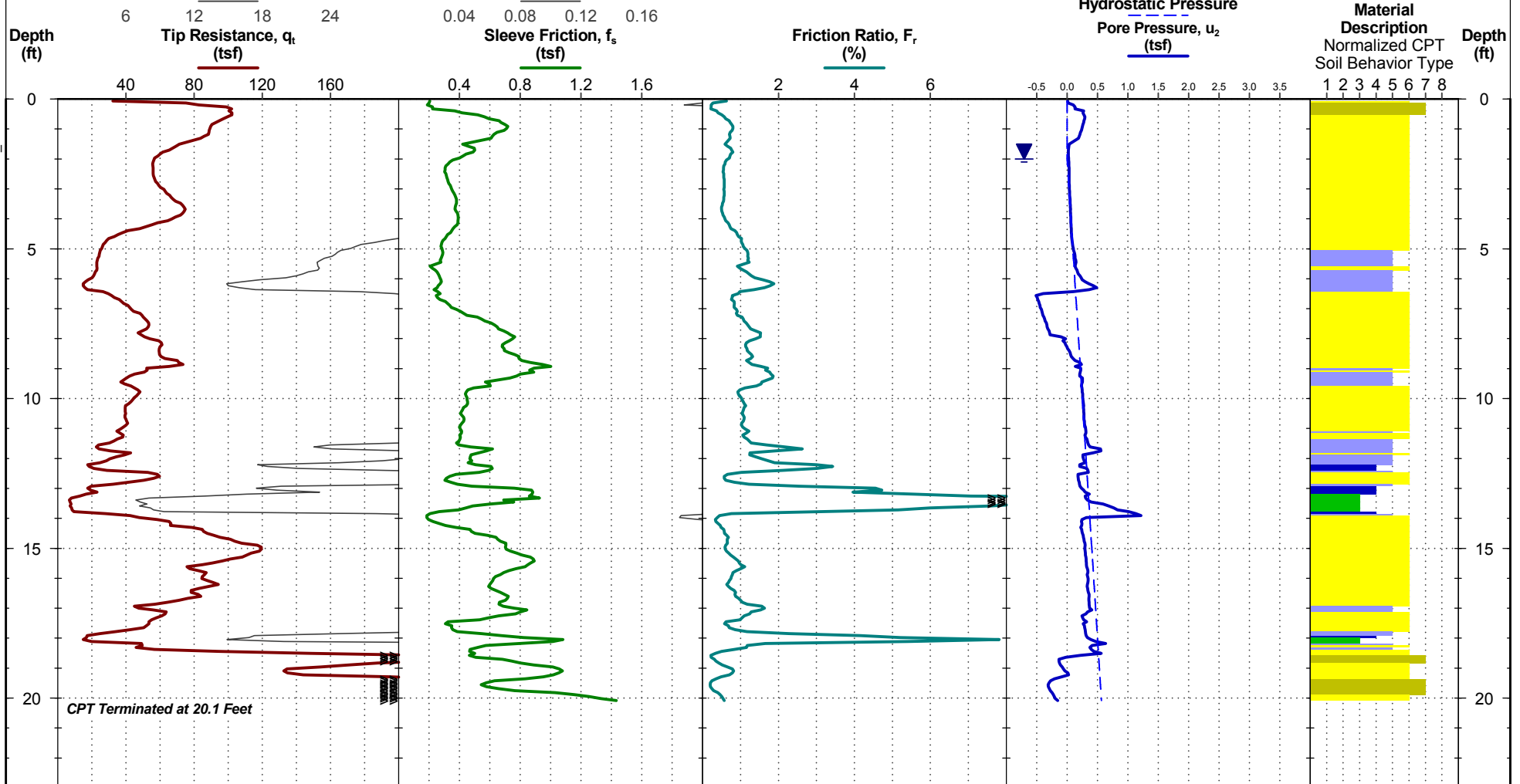
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.728015°
Longitude: -76.747278°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

2 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/27/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/27/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-8

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-6

Page 1 of 1

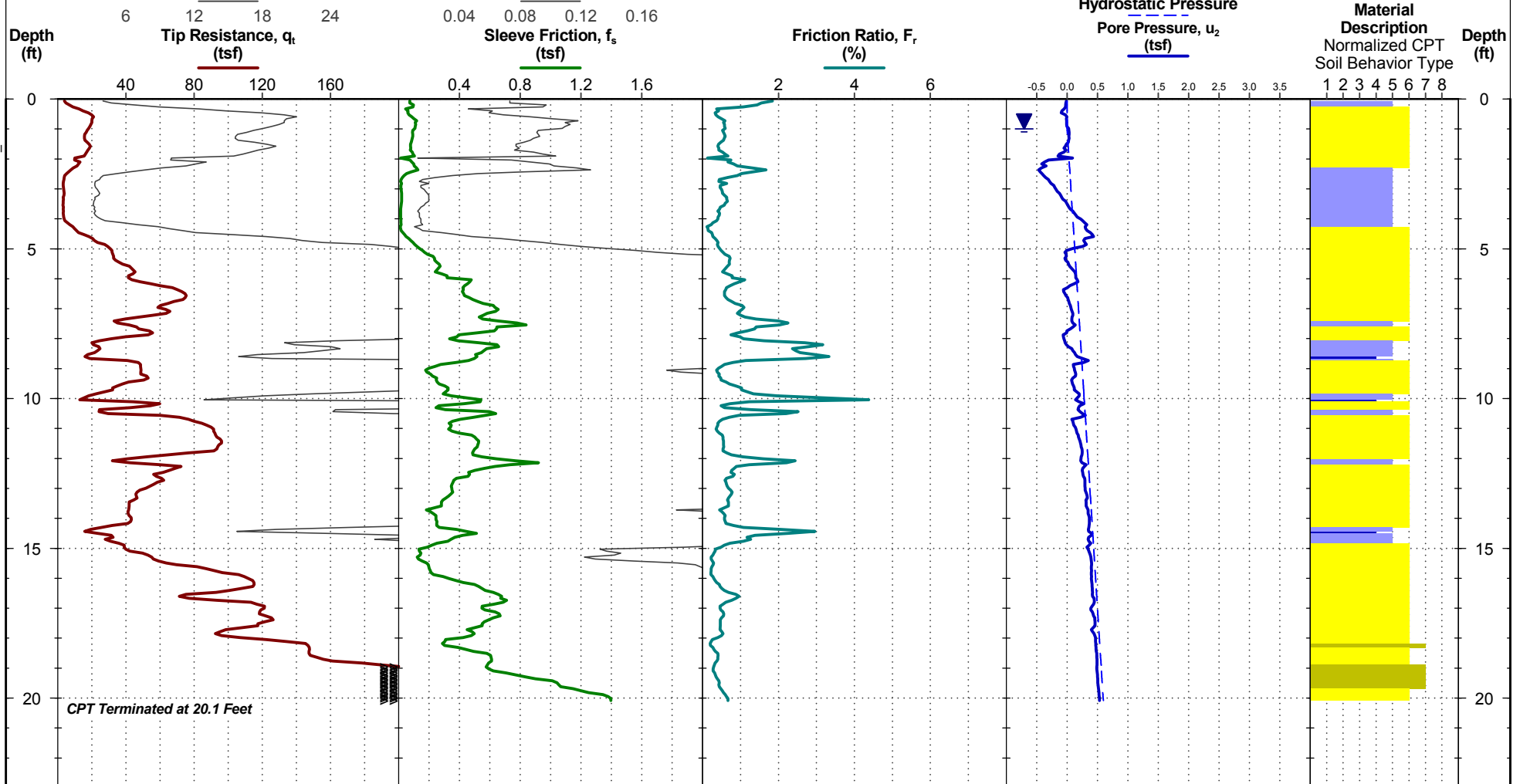
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.728613°
Longitude: -76.747208°



See Exhibit A-3 for description of field procedures.
See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.
CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

1 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-9

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-7

Page 1 of 1

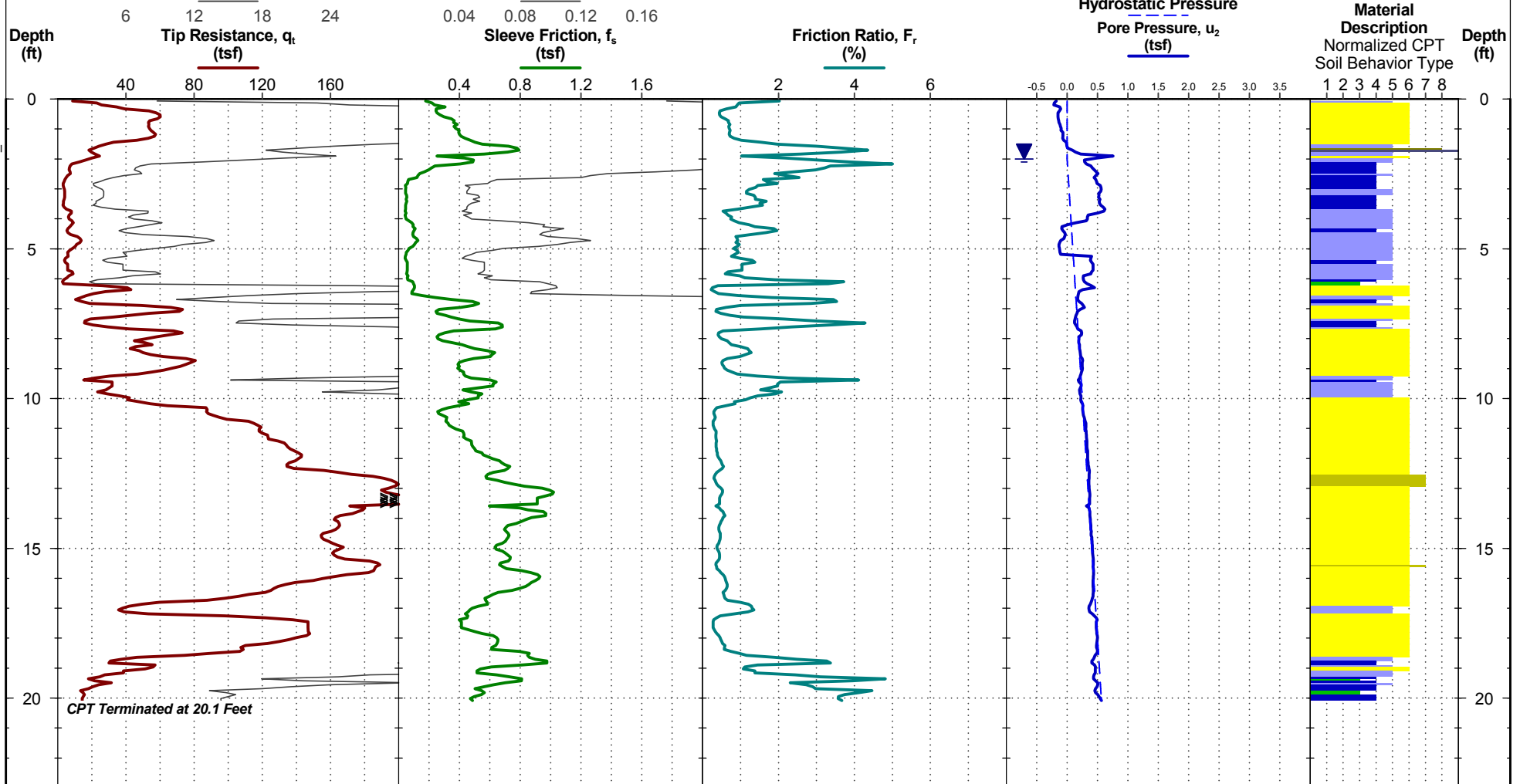
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.729555°
Longitude: -76.746756°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

2 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-10

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-8

Page 1 of 1

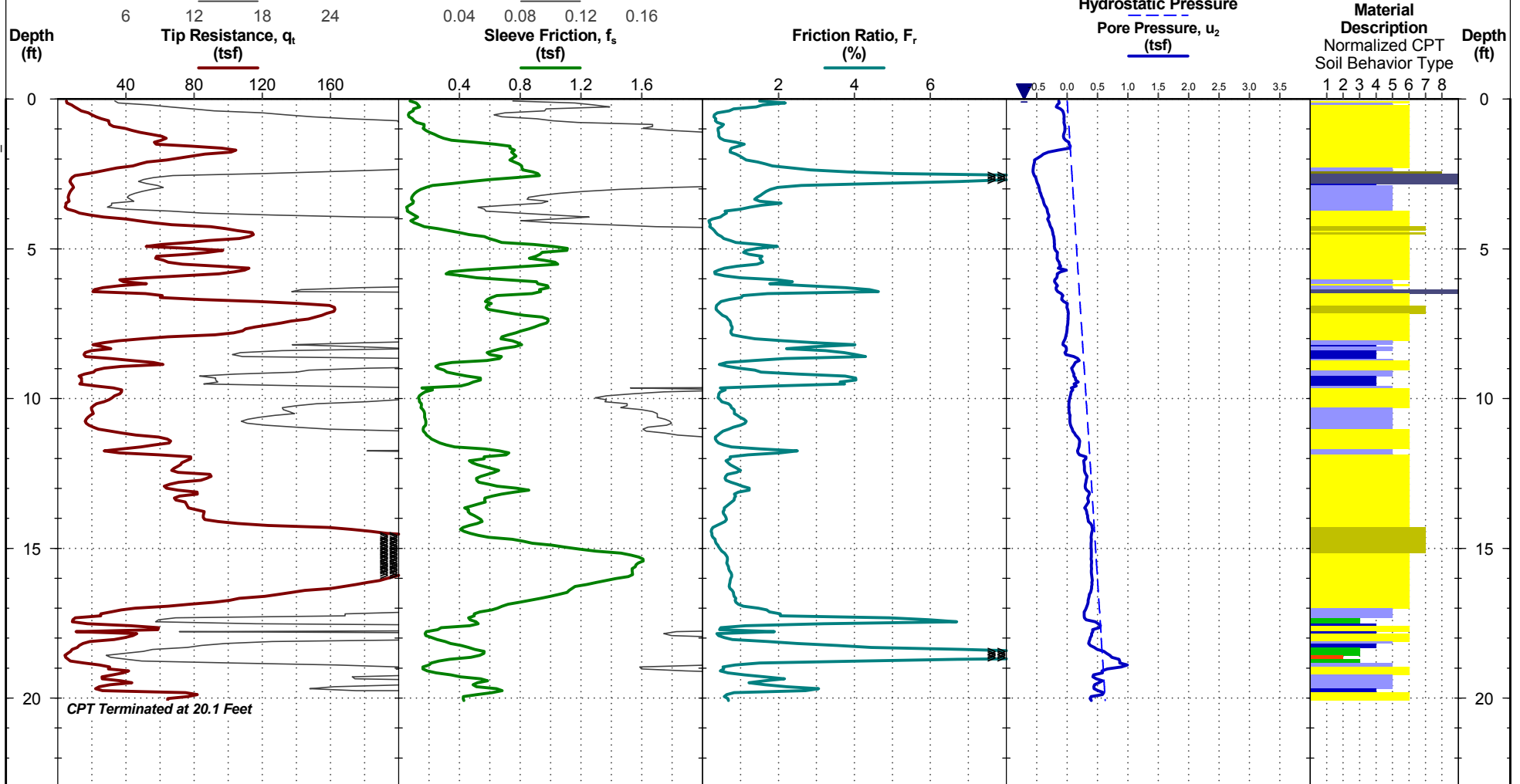
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.730024°
Longitude: -76.74669°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

0 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-11

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

BORING LOG NO. B-8M

Page 1 of 1


PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 34.73° Longitude: -76.7467°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS	PERCENT FINES
						LL-PL-PI	
	DEPTH						
0.3	TOPSOIL						
	POORLY GRADED SAND (SP) , dark brown				18		
2.0	SILTY SAND (SM) , black and gray						
4.0	POORLY GRADED SAND (SP) , with clay, light gray and gray				33	23-22-1	29
		5					
					22		
10.0		10					
	Boring Terminated at 10 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any).	Notes:	
Abandonment Method:	See Appendix C for explanation of symbols and abbreviations.		
WATER LEVEL OBSERVATIONS	 <p>314 Beacon Dr Winterville, NC</p>	Boring Started: 06-28-2018	Boring Completed: 06-28-2018
		Drill Rig: Geoprobe	Driller: Carolina Drilling, Inc.
		Project No.: 72185063	Exhibit: A-12

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 72185063 ELIJAH'S LANDING.GPJ TERRACON.DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-9

Page 1 of 1

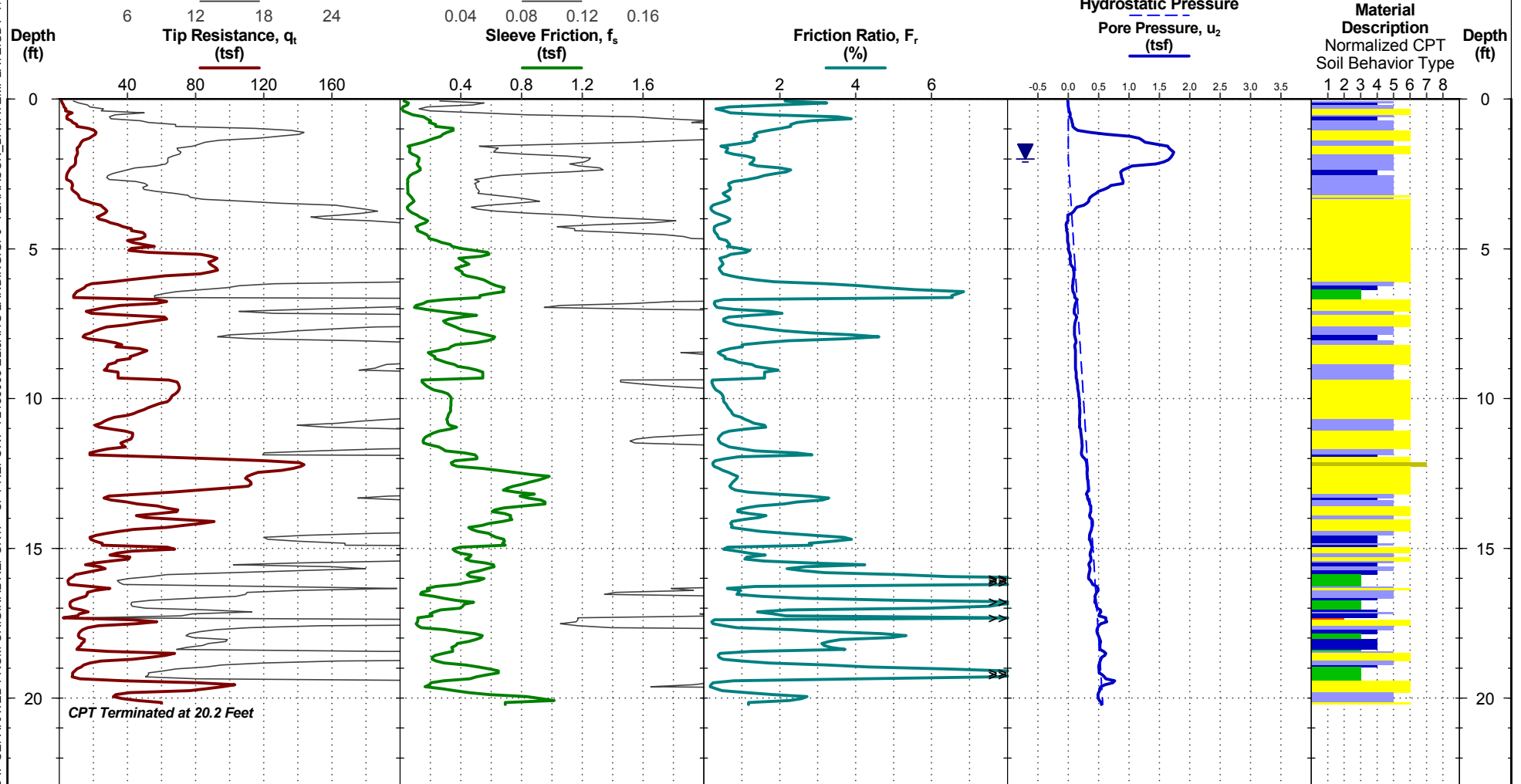
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.730525°
Longitude: -76.746628°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

2 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-13

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-10

Page 1 of 1

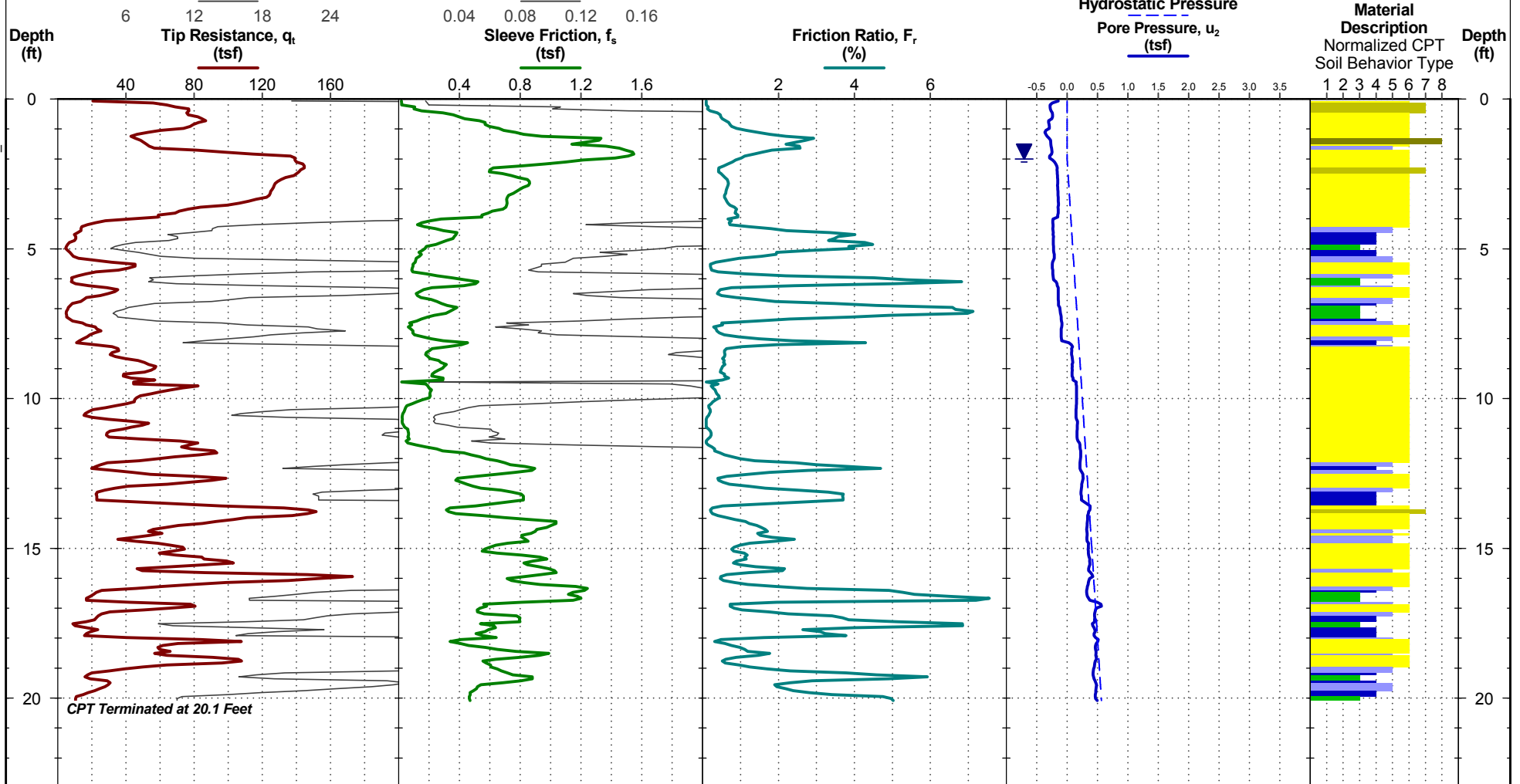
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.731017°
Longitude: -76.747036°



See Exhibit A-3 for description of field procedures.
See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.
CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

2 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-14

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-11

Page 1 of 1

PROJECT: Elijah's Landing

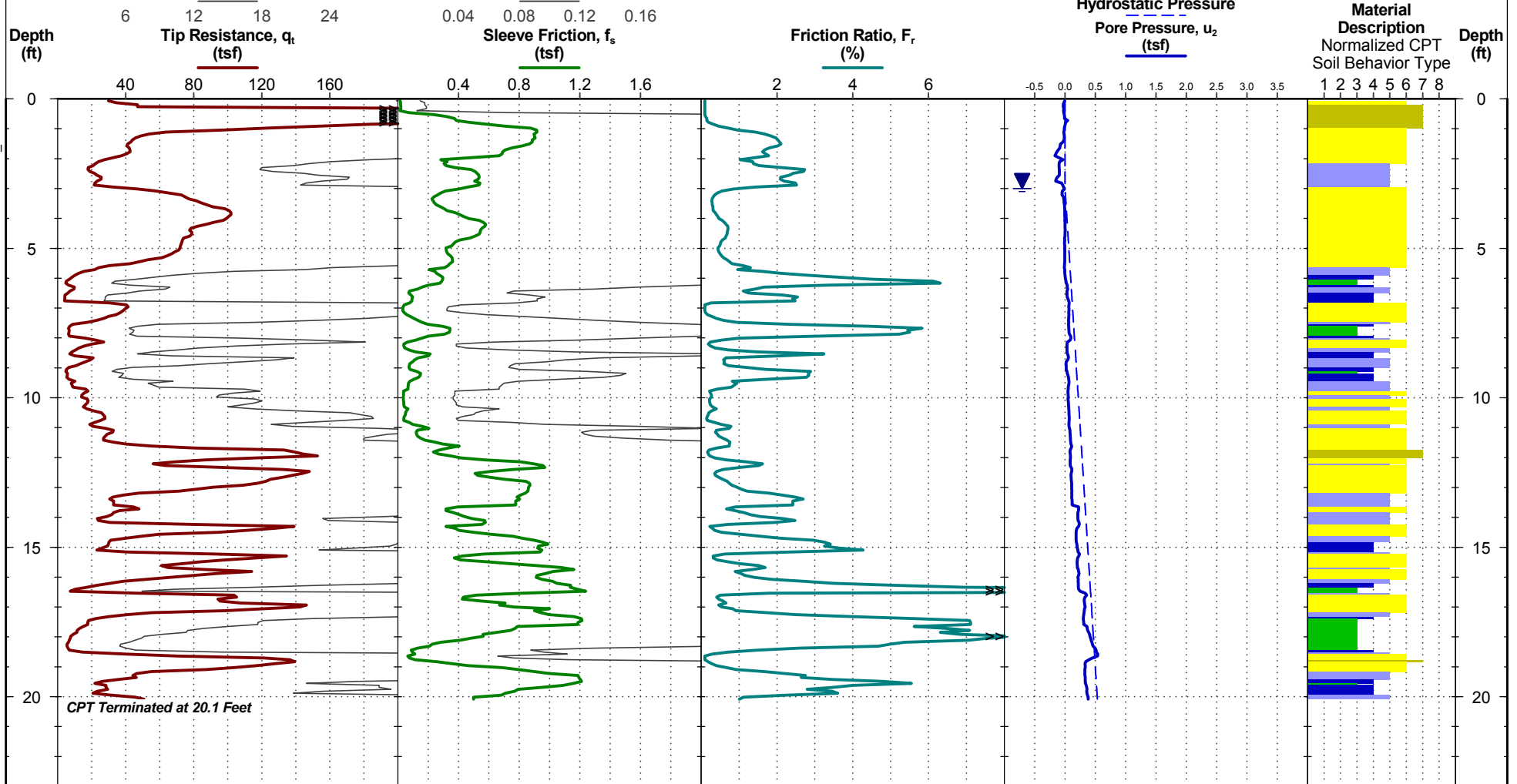
CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.731471°

Longitude: -76.747014°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

3 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-15

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-12

Page 1 of 1

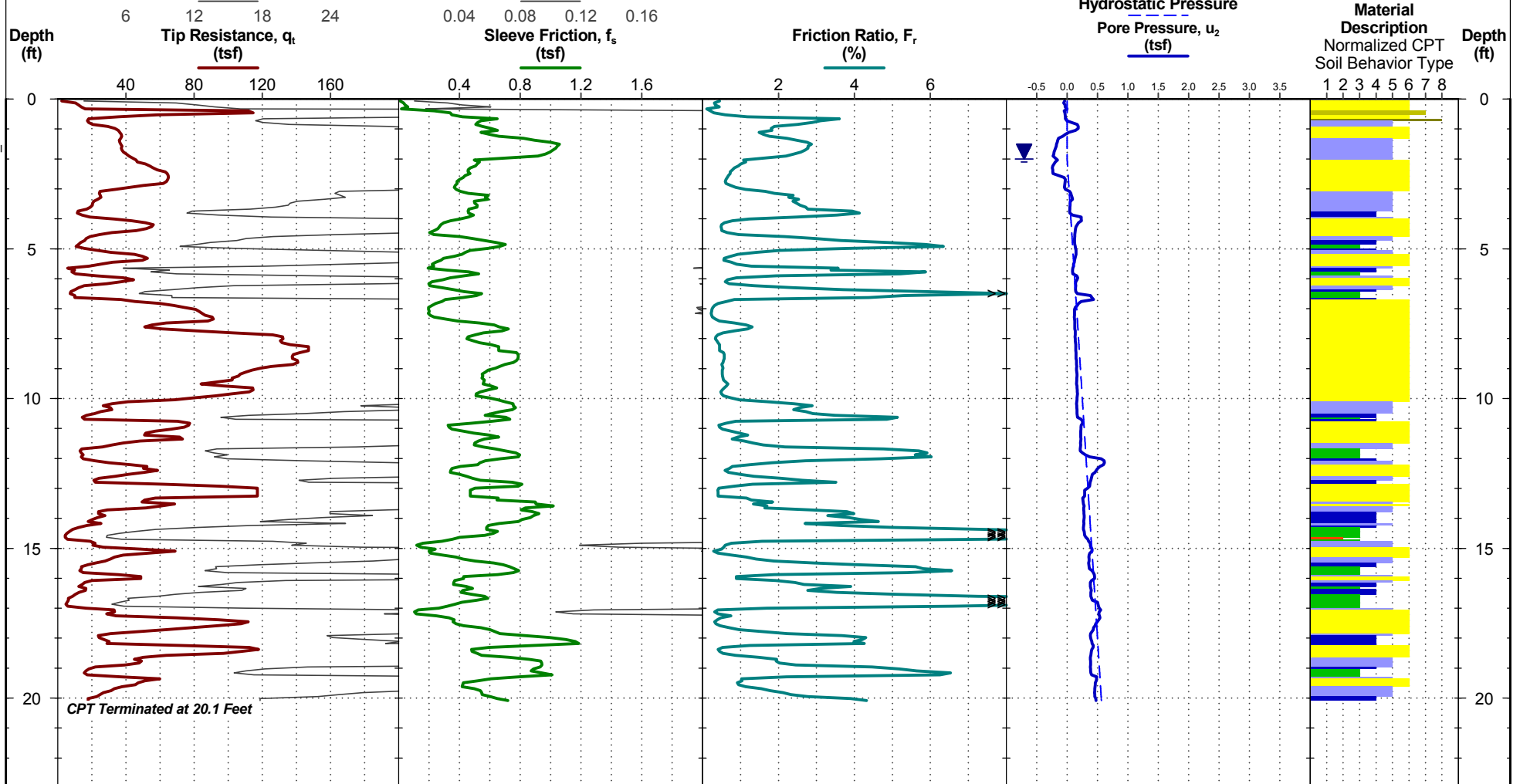
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.732099°
Longitude: -76.746931°



See Exhibit A-3 for description of field procedures.
See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.
CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

2 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.



Exhibit: A-16

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

Page 1 of 1

**CLIENT: East Carolina Community Development Inc
Beaufort, NC**

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 34.7321° Longitude: -76.7469°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS	PERCENT FINES
						LL-PL-PI	
	DEPTH						
	TOPSOIL						
	0.5						
	POORLY GRADED SAND (SP) , light brown and light gray						
	3.0						
	SILTY SAND (SM) , light brown and light gray						
	6.0						
	POORLY GRADED SAND (SP) , trace clay, light brown, gray, and dark gray						
	10.0						
	Boring Terminated at 10 Feet						

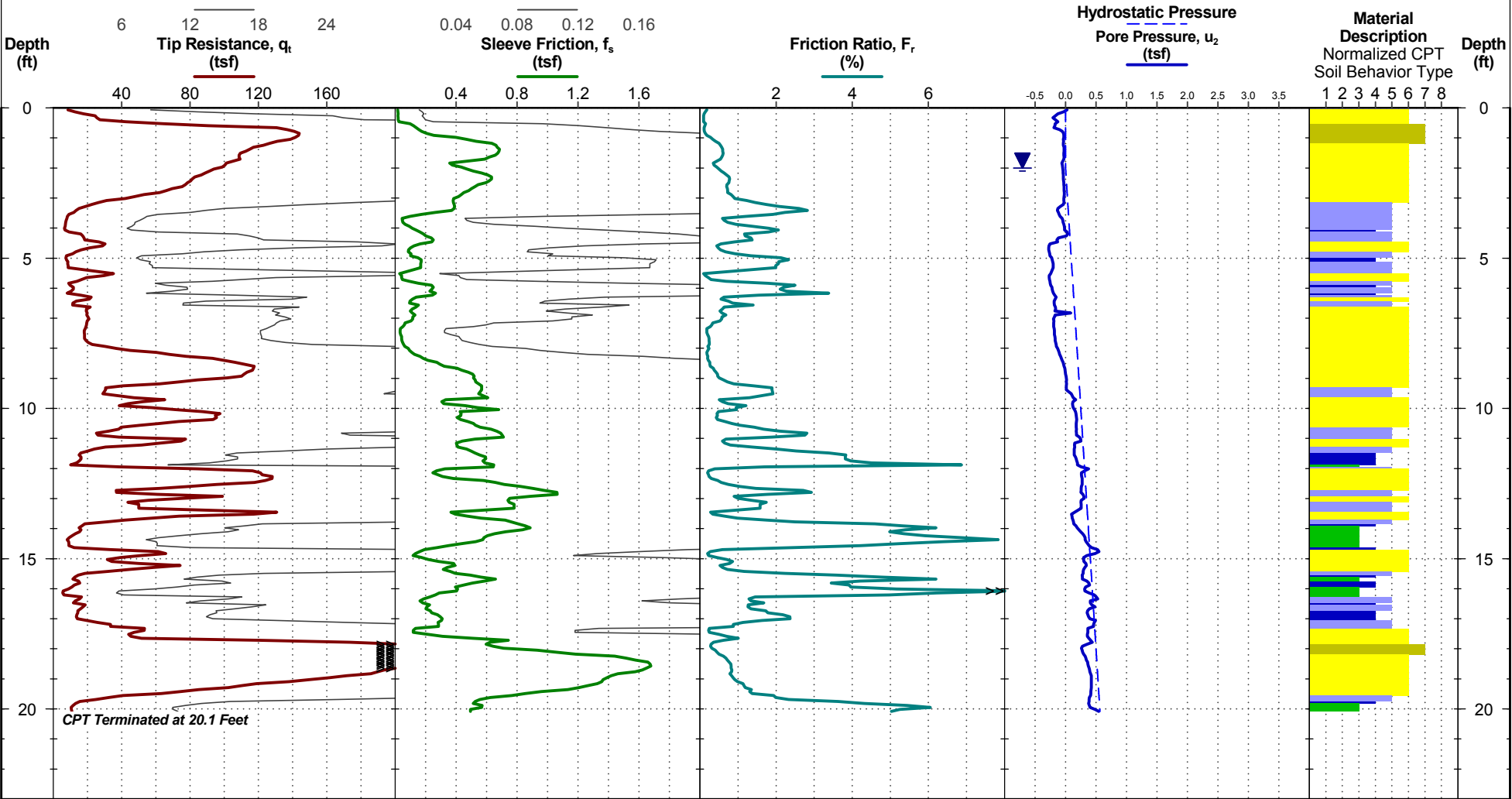
Advancement Method:	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any).	Notes:	
Abandonment Method:	See Appendix C for explanation of symbols and abbreviations.		
WATER LEVEL OBSERVATIONS	 <p>314 Beacon Dr Winterville, NC</p>	Boring Started: 06-28-2018	Boring Completed: 06-28-2018
		Drill Rig: Geoprobe	Driller: Carolina Drilling, Inc.
		Project No.: 72185063	Exhibit: A-17

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 72185063 ELIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-13

PROJECT: Elijah's Landing	CLIENT: East Carolina Community Development Inc Beaufort, NC	TEST LOCATION: See Exhibit A-2
SITE: Bridges Street and Sylvia Lane Morehead City, NC		Latitude: 34.732061° Longitude: -76.74636°



See Exhibit A-3 for description of field procedures.
See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.
CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION 2 ft measured water depth (used in normalizations and correlations; see Appendix C)	Probe no. 5143 with net area ratio of 0.838 U2 pore pressure transducer location Manufactured by Geotech A.B.; calibrated 1/17/2018 Tip and sleeve areas of 10 cm ² and 150 cm ² Ring friction reducer with O.D. of 1.875 in	Terracon 314 Beacon Dr Winterville, NC	CPT Started: 6/28/2018 Rig: Geoprobe Project No.: 72185063	CPT Completed: 6/28/2018 Operator: Carolina Drilling, Inc. Exhibit: A-18
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CPT LOG NO. B-14

Page 1 of 1

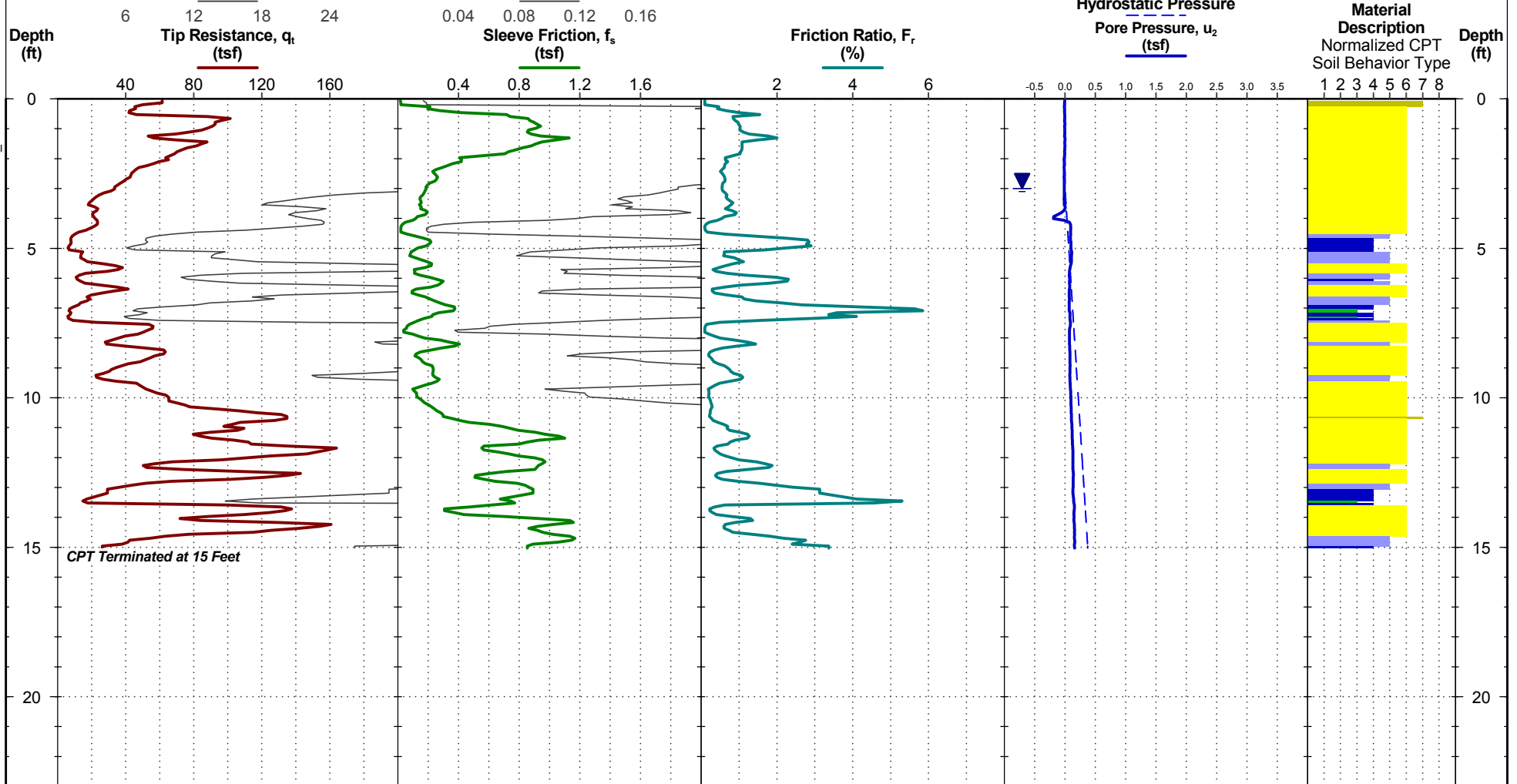
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.731368°
Longitude: -76.746505°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

3 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-19

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

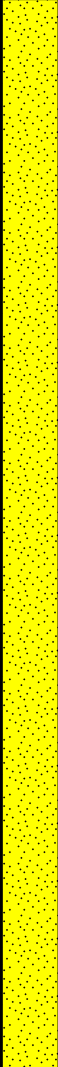
BORING LOG NO. B-14M

Page 1 of 1



PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 34.7314° Longitude: -76.7465°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS	PERCENT FINES
						LL-PL-PI	
DEPTH							
	POORLY GRADED SAND (SP) , trace clay, tan, orange, brown, and dark gray						
	Boring Terminated at 10 Feet	10					

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.	Notes:	
Abandonment Method:			
WATER LEVEL OBSERVATIONS		Boring Started: 06-28-2018	Boring Completed: 06-28-2018
		Drill Rig: Geoprobe	Driller: Carolina Drilling, Inc.
		Project No.: 72185063	Exhibit: A-20

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 72185063 ELIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-15

Page 1 of 1

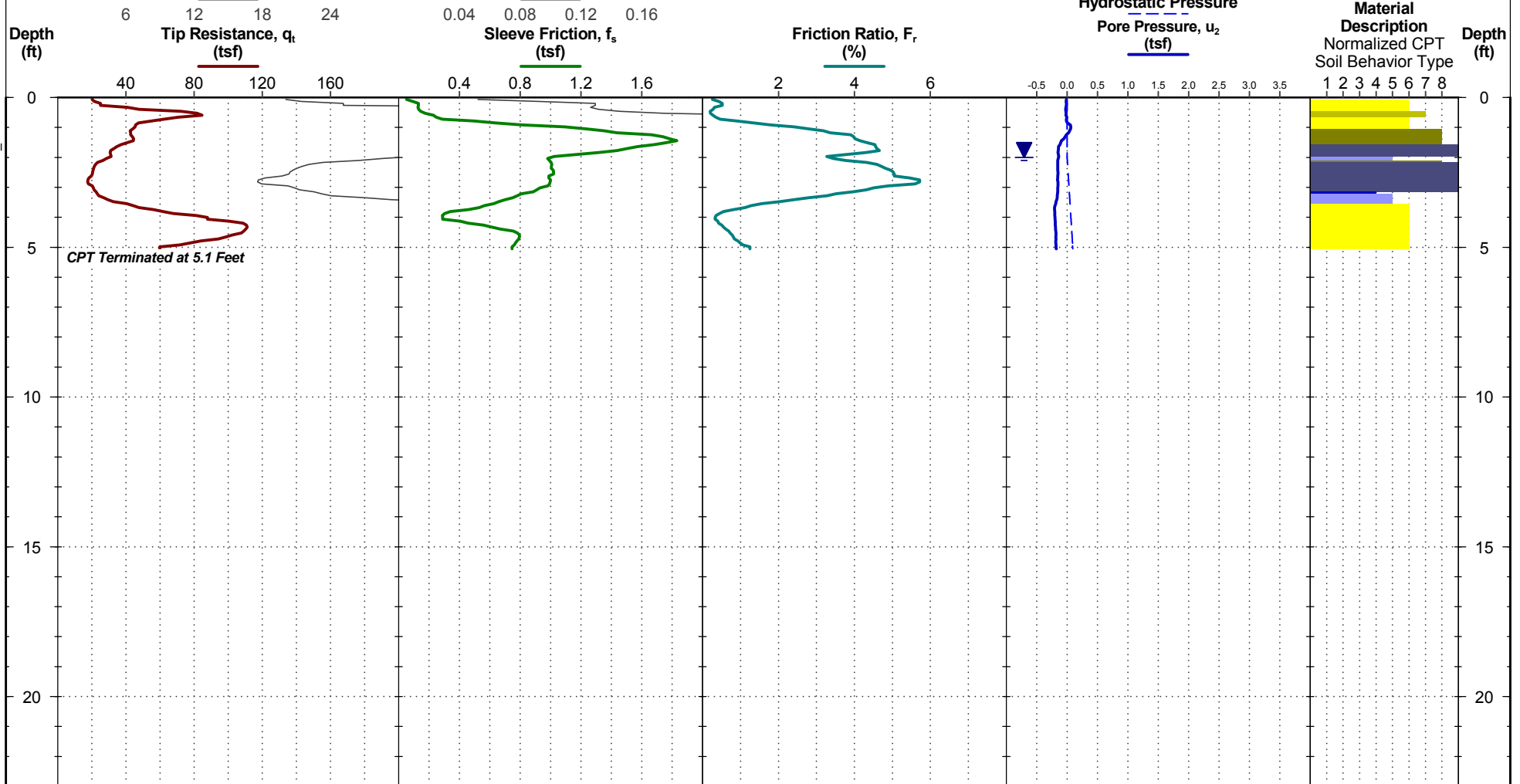
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.731793°
Longitude: -76.746675°



See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

2 ft measured water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/28/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/28/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-21

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

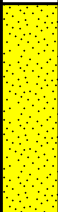
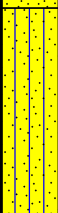
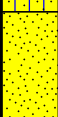
BORING LOG NO. B-15M

Page 1 of 1


PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 34.7318° Longitude: -76.7467°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS	PERCENT FINES
	DEPTH					LL-PL-PI	
	POORLY GRADED SAND (SP) , tan and gray						
	2.0		▽				
	SILTY SAND (SM) , tan, gray, and light brown						
	4.0						
	POORLY GRADED SAND (SP) , tan and light gray						
	5.0						
	Boring Terminated at 5 Feet	5					

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.	Notes:	
Abandonment Method:			
WATER LEVEL OBSERVATIONS		Boring Started: 06-28-2018	Boring Completed: 06-28-2018
▽		Drill Rig: Geoprobe	Driller: Carolina Drilling, Inc.
		Project No.: 72185063	Exhibit: A-22

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 72185063 ELIJAH'S LANDING.GPJ TERRACON.DATATEMPLATE.GDT 7/13/18

CPT LOG NO. B-17

Page 1 of 1

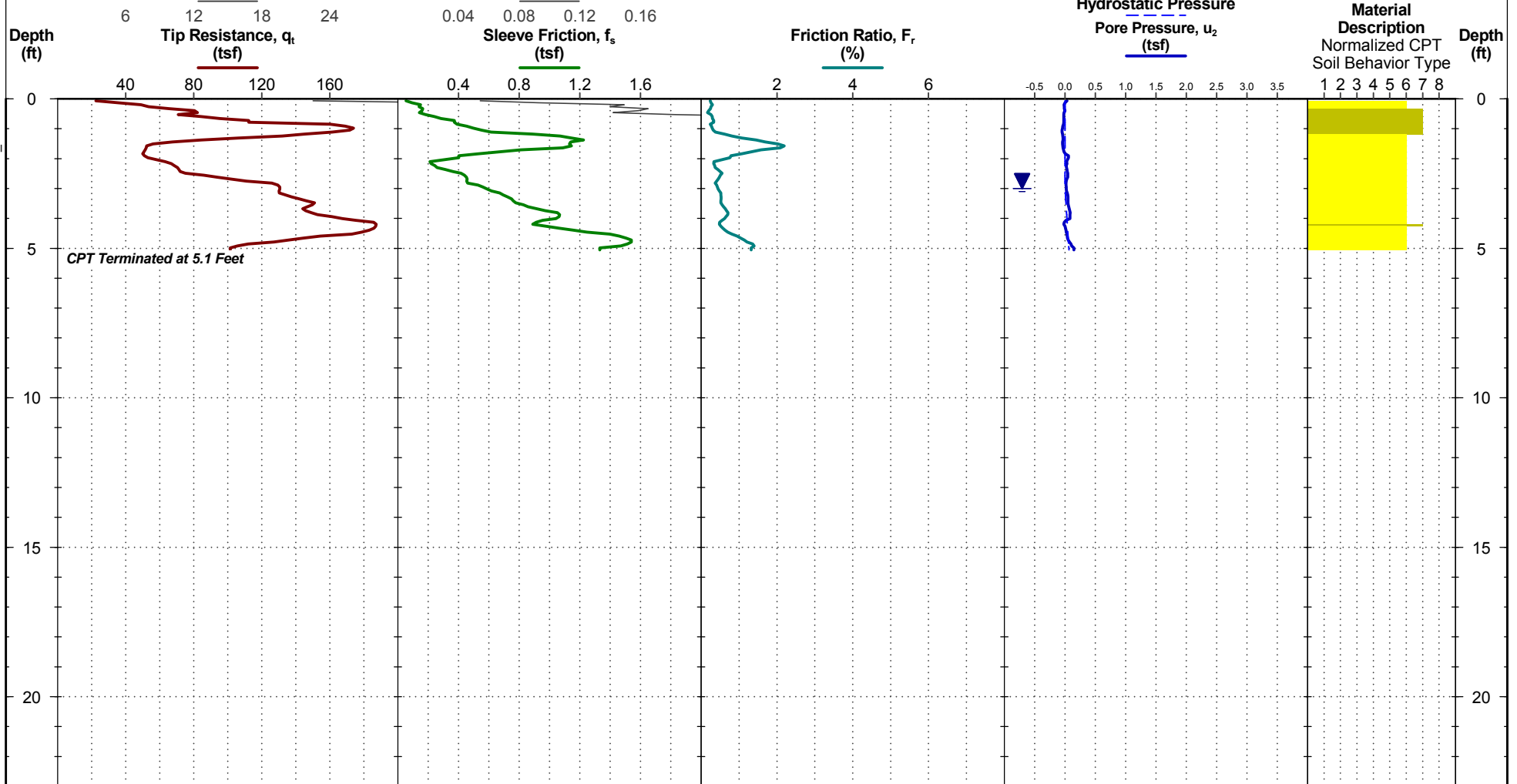
PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

TEST LOCATION: See Exhibit A-2

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

Latitude: 34.728065°
Longitude: -76.746978°



Dry cave at 1.5 feet

See Exhibit A-3 for description of field procedures.

See Appendix C for explanation of symbols and abbreviations.

Auger anchors used as reaction force.

CPT sensor calibration reports available upon request.

- 1 Sensitive, fine grained
- 2 Organic soils - clay
- 3 Clay - silty clay to clay
- 4 Silt mixtures - clayey silt to silty clay
- 5 Sand mixtures - silty sand to sandy silt
- 6 Sands - clean sand to silty sand
- 7 Gravelly sand to dense sand
- 8 Very stiff sand to clayey sand
- 9 Very stiff fine grained

WATER LEVEL OBSERVATION

3 ft estimated water depth
(used in normalizations and correlations;
see Appendix C)

Probe no. 5143 with net area ratio of 0.838
U2 pore pressure transducer location
Manufactured by Geotech A.B.; calibrated 1/17/2018
Tip and sleeve areas of 10 cm² and 150 cm²
Ring friction reducer with O.D. of 1.875 in

Terracon
314 Beacon Dr
Winterville, NC

CPT Started: 6/27/2018

Rig: Geoprobe

Project No.: 72185063

CPT Completed: 6/27/2018

Operator: Carolina Drilling, Inc.

Exhibit: A-23

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. CPT REPORT 72185063 ELLIJAH'S LANDING.GPJ TERRACON_DATATEMPLATE.GDT 7/13/18

BORING LOG NO. B-17M

Page 1 of 1

PROJECT: Elijah's Landing

CLIENT: East Carolina Community Development Inc
Beaufort, NC

SITE: Bridges Street and Sylvia Lane
Morehead City, NC

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 34.7281° Longitude: -76.747°		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	WATER CONTENT (%)	ATTERBERG LIMITS	PERCENT FINES
							LL-PL-PI	
	DEPTH							
	0.3	TOPSOIL				18	NP	3
		POORLY GRADED SAND (SP) , light gray and dark gray						
	3.0	SILTY SAND (SM) , black						
	4.0	POORLY GRADED SAND (SP) , dark gray and dark brown						
	5.0	Boring Terminated at 5 Feet	5					

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:

See Exhibit A-3 for description of field procedures.
See Appendix B for description of laboratory procedures and additional data (if any).
See Appendix C for explanation of symbols and abbreviations.

Notes:

Abandonment Method:

WATER LEVEL OBSERVATIONS

Dry cave

Terracon
314 Beacon Dr
Winterville, NC

Boring Started: 06-28-2018

Boring Completed: 06-28-2018

Drill Rig: Geoprobe

Driller: Carolina Drilling, Inc.

Project No.: 72185063

Exhibit: A-24

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL 72185063 ELIJAH'S LANDING.GPJ TERRACON.DATATEMPLATE.GDT 7/13/18

APPENDIX B
LABORATORY TESTING

Geotechnical Engineering Report

Elijah's Landing ■ Morehead City, North Carolina

July 13, 2018 ■ Terracon Project No. 72185063

**Laboratory Test Description**

Descriptive classifications of the soils indicated on the boring logs are in accordance with the enclosed General Notes and the Unified Soil Classification System. Also shown are estimated Unified Soil Classification Symbols. A brief description of this classification system is attached to this report. Soils laboratory testing was performed under the direction of a geotechnical engineer and included visual classification, moisture content, grain size analysis, and Atterberg limits testing as appropriate. The results of the laboratory testing are shown on the borings logs and in Appendix B.

The laboratory test methods are described in the ASTM Standards listed below:

ASTM D2216 Standard Test Method of Determination of Water Content of Soil and Rock by Mass

ASTM D2487 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)

ASTM D2488 Standard Practice of Description and Identification of Soils (Visual Manual Method)

ASTM D422 Standard Test Method for Particle Size Analysis of Soils

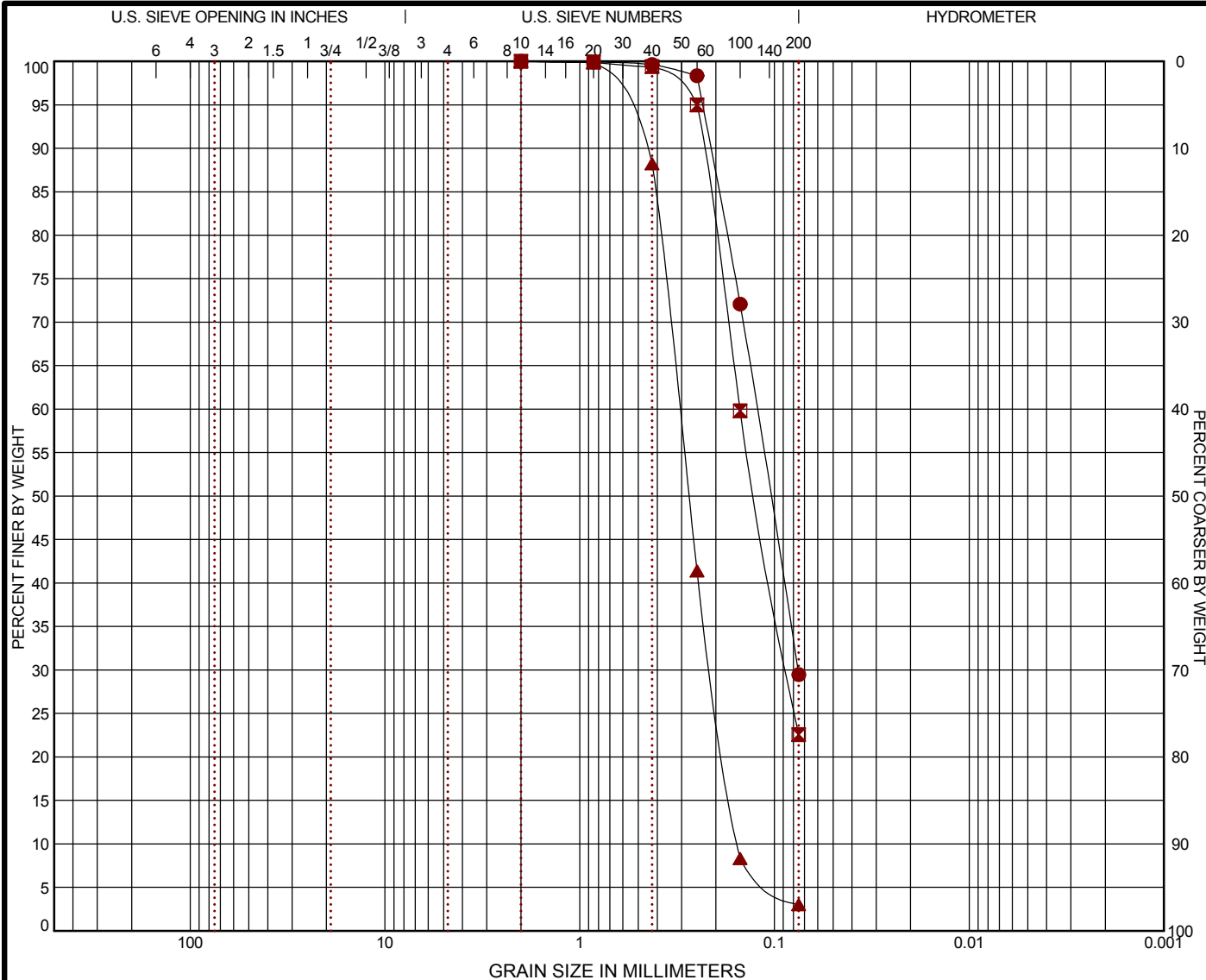
ASTM D1140 Standard Test Methods for Determining the Amount of Material Finer than No. 200 Sieve in Soils by Washing

ASTM D4318 Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils

Procedural standards noted above are for reference to methodology in general. In some cases variations to methods are applied as a result of local practice or professional judgment.

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
●	B-8M	3	0.0	0.0	70.5		29.5		SM
⊠	B-12M	5 - 10	0.0	0.0	77.4		22.6		SM
▲	B-17M	1	0.0	0.0	97.0		3.0		SP

	GRAIN SIZE		
	●	⊠	▲
D ₆₀	0.123	0.15	0.309
D ₃₀	0.076	0.086	0.21
D ₁₀			0.154
	COEFFICIENTS		
	C _c		0.93
C _u			2.01

Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
#10	100.0	#10	100.0	#10	100.0
#20	99.91	#20	99.89	#20	99.87
#40	99.63	#40	99.39	#40	88.22
#60	98.34	#60	95.0	#60	41.39
#100	72.07	#100	59.81	#100	8.32
#200	29.47	#200	22.56	#200	3.02

SOIL DESCRIPTION	
●	SILTY SAND (SM)
⊠	SILTY SAND (SM)
▲	POORLY GRADED SAND (SP)
REMARKS	
●	
⊠	5-6 ft
▲	1-2 ft

PROJECT: Elijah's Landing

SITE: Bridges Street and Sylvia Lane
Morehead City, NC



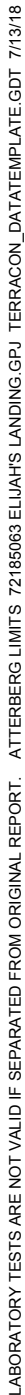
PROJECT NUMBER: 72185063

CLIENT: East Carolina Community
Development Inc
Beaufort, NC

EXHIBIT: B-2

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 72185063 ELIJAH'S LANDING.GPJ TERRACON DATATEMPLATE.GDT 7/13/18












ASTM D4318

EXHIBIT: B-3

APPENDIX C
SUPPORTING DOCUMENTS

SPT GENERAL NOTES

DESCRIPTION OF SYMBOLS AND ABBREVIATIONS

SAMPLING			WATER LEVEL		Water Initially Encountered	FIELD TESTS	(HP)	Hand Penetrometer	
	Auger	Split Spoon			Water Level After a Specified Period of Time		(T)	Torvane	
					Water Level After a Specified Period of Time		(b/f)	Standard Penetration Test (blows per foot)	
	Shelby Tube	Macro Core		Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.			(PID)	Photo-Ionization Detector	
							(OVA)	Organic Vapor Analyzer	
	Ring Sampler	Rock Core							
									
	Grab Sample	No Recovery							

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification is based on the Unified Soil Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

LOCATION AND ELEVATION NOTES

Unless otherwise noted, Latitude and Longitude are approximately determined using a hand-held GPS device. The accuracy of such devices is variable. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS	RELATIVE DENSITY OF COARSE-GRAINED SOILS (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance Includes gravels, sands and silts.			CONSISTENCY OF FINE-GRAINED SOILS (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance			
	Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Ring Sampler Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength, Qu, tsf	Standard Penetration or N-Value Blows/Ft.	Ring Sampler Blows/Ft.
	Very Loose	0 - 3	0 - 6	Very Soft	less than 0.25	0 - 1	< 3
	Loose	4 - 9	7 - 18	Soft	0.25 to 0.50	2 - 4	3 - 4
	Medium Dense	10 - 29	19 - 58	Medium-Stiff	0.50 to 1.00	4 - 8	5 - 9
	Dense	30 - 50	59 - 98	Stiff	1.00 to 2.00	8 - 15	10 - 18
	Very Dense	> 50	≥ 99	Very Stiff	2.00 to 4.00	15 - 30	19 - 42
				Hard	> 4.00	> 30	> 42

RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term(s) of other constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 15
With	15 - 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

<u>Major Component of Sample</u>	<u>Particle Size</u>
Boulders	Over 12 in. (300 mm)
Cobbles	12 in. to 3 in. (300mm to 75mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

<u>Descriptive Term(s) of other constituents</u>	<u>Percent of Dry Weight</u>
Trace	< 5
With	5 - 12
Modifier	> 12

PLASTICITY DESCRIPTION

<u>Term</u>	<u>Plasticity Index</u>
Non-plastic	0
Low	1 - 10
Medium	11 - 30
High	> 30

UNIFIED SOIL CLASSIFICATION SYSTEM

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A					Soil Classification	
					Group Symbol	Group Name ^B
Coarse Grained Soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels: Less than 5% fines ^C	Cu ≥ 4 and 1 ≤ Cc ≤ 3 ^E		GW	Well-graded gravel ^F
			Cu < 4 and/or 1 > Cc > 3 ^E		GP	Poorly graded gravel ^F
		Gravels with Fines: More than 12% fines ^C	Fines classify as ML or MH		GM	Silty gravel ^{F,G,H}
			Fines classify as CL or CH		GC	Clayey gravel ^{F,G,H}
	Sands: 50% or more of coarse fraction passes No. 4 sieve	Clean Sands: Less than 5% fines ^D	Cu ≥ 6 and 1 ≤ Cc ≤ 3 ^E		SW	Well-graded sand ^I
			Cu < 6 and/or 1 > Cc > 3 ^E		SP	Poorly graded sand ^I
		Sands with Fines: More than 12% fines ^D	Fines classify as ML or MH		SM	Silty sand ^{G,H,I}
			Fines classify as CL or CH		SC	Clayey sand ^{G,H,I}
Fine-Grained Soils: 50% or more passes the No. 200 sieve	Silts and Clays: Liquid limit less than 50	Inorganic:	PI > 7 and plots on or above “A” line ^J		CL	Lean clay ^{K,L,M}
			PI < 4 or plots below “A” line ^J		ML	Silt ^{K,L,M}
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay ^{K,L,M,N}
			Liquid limit - not dried			Organic silt ^{K,L,M,O}
	Silts and Clays: Liquid limit 50 or more	Inorganic:	PI plots on or above “A” line		CH	Fat clay ^{K,L,M}
			PI plots below “A” line		MH	Elastic Silt ^{K,L,M}
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay ^{K,L,M,P}
			Liquid limit - not dried			Organic silt ^{K,L,M,Q}
Highly organic soils:	Primarily organic matter, dark in color, and organic odor				PT	Peat

^A Based on the material passing the 3-inch (75-mm) sieve

^B If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^C Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay

$$^E Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^F If soil contains $\geq 15\%$ sand, add "with sand" to group name.

^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^H If fines are organic, add "with organic fines" to group name.

^I If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^L If soil contains $\geq 30\%$ plus No. 200 predominantly sand, add "sandy" to group name.

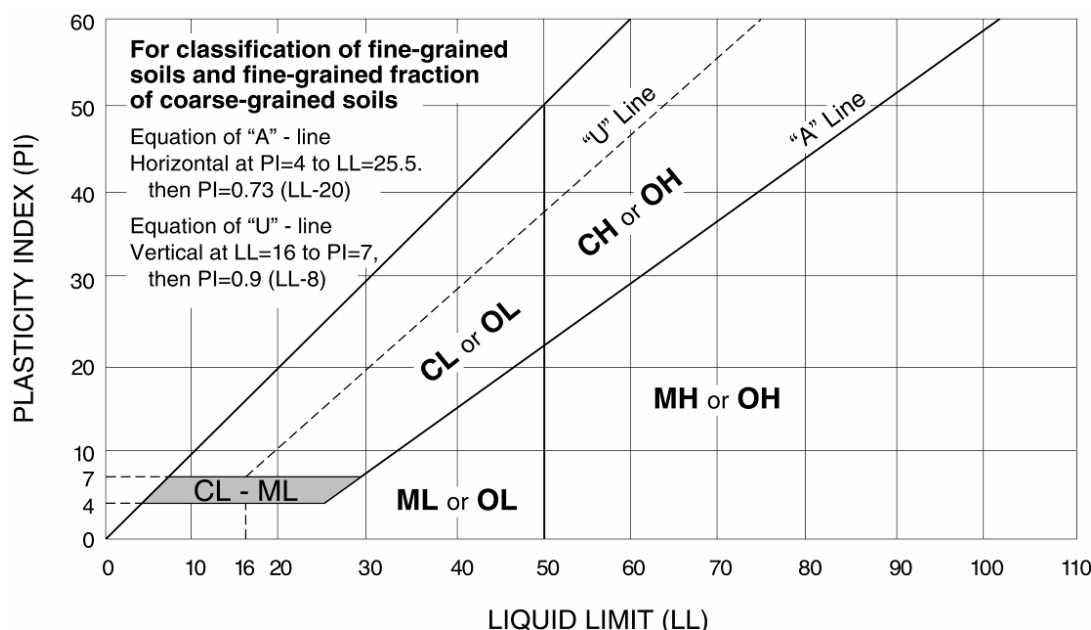
^M If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.



CPT GENERAL NOTES

DESCRIPTION OF MEASUREMENTS AND CALIBRATIONS

To be reported per ASTM D5778:

Uncorrected Tip Resistance, q_c
Measured force acting on the cone divided by the cone's projected area

Corrected Tip Resistance, q_t
Cone resistance corrected for porewater and net area ratio effects
 $q_t = q_c + U2(1 - a)$

Where a is the net area ratio, a lab calibration of the cone typically between 0.70 and 0.85

Pore Pressure, $U1/U2$

Pore pressure generated during penetration
 $U1$ - sensor on the face of the cone
 $U2$ - sensor on the shoulder (more common)

Sleeve Friction, f_s

Frictional force acting on the sleeve divided by its surface area

Normalized Friction Ratio, FR

The ratio as a percentage of f_s to q_t , accounting for overburden pressure

To be reported per ASTM D7400, if collected:

Shear Wave Velocity, V_s

Measured in a Seismic CPT and provides direct measure of soil stiffness

DESCRIPTION OF GEOTECHNICAL CORRELATIONS

Normalized Tip Resistance, Q_t

$$Q_t = (q_t - \sigma_{v0}) / \sigma'_{v0}$$

Over Consolidation Ratio, OCR

$$OCR(1) = 0.25(Q_t)^{1.25}$$

$$OCR(2) = 0.33(Q_t)$$

Undrained Shear Strength, S_u

$$S_u = Q_t \times \sigma'_{v0} / N_{60}$$

N_{60} is a geographical factor (shown on S_u plot)

Sensitivity, St

$$St = (q_t - \sigma_{v0} / N_{60}) \times (1 / fs)$$

Effective Friction Angle, ϕ'

$$\phi'(1) = \tan^{-1} [0.373 [\log(q_t / \sigma'_{v0}) + 0.29]]$$

$$\phi'(2) = 17.6 + 11 [\log(Q_t)]$$

Unit Weight

$$UW = (0.27 [\log(FR)] + 0.36 [\log(q_t / \text{atm})] + 1.236) \times UW_{\text{water}}$$

σ_{v0} is taken as the incremental sum of the unit weights

Small Strain Shear Modulus, G_0

$$G_0(1) = \rho V_s^2$$

$$G_0(2) = 0.015 \times 10^{(0.55k + 1.68)} (q_t - \sigma_{v0})$$

Soil Behavior Type Index, I_c

$$I_c = [(3.47 - \log(Q_t))^2 + (\log(FR) + 1.22)^2]^{0.5}$$

SPT N_{60}

$$N_{60} = (q_t / \text{atm}) / 10^{(1.1268 - 0.2817k)}$$

Elastic Modulus, E_s (assumes $q_t / q_{t, \text{ultimate}} \sim 0.3$, i.e. $FS = 3$)

$$E_s(1) = 2.6 \Psi G_0 \text{ where } \Psi = 0.56 - 0.33 \log Q_{t, \text{clean sand}}$$

$$E_s(2) = G_0$$

$$E_s(3) = 0.015 \times 10^{(0.55k + 1.68)} (q_t - \sigma_{v0})$$

$$E_s(4) = 2.5 q_t$$

Constrained Modulus, M

$$M = \alpha_M (q_t - \sigma_{v0})$$

For $I_c > 2.2$ (fine-grained soils)

$\alpha_M = Q_t$ with maximum of 14

For $I_c < 2.2$ (coarse-grained soils)

$$\alpha_M = 0.0188 \times 10^{(0.55k + 1.68)}$$

Hydraulic Conductivity, k

$$\text{For } 1.0 < I_c < 3.27 \quad k = 10^{(0.952 - 3.04k)}$$

$$\text{For } 3.27 < I_c < 4.0 \quad k = 10^{(-4.52 - 1.37k)}$$

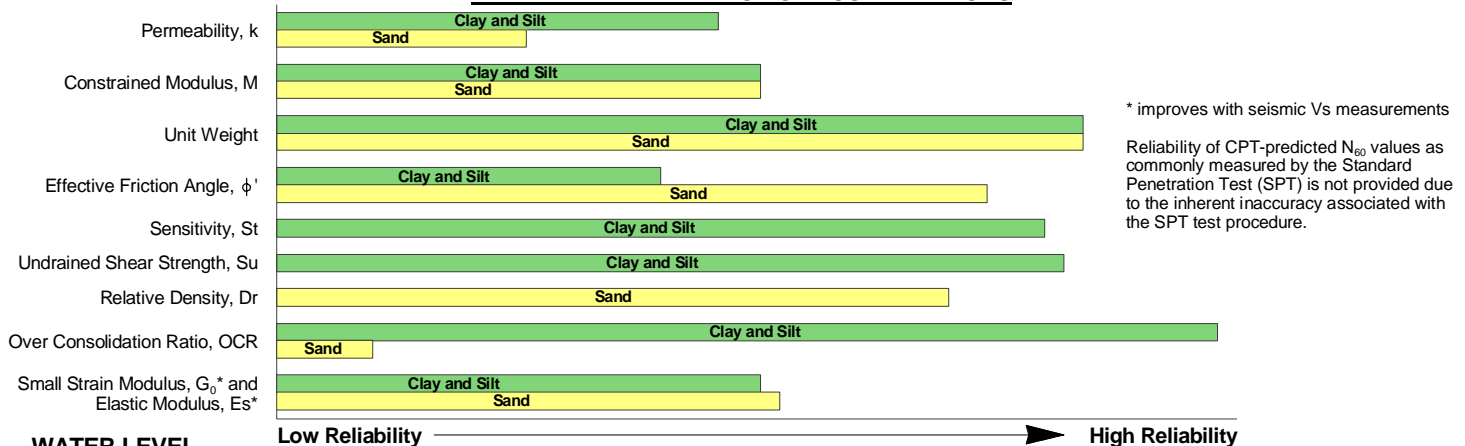
Relative Density, Dr

$$Dr = (Q_t / 350)^{0.5} \times 100$$

REPORTED PARAMETERS

CPT logs as provided, at a minimum, report the data as required by ASTM D5778 and ASTM D7400 (if applicable). This minimum data include tip resistance, sleeve resistance, and porewater pressure. Other correlated parameters may also be provided. These other correlated parameters are interpretations of the measured data based upon published and reliable references, but they do not necessarily represent the actual values that would be derived from direct testing to determine the various parameters. The following chart illustrates estimates of reliability associated with correlated parameters based upon the literature referenced below.

RELATIVE RELIABILITY OF CPT CORRELATIONS



WATER LEVEL

The groundwater level at the CPT location is used to normalize the measurements for vertical overburden pressures and as a result influences the normalized soil behavior type classification and correlated soil parameters. The water level may either be "measured" or "estimated."

Measured - Depth to water directly measured in the field

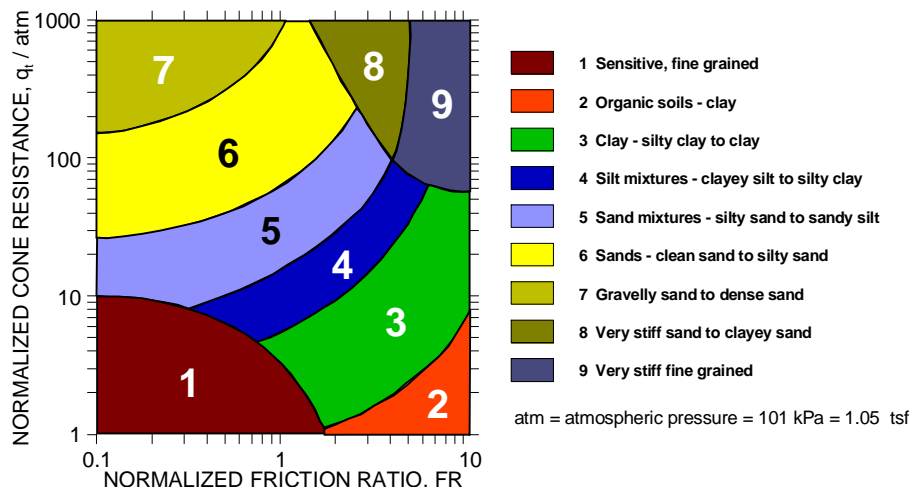
Estimated - Depth to water interpolated by the practitioner using pore pressure measurements in coarse grained soils and known site conditions

While groundwater levels displayed as "measured" more accurately represent site conditions at the time of testing than those "estimated," in either case the groundwater should be further defined prior to construction as groundwater level variations will occur over time.

CONE PENETRATION SOIL BEHAVIOR TYPE

The estimated stratigraphic profiles included in the CPT logs are based on relationships between corrected tip resistance (q_t), friction resistance (f_s), and porewater pressure ($U2$). The normalized friction ratio (FR) is used to classify the soil behavior type.

Typically, silts and clays have high FR values and generate large excess penetration porewater pressures; sands have lower FR s and do not generate excess penetration porewater pressures. Negative pore pressure measurements are indicative of fissured fine-grained material. The adjacent graph (Robertson et al.) presents the soil behavior type correlation used for the logs. This normalized SBT chart, generally considered the most reliable, does not use pore pressure to determine SBT due to its lack of repeatability in onshore CPTs.



REFERENCES

- Kulhavy, F.H., Mayne, P.W., (1997). "Manual on Estimating Soil Properties for Foundation Design," Electric Power Research Institute, Palo Alto, CA.
- Mayne, P.W., (2013). "Geotechnical Site Exploration in the Year 2013," Georgia Institute of Technology, Atlanta, GA.
- Robertson, P.K., Cabal, K.L. (2012). "Guide to Cone Penetration Testing for Geotechnical Engineering," Signal Hill, CA.
- Schmertmann, J.H., (1970). "Static Cone to Compute Static Settlement over Sand," *Journal of the Soil Mechanics and Foundations Division*, 96(SM3), 1011-1043.

ATTACHMENT 19:

Educational and Cultural Facilities

PUBLIC EDUCATION CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or landmark: Commerce Avenue

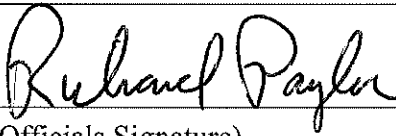
The above project, which is located in the Carteret County Public school district(s), will ☐ will not ☒ adversely affect the schools serving this project. Furthermore, schools located in this district are ☐ are not ☒ considered high risk or poor performing schools per state or federal performance standards.

The schools that will serve project are: Morehead City Primary School, Morehead City Elementary School, Morehead City Middle School, West Carteret High School

Additional Comments/Conditions/Concerns The project could have an adverse affect on these schools' capacities, but not environmentally.

March 7, 2023

Date


(Officials Signature)

Richard Paylor

(Officials Name – Print or Type)

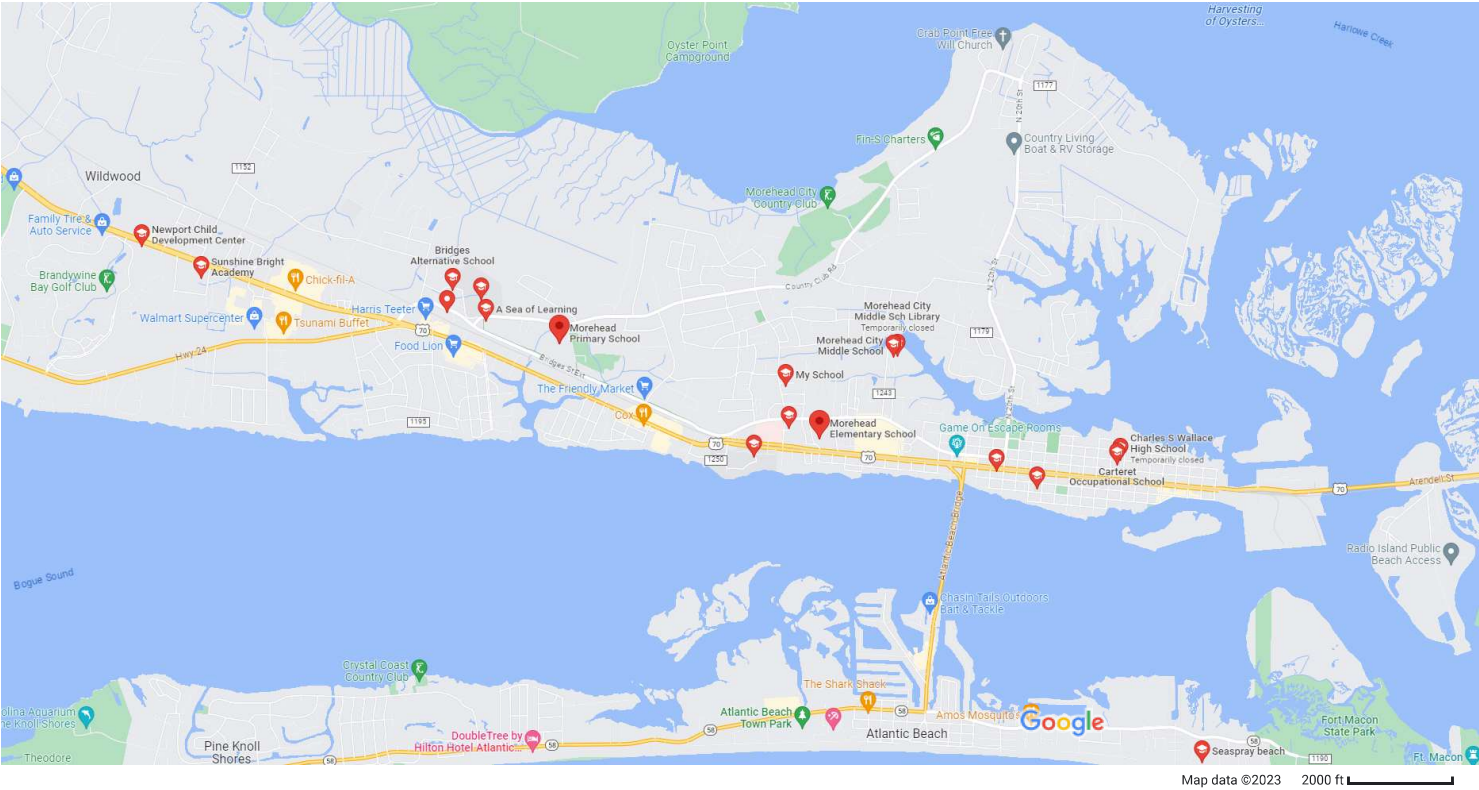
Superintendent

(Official's Title)

Carteret County Public Schools

(Department Name)

Note: Copying official letterhead onto this certification is encouraged.



Hours

All filters

Morehead Primary School

4.6 (15)

Elementary school · 4409 Country Club Rd

Open 24 hours · (252) 247-2448



Website



Directions

Morehead Elementary School

5.0 (3)

Elementary school · 3316 Arendell St

Closes soon · 3 PM · Opens 7:30 AM Thu · (252) 726-1131



Directions

Bridges Alternative School

No reviews

Elementary school · 140 Vashti Dr

Open 24 hours · (252) 808-3040



Directions

Camp Glenn Elementary School

No reviews

Elementary school



Directions

My School

No reviews

Elementary school · 3415 Eaton Dr

Open · Closes 6 PM · (252) 247-2276



Website



Directions

A Sea of Learning

No reviews

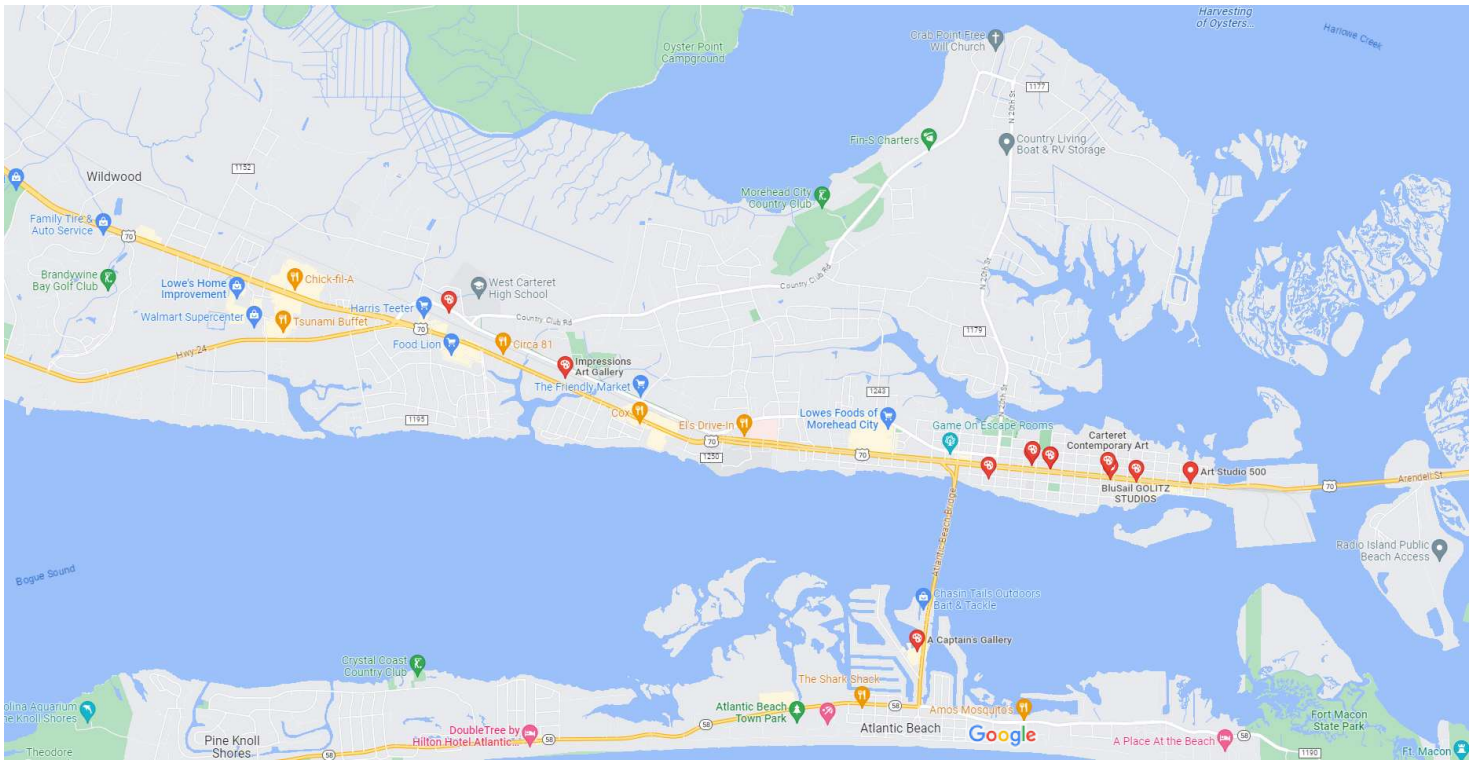
School · 4723 Country Club Rd



Website



Directions



Map data ©2023 2000 ft

Rating Hours All filters

Carolina Artist Gallery

4.9 (19)
Art gallery · 1702 Arendell St
Open · Closes 5 PM



"Quaint little gallery with art from very talented local artists"

Carteret Contemporary Art

5.0 (3)
Art gallery · 1106 Arendell St



Impressions Art Gallery

5.0 (1)
Art gallery · 4426 Arendell St
Closed · Opens 11 AM Thu



A Captain's Gallery

5.0 (4)
Art gallery · 407-14 Atlantic Beach Causeway
Closed · Opens 11 AM Fri



"Visited A Captain's Gallery today, cool swordfish bill art work!"

Guppy's Gallery

5.0 (1)
Art gallery · 105 Wayne Dr

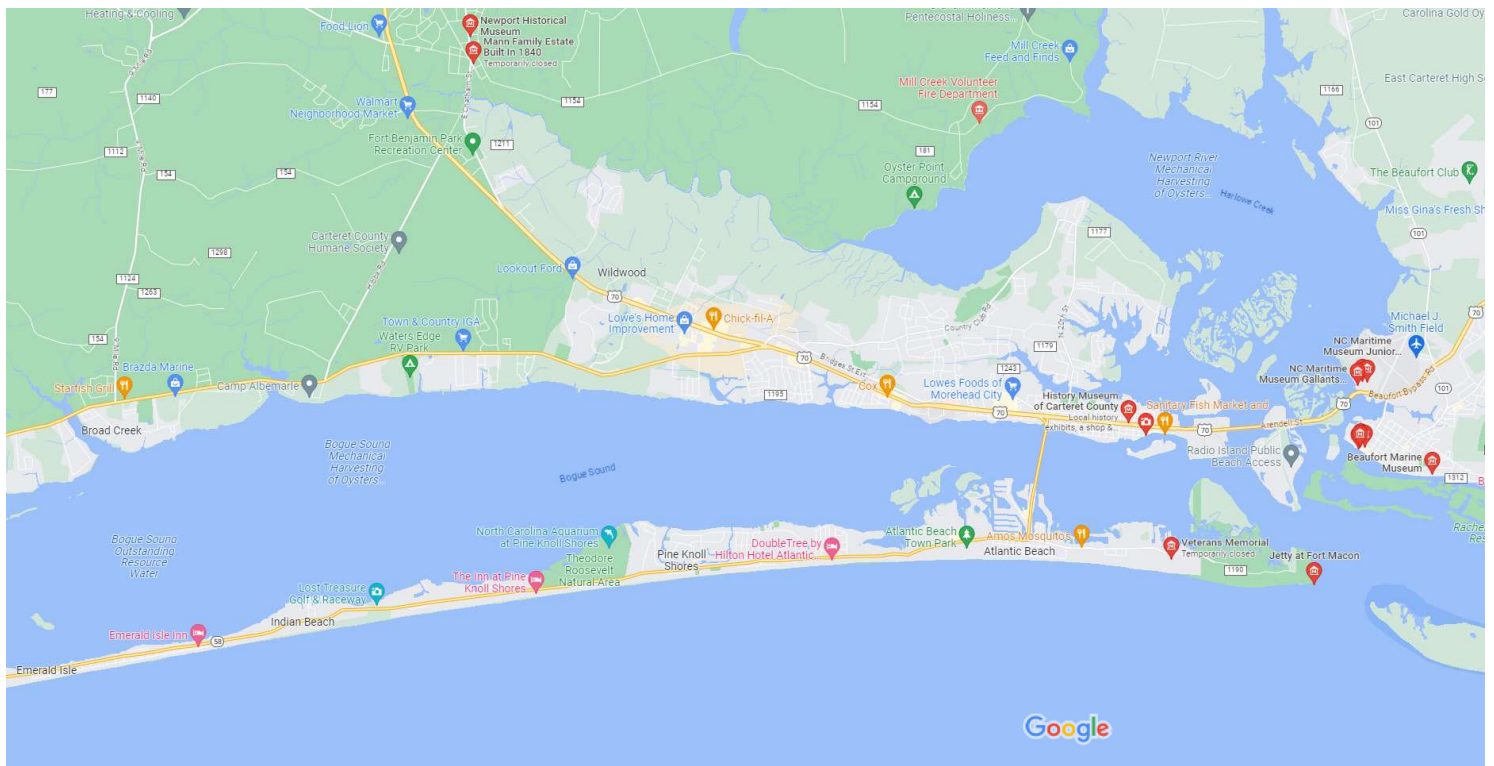


SALT Studio and Gallery

4.5 (2)
Art gallery · 1512 Arendell St
Open · Closes 5 PM



Museums



Map data ©2023 Google 1 mi

Rating Hours All filters

History Museum of Carteret County

4.4 (63)

Museum · 1008 Arendell St

Local history exhibits, a shop & a cafe

Open · Closes 4 PM

"Small, but nice little museum."



Newport Historical Museum

2.0 (3)

Museum · 220 Chatham St

Open · Closes 5 PM



North Carolina Maritime Museum in Beaufort

4.8 (353)

Museum · 315 Front St

Exhibits on pirates, marine life & more

Open · Closes 5 PM

"This museum is a great 'must see' resource."

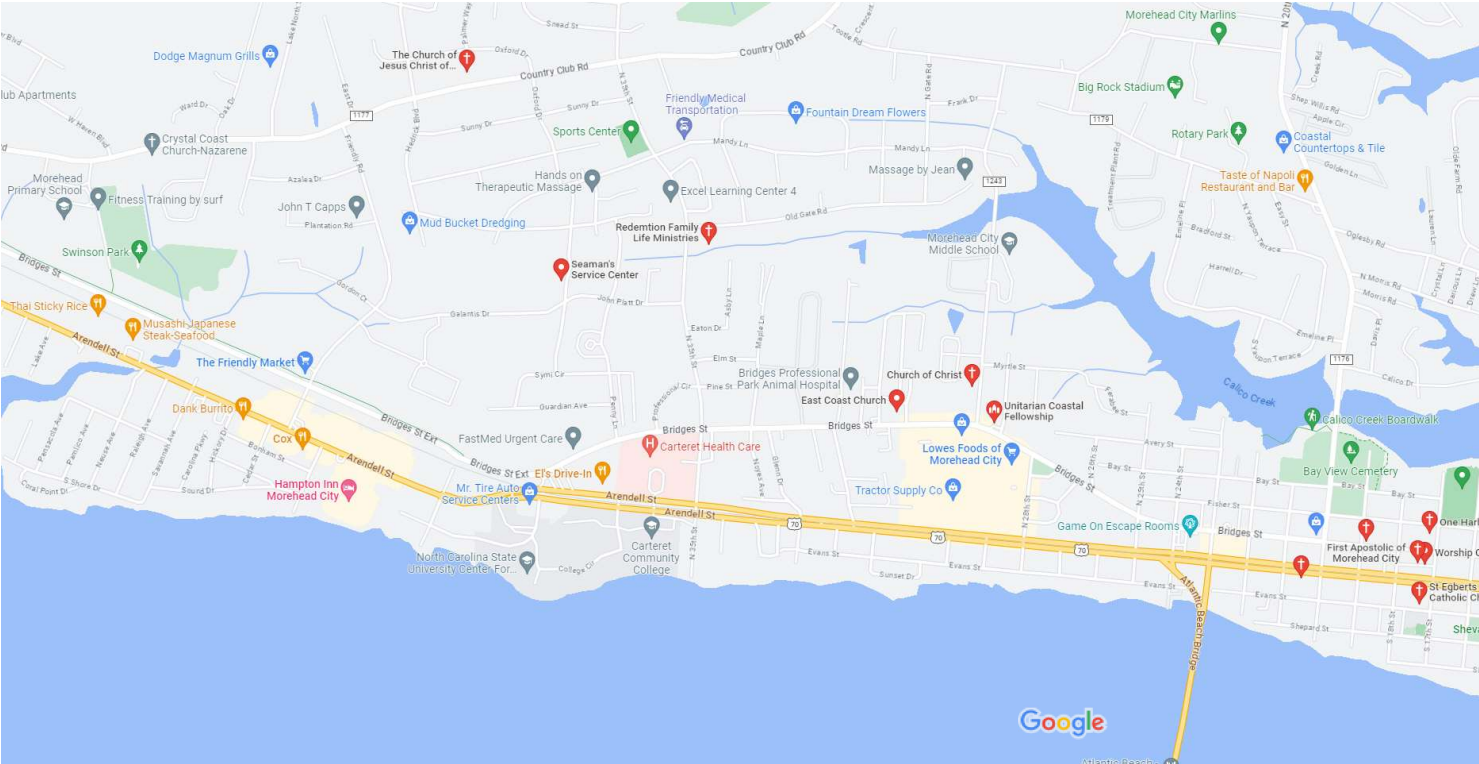


NC Maritime Museum Gallants Channel Annex

4.6 (12)

Museum · 293 W Beaufort Rd Ext





Map data ©2023 1000 ft

Rating Hours All filters

Church of Christ

4.9 (7)
Church · 209 Barbour Rd
Closed · Opens 7:30 PM



The Church of Jesus Christ of Latter-day Saints

4.7 (12)
Christian church · 3606 Country Club Rd
Open · Closes 6 PM



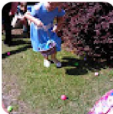
Redemption Family Life Ministries

No reviews
Church · e, 534 N 35th St



St Andrews Episcopal Church

4.7 (19)
Episcopal church · 2005 Arendell St
Open 24 hours



First Apostolic of Morehead City

5.0 (7)
Apostolic church · 1812 Bridges St
Closed · Opens 7:30 PM

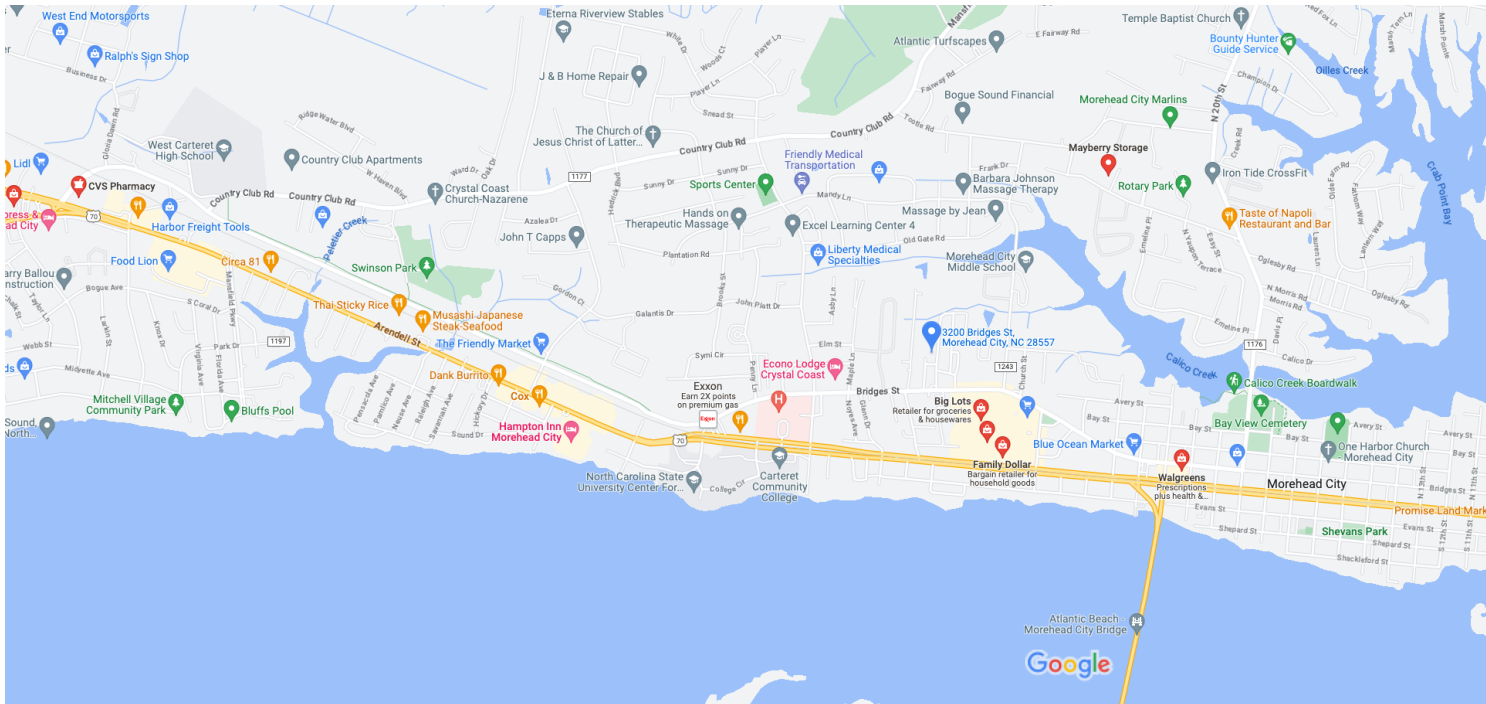


"You can feel the love I love this church n everyone in it."

ATTACHMENT 20:

Commercial Facilities

commercial facilities



Map data ©2023 1000 ft

Atlantic Coast Cleaning, LLC

5.0 (14)
Commercial cleaning service · 5302
Hwy 70 W
Open · Closes 5 PM · (252) 777-4900



Website



Directions

NC Trident Group, Inc.

3.0 (2)
Property management company ·
6600 US-70
Open now · (252) 764-2337



Website



Directions

Mayberry Storage

4.7 (3)
Storage facility · 2404 Mayberry Loop Rd
Open 24 hours · (252) 726-2138



Directions

Tractor Supply Co.

4.6 (498) · \$\$
Home improvement store · 2900
Arendell St
Retailer for rural & agricultural needs
Open · Closes 9 PM · (252) 222-3321
In-store shopping · Curbside pickup · Delivery



Website



Directions

Lowe's Home Improvement

4.1 (1,637) · \$
Home improvement store · 5219
Hwy 70 W
Home improvement & hardware
retailer
Open · Closes 9 PM · (252) 727-5011
In-store shopping · Curbside pickup · Delivery



Website



Directions

ATTACHMENT 21:

Health Care and Social Services

HEALTH SERVICES CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or landmark: Commerce Avenue

Adequate and appropriate Health Services are ☐ are not ☒ available for this project
Furthermore, available Health Services will ☐ will not ☒ be adversely affected
by this project.

Health Service/Provider organizations that may serve the project
are: _____

Additional
Comments/Conditions/Concerns _____

3/7/23
Date

[Signature]
(Officials Signature)

Rashid Williams
(Officials Name - Print or Type)

Director Consolidated Health Services
(Official's Title)

Consolidated Health Services
(Department Name)

Note: Copying official letterhead onto this certification is encouraged.

SOCIAL SERVICES CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or landmark: Commerce Avenue

Adequate and appropriate Social Services are ☐ are not ☒ available for this project
Furthermore, available Social Services will ☐ will not ☒ be adversely affected
by this project.

Social organizations that may serve the project are: _____

Additional
Comments/Conditions/Concerns _____

3/7/23
Date

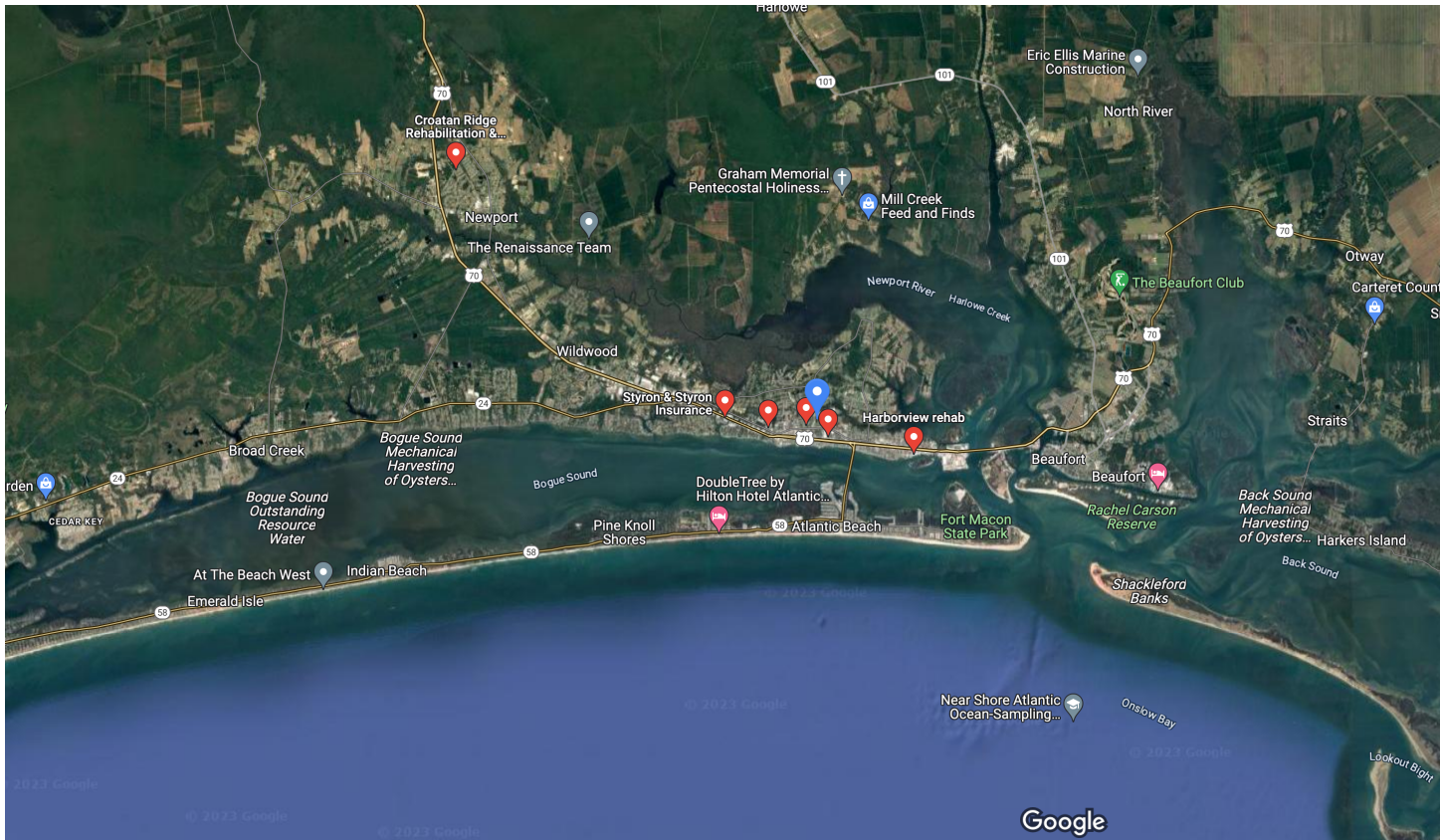
[Signature]
(Officials Signature)

RANDALL WILKINS
(Officials Name - Print or Type)

DIRECTOR CONSOLIDATED HUMAN SERVICES
(Official's Title)

CONSOLIDATED HUMAN SERVICES
(Department Name)

Note: Copying official letterhead onto this certification is encouraged.



Imagery ©2023 TerraMetrics, Map data ©2023 2 mi

Rating

Hours

All filters

Crystal Bluffs Rehabilitation and Health Care Center

3.7 (12)

Rehabilitation center · 4010 Bridges St

Open 24 hours · (252) 726-0031

Website

Directions

Harborview rehab

4.0 (4)

Nursing home · 812 Shepard St

Closes soon · 5 PM · Opens 8 AM Wed · (252) 726-6855

"If I need this type of care or therapy again, I'll be going back to ..."

Directions

Le Chris Counseling Services Inc

1.6 (10)

Mental health service · 3332 Bridges St

Closes soon · 5 PM · Opens 8:30 AM Wed · (252) 726-9006

Website

Directions

Maxim Healthcare Services

4.0 (27)

Home health care service · 2900 Arendell St Unit 20

Closes soon · 5 PM · Opens 8 AM Wed · (252) 726-8746

Website

Directions

https://www.google.com/maps/search/healthcare+and+social+services/@34.7288915,-76.7795286,26261m/data=!3m1!1e3!4m8!2m7!3m6!1shealthcare+and+social+... 1/1

ATTACHMENT 22:

Solid Waste Disposal/ Recycling



SOLID WASTE REMOVAL CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina
Closest street intersection or landmark: Commerce Avenue

Solid Waste disposal for the above project can be adequately handled by public ☒ or private collectors ☒ without adversely affecting landfill capacity, ; or Solid Waste disposal is limited ☒ due to the unavailability of collectors ☒ or adequate landfill capacity ☒.

Additional
Comments/Conditions/Concerns
dumpsters.

will be serviced through private

3-22-23

Date

(Official's Signature)

Daniel K. Wilkerson
(Official's Name - Print or Type)

Public Services Director
(Official's Title)

Public Services
(Department Name)

Waste Removal, LLC
PO Box 175
Morehead City, NC 28557
(252) 499-9710
accounting@wasteremovalnc.com
www.wasteremovalnc.com



SOLID WASTE REMOVAL CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina
Closest street intersection or landmark: Commerce Avenue

Solid Waste disposal for the above project can be adequately handled by public ☐ or private collectors ☒ without adversely affecting landfill capacity; or Solid Waste disposal is limited ☐ due to the unavailability of collectors ☐ or adequate landfill capacity ☐

Additional
Comments/Conditions/Concerns _____

3/21/2023 Lisa M. Zundel
Date (Officials Signature)
Lisa M. Zundel
(Officials Name - Print or Type)
Office Administrator
(Official's Title)

(Department Name)

ATTACHMENT 23:

Public Sewer and Water Certifications



PUBLIC SEWER CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or landmark: Commerce Avenue

Public Sewer is available and adequate ☒ or is not available ☐ to serve the above project. The closest tap is a 8 inch line located about 0 feet off-site. (on site)
This line is approximately feet deep. This will be a gravity flow system ☒ ; a lift station will be required ☒ or will not be required ☐
Location of line: At Development. Sewer line is part of project.

Additional
Comments/Conditions/Concerns

March 17 2023

Date

[Signature]

(Official's Signature)

Daniel K. Williams

(Official's Name - Print or Type)

Public Services Director

(Official's Title)

Public Services

(Department Name)



PUBLIC WATER CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina
Closest street intersection or landmark: Commerce Avenue

Public Water is available and adequate ☒ or is not available ☐ to serve the above project. The closest tap is a 8 inch line located about 0 feet off-site. (at street) Bridges
Location of line: Runs through development - Part of development

Additional
Comments/Conditions/Concerns

March 17, 2023
Date

[Signature]
(Officials Signature)

Daniel K. Williams
(Officials Name - Print or Type)

Public Services Director
(Official's Title)

Public Services
(Department Name)

ATTACHMENT 24:

Public Safety – Police, Fire and Emergency Medical



MOREHEAD CITY POLICE DEPARTMENT



Chief Bryan Dixon

300 North 12th Street | Morehead City, North Carolina 28557
Phone (252) 726-3131 | www.moreheadcitync.org

LAW ENFORCEMENT CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of
Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or
landmark: Commerce Avenue

Police Service is available and adequate ☒ for the project as the average response time of 1.5 - 3 minutes falls within the average community response time of 1.5 - 3 minutes; or
adequate Police Service is not available ☐ for the project. Furthermore, available Police
Service will ☐ will not ☒ be adversely affected by the project.

Additional
Comments/Conditions/Concerns The above responses are made contingent upon
further development and population increases within the City concurrent with official workload
assessment findings.

12/30/22
Date

(Official's Signature)

Bryan Dixon
(Officials Name – Print or Type)

Chief of Police
(Official's Title)

The Morehead City Police Department
(Department Name)



Morehead City Fire-EMS Department

Jon C. Wade

Fire/EMS Chief

Courtney.wade@moreheadcitync.org

4034 Arendell Street
Morehead City, NC 28557

"COMMUNITY BEFORE SELF"

Phone (252) 726-5040 ext. 201

Fax (252) 240-0480

FIRE PROTECTION CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or landmark: Commerce Avenue

Fire Protection is available and adequate ☒ for the project as the average response time of 5.30 minutes falls within the average community response time of 6.41 min minutes; or adequate Fire Protection is not available ☐ for the project. Furthermore, available Fire Protection will ☐ will not ☒ be adversely affected by the project.

Additional Comments/Conditions/Concerns ISO Class 3
(Times are Avg. from 911 call received to Arrival)

12-28-2022

Date

[Signature]
(Official's Signature)

Jon C. Wade
(Official's Name – Print or Type)

Fire & Ems Chief
(Official's Title)

Morehead City Fire & Ems
(Department Name)



Morehead City Fire-EMS Department

Jon C. Wade

Fire/EMS Chief

Courtney.wade@moreheadcitync.org

4034 Arendell Street
Morehead City, NC 28557

"COMMUNITY BEFORE SELF"

Phone (252) 726-5040 ext. 201

Fax (252) 240-0480

EMERGENCY MEDICAL SERVICE CERTIFICATION

Project Name: Elijah's Landing Apartments

Proposed No. of Units: 168 Residential Units

Address: 3140 and 3200 Bridges Street,

Morehead City, Carteret County, North Carolina

Closest street intersection or landmark: Commerce Avenue

Emergency Medical Service is available and adequate ☒ for the project as the average response time of 5.30 minutes falls within the average community response time of 6.41 minutes; or adequate Emergency Medical Service is not available ☐ for the project. Furthermore, available Emergency Medical Service will ☐ will not ☒ be adversely affected by the project.

Additional Comments/Conditions/Concerns Advanced Life Support Service
(Times are Avg. from 911 call received to Arrival)

12-28-2022

Date

Jon C. Wade
(Officials Signature)

Jon C. Wade
(Officials Name – Print or Type)

Fire & Ems Chief
(Official's Title)

Morehead City Fire & Ems
(Department Name)

ATTACHMENT 25:

Parks, Open Space and Recreation

RECREATIONAL SERVICES CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina

Closest street intersection or
landmark: Commerce Avenue

Adequate and appropriate Recreational Services and Facilities are ☒ are not ☐ available
for this project. Furthermore, available Recreational Services and Facilities will ☐ will
not ☒ be adversely affected by this project.

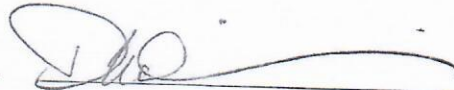
Recreational facilities and organization that may serve the project
are:

Additional
Comments/Conditions/Concerns
Area and GreenSpace.

There is an onsite Recreational

3-22-23

Date



(Official's Signature)

Daniel K. Williams

(Official's Name - Print or Type)

Public Services Director

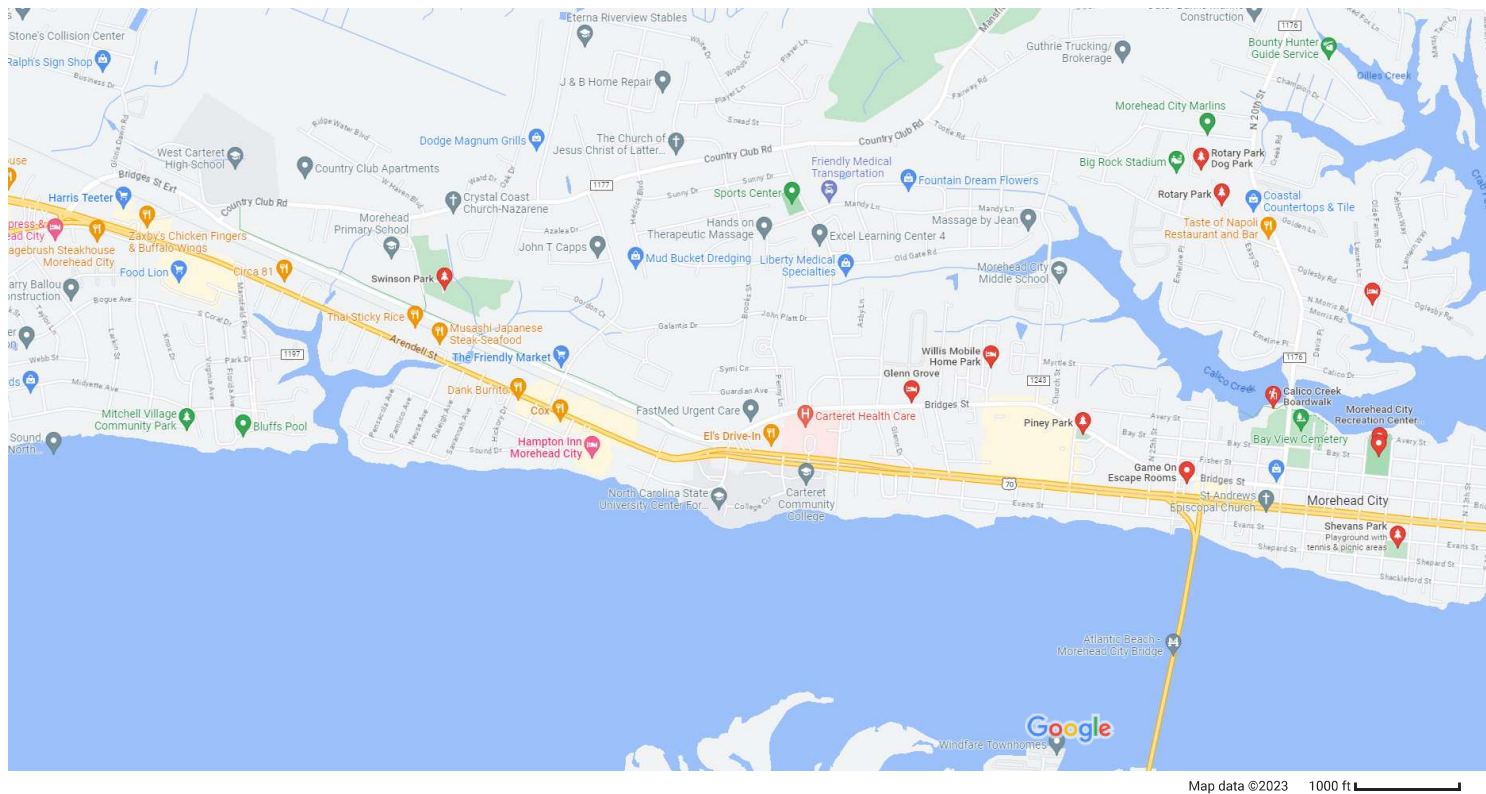
(Official's Title)

Public Services

(Department Name)

Note: Copying official letterhead onto this certification is encouraged.

parks



Rating Hours All filters

Swinson Park
4.7 (231)
Park · 173 Swinson Park Rd
Open · Closes 7:30 PM



"Beautiful parks and well kept recreational fields."

Shevans Park
4.7 (454)
Park · 1501 Evans St
Playground with tennis & picnic areas
Open · Closes 8 PM



"One of the best parks in the state"

Rotary Park
4.6 (110)
Park · 2200 Mayberry Loop Rd
Open · Closes 9 PM



"Nice park, and the up keep is excellent!!!"

Piney Park
3.8 (12)
Park · 2717 Bridges St



Morehead City Parks & Recreation Department
4.4 (82)
Park · 1600 Fisher St



ATTACHMENT 26:

Transportation and Accessibility

PUBLIC TRANSPORTATION CERTIFICATION

Project Name: Elijah's Landing Apartments
Proposed No. of Units: 168 Residential Units
Address: 3140 and 3200 Bridges Street,
Morehead City, Carteret County, North Carolina
Closest street intersection or landmark: Commerce Avenue

Public transportation is ☒ or is not available ☐ to serve the above project.
If available, Public transportation includes: bus ☒ train ☐ cab ☐ other ☐

Additional Comments/Conditions/Concerns Carteret County Area Transportation System (CCATS)
is a demand response transportation service that is open to members of the public.

3/16/2023

Date

Patrick Flanagan
(Officials Signature)

Patrick Flanagan
(Officials Name – Print or Type)

Transportation Services Director
(Official's Title)

Carteret County Area Transportation System (CCATS)
(Department Name)

Note: Copying official letterhead onto this certification is encouraged.



Carteret County Area Transportation System
5231 Business Dr.
Newport, NC 28570
(252) 240-1043



CCATS Brochures

[CCATS Home Page](#)

CCATS Information & Rates Brochures

- [Downtown And Around](#)
- [Main Brochure](#)

The Carteret County Area Transportation System is an accessible public transportation service for all residents and guests of Carteret County. It is authorized by the Board of Commissioners of Carteret County.

Transportation for:

- ✓ Employees to and from work
- ✓ Shopping trips for seniors, residents and guests.
- ✓ Service to and from all areas of Carteret County
- ✓ Carteret Community College
- ✓ Non-emergency medical transportation
- ✓ Beaches, Museums, Parks, Aquarium and other points of interest
- ✓ Limited out-of-county service for non-emergency medical appointments.

**Main Number
252-240-1043**

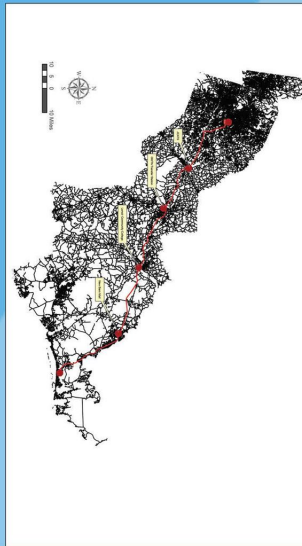
- Option 1 To cancel a trip
- Option 2 Dispatch/Questions about a reserved trip and Downtown and Around
- Option 3 Schedule a new trip
- Option 4 Lead Dispatcher
- Option 5 Operations Manager-Medicaid trips and billing questions call 252-648-7879

**Fax Number
252-240-2513**



CCATS offers daily service to the Raleigh/Durham area with stops in the six counties on the way.

For more information and to make a reservation call 252-648-7879.




252-240-1043

**ANYONE
CAN RIDE**



FIND US:
www.rideccats.com

 [CarteretCountyPublicTransit](https://www.facebook.com/CarteretCountyPublicTransit)

CCATS service is address to address;
we require a 24-hour advanced reservation.

Rates

County Limits*

Havelock	\$ 20
New Bern	\$ 40
Pollocksville	\$ 45
Jacksonville	\$ 50
Greenville	\$ 80
Wilmington	\$100

From To	Cape Carteret / Emerald Isle	Newport City	Morehead City	Beaufort	Merrimon	Smyrna	Atlantic	Cedar Island
Cape Carteret / Emerald Isle	\$3.00	\$4.00	\$4.00	\$5.00	\$6.00	\$6.00	\$7.00	\$7.00
Newport City	\$4.00	\$3.00	\$3.00	\$4.00	\$5.00	\$5.00	\$6.00	\$7.00
Morehead City	\$4.00	\$3.00	\$3.00	\$4.00	\$5.00	\$5.00	\$6.00	\$6.00
Beaufort	\$5.00	\$4.00	\$4.00	\$3.00	\$4.00	\$4.00	\$5.00	\$6.00
Merrimon	\$6.00	\$5.00	\$5.00	\$4.00	\$3.00	\$3.00	\$4.00	\$5.00
Smyrna	\$6.00	\$5.00	\$5.00	\$4.00	\$3.00	\$3.00	\$4.00	\$4.00
Atlantic	\$7.00	\$6.00	\$6.00	\$5.00	\$5.00	\$4.00	\$3.00	\$3.00
Cedar Island	\$7.00	\$7.00	\$6.00	\$6.00	\$5.00	\$4.00	\$3.00	\$3.00

Key Notes

- 1) In-county transportation must be scheduled by 11:00 am the previous business day.
- 2) All out-of-county transportation must be scheduled at least 24-hours in advance.
- 3) We accept cash or check only. Our drivers do not make change; checks are made payable to Carteret County Transit.
- 4) Prices are per person each way; children 12 years and under ride for free with a full fare paying adult. Children must be 15 or older to ride unaccompanied.
- 5) Age appropriate child safety seat must be provided by the passenger.
- 6) We are a curb-to-curb transportation service provider; for liability reasons, we do not enter the home.
- 7) Profanity or inappropriate language, eating, drinking or the use of tobacco products and carrying weapons are not permitted.
- 8) We provide transportation only. If a caregiver is needed, one must be provided by the passenger.

Things to Know

Carteret County Transit is Your Transit System and is here to serve the transportation needs of all citizens of the county.

Whether it's shopping, socializing or getting to work, we're here to help.

CCATS is proud to have ADA Accessible Vehicles.

We have also gone green as well. Our vehicles have been propane converted and are environmentally friendly.



Carteret County Transit is operated and funded through Carteret County, the North Carolina Department of Transportation, and the Federal Transportation Administration, along with revenues and contributions collected by the system. Cost of a trip is based on your location and destination. Carteret County Transit is available to all citizens and guests of Carteret County.

CCATS Title VI Policy Statement

It is the policy of CCATS to ensure compliance with Title VI of the Civil Rights Act of 1964; 49 CFR, Part 21; related statutes and regulations that ensure no person in the United States shall, on the grounds of race, color, sex, age, national origin, or disability, be excluded from participation in, or be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance from the United States Department of Transportation. For more information or to file a complaint you may contact us by mail, telephone, or email. Complaints must be filed in writing or in person no later than 180 days after the alleged act of discrimination occurred.

Any person who believes he or she has been discriminated against should contact:
CCATS Director
5231 Business Drive
Newport, NC 28570

For the hearing impaired, call:
1-800-735-2962 TTY
1-800-735-8262 Voice

Contact Us

Carteret County Area
Transportation
5231 Business Drive
Newport, NC 28570

Phone: 252-240-1043
More contact info »

[Site Map](#) [Accessibility](#) [Copyright Notices](#) [Privacy Policy](#)
[Government Websites by CivicPlus®](#)

ATTACHMENT 27:

Climate Change

EJScreen

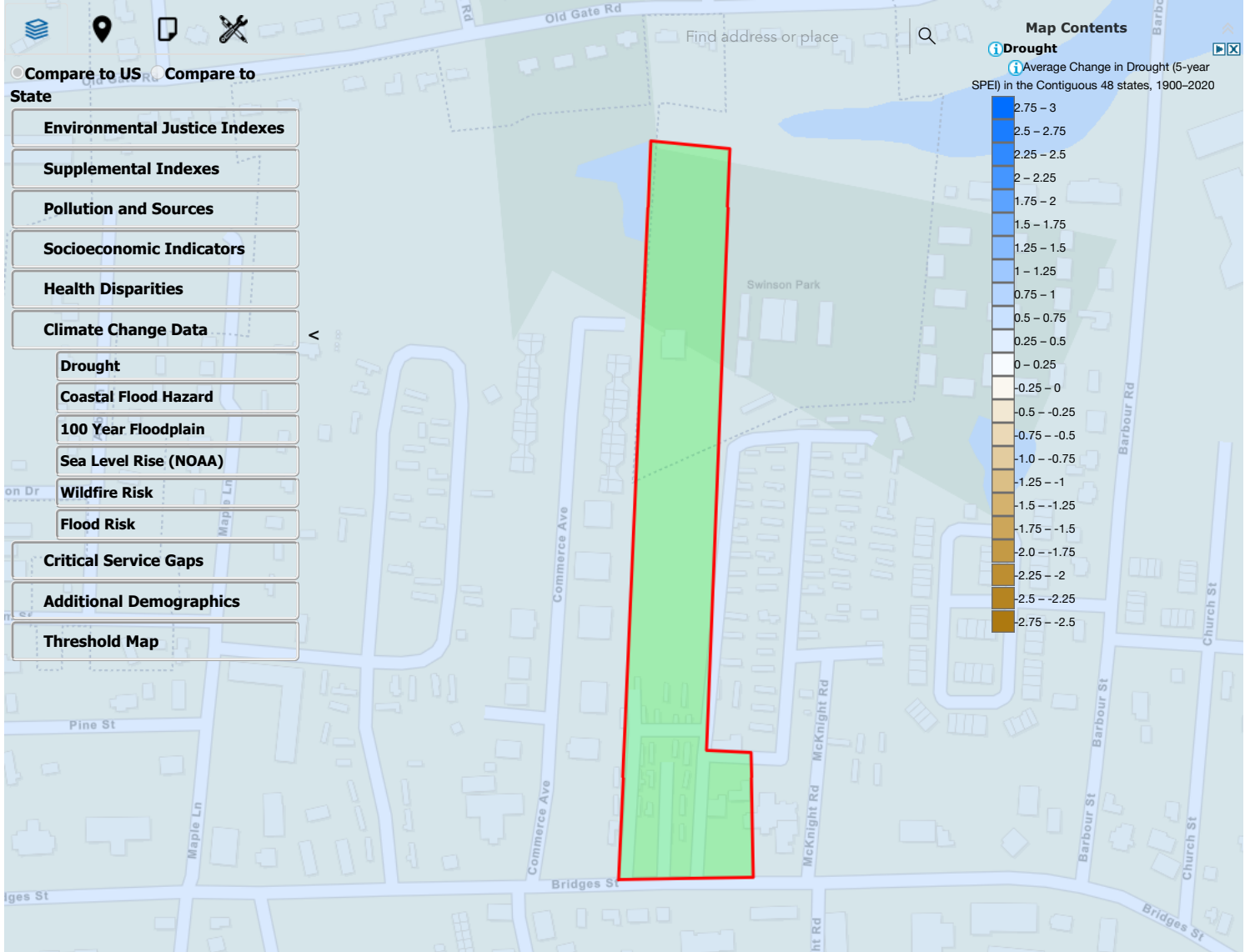
EPA's Environmental Justice Screening and Mapping Tool (Version 2.11)

EJScreen Website (<https://www.epa.gov/ejscreen/>)

Mobile ([mobile/index.html](https://www.epa.gov/ejscreen/mobile/index.html))

Glos...

Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the

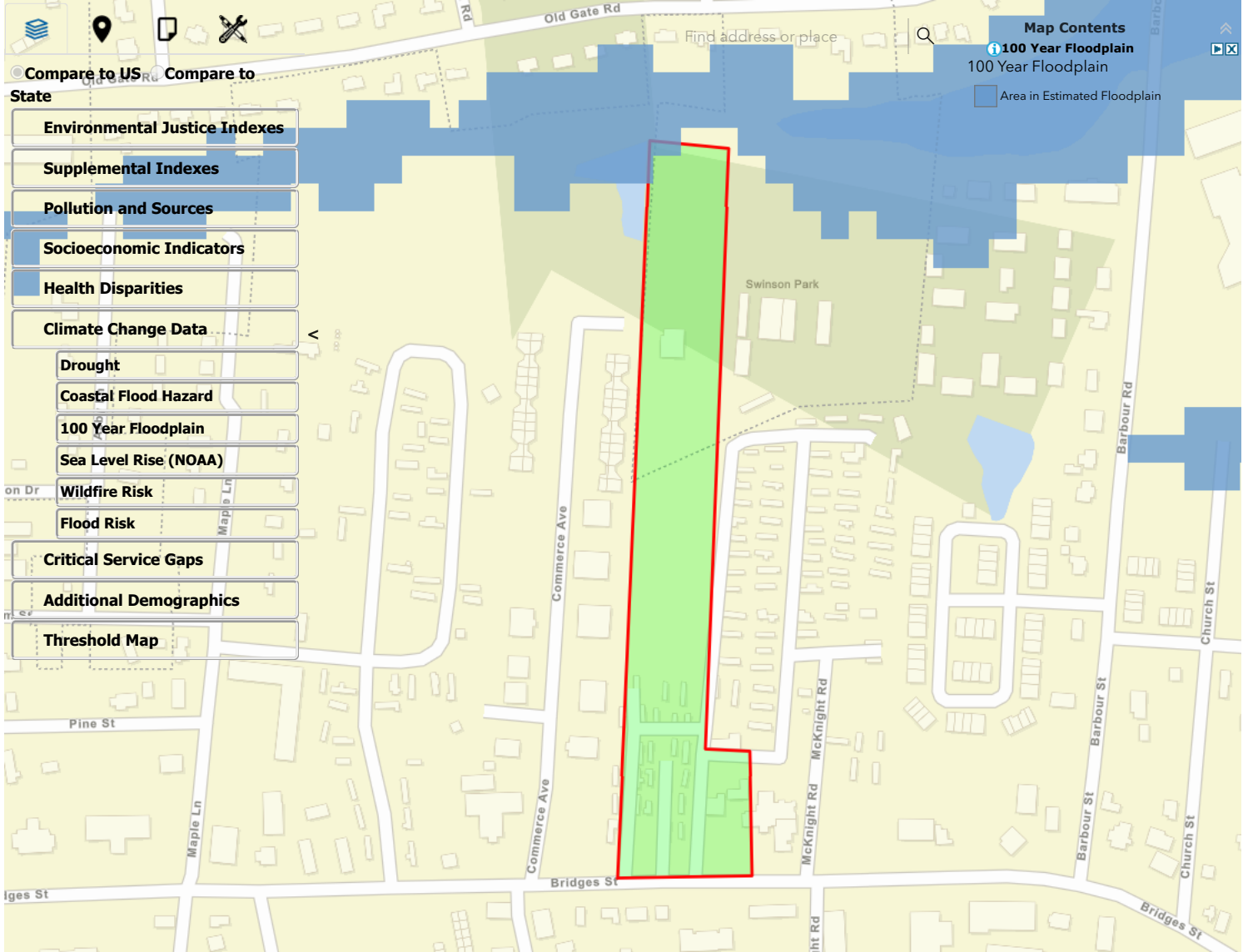


EJScreen

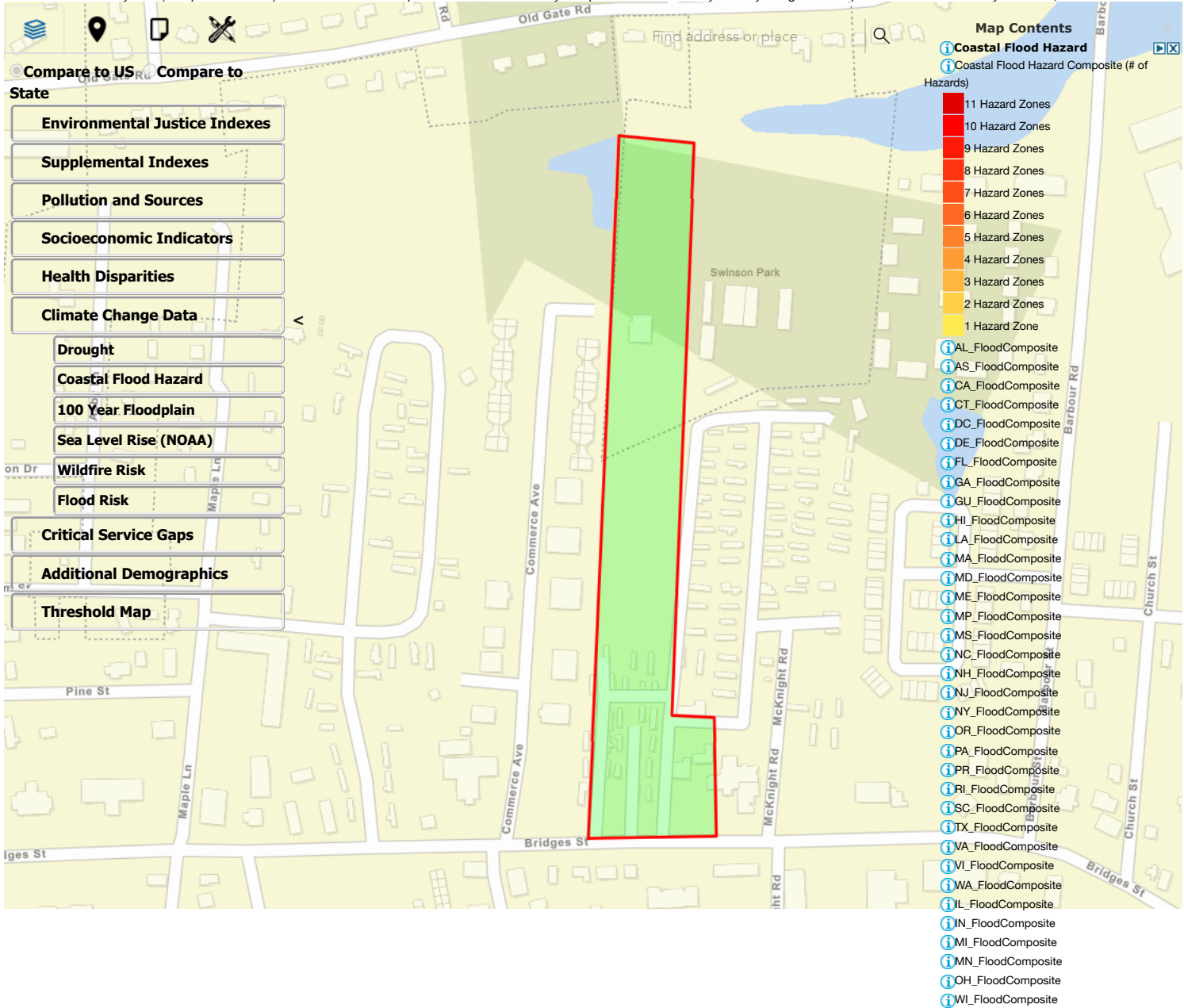
EPA's Environmental Justice Screening and Mapping Tool (Version 2.11)

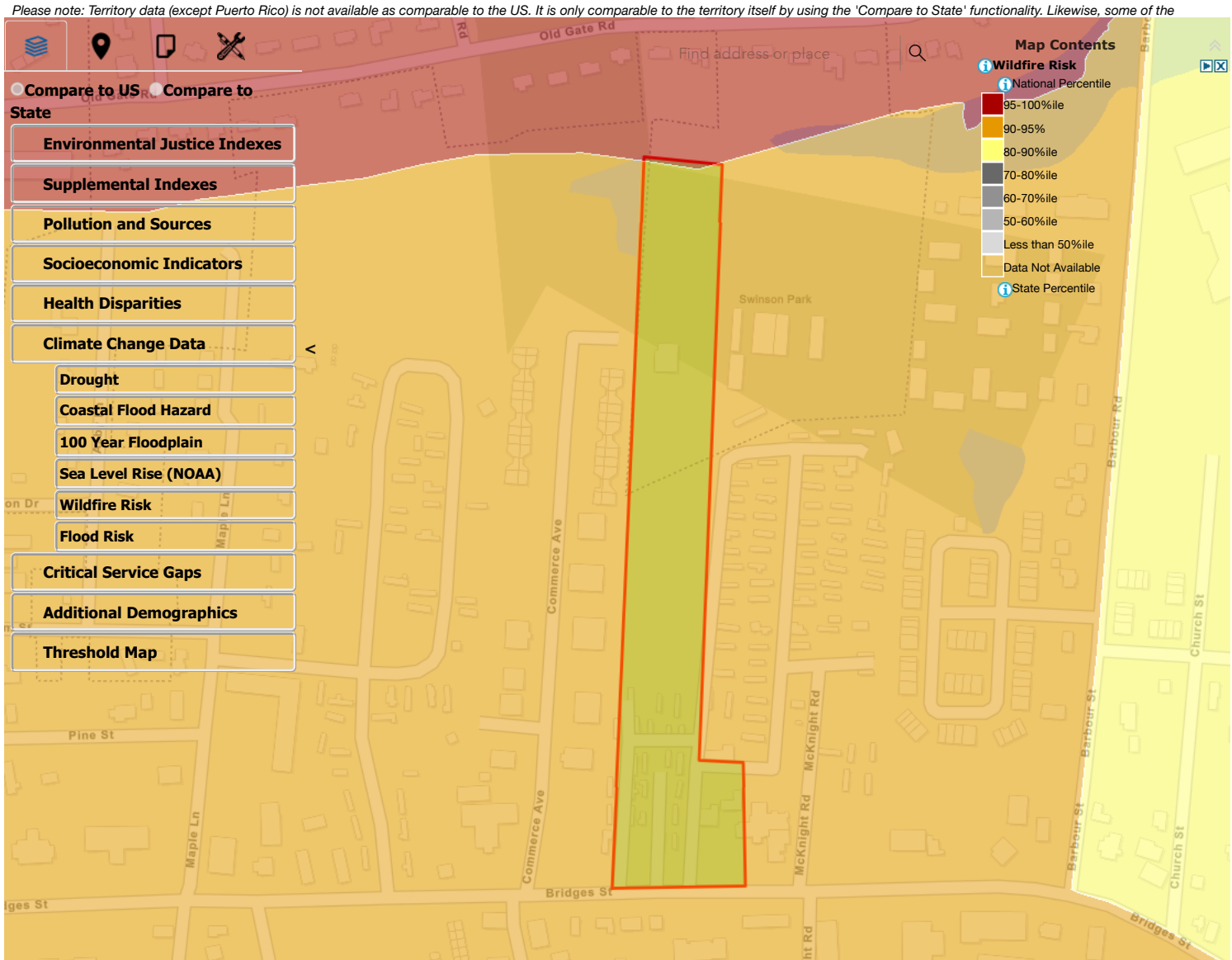
EJScreen Website (<https://www.epa.gov/ejscreen/>) | Mobile (<mobile/index.html>) | Glossary

Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the

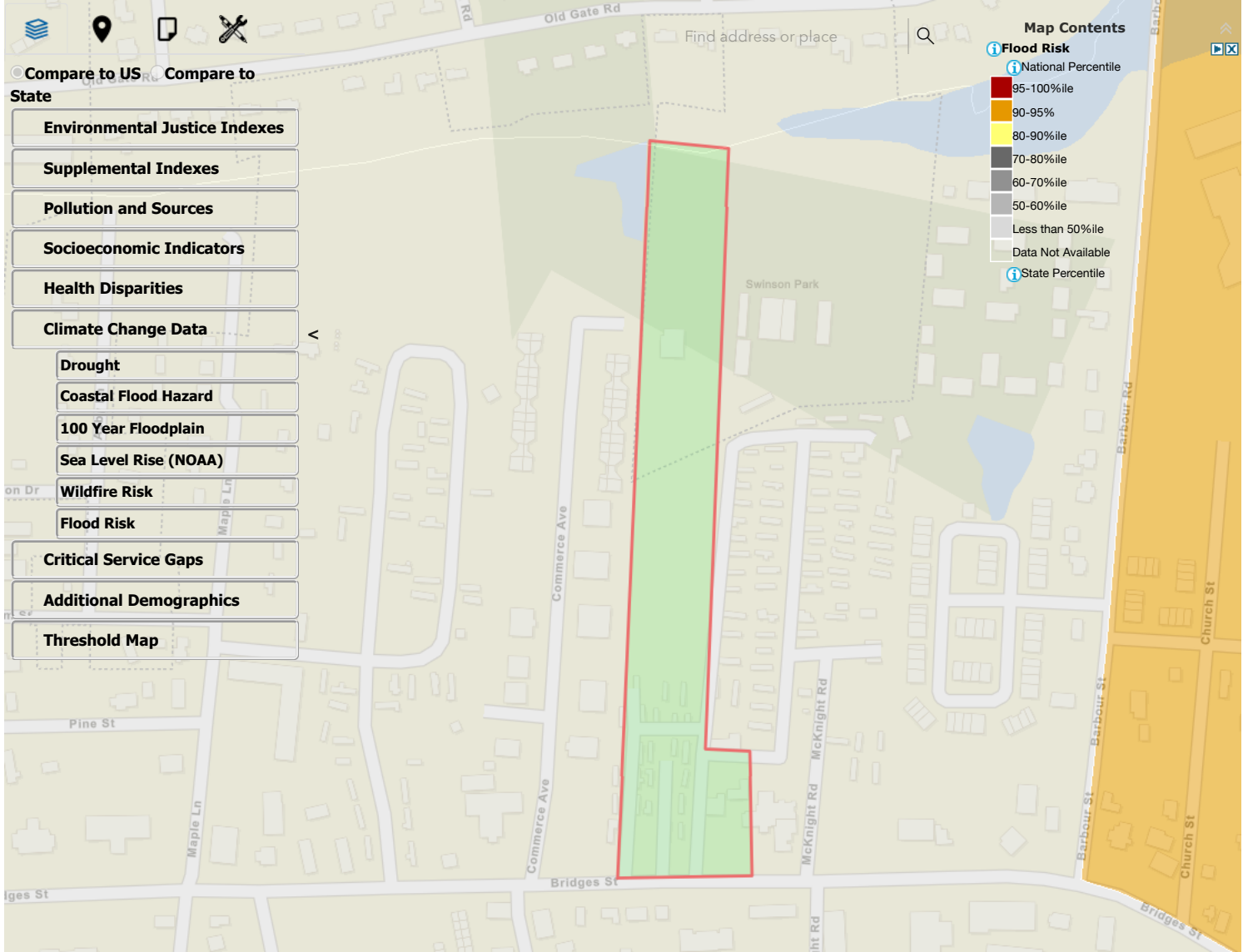


Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the





Please note: Territory data (except Puerto Rico) is not available as comparable to the US. It is only comparable to the territory itself by using the 'Compare to State' functionality. Likewise, some of the



Hazard Report

Extreme Heat

 Carteret County, North Carolina



Total Population
69,070



Building Codes Hazard Resistance
 ⓘ Lower Resistance



% Population Disadvantaged
27.70%



Explore additional data



U.S. Climate Resilience Toolkit

Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

National Risk Index Rating
Relatively Moderate



according to the FEMA National Risk Index

Extreme Heat Annualized Frequency
1.07

Expected Annual Loss Rating
① Relatively Moderate

Expected Annual Loss Total (\$)
 ⓘ \$417,807.44



Future Climate Indicators

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
		Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Temperature thresholds:							
Annual days with maximum temperature > 90°F	21 days	46 days	49 days	59 days	69 days	72 days	106 days
	21 - 27	27 - 67	33 - 68	32 - 88	43 - 93	42 - 103	66 - 134
Annual days with maximum temperature > 95°F	2 days	7 days	8 days	11 days	16 days	18 days	47 days
	1 - 2	2 - 17	3 - 17	3 - 28	7 - 32	5 - 43	14 - 88
Annual days with maximum temperature > 100°F	0 days	0 days	0 days	1 days	1 days	2 days	9 days
	0 - 0	0 - 2	0 - 1	0 - 3	0 - 4	0 - 3	1 - 31
Annual days with maximum temperature > 105°F	0 days	0 days	0 days	0 days	0 days	0 days	1 days
	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 5
Annual temperature:							
Annual single highest maximum temperature °F	96 °F	98 °F	98 °F	99 °F	100 °F	100 °F	103 °F
	95 - 97	95 - 100	96 - 100	96 - 101	97 - 101	97 - 102	99 - 106
Annual highest maximum temperature averaged over a 5-day period °F	92 °F	94 °F	95 °F	95 °F	96 °F	96 °F	99 °F
	92 - 93	92 - 97	93 - 96	93 - 97	94 - 98	94 - 99	96 - 103
Cooling degree days (CDD)	1918 degree-days 1855 - 2008	2,288 degree-days 2,013 - 2,731	2,323 degree-days 2,066 - 2,627	2,491 degree-days 2,097 - 3,041	2,659 degree-days 2,260 - 3,054	2,705 degree-days 2,253 - 3,284	3,363 degree-days 2,664 - 4,105

N/A = Data Not Available for the selected area

Hazard Report

Drought

Carteret County, North Carolina

Total Population

69,070

Non-Hispanic White Population (%)

14%

Income Below Poverty in Last 12 Mo (%)

11%

Building Codes Hazard Resistance

Lower Resistance

% Population Disadvantaged

27.70%

Explore additional data

U.S. Climate Resilience Toolkit

Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

Relatively Low

3.19

Expected Annual Loss Rating

Relatively Low

Expected Annual Loss Total (\$)

\$45,694.90

according to the FEMA National Risk Index

Future Climate Indicators

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
Precipitation:							
Average annual total precipitation	56" 53 - 58	57" 52 - 61	57" 52 - 61	57" 52 - 64	57" 50 - 61	58" 49 - 66	58" 47 - 67
Days per year with precipitation (wet days)	179 days 175 - 185	177 days 167 - 185	177 days 166 - 188	177 days 165 - 190	174 days 158 - 192	176 days 155 - 193	171 days 145 - 191
Days per year with no precipitation (dry days)	186 days 180 - 191	188 days 180 - 198	188 days 178 - 199	188 days 175 - 200	191 days 173 - 207	189 days 172 - 210	195 days 174 - 220
Maximum number of consecutive dry days	13 days 12 - 15	13 days 11 - 15	13 days 12 - 15	14 days 12 - 15	14 days 12 - 16	14 days 12 - 17	15 days 13 - 17
Temperature thresholds:							
Annual days with maximum temperature > 90 °F	21 days 21 - 27	46 days 27 - 67	49 days 33 - 68	59 days 32 - 88	69 days 43 - 93	72 days 42 - 103	106 days 66 - 134
Annual days with maximum temperature > 100 °F	0 days 0 - 0	0 days 0 - 2	0 days 0 - 1	1 days 0 - 3	1 days 0 - 4	2 days 0 - 3	9 days 1 - 31

N/A = Data Not Available for the selected area

Hazard Report

Wildfire

National Risk Index Rating

Relatively Moderate

Wildfire Annualized Frequency


0.00

Expected Annual Loss Rating

Relatively Moderate

https://cmra-reports.s3.amazonaws.com/county/37031.html

2/5



Carteret County, North Carolina

Total Population
69,070

Non-Hispanic White Population (%)
14%

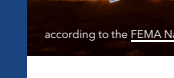
Income Below Poverty in Last 12 Mo (%)
11%

Building Codes Hazard Resistance
Lower Resistance

% Population Disadvantaged
27.70%

[Explore additional data](#)





Wildfire Hazard Potential (Mean)
375.14

according to the [FEMA National Risk Index](#)

Expected Annual Loss Total (\$)
\$2,087,533.56

Future Climate Indicators

Indicator	Modeled History (1976 - 2005) Min - Max	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions Min - Max	Higher Emissions Min - Max	Lower Emissions Min - Max	Higher Emissions Min - Max	Lower Emissions Min - Max	Higher Emissions Min - Max
Precipitation:							
Days per year with no precipitation (dry days)	186 days 180 - 191	188 days 180 - 198	188 days 178 - 199	188 days 175 - 200	191 days 173 - 207	189 days 172 - 210	195 days 174 - 220
Maximum number of consecutive dry days	13 days 12 - 15	13 days 11 - 15	13 days 12 - 15	14 days 12 - 15	14 days 12 - 16	14 days 12 - 17	15 days 13 - 17
Days per year with precipitation (wet days)	179 days 175 - 185	177 days 167 - 185	177 days 166 - 188	177 days 165 - 190	174 days 158 - 192	176 days 155 - 193	171 days 145 - 191
Temperature thresholds:							
Annual days with maximum temperature > 90°F	21 days 21 - 27	46 days 27 - 67	49 days 33 - 68	59 days 32 - 88	69 days 43 - 93	72 days 42 - 103	106 days 66 - 134
Annual days with maximum temperature > 100°F	0 days 0 - 0	0 days 0 - 2	0 days 0 - 1	1 days 0 - 3	1 days 0 - 4	2 days 0 - 3	9 days 1 - 31

U.S. Climate Resilience Toolkit
Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

N/A = Data Not Available for the selected area

Hazard Report
Flooding
 Carteret County, North Carolina

Metric	Value
National Risk Index Rating	Relatively Moderate
Flooding Annualized Frequency	1.21
Expected Annual Loss Rating	Relatively Moderate
Area in a 100-year / 500-year flood zone (%)	52.39% / 11.23%
Area outside 100-year or 500-year flood zone (%)	35.48%


according to the [FEMA National Risk Index](#)

Expected Annual Loss Total (\$) Ⓢ \$1,885,121.86


Area unmapped/undetermined for flooding (%) Ⓢ 0.70%

N/A = Data Not Available for the selected area


Expected Annual Loss Total (\$)




Total Population
① 69,070




Non-Hispanic White Population (%)
14%




Income Below Poverty in Last 12 Mo (%)
11%




Building Codes Hazard Resistance
① Lower Resistance




% Population Disadvantaged
① 27.70%



[Explore additional data](#)



Jacksonville



U.S. Climate Resilience Toolkit
Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

Expected Annual Loss Total (\$) according to the [FEMA National Risk Index](#) ① \$1,775,992.63

Future Climate Indicators

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
Sea level rise:							
Percent of selected county impacted by global sea level rise	N/A	1%	1%	2%	3%	9%	12%

N/A = Data Not Available for the selected area

https://cmra-reports.s3.amazonaws.com/county/37031.html

5/5

ATTACHMENT 28:

State Environmental Clearinghouse Comments

Scoping Package Comments



Roy Cooper
Governor

Pamela B. Cashwell
Secretary

May 30, 2023

Andrea Gievers
Elijah's Landing Apartments
c/o NC Department of Public Safety
Office of Recovery and Resiliency
Durham, NC 27709-

Re: SCH File # 23-E-4600-0227 Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirt

Dear Andrea Gievers:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act.

Attached to this letter are comments made by the agencies in the review of this document. If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

If you have any questions, please do not hesitate to contact me at (984) 236-0000.

Sincerely,

CRYSTAL BEST
State Environmental Review Clearinghouse

Attachments

Mailing
1301 Mail Service Center | Raleigh, NC 27699-1301



ncadmin.nc.gov

Location
116 West Jones St. | Raleigh NC 27603
984-236-0000 T

Control No.: 23-E-4600-0227

Date Received: 4/26/2023

County.: CARTERET

Agency Response: 5/26/2023

Review Closed: 5/26/2023

LYN HARDISON
CLEARINGHOUSE COORDINATOR
DEPT OF ENVIRONMENTAL QUALITY

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☐ No Comment

☐ Comments Below

☒ Documents Attached

Reviewed By: LYN HARDISON

Date: 5/25/2023

Control No.: 23-E-4600-0227

Date Received: 4/26/2023

County.: CARTERET

Agency Response: 5/26/2023

Review Closed: 5/26/2023

JESSICA MOSLEY
CLEARINGHOUSE COORDINATOR
DEPT OF TRANSPORTATION

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☒ No Comment

☐ Comments Below

☐ Documents Attached

Reviewed By: JESSICA MOSLEY

Date: 5/19/2023

Control No.: 23-E-4600-0227

Date Received: 4/26/2023

County.: CARTERET

Agency Response: 5/26/2023

Review Closed: 5/26/2023

JINTAO WEN
CLEARINGHOUSE COORDINATOR
DPS - DIV OF EMERGENCY MANAGEMENT

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☐ No Comment

☒ Comments Below

☐ Documents Attached

Portions of the proposed project area encroach into the Special Flood Hazard Area (SFHA). Any encroachment, grading, fill or placement of equipment or materials in the SFHA will require a floodplain development permit issued by Morehead City. Please coordinate with the City's Floodplain Administrator for permitting.

Reviewed By: JINTAO WEN

Date: 5/15/2023



NORTH CAROLINA
Environmental Quality

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

To: Crystal Best
State Clearinghouse
NC Department of Administration

From: Lyn Biles
Division of Environmental Assistance and Customer Service
Washington Regional Office

Re: 23-0227
Scoping - Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access, and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units.
Carteret County

Date: May 26, 2023

The Department of Environment Quality has reviewed the proposal for the referenced project. Based on the information provided, several of our agencies have identified permits that may be required and offered some valuable. The comments are attached for the applicant's review.

The Department will continue to be available to assist the applicant with any questions or concerns.

Thank you for the opportunity to respond.

Attachments



North Carolina Department of Environmental Quality
217 West Jones Street | 1601 Mail Service Center | Raleigh, North Carolina 27699-1601
919.707.8600

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

MICHAEL SCOTT

Director



NORTH CAROLINA
Environmental Quality

MEMORANDUM

TO: Michael Scott, Division Director through Sharon Brinkley

FROM: Amanda Thompson, Environmental Senior Specialist - Solid Waste Section

DATE: May 8, 2023

SUBJECT: Review: SW 23-0227 – Carteret County (Scoping – Elijah’s Landing Apartments/NCORR-CDBG-DR – Proposed project is for the construction of a 168-unit affordable housing apartment complex with clubhouse, dog par, playground, parking access, and infrastructure located at 3200 Bridges Road, Morehead City.)

The Division of Waste Management, Solid Waste Section (Section) has reviewed the documents submitted for the subject project in Carteret County, NC. Based on the information provided in this document, the Section at this time does not see an adverse impact on the surrounding communities and likewise knows of no situations in the communities, which would affect this project.

For any planned or proposed projects, it is recommended that during any land clearing, demolition, and construction, the Elijah’s Landing Apartments/NCORR-CDBG-DR and/or its contractors would make every feasible effort to minimize the generation of waste, to recycle materials for which viable markets exist, and to use recycled products and materials in the development of this project where suitable. **Any waste generated by and of the project that cannot be beneficially reused or recycled as described, may require disposal of at a solid waste management facility permitted by the Division. The Section strongly recommends that Elijah’s Landing Apartments/NCORR-CDBG-DR require all contractors to provide proof of proper disposal for all generated waste to permitted facilities.**

Permitted solid waste management facilities are listed on the Division of Waste Management, Solid Waste Section portal site at: <https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/solid-waste-management-annual-reports/solid-waste-permitted-facility-list>

And the site locator tool at:

<https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebf49fc383f688>

Questions regarding solid waste management for this project should be directed to Mr. Ray Williams, Environmental Senior Specialist, Solid Waste Section, at (252) 948-3955.

cc: Ray Williams, Environmental Senior Specialist



North Carolina Department of Environmental Quality | Division of Waste Management
Fayetteville Regional Office | 225 Green Street, Suite 714 | Fayetteville, North Carolina 28301
910.433.3300

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
MICHAEL SCOTT
Director



Date: January 13, 2023

To: Michael Scott, Director
Division of Waste Management

Through: Janet Macdonald
Inactive Hazardous Sites Branch

From: Katie C Tatum
Inactive Hazardous Sites Branch

Subject: NEPA Project # 23-0227 Elijah's Landing Apartments/NCORR-CDBG-DR, Carteret County, North Carolina

The Superfund Section has reviewed the proximity of sites under its jurisdiction to the Elijah's Landing Apartments/NCORR-CDBG-DR project. Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

Three (3) Superfund Section sites and one (1) Brownfields Program Sites were identified within one mile of the project as shown on the attached report. The Superfund Section recommends that site files be reviewed to ensure that appropriate precautions are incorporated into any construction activities that encounter potentially contaminated soil or groundwater. Superfund Section files can be viewed at: <http://deq.nc.gov/waste-management-laserfiche>.

Please contact Janet Macdonald at 919.707.8349 if you have any questions concerning the Superfund Section review portion of this SEPA/NEPA inquiry.



North Carolina Department of Environmental Quality | Division of Waste Management
217 West Jones Street | 1646 Mail Service Center | Raleigh, North Carolina 27699-1646
919.707.8200



Superfund & Brownfield Sites SEPA/NEPA Review Report

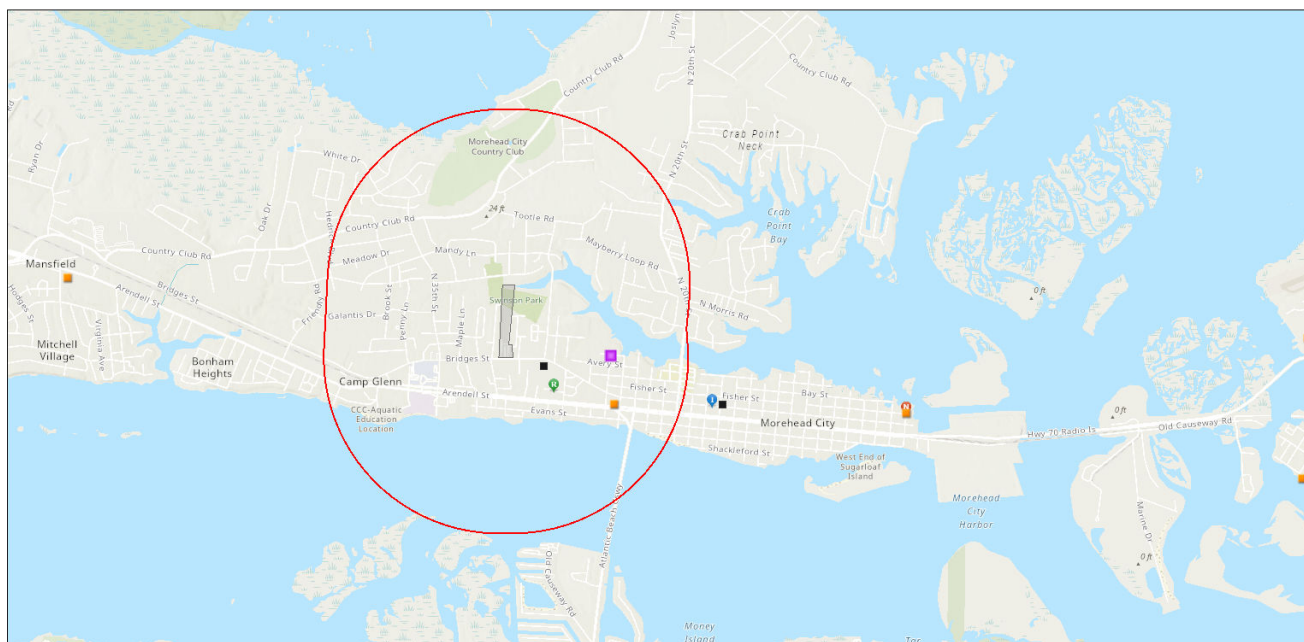
Area of Interest (AOI) Information

Area : 2,656.27 acres

Apr 27 2023 10:57:20 Eastern Daylight Time

Carteret County

NEPA project 23-0227



- Inactive Hazardous Sites
- NC Brownfields Location_View
- Recorded
- Inactive Eligible
- No Further Interest
- Pre Regulatory Landfill Sites
- Activity Pending
- DryCleaning Contaminated



Esri, NASA, NOAA, USGS, FEMA, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Summary

Name	Count	Area(acres)	Length(mi)
Certified DSCA Sites	1	N/A	N/A
Federal Remediation Branch Sites	0	N/A	N/A
Inactive Hazardous Sites	1	N/A	N/A
Pre-Regulatory Landfill Sites	1	N/A	N/A
Brownfields Program Sites	1	N/A	N/A

Certified DSCA Sites

#	Site_ID	Site_Name	Count
1	DC160001	Coastal Dry Cleaners	1

Inactive Hazardous Sites

#	EPAID	SITENAME	Count
1	NONCD0001466	BEACHVIEW EXXON	1

Pre-Regulatory Landfill Sites

#	EPAID	SITENAME	Count
1	NONCD0000205	Morehead City Refuse Dump	1

Brownfields Program Sites

#	BF_ID	BF_Name	Count
1	1700513016	Morehead City Main (RN)	1

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: WIRO
Project Number: 23-0227 Due Date: 05/22/2023
County: Carteret

After review of this project it has been determined that the DEQ permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
<input type="checkbox"/>	Permit to construct & operate wastewater treatment facilities, non-standard sewer system extensions & sewer systems that do not discharge into state surface waters.	Application 90 days before begins construction or award of construction contracts. On-site inspection may be required. Post-application technical conference usual.	30 days (90 days)
<input type="checkbox"/>	Permit to construct & operate, sewer extensions involving gravity sewers, pump stations and force mains discharging into a sewer collection system	Fast-Track Permitting program consists of the submittal of an application and an engineer's certification that the project meets all applicable State rules and Division Minimum Design Criteria.	30 days (N/A)
<input type="checkbox"/>	NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begins activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
<input type="checkbox"/>	Water Use Permit	Pre-application technical conference usually necessary.	30 days (N/A)
<input type="checkbox"/>	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a groundwater monitoring well located on property not owned by the applicant, and for a large capacity (>100,000 gallons per day) water supply well.	7 days (15 days)
<input type="checkbox"/>	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
<input type="checkbox"/>	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 thru 2Q.0300)	Application must be submitted and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
<input type="checkbox"/>	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
<input type="checkbox"/>	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950	Please Note - The Health Hazards Control Unit (HHCU) of the N.C. Department of Health and Human Services, must be notified of plans to demolish a building, including residences for commercial or industrial expansion, even if no asbestos is present in the building.	60 days (90 days)
<input checked="" type="checkbox"/>	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres are to be disturbed. Plan must be filed with and approved by applicable Regional Office (Land Quality Section) at least 30 days before beginning activity. A NPDES Construction Stormwater permit (NCG010000) is also usually issued should design features meet minimum requirements. A fee of \$65 for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
<input type="checkbox"/>	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets.		(30 days)
<input type="checkbox"/>	Sedimentation and erosion control must be addressed in accordance with _____ Local Government's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets.		Based on Local Program
<input type="checkbox"/>	Compliance with 15A NCAC 2H .0126 - NPDES Stormwater Program which regulates three types of activities: Industrial, Municipal Separate Storm Sewer System & Construction activities that disturb ≥1 acre.		30-60 days (90 days)
<input checked="" type="checkbox"/>	Compliance with 15A NCAC 2H 1000 -State Stormwater Permitting Programs regulate site development and post-construction stormwater runoff control. Areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the state.		45 days (90 days)

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: WIRO
Project Number: 23-0227 Due Date: 05/22/2023
County: Carteret

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (statutory time limit)
<input type="checkbox"/>	Mining Permit	On-site inspection usual. Surety bond filed with DEQ Bond amount varies with type mine and number of acres of affected land. Affected area greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
<input type="checkbox"/>	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction, and certify construction is according to DEQ approved plans. May also require a permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of \$200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required upon completion.	30 days (60 days)
<input type="checkbox"/>	Oil Refining Facilities	N/A	90-120 days (N/A)
<input type="checkbox"/>	Permit to drill exploratory oil or gas well	File surety bond of \$5,000 with DEQ running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DEQ rules and regulations.	10 days N/A
<input type="checkbox"/>	Geophysical Exploration Permit	Application filed with DEQ at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days N/A
<input type="checkbox"/>	State Lakes Construction Permit	Application fee based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property	15-20 days N/A
<input type="checkbox"/>	401 Water Quality Certification	Compliance with the T15A 02H .0500 Certifications are required whenever construction or operation of facilities will result in a discharge into navigable water as described in 33 CFR part 323.	60 days (130 days)
<input type="checkbox"/>	Compliance with Catawba, Goose Creek, Jordan Lake, Randleman, Tar Pamlico or Neuse Riparian Buffer Rules is required. Buffer requirements: http://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits/401-riparian-buffer-protection-program		
<input type="checkbox"/>	Nutrient Offset: Loading requirements for nitrogen and phosphorus in the Neuse and Tar-Pamlico River basins, and in the Jordan and Falls Lake watersheds, as part of the nutrient-management strategies in these areas. DWR nutrient offset information: http://deq.nc.gov/about/divisions/water-resources/planning/nonpoint-source-management/nutrient-offset-information		
<input type="checkbox"/>	CAMA Permit for MAJOR development	\$250.00 - \$475.00 fee must accompany application	75 days (150 days)
<input type="checkbox"/>	CAMA Permit for MINOR development	\$100.00 fee must accompany application	22 days (25 days)
<input type="checkbox"/>	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
<input type="checkbox"/>	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
<input checked="" type="checkbox"/>	Plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the Division of Water Resources/Public Water Supply Section prior to the award of a contract or the initiation of construction as per 15A NCAC 18C .0300 et. seq., Plans and specifications should be submitted to 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. All public water supply systems must comply with state and federal drinking water monitoring requirements. For more information, contact the Public Water Supply Section, (919) 707-9100.		30 days
<input checked="" type="checkbox"/>	If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Water Resources/Public Water Supply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. For more information, contact the Public Water Supply Section, (919) 707-9100.		30 days
<input type="checkbox"/>	Plans and specifications for the construction, expansion, or alteration of the _____ water system must be approved through the _____ delegated plan approval authority. Please contact them at _____ for further information.		

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: WIRO
Project Number: 23-0227 Due Date: 05/22/2023
County: Carteret

Other Comments (attach additional pages as necessary, being certain to comment authority)

Division	Initials	No comment	Comments	Date Review
DAQ	DAC	<input checked="" type="checkbox"/>		4/27/2023
DWR-WQROS (Aquifer & Surface)	&	<input type="checkbox"/>	It is recommended to schedule a site visit with 401 Water quality staff to discuss the proposal and to ensure compliance will be maintained per 401 surface Water requirements, surface water standards and buffer rules. If wetland, riparian buffers or stream impacts are proposed, this project will need to comply with/secure a 404 permit from the USACE, obtain a 401 Water Quality Certification authorization and a riparian buffer authorization. &	/ /
DWR-PWS	HLC	<input type="checkbox"/>	See above comments	5/25/2023
DEMLR (LQ & SW)		<input type="checkbox"/>		/ /
DWM – UST	LEP	<input type="checkbox"/>	As per a search of the UST Section databases, no reported petroleum releases are known to exist at this location, nor are there any records of registered USTs at this location. To view/find other petroleum related incidents in the area please use the LINK TO UST Section GIS MAP: http://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/waste-management-gis-maps	4/28/2023
Other Comments		<input type="checkbox"/>		/ /

REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

- | | | |
|---|---|--|
| <input type="checkbox"/> Asheville Regional Office
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211
Phone: 828-296-4500
Fax: 828-299-7043 | <input type="checkbox"/> Fayetteville Regional Office
225 Green Street, Suite 714,
Fayetteville, NC 28301-5043
Phone: 910-433-3300
Fax: 910-486-0707 | <input type="checkbox"/> Mooresville Regional Office
610 East Center Avenue, Suite 301,
Mooresville, NC 28115
Phone: 704-663-1699
Fax: 704-663-6040 |
| <input type="checkbox"/> Raleigh Regional Office
3800 Barrett Drive,
Raleigh, NC 27609
Phone: 919-791-4200
Fax: 919-571-4718 | <input type="checkbox"/> Washington Regional Office
943 Washington Square Mall,
Washington, NC 27889
Phone: 252-946-6481
Fax: 252-975-3716 | <input checked="" type="checkbox"/> Wilmington Regional Office
127 Cardinal Drive Ext.,
Wilmington, NC 28405
Phone: 910-796-7215
Fax: 910-350-2004 |
| | <input type="checkbox"/> Winston-Salem Regional Office
450 Hanes Mill Road, Suite 300,
Winston-Salem, NC 27105
Phone: 336-776-9800
Fax: 336-776-9797 | |

Department of Environmental Quality

Project Review

Project Number: 23-0227

County: Carteret

Date Received: 4-26-2023

Due Date: 5-22-2023

Project Description: *Scoping - Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.*

This Project is being reviewed as indicated below:

Regional Office	Regional Office Area	In-House Review	
Asheville	Air	Air Quality	Coastal Management
Fayetteville	DWR	Waste Mgmt	Marine Fisheries
Mooresville	DWR - Public Water	Water Resources Mgmt (Public	CC & PS Div. of
Raleigh	DEMLR (LQ & SW)	Water, Planning & Water	Emergency Mgmt
Washington	FRO DWM	Quality Program)	DMF-Shellfish Sanitation
Wilmington		DWR-Transportation Unit	Wildlife <u>Maria</u>
Winston Salem			Wildlife/DOT

Manager Sign-Off/Region:	Date:	In-House Reviewer/Agency:
	5/22/23	Melodi Deaver, Hazardous Waste Section

Response (check all applicable)

☐ No objection to project as proposed. ☒ No Comment

☐ Insufficient information to complete review ☐ Other (specify or attach comments)

Department of Environmental Quality

Project Review

Project Number: 23-0227

County: Carteret

Date Received: 4-26-2023

Due Date: 5-22-2023

Project Description: *Scoping - Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.*

This Project is being reviewed as indicated below:

Regional Office	Regional Office Area	In-House Review	
<input type="checkbox"/> Asheville	<input checked="" type="checkbox"/> Air	<input type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Coastal Management
<input type="checkbox"/> Fayetteville	<input checked="" type="checkbox"/> DWR	<input type="checkbox"/> Waste Mgmt	<input type="checkbox"/> Marine Fisheries
<input type="checkbox"/> Mooresville	<input checked="" type="checkbox"/> DWR - Public Water	<input checked="" type="checkbox"/> Water Resources Mgmt (Public Water, Planning & Water Quality Program)	<input type="checkbox"/> CC & PS Div. of Emergency Mgmt
<input type="checkbox"/> Raleigh	<input checked="" type="checkbox"/> DEMLR (LQ & SW)	<input type="checkbox"/> DWR-Transportation Unit	<input type="checkbox"/> DMF-Shellfish Sanitation
<input type="checkbox"/> Washington	<input checked="" type="checkbox"/> FRO DWM		<input checked="" type="checkbox"/> Wildlife <u>Maria</u>
<input checked="" type="checkbox"/> Wilmington			<input type="checkbox"/> Wildlife/DOT
<input type="checkbox"/> Winston Salem			

Manager Sign-Off/Region:

Date:

5-9-2023

In-House Reviewer/Agency:

Maria / NCWRC

Response (check all applicable)

☐ No objection to project as proposed.

☒ No Comment

☐ Insufficient information to complete review

☐ Other (specify or attach comments)

Early Notice Comments



Roy Cooper
Governor

Pamela B. Cashwell
Secretary

July 13, 2023

Andrea Gievers
Elijah's Landing Apartments
c/o NC Department of Public Safety
Office of Recovery and Resiliency
Durham, NC 27709-

Re: SCH File # 23-E-4600-0256 Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirt

Dear Andrea Gievers:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act.

Attached to this letter are comments made by the agencies in the review of this document. If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

If you have any questions, please do not hesitate to contact me at (984) 236-0000.

Sincerely,

KADISHA MOLYNEAUX
State Environmental Review Clearinghouse

Attachments

Mailing
1301 Mail Service Center | Raleigh, NC 27699-1301



ncadmin.nc.gov

Location
116 West Jones St. | Raleigh NC 27603
984-236-0000 T

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

DEVON BORGARDT
CLEARINGHOUSE COORDINATOR
DEPT OF NATURAL & CULTURAL
RESOURCE

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

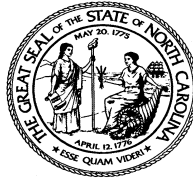
☐ No Comment

☐ Comments Below

☒ Documents Attached

Reviewed By: DEVON BORGARDT

Date: 7/3/2023



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary D. Reid Wilson

Office of Archives and History
Deputy Secretary, Darin J. Waters, Ph.D.

July 3, 2023

MEMORANDUM

TO: Crystal Best
North Carolina State Clearinghouse
Department of Administration

crystal.best@doa.nc.gov

FROM: Ramona M. Bartos, Deputy
State Historic Preservation Officer

RMB for Ramona M. Bartos

SUBJECT: Demolish Buildings & Construct Elijahs Landing Multi Family Housing, 3200 Bridges Street, Morehead City, Carteret County, SCH #23-E-4600-0256, ER 18-1037

Thank you for your submission of June 28, 2023, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

JESSICA MOSLEY
CLEARINGHOUSE COORDINATOR
DEPT OF TRANSPORTATION

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☒ No Comment

☐ Comments Below

☐ Documents Attached

Reviewed By: JESSICA MOSLEY

Date: 6/30/2023

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

LYN HARDISON
CLEARINGHOUSE COORDINATOR
DEPT OF ENVIRONMENTAL QUALITY

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☒ No Comment

☐ Comments Below

☐ Documents Attached

Reviewed By: LYN HARDISON

Date: 6/30/2023

Control No.: 23-E-4600-0256

Date Received: 6/28/2023

County.: CARTERET

Agency Response: 7/13/2023

Review Closed: 7/13/2023

JINTAO WEN
CLEARINGHOUSE COORDINATOR
DPS - DIV OF EMERGENCY MANAGEMENT

Project Information

Type: National Environmental Policy Act ping

Applicant: Elijah's Landing Apartments

Project Desc.: Proposed project is for the construction of Elijah's Landing Apartments, a 168-unit affordable housing apartment complex with a clubhouse, dog park, playground, parking, access and infrastructure. The affordable apartment complex will consist of seven separate apartment buildings with a mix of thirty (30) one-bedroom units, seventy-eight (78) two-bedroom units and sixty (60) three-bedroom units. Project is located at 3200 Bridges Road, Morehead City, NC.

As a result of this review the following is submitted:

☒ No Comment

☐ Comments Below

☐ Documents Attached

Reviewed By: JINTAO WEN

Date: 7/10/2023

FONSI/NOI-RROF/Final Notice Comments