

Draft Environmental Assessment

City of Laurinburg

Proposed North Fire Station

DR-4393-NC PW 00234 PN 71275

Scotland County, North Carolina

September 2020



U.S. Department of Homeland Security
Federal Emergency Management Agency
Region 4
3005 Chamblee-Tucker Road
Atlanta, GA 30341

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Abbreviations and Acronyms

ACHP	Advisory Council on Historic Preservation
ASTM	American Society for Testing and Materials
BMP	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EDC	Economic Development Corporation
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
ESA	Endangered Species Act
ESCP	Erosion and Sedimentation Control Plan
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONIS	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
HSA	Historic Site Act
IPaC	Information and Planning and Consultation
ISO	Insurance Services Offices
NCA	Noise Control Act
NCDEQ	North Carolina Division of Environmental Quality
NCDOT	North Carolina Division of Transportation
NCNHP	North Carolina Natural Heritage Program
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
PA	Public Assistance
PNP	Private Nonprofit
REC	Recognized Environmental Condition
NCSHPO	North Carolina State Historic Preservation Office
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

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1.0 INTRODUCTION

The City of Laurinburg Fire Department is seeking reimbursement for federal funding from the Federal Emergency Management Agency (FEMA) in the form of Public Assistance (PA) Program Funding for the construction of a new fire station in Laurinburg, North Carolina. The objective of the FEMA PA Grant Program is to provide assistance to State, Tribal, and Local Governments, and certain types of Private Nonprofit (PNP) organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the President. Through the PA Program, FEMA provides supplemental federal disaster grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain PNP organizations. The PA Program also encourages protection of these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process. The FEMA project worksheet number for DR-4393-NC is PW 00234 and Grants Manager project number is PN 71275.

The City of Laurinburg (City) is a full-service municipality that includes paid fire protection. There are approximately 6,136 households in Laurinburg encompassing approximately 12.6 square miles. The City has two fire stations, the North Fire Station and the South Fire Station, which serve the City and a portion of the rural residents of Scotland County. After the existing North Fire Station sustained flood damage in September 2018, during Hurricane Florence, the City is pursuing the option of relocating the fire station to another site at the Laurinburg Scotland Industrial Site in lieu of using FEMA funding to make the necessary repairs to the existing fire station within the flood zone.

The existing North Fire Station is located at 501 North Main Street within the City. A new fire station located at the proposed site on the eastern side of Aberdeen Road (34.80752, -79.45780) would allow the City of Laurinburg Fire Department to better serve its citizens and allow for increased service demand from expected population growth. The proposed project would have a direct and immediate effect on protecting the lives and property within the target service area because of enhanced response capabilities in the form of shortened response times.

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality (CEQ) regulations to implement NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and FEMA Directive 108-1 and FEMA Instruction 108-1-1. FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this EA is to analyze the potential environmental impacts of the proposed North Fire Station project. FEMA will use the findings in this EA to determine if an Environmental Impact Statement (EIS) is required, or if the project can be authorized under a Finding of No Significant Impact (FONSI).

2.0 PURPOSE

This EA provides information to support the Public Assistance Program's review of potential effects to the natural and human environment from relocation and construction of a new fire station. The purpose of the proposed action is to provide funding for the relocation and construction of a new fire station outside of the flood zone, allowing the municipality to fulfill their obligations as a full-service municipality with fire service.

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The North Fire Station was nearly flooded during Hurricane Matthew in 2016 and sustained flood damage in September 2018, during Hurricane Florence. While the fire station building was not located in a floodplain when it was constructed in 1980, the designation of the land has since been changed and the fire station is now located within a FEMA flood zone. The flooding in 2018 rendered the building uninhabitable and since that time, the building has been utilized as an un-manned substation for housing fire-fighting equipment and apparatuses. Fire-fighting personnel who were formerly able to stay at the North Fire Station have been required to stay at the South Fire Station, the second fire station serving the approximately 72 square-mile service area. These changes have nearly doubled the response time of the fire department to areas on the north side of the City, partially as a result of a major CSX railroad line located between the two fire houses which forces responders to take a longer route to cross the single bypass over the railroad.

Rather than use funding to repair and renovate the existing structure, the City proposes to construct a new fire station in an alternative location. The existing North Fire Station is considered critical infrastructure in Public Safety for the City and Scotland County as it provides City and county fire and rescue services. The facility has served as the main headquarters for the City of Laurinburg Fire Department and Scotland County Rescue Squad as a staffed and manned station, providing office space, conference rooms for meetings and trainings, and living facilities for on-duty rescue personnel. Since flooding damaged the existing building, the station has been downgraded from the main hub to a substation, which will eventually increase insurance costs for residents and businesses due to the reduced Insurance Services Offices (ISO) Fire Insurance Ratings. Construction of the proposed fire station on the proposed site will increase the ability of the City of Laurinburg Fire Department to serve rural areas north of Laurinburg, potentially reduce fire insurance rates and lower response times to fires and other emergencies.

3.0 NEED

The proposed fire location will decrease average response times compared to the current location of the North Fire Station and to the current operational status. It will also reduce the hazard posed by the potential for flooding of the main drainage creek adjacent to the existing fire station and will allow for all necessary equipment and vehicles to be stored within the facility. New development in the form of industrial sites and some commercial sites is anticipated within the vicinity of the proposed North Fire Station.

4.0 ALTERNATIVES ANALYSIS

NEPA requires the identification and evaluation of reasonable project alternatives, including impacts to the natural and human environment as part of the planning process. This EA addresses two alternatives, the no action alternative and the Proposed Action. Prior to evaluating all feasible alternatives, the City considered two alternative locations and the alternative of repairing the existing fire station to a pre-disaster condition with elevation adjustments and floodproofing. These alternatives were ultimately dismissed.”

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4.1 No Action Alternative

The no action alternative would result in no construction of a new fire station on the northern side of Laurinburg and continued reliance on the South Fire Station. The City of Laurinburg Fire Department would continue to conduct its operations from the South Fire Station. This action would leave emergency response times to this area of the community unchanged with the potential to increase if the northern side of Laurinburg is developed in the future. In addition, the existing North Fire Station facility would still be located within the FEMA flood zone, leaving it vulnerable to additional damage from future flooding and rendering it unreliable for use during natural emergencies where flooding may incapacitate the facility. The no action alternative would also leave the existing North Fire Station rated as a substation instead of a main hub. As a result, the ISO Fire Insurance Ratings for the municipality would be impacted, increasing insurance costs for residences and businesses on the northern side of Laurinburg. The no action alternative results in a lower level of overall public safety and firefighter safety than the proposed action.

4.2 Proposed Action

Based on the results of the above investigations, the City determined that to meet the emergency response needs of the northern portion of the City, reduce the potential for increased insurance costs, and reduce the potential of the Fire Station to be impacted by further flood events during natural emergencies, a fire station would need to be constructed within the North Fire District north of the railroad. After considering several potential sites which have been dismissed, the City considered a portion of a property owned by the Scotland Economic Development Corporation (EDC). After consideration of the potential benefits to infrastructure that would be provided through the construction of an on-site fire station, the EDC agreed to donate the property to the City.

The proposed action would involve the construction of a new fire station facility. The final design for this facility has not been completed, but current plans indicate that the facility will have four bays on the front of the building and four on the back resulting in eight drive-through bays and one additional single bay at the end of the building to house the ladder truck. The building will also accommodate a training room for 50 people as well as living quarters for four fire employees with rotating shifts, a kitchen, and room for at least two administrative offices. Utilities are already available on site.

The daily operations of the City of Laurinburg Fire Department would be positively affected by the construction of a new fire station within the North Fire District, thereby meeting the above-described project needs. The proposed action would have a direct and immediate effect on protecting the lives and property of the community within the fire district because of the enhanced response capabilities. Responders would no longer need to detour to the single bypass that crosses the railroad tracks, reducing response time north of the railroad. The reduced response times would decrease the overall time spent on each response and reduce the risks to firefighters' health and safety. Faster response would allow the firefighters to spend "saved" time on recovery and other operational concerns. In addition, the reduced response times have the potential to reduce damage to property and loss of life for the community. The location would be located outside of the floodplain, reducing the potential for the site to be damaged further and reducing the potential for the facility to be incapacitated due to flooding during natural emergencies. Additionally, the location of the proposed fire station adjacent to the future industrial park could have positive economic development impacts for Scotland County and the City.

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4.3 Alternatives Considered and Dismissed

After the existing North Fire Station was flooded during Hurricane Florence, the City began exploring options to repair their fire station. Based on estimates obtained by the City from contractors and FEMA, repairing the current facility to its pre-disaster state would cost approximately \$500,000. Per guidance from FEMA, the City cannot repair the facility to its pre-disaster state due to its location within the flood zone using FEMA funds. Therefore, to remain in the existing location, mitigation such as dry-flood proofing would have to be included, increasing the cost of the renovation in addition to the high costs of flood insurance. The City obtained additional estimates and learned that they could build a new facility that will meet the City's needs outside of the floodplain for approximately \$1.6 million. Before deciding to pursue FEMA funding, the City determined that this would be a better investment for the City and for all finding parties involved. In addition, due to 44CFR 9.6(b), because an alternative location was identified outside of the floodplain, the fire station must be relocated.

Two additional sites were considered as potential locations for the relocation of the North Fire Station. One property is owned by the Thomas family and is located on North Main Street. This site is not currently for sale and the family has stated that they are not interested in discussing selling or leasing the property. The second site is located on Wilkinson Drive and is owned by the Cross Pointe Church. The property was eliminated because it is located south of Hillside Avenue. As a result, this location would result in needing to cross the railroad track. This would result in increased response times as the emergency response vehicles would need to utilize the single bypass that crosses the railroad. The Fire Inspector also expressed concern about the hazardous material that is transported on trains and that the proposed location was too far from the North Fire District, which would in turn have a negative effect on the fire insurance ratings. Finally, the Cross Pointe Church property is for sale at the price of \$12,000 per acre, resulting in a total cost of \$36,000 to purchase the property. For these reasons, the alternative sites were dismissed from consideration.

5.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

This section describes the natural and human environment potentially affected by the alternatives, evaluates potential impacts, and recommends measures to avoid or reduce those impacts. When possible, quantitative information is provided to establish potential impacts, and the potential impacts are evaluated qualitatively based on the criteria listed in **Table 4.1**.

Table 4.1 – Evaluation Criteria for Potential Impacts

Impact Scale	Criteria
None/Negligible	The resource area would not be affected, or changes or benefits would be either nondetectable, or if detected, would have effects that would be slight and local. Impacts would be well below regulatory standards, as applicable.
Minor	Changes to the resources would be measurable, although the changes would be small and localized. Impacts or benefits would be within or below regulatory standards, as applicable. Mitigation measures would reduce and potential adverse impacts.

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Moderate	Changes to the resource would be measurable and have either localized or regional scale impacts/ benefits. Impacts would be within or below regulatory standards, but historical conditions would be altered on a short-term basis. Mitigation measures would be necessary, and the measures would reduce and potential adverse effects.
Major	Changes would be readily measurable and would have substantial consequences on a local or regional level. Impacts would exceed regulatory standards. Mitigation measures to offset the adverse effects would be required to reduce impacts, but long-term changes to the resource would be expected.

5.1 Physical Resources

The North Fire Station is proposed to be located within an approximately three-acre portion of a parcel owned by the Scotland County EDC. This parcel is located on the eastern side of Aberdeen Road (Latitude 34.80812/Longitude -79.45804) (**Figure 1**). The site is currently farmed. Site photographs can be seen in **Appendix A**.

This section discusses the existing environmental conditions at the proposed project site including descriptions of the physical, biological, and socioeconomic resources throughout the general area and the proposed action site. The characterization of existing conditions provides a baseline for assessing the potential environmental impacts from activities associated with the proposed action.

5.1.1 Geology and Soils

In September of 2019, ECS Southeast, LLP (ECS) performed a geotechnical analysis of the proposed site. In their report, ECS identified the site as being located in the Coastal Plain physiographic region. The Coastal Plain is typically characterized by marine, alluvial, and aeolian sediments. These sediments were deposited during periods of fluctuating sea levels and moving shorelines. Per the geotechnical report, the site is underlain by the Middendorf Formation of Cretaceous age. This formation generally consists of gray to pale gray with an orange cast, mottled sand, sandstone, and mudstone. Clay balls and iron-cemented concretions, as well as laterally discontinuous cross-bedding are common in this formation. Within the Middendorf Formation, the top of the coastal formations is typically on the order of 30 to 100 feet below the ground surface.

During the subsurface explorations, cultivated soil was encountered at the ground surface to a depth of approximately 12 inches. In the agricultural fields, the cultivated soil was often between 12 and 18 inches thick and the upper layer contains approximately six inches contains significant organic material.

According to the United States Department of Agriculture (USDA) Soil Survey, the primary soil type within the proposed site is Coxville loam, zero to two percent slopes. Coxville loam is a nearly level, poorly drained soil found on upland flats and depressions within the Coastal Plain. These soils have a loamy surface and loamy to clayey subsurface. The depth to groundwater is usually zero to 12 inches, which was confirmed during the geotechnical exploration. During the subsurface exploration, ECS generally observed a water table at approximately 12 inches.

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5.1.1.1 No Action Alternative

Under the no action alternative, no construction would occur and therefore, there would be a negligible impact on geology or soils.

5.1.1.2 Proposed Alternative

The proposed action will have minor impacts geology or soils at the site. All construction activity will incorporate practices to minimize soil erosion during the construction phase, including the use of best management practices (BMPs) such as installation of silt fencing and straw bales and proper staging of construction equipment. Following completion of the construction phase, the site will be landscaped with decorative and cover vegetation, reducing the potential for soil erosion.

5.1.2 *Prime Farmland*

As defined in the Farmland Protection Policy Act (FPPA) of 1981, prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor. The proposed action was reviewed for potential impacts on prime farmlands in accordance with Section 1541 of the FPPA (FPPA 1982). There are approximately 2.1 acres of Coxville loam, a farmland of statewide importance on the site which will be impacted by construction activities such as clearing, grubbing, grading, or filling. The physical properties of these soils could be temporarily or permanently altered by changing the soil composition and characteristics, or by replacing these soils with fill materials. Consultation with the USDA was conducted on June 9, 2020 and their response and impact rating form included in **Appendix B**. FEMA completed Parts VI and VII of the form. The site received a score of 147. If the site receives a score less than 160, then review under the FPPA is considered complete and no avoidance, minimization, or mitigation is required.

5.1.2.1 No Action Alternative

Under the no action alternative, no construction would occur and therefore, there would be no impact on prime or unique farmland.

5.1.2.2 Proposed Alternative

FEMA initiated consultation with the USDA-Natural Resources Conservation Service (NRCS) on June 10, 2020, via e-mail correspondence with Mr. Milton Cortes, State Soil Scientist. Based on the results of this consultation, there will be minimal impacts to prime and unique farmland and no mitigation is necessary. Farmland documentation is included in **Appendix B**.

5.1.3 *Forest Resources*

5.1.3.1 No Action Alternative

Under the no action alternative, no construction would occur and therefore, there would be no impact on forest resources.