# PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA) REPORT FOR: Proposed Intermodal Bus Transportation Center

Greenville, NC 27858

#### **SUBMITTED TO:**

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#### **EXECUTIVE SUMMARY**

NFE Technologies, Inc., (NFE) has completed this limited Phase I, Environmental Site Assessment (ESA) for properties located in the blocks bounded by Evans St., 8th St., Cotanche St., and 9th St. in Greenville, North Carolina. NFE is pleased to submit this report of our findings to Moser Mayer Phoenix Associates, attention Mr. Ken Mayer.

This Phase I ESA was conducted in accordance with the *American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process (E 1527-00).* The scope of work conducted by NFE included a review of existing records, onsite and area reconnaissance. NFE also performed a site reconnaissance to record and photograph current site conditions with specific regard to land use or conditions that would indicate the past or current release of hazardous substances.

The review of recorded site history and background information focused on the potential for a release of hazardous materials onto the site from properties adjacent to the property. After thorough investigation, NFE has concluded that there appears to be little evidence of hazardous material adjacent to the site. The potential for impact from these and other sources appears to be low. Most environmental concerns in the area are related to underground petroleum storage tanks. Many of these sites are at the same or lower elevation to the target property.

Within the target property boundaries there is apparently at least one remaining underground heating oil storage tank. This has not been identified as leaking and is not registered due to its residential nature. Upon demolition of the structures this tank will have to be removed and some contamination may be found beneath it. Other hidden heating oil tanks may exist on other parcels within the target site. Exploration for potential contamination from underground storage tanks is beyond the scope of this investigation.

#### 1.0 INTRODUCTION

#### 1.1 Project Description and Scope of Work

NFE Technologies, Inc. was retained by Moser Mayer Phoenix Associates to perform this limited Phase I Environmental Site Assessment (ESA) on the properties located at the proposed site of the multimodal transportation center, Greenville, NC. The ESA was conducted in support of proposed property purchase

This Phase I ESA was conducted in accordance with the *American Society for Testing* and *Materials (ASTM) Standard Practice for Environmental Site Assessment (E 1527-05)*. Phase I ESA activities included the following scope of work:

- Identification of previous land uses or occupancies of the properties;
- Research of federal, state, and local environmental regulatory agency records for site-associated or locally-occurring hazardous substance reports, if any;
- Compilation of data on topography, geology, and hydrogeology;
- Examination of information on past uses of the property and adjoining properties;
- Noting any environmental concerns on the site, such as asbestos, mercury or PCB's;
- Area visual survey to observe the potential use of hazardous materials in proximity to the properties;
- Reconnaissance of the site and adjacent properties in order to evaluate and record present site conditions;
- Providing the Moser Mayer Phoenix Associates with recommendations for further investigation.

Based on the combined results of these assessments, conclusions have been made that address the present likelihood of hazardous or toxic substances to impact the property.

#### 1.2 Purpose

The purpose of this report is to define good commercial and customary practices (E 1527-05) for conducting an environmental site assessment of a parcel of commercial real estate. As such, this assessment is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability. This ESA constitutes an appropriate inquiry into the previous ownership and use of the property consistent with good commercial or customary practice. The intent of an ESA is to evaluate the presence, or likely presence, of hazardous substances or petroleum products that might have impacted the subject site. In essence, the ESA evaluates and records conditions that indicate an existing release, a past release, or a material threat of a release into the soil, groundwater or surface water of the subject property.

#### 2.0 SITE HISTORY

#### 2.1 Location and Legal Description

The site in Greenville, North Carolina, consists of a parcel bordered by East 8th Street on the north, Cotanche (formerly Reade) Street on the east, Evans Street on the west, and East 9th Street to the south. The site consists of a number of properties with tax PIN#s as follows: 2289, 2730, 7738, 7818, 8457, 10225, 11244, 12469, 16500, 17972, 19613, 19623, 21244, 22866, 23220, 23377, 24841, 24842, 25192, 40515, and 44144.

#### 2.2 Site and Vicinity Characteristics

The site and vicinity lie within the city limits of Greenville, North Carolina.

The site consists of approximately 11.64 acres of urban property zoned for office & institutional (OR) or commercial use (CDF). The topography of the surrounding area is flat, with the site relief, ranging in elevation between approximately 48 and 53 feet above Mean Sea Level (MSL).

The surrounding area is characterized by a mix of residential and commercial activity, with most residential use to the west and south and the remainder offices, retail facilities, and parking lots.

## 2.3 Structures and Site Improvements

The site contains a number of structures utilized for residential or retail/commercial purposes. Single family residential structures are located at 802 and 804 Forbes St., and at 111 and 113 9<sup>th</sup> St. Duplex housing is located at 110 8<sup>th</sup> St. and 201 9<sup>th</sup> St. A multifamily apartment structure is located at 810 Cotanche St. These structures will hereafter be referred to by the street address of each structure. The structure at 200 8<sup>th</sup> St. is an office building designed to resemble a residential structure. The property at 823 Evans St. is an office building with a parking lot. The parcels identified as 811 and 813 Evans St. are office/retail in nature. At 809 Evans St. is a residential structure currently used for offices. The corner lot at Evans and 8<sup>th</sup> St is a medical office building with an address of 801 Evans St.

The residence at 802 Forbes appears as it may date from the 1950's. The building is wood frame with asbestos cement shingle siding, typical for the era. Heating and cooling at the present appears to be heat pump, but the structure has a chimney, possibly indicating the former presence of a furnace. No indications of heating oil tanks were observed.

The residence at 804 Forbes appears as it may be original construction from the 1950's. The building is wood frame with wood siding. Heating at the present appears to be gas. No indications of above- or below-ground heating oil tanks were observed.

The structures at 111 and 113 9<sup>th</sup> St. are shown on property maps as early as the 1920's. These structures are wood frame construction with asbestos siding. This siding may have been applied over the original wood plank walls, or the original structures may have been demolished and reconstructed at a later date. Both structures presently have gas heat and window air conditioning units. No evidence of heating oil tanks was observed.

The residence at 112 8<sup>th</sup> St. is currently a two story duplex with one residence on the lower floor and another on the upper floor. Heating and cooling appears to be by heat pump, as no gas connection or oil tank evidence was observed. While a dwelling appears on property maps back into the early 1900's, the current structure does not have the same footprint, leading to the conclusion that the present structure is of fairly recent construction.

The residence at 201 9<sup>th</sup> St. appears to date from the 1960's or later. The present structure is a single story duplex. The building is of wood frame construction. There appears to be gas heat in the structure and central air conditioning. No indications of heating oil tanks were observed.

The structure at 810 Cotanche is a multifamily two story apartment building of brick veneer construction. There are ten units in the building. Present heating and cooling appears to be electric, but a disconnected gas valve in the rear indicates that the units may have had gas heat in the past. The structure is estimated to be less than 20 years old.

At the corner of 8<sup>th</sup> and Forbes Streets the Campus Christian Fellowship ministry occupies the 200 8<sup>th</sup> St address. The building appears to be less than 20 years old. Heating and cooling is electric, and the building does not have a chimney, indicating that it does not have a combustion heating system.

823 Evans is currently occupied by the Family Violence Center. The structure is two story brick, and appears to be heated and cooled by electric heat pump. The front portion of the property is a paved parking lot. The structure appears to be of relatively recent construction.

At 813 Evans St. there is a commercial/retail structure. The first evidence of this use of the property is during the 1950's. The structure is concrete masonry construction. Heating and cooling at the present appears to be gas, but former heating systems are unknown. No indications of heating oil tanks were observed. Attached to this structure is another on the 811 Evans St. parcel. Mr. George Saad indicated that he purchased the 811 Evans property and added another concrete block structure to the side of the 813 Evans structure. The 811 Evans structure is heated and cooled with electricity. At the time of construction of the 811 Evans addition Mr. Saad added a new pitched shingle roof over both halves. At present the Good Shepherd Apostolic Faith Church uses the majority of the building, and a computer sales office occupies the rear of the 813 Evans structure.

The former residence at 809 Evans appears as it may be original construction with

minor additions/modifications. The building is wood frame wood siding of a style popular at the turn of the last century. Heating at the present appears to be gas, but the stub of an apparent heating oil vent pipe is on the side of the structure. At the present the structure is used for offices of The Family Center.

At 801 Evans Dr. Lee R. Trent II has a medical office. The structure is one story brick with gas heat. No evidence of any former heating system was observed. The structure occupies the location of a former long time residence. Estimated construction date is within the last 25 years.

The remainder of the parcels are presently unimproved. The parcel at 809 Forbes was a residence as late as the 1950's, but the site presently is graded and grassy.

Unpaved parking lots occupy the former 813 9<sup>th</sup> St. and the spot between 201 9<sup>th</sup> St. and 810 Cotanche. Paved parking occupies the two parcels at the corner of 8<sup>th</sup> St. and Cotanche St, and is used by Campus Towers student housing. The lots between the 801Evans St. medical office and the residence at 112 8<sup>th</sup> St. are partly paved and are used by the medical office for parking.

Note that evidence of one heating oil tank was observed, and records exist from the removal of another. The remaining residential structures may or may not have underground storage tanks (UST's) or aboveground storage tanks (AST's). During this survey only one fill/vent pipe was observed. Others may have been cut off, or the tanks may have been removed.

#### 2.4 Current and Past Uses of the Site and Adjoining Properties

Based on aerial photographs and historic maps, the land-use of the area surrounding the subject site has been residential since at least the late 1890's. Historical maps show that the original structures were modified or replaced at various times. By the 1950's many of the current structures were present. Only one site was developed as commercial/retail. The 813 Evans St. site was formerly occupied by a printing company/copy center.

The surrounding areas have been largely residential throughout the site history, but have turned increasingly commercial throughout the 1900's. Across Cotanche to the east, East Carolina University has gradually increased the density of development of the area into various campus facilities. The area along 10th Street to the south has supported commercial facilities including automotive related enterprises since at least the 1950's. The blocks between 9th St. and 10th St., directly across from the project site, have gradually turned from residential into commercial use. Commercial buildings and apartments have existed on the parcels to the north of 8th St. for many years. Across Evans St. the area has gradually turned from residential into office use, with some offices occupying former residences.

#### 2.5 Utilities

Greenville Utilities supplies electricity in the site vicinity. Most of the electric utilities are underground except along Forbes St. and 9<sup>th</sup> St.. There are several transformers on the site. Two transformers on two poles are along 9<sup>th</sup> St. One transformer labeled as containing 75 gallons of oil is at the northwest corner of 9<sup>th</sup> St. and Forbes St.. Another transformer labeled as containing 37.5 gallons of oil. These transformers appear clean, with no evidence of leaks. A table showing the power pole identification numbers for each of the transformers can be found in Appendix A.

Greenville Utilities also provides natural gas services to the target property. All gas lines appear to be in good condition. Water and sewer services to the site are also supplied through the City of Greenville.

#### 3.0 USER PROVIDED INFORMATION

#### 3.1 Reason for Phase I Site Assessment

This site assessment is performed for Moser Mayer Phoenix Associates in support of their efforts to purchase the property.

#### 4.0 RECORDS REVIEW

#### 4.1 Standard Environmental Records: Federal, State and Local

Federal, state, and local environmental agency records were reviewed to determine if any hazardous reports had been filed with public agencies. These records reveal the details of past or at present contamination by hazardous substances or toxic waste at or near the subject site, if any. NFE's records review was supplemented by Environmental Data Resources, Inc., an environmental database research company (Section 3.3.12 and Appendix A).

#### 4.1.1 USEPA CERCLIS

The United States Environmental Protection Agency (USEPA) maintains a compilation of known, alleged, and potential hazardous waste sites in the Comprehensive Environmental Response, Compensation and Information System (CERCLIS) database. The sites on the CERCLIS list consist of known or suspected uncontrolled or abandoned hazardous waste sites. These listed sites have either been investigated, or are currently under investigation by the USEPA for the release, or threatened release, of hazardous substances under what is commonly known as the Superfund Program. Superfund provides administrative means to determine the source and extent of soil and water contamination and to mandate necessary remedial action. The CIRCLIS list is based upon the discovery of hazardous substances, notification of closure for unknown substances, or sales of businesses whose operations are monitored by the USEPA.

The CERCLIS listings revealed that the subject property is not recognized as a known, alleged, or potential hazardous waste site. No sites were identified by CERCLIS within a one-mile radius of the subject site. For radius map and CERCLIS information, see Appendix B.

#### 4.1.2 North Carolina State Environmental Records

The North Carolina Department of Environment and Natural Resources (NCDENR), maintains incident complaints and event files describing spills and leaks to soils, groundwater, and surface waters, such as unauthorized releases from underground storage tanks (USTs). Research of these files revealed no impact related directly to the site; however the NCDENR files contained site reports describing nearby properties. Active and inactive investigations in proximity to the site are listed in Section 4.3.

#### 4.2 Federal, State, and, Local File Search

#### 4.2.1 NCDENR State Hazardous Waste Sites

NFE researched the files for state hazardous waste sites. The subject property is not on this list. No sites were identified within one mile of the subject property.

#### 4.2.2 Leaking Underground Storage Tanks (LUST)

NFE researched the incident and release files for underground storage tanks, information from tank closure, site assessment, complaints, facilities registration and notification, and collection of fees. NCDENR records indicate active and inactive release locations and remediation projects existing at/or within 0.5 miles of the site, mainly related to LUST activities. These sites are listed in Section 4.3.

#### 4.3 Federal/State Database Review

NFE reviewed standard environmental record sources for the subject site and surrounding property. This section summarizes database lists and includes search distance radii from the site (in parentheses). Differences in property titles for the same site, varying site descriptions, or inconsistencies in site addresses are due to discrepancies in various reports filed by the property owners' representatives. Multiple listings for the same site may also relate to the severity of contamination reported at a given time during an ongoing investigation. For further details on each site listed, and a map showing the site locations by ID number, see Appendix B.

4.3.1	Federal NPL	or proposed	NPL Site	(within	1.0 mile	):

No listing found.

#### 4.3.2 Federal CERCLIS list (within 0.5 mile):

No listing found.

#### 4.3.3 Federal RCRIS TSD Facilities list (within 1.0 mile):

No listings found.

#### 4.3.4 Federal RCRIS Large Quantity Generator's List (within 0.25 miles):

No listings found.

#### 4.3.5 North Carolina AST database:

No listings found.

#### 4.3.6 Brownfields Database:

No listings found.

#### 4.3.7 Federal RCRIS Small Quantity Generators (within 0.25 mile):

Scotts Cleaners, 111 W. 10th St., 0-1/8 mi, Map ID # B12

#### 4.3.8 North Carolina Hazardous Waste Sites (within 1 mile):

No listings found.

#### 4.3.9 North Carolina State LUST list, i.e., non-priority (within 0.5 miles):

There are 28 reported Leaking Underground Storage Tank (LUST) sites at higher or equal elevation within 0.5 miles of the subject property. Those sites are listed below. A complete list is found in the Appendix. Some of these sites may be closed, but the records of closure are not complete. These sites may or may not have some impact on

the subject property. Further investigation is beyond the scope of this report. Some sites have been omitted from this list because the address of record is the address of the owner and not that of the site of the tanks.

- Joe Davis Rental Property, 111 E. 9th St., 0-1/8 mi WSW, Map ID # A1
- Daughtridge Oil Evans 76, 10th St. / Evans St., 0-1/8 mi SW, Map ID # B6
- University Amoco, 101 E. 10th St., 0-1/8 mi. SW, Map ID #B7
- Wilcar Executive Center, 223 W. 10th St., 1/8-1/4 mi. WSW, Map ID # D17.
- City of Greenville Property TA, 527 Dickinson Ave., 1/8-1/4 mi. NNW, Map ID # 20
- Stop Shop, 213 E. Fifth St., ¼-1/2 mi. NNE, Map ID # F22
- Sam Pollard & Son, Inc., 400 W. 10th St., ¼-1/2 mi. WSW, Map ID # 24
- Tacker Residence, 503 E. Eleventh St., ½-1/2 mi. SSE, Map ID # G25
- Pugh's Shell Station, Fifth/Green St.., ½-1/2 mi. NN W, Map ID # H29
- Nimmo Property (Hazel), 113 W. Fourth St., ¼-1/2 mi. N, Map ID # 31
- Harrison Property #409, 409 Holly St.., ½-1/2 mi. NE, Map ID # I32
- Harrison Property #407, 407 Holly St.., ½-1/2 mi. NE, Map ID # I35
- Fletcher Rental, 405 Summit St., ½-1/2 mi. NE, Map ID # 37
- Herbert Corey Property, Dickinson Ave./Grande, ¼ -1/2 mi. W, Map ID# 38
- Steve Horne Law Office, 300 Cotanche St.., ½-1/2 mi. NNE, Map ID # 39
- Magnolia Apartments, 418 W. Fifth St.., ½-1/2 mi. NW, Map ID # 40
- Perco/Perkins Oil, 111 W. Fourteenth St.., ¼-1/2 mi. SSW, Map ID # J41
- Perco Station, 111 W. Fourteenth St.., ¼-1/2 mi. SSW, Map ID # J42
- Perkins Oil Co., 111 W. Fourteenth St.., ¼-1/2 mi. SSW, Map ID # J43
- Bill's Fast Food/Planter Nation., 323 S. Greene St.., ½-1/2 mi. NNW, Map ID#44
- Bucks Supply, 201 Grand Ave., ¼-1/2 mi. W, Map ID # 45

- Coastal Chemical, 3702 Evans St. Ext., ¼-1/2 mi. N, Map ID # 46
- Pertalion Residence (Pat), 408 Student St., ¼-1/2 mi. ENE, Map ID# K47
- Eaton's Shell, 601 Albemarle St., ½-1/2 mi. WNW, Map ID # 49
- Fast Fare #508 (Former), 220 Cotanche St., ½-1/2 mi. NNE, Map ID # 50
- Wooten-BB&T, Pitt/W. Third St., ¼-1/2 mi. NNW, Map ID # L51
- Montaquila, Lucy Residence, 805 E. Third St., ¼-1/2 mi. NE, Map ID # M53
- Zoretic Property (Phillip), 808 E. Third St., 1/4-1/2 mi. NE, Map ID # M55

#### 4.3.10 North Carolina State Registered UST list (within 0.25 miles):

The following sites have registered underground storage tanks

- A & B Auto Service, 9th & Evans St., 0-1/8 mi WSW, Map ID # A3, 10 tanks
- University Amoco, 101 E. 10th St. 0-1/8 mi SW, Map ID #B8, 9 tanks
- Party Center, 10th & Evans St., 0-1/8 mi. SW, Map ID # B9, 2 tanks
- 10th & Evans 76, 100 W. 10th St., 0-1/8 mi. SW, Map ID # B10, 4 tanks
- Sheetz Inc. 397, 1000 Charles Blvd., 1/8-1/4 mi. SSE, Map ID # C13, 4 tanks
- The Pantry 799, 316 E. 10th St., 1/8-1/4 mi. SSE, Map ID # C14, 3 tanks
- Trade/Wilco 1802, 210 W. 10th St., 1/8 ¼ mi. WSW, Map ID # D15, 8 tanks

#### 4.3.11 North Carolina Hazardous Substance Disposal Sites

No listings found.

#### 4.3.12 North Carolina LUST Trust Sites

This database is a list of sites where there are claims against North Carolina's state trust funds for reimbursement of LUST cleanup costs. There are 13 sites within 0.5 mile of the subject property. The following sites are within 1/2 mile of the subject property. For information on the remaining sites see the Appendix.

- A & B Auto Service, 103 W. 9th St., 0-1/8mi WSNW, Map ID # A4
- Wilcar Executive Center, 223 W. 10th St., 1/8-1/4 mi. WSW, Map ID # D17
- Tacker Residence, 503 E. Eleventh St., ¼-1/2 mi. SSE, Map ID # G26
- Pugh's Shell Station, Fifth/Green St.., ¼-1/2 mi. NN W, Map ID # H28
- Harrison Property #409, 409 Holly St.., ½-1/2 mi. NE, Map ID # I33
- Fletcher Rental, 405 Summit St., ¼-1/2 mi. NE, Map ID # 37
- Perco Station, 111 W. Fourteenth St.., ¼-1/2 mi. SSW, Map ID # J42
- Perkins Oil Co., 111 W. Fourteenth St.., ½-1/2 mi. SSW, Map ID # J43
- Pertalion Residence (Pat), 408 Student St., 1/4-1/2 mi. ENE, Map ID# K48
- Wooten-BB&T, Pitt/W. Third St., ¼-1/2 mi. NNW, Map ID # L52
- Montaquila, Lucy Residence, 805 E. Third St., ¼-1/2 mi. NE, Map ID # M53
- Zoretic Property (Phillip), 808 E. Third St., 1/4-1/2 mi. NE, Map ID # M54

#### 4.3.13 Environmental Data Resources, Inc (EDR)

In an effort to provide thorough research, NFE utilized Environmental Data Resources, Inc. (EDR), a commercial data-collecting firm, to crosscheck and supplement our research activities. Information provided by EDR was obtained from available public and other secondary sources (Appendix B).

A Table of Underground Storage Tanks Within ¼ mile and a locator map for these tanks are in Appendix A.

#### 4.4 Physical Setting -- Site Topography, Geology, Hydrogeology

#### 4.4.1 Topography

Based on the USGS 7.5 minute Topographic Map, Greenville SW, NC, 1968 (photo revised 2) the natural elevation of the site is approximately 45 feet above MSL (**Appendix A**). The site is sloping downward toward the northwest, with a relief of less than five feet.

#### 4.4.2 Geology and Soil

The site is located in the coastal plain physiographic province. The predominant rock types in this portion of the coastal plain are bluish gray fossiliferous clay with fine grained sand and shelly lenses. Locally may be shelly medium to coarse sand. (*Brown, Philip M., et. al 1985, Geologic Map North Carolina*). The rocks are generally well weathered and outcrops of the actual rocks are rare except where exposed in stream banks or pits.

Soils are typically described Wagram Sandy Loam, 0-6% slopes. The basic soil is derived from weathering of the underlying sedimentary rocks. The soil is well drained loamy sand and friable sandy clay. Infiltration is rapid and runoff is slow. (USDA Soil Conservations Service, 1974, Soil Survey of Pitt County, North Carolina). The soils at the subject site have been somewhat disturbed by construction the various structures, however, and residual surficial soil layers may not be typical.

#### 4.4.3 Hydrogeology

Local groundwater in the geologic environment is derived from precipitation, generally assumed to infiltrate the ground and flow down-slope roughly following existing topography. Subsurface investigations to groundwater were not included in this scope of work. Groundwater flow directions in the surrounding area derived from existing sources are shown in Figure 4 (Appendix A). The subject property generally slopes slightly toward the south and west, and the shallow groundwater is likely to do the same. This means that contaminants from identified sources are not likely to flow under the property from those outside sources,

#### 4.5 Historic Land Use

The objective of land use research is to develop a history of the previous uses or occupancies of the site and the surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions that would adversely impact the subject property.

#### 4.5.1 Chain of Title

NFE researched the chain-of-title for properties that make up the target property. Available records indicate that properties have been divided and assembled into various configurations through the years. Some properties can easily be traced back to their nineteenth century origins, most others can be traced back at least 50 years. Until recently most structures were residential in nature, with no immediately obvious environmental impacts. Complete chain of title record summaries are presented in Appendix E.

#### 4.5.2 Historic Aerial Photographs

In order to evaluate the past land use of the site corridor and surrounding property, NFE obtained air photographs of the vicinity for each decade beginning with the 1970's. Aerial photographs can be found in Appendix D. A discussion of each photo follows.

#### 1977 (Clarity --good)

The 1959 aerial photograph shows the subject property with many of the present structures. The block between Cotanche and Forbes shows two structures on Cotanche, one at the corner of 8th St., and one near the corner of 9th St. A number of smaller structures that appear to be dwellings line Forbes St. on both sides of the street. Three main structures can be observed along Evans St. The surrounding area is residential to the south and west, commercial to the north and largely open land to the east.

NFE detected no recognizable areas of stored drums, no landfill activity, or dumping. Likewise, no cemeteries were observed.

#### 1982 (Clarity --poor)

The 1982 aerial photograph is of such poor quality that the target area can barely be recognized. One large structure can be identified in the area to the north of the subject property.

NFE detected no recognizable areas of stored drums, no landfill activity, or dumping. Likewise, no cemeteries were observed.

#### 1998 (Clarity --fair)

The 1988 aerial photograph shows structures on Cotanche St. that were visible in 1977 appear to be gone. The corner of Cotanche and 8th appears to be vacant. Structures along Evans and Forbes St. are difficult to discern. The area immediately to the north appears to be largely commercial. To the south the area between 9th and 10th St. has become commercial. To the east, the previous vacant land now contains a large structure associated with East Carolina University.

NFE detected no recognizable areas of stored drums, no landfill activity, or dumping. Likewise, no cemeteries were observed.

#### **2006 (Clarity --good)**

The 2006 aerial photograph clearly shows the subject property with a large structure on the corner of Cotanche and 8th St. A number of smaller structures can be discerned along Forbes St. and 9th St. What appears to be a commercial building is seen at the corner of Evans and 8th St. Most of the surrounding areas

appear to have largely lost their residential use. The University land to the east is much more densely developed.

NFE detected no recognizable areas of stored drums, no landfill activity, or dumping. Likewise, no cemeteries were observed.

#### 4.5.3 Sanborn Fire Insurance Maps

Sanborn Fire insurance map coverage is available for the target property is available foe a number of years. Maps from 1898, 1900, 1905, 1911, 1916, 1923, 1929, 1946, and 1958 were observed. Relevant portions of these maps are reproduced in Appendix D.

#### 1898

This early map only covers the block between Evans and Forbes. Five dwellings face Evans St. at the present 801, 805, 811, 813, and 823 sites. Most of the lots extend all the way from Evans to Forbes (then Cotanche) St. One dwelling is on 8th St. Most buildings have outbuildings including stables and other sheds. There is a one-room school at the present 804 Forbes St. location.

#### 1900

This early map mostly only covers the block between Evans and Forbes, with a small part of the opposite side of Forbes. Structures are as before, with the addition of several on Forbes (former Cotanche). The one room school is vacant.

#### 1905

By 1905 some of the stables are gone and there is some infilling on the block between Forbes and Cotanche. The schoolhouse is still vacant. City water lines have been run to the section, as evidenced by the presence of hydrants.

#### 1911

Not much changed by the time of this map. Some additional sheds have been constructed, and the schoolhouse is gone.

#### 1916

By 1916 the block deep lots at 823 and 813 Evans have been divided to make two lots along 9th St. The first automobile garage appears on the NE corner lot of Forbes and 9th St.

#### 1923

By 1923 all lots have at least one dwelling on them. A third dwelling is added

along 9th St. between Evans and Forbes (present 111, 113, and 115 9th St.).

#### 1929

This map shows very little difference from the previous one. Some structures have had minor additions.

#### 1946

By 1946 the structure at the present 809 Forbes St. location has been divided into a duplex with brick veneer.

#### 1958

The former dwelling at 805 Evans has been demolished and replaced by a single story wood frame store. Dwellings have been added at 804 Forbes and 802 Forbes. The structure at 823 Evans has been divided into four apartments... Brick has been added to the 110 8th St. structure.

## 5.0 SITE RECONNAISSANCE

#### 5.1 Background

The objective of the site reconnaissance is to obtain first-hand information on current environmental conditions of the site, and to further evaluate adjacent site conditions that might indicate adverse impact to the site. Site reconnaissance by qualified professionals was limited to visual observation through a site walk and photographic inventory of the subject properties and adjacent properties to establish land use as it may relate to the presence or storage of hazardous or toxic substances. Dr. Harry W. Boyd, P.G., Senior Environmental Project Manager for NFE, conducted the site reconnaissance on July 21, 2008. Photographs of the site and surrounding area can be found in Appendix C.

#### 5.1.1 General Site Setting

**Evans Street** has small commercial and office properties in the immediate vicinity of the target property. The target property occupies the summit of a high point along this stretch of Evans, and the topography generally slopes down toward the west. Of note is the auto repair facility to the southwest of the site. Other commercial and auto care facilities are located further to the south, beyond a potential area of impact on the target property.

9<sup>th</sup> Street is residential and commercial south of the subject property. The

residential structures along the site boundary may have had below ground heating oil tanks in the past. To the 9<sup>th</sup> street runs through part of the East Carolina University campus. To the west there is the auto repair facility at the corner of Evans Street and then medical, residential and commercial structures.

**Cotanche Street** runs along the east side of the site, and includes a few apartment and university structures. The section to the north of the site has several apartment buildings, and immediately to the east are several structures associated with East Carolina University

8<sup>th</sup> Street runs along the north side of the site, and includes residential and commercial structures. Along the north side of the site there is a restaurant and an apartment building. To the west 8<sup>th</sup> street has an art museum, commercial structures and a cleaning supplies manufacturing/distribution facility. The industrial facility is at a lower elevation than the site and has no record of any environmental violations.

**Forbes Street** runs through the site, and then to the south toward 10<sup>th</sup> Street. It includes a few residential structures and a church. Section to the north of the site has several apartment buildings, and immediately to the east are several structures associated with East Carolina University.

Other areas of note include a stretch of 10<sup>th</sup> street south of the site. This street is heavily commercialized and includes a gas station (Sheetz) at the southwest corner of Cotanche and 10<sup>th</sup> streets. This is a new facility and replaces a previous gas station. A dry cleaning facility is at the southwest corner of Evans and 10<sup>th</sup> Street. Both the Sheetz station and the cleaners are at least a block away from the site.

#### 5.1.2 Surrounding Land Uses

A reconnaissance of properties surrounding the subject site revealed commercial properties, residential structures a church and parking lots with no structures. No cemeteries were observed; likewise no dumping or surface storage of hazardous materials was noted during the exterior examination of adjacent properties. No wetlands were observed, and no unusual odors were noted at the time of the site survey. The existing use of the surrounding properties appears to be compatible with the City of Greenville Zoning Ordinances.

#### 5.2 Exterior Observations

The property is currently in use for residential and office purposes.

The parking lot pavement at the corner of 8<sup>th</sup> street and Cotanche is in good condition, and the pavement of the small lot in the 100 block of 8<sup>th</sup> street is in fair condition, with

some unevenness.

Curb inlets along 8<sup>th</sup> street and 9<sup>th</sup> street drain water away along the apparent course of a former intermittent stream. This stream has been covered over since around the turn of the last century.

Pole-mounted transformers, servicing the 9<sup>th</sup> street area, were observed along 9<sup>th</sup> street. These transformers appeared in good condition with no signs of damage or release of contents. Evans, 8<sup>th</sup> street and Cotanche all have underground electric utilities.

The open lot at 809 Forbes Street is grassed and largely free of trash.

Vegetation around the properties has been minimally maintained, but was not observed to be stressed.

#### 5.3 Interior Observations

The interior spaces within the subject office buildings have been maintained in a useable state. The walls and floors are intact. No signs of water leaking from the roof or HVAC units were observed. There are fluorescent fixtures throughout all three structures. These fixtures should be examined to ascertain whether they are labeled "Non-PCB". Until such determination is made it must therefore be assumed that all fluorescent fixtures inside the structures contain PCB ballasts. Any fluorescent tubes remaining in the fixtures should be assumed to contain mercury.

Residential structures were not entered, and therefore were not evaluated for interior environmental issues..

#### 6.0 FINDINGS AND CONCLUSIONS

Based on the data presented herein, NFE has formed an opinion as to the potential for impact to the subject site by hazardous materials originating on and/or migrating from adjacent properties. NFE has endeavored to perform this Phase I ESA in accordance with the *American Society for Testing and Materials (ASTM) Standards*) Standard Practice for Environmental Site Assessment (E 1527-05) unless noted previously.

#### 6.1 Off Site Impacts

While there is little evidence of major environmental concerns on the subject properties, there are still issues to be addressed. Some of these are discussed below. Since the residential structures on the subject properties were largely constructed in the early- to mid-1900's, there is ample reason to suspect the presence of underground heating oil tanks (UST's). One such tank was removed from 111 E. 9<sup>th</sup> street, and is discussed below. Evidence for another can be seen beside the 809 Evans St. structure. Other residences on Forbes Street do not currently show physical evidence for UST's, but there are no records of tanks being removed. Also, the vacant site at 809 Forbes may or may not still have buried tanks.

# 111 East 9<sup>th</sup> Street (Map ID No. A1)

In 1995 a heating oil tank was removed from this site. Soil and groundwater contamination were discovered, and the site was cleaned up to North Carolina 2L.0200 standards. The site was officially closed out on 2/25/2005.

NFE is of the opinion that the potential for impact from this site is apparently low.

#### 6.2 Off Site Impacts

Considering their immediate proximity to the subject property, the following sites are discussed below with specific regard to their potential to impact the subject site. Site addresses are limited to one service station actively engaged in the retail sale of vehicle fuels, an auto repair facility, and several commercial buildings.

# 111 West 10<sup>th</sup> Street (Map ID No. B12)

Scott's Cleaners is designated as a Conditionally Exempt Small Quantity Generator (CESQG). Spent halogenated solvents are the primary items stored at this facility. Two minor violations were found for this facility – in 1988 and 1994. In each case the facility was in compliance within 30 days. All subsequent evaluations have found no violations. The site is cross-gradient from the target property.

NFE is of the opinion that the potential for impact from this site is apparently low.

# Corner of 9<sup>th</sup> and Evans (Map ID No. A2)

A & B Auto at one time was a gas station. Tanks were installed at various times from 1935 to 1955. According to available records the tanks were last used in 1980, and were recorded as empty in 1988. All tanks were removed in 1992. Some contamination under the property was found, both soil and groundwater. This site had incident records closed out in 1998. This site is somewhat down gradient from the target property. State records place this site as a low priority for cleanup, indicating a low level of risk.

NFE is of the opinion that the potential for impact from this site is apparently low.

# Corner of 10<sup>th</sup> and Evans (Map ID No. B6)

Daughtridge Oil Co. occupied this corner at one time. The number, size and contents of any UST's is unknown. The site was officially closed out in 1996. State records place this site as a low priority for cleanup, indicating a low level of risk.

NFE is of the opinion that the potential for impact from this site is apparently low.

# 101 E. 10<sup>th</sup> St. (Map ID No. B7)

This site at one time was a gas station, known as University Amoco. A total of nine tanks were removed from the site in 2004. Some contamination under the property was found, both soil and groundwater. This site had incident records closed out in 2005. This site is somewhat down gradient from the target property. State records place this site as a low priority for cleanup, indicating a low level of risk.

NFE is of the opinion that the potential for impact from this site is apparently low.

Other sites are deemed to be of low potential impact due to distance and gradient. The Sheetz gas station has new tanks with double wall tank systems, corrosion control and a spill monitoring system.

#### 6.3 Asbestos

There are no known asbestos surveys on these properties. The presence of asbestos-containing materials has been visually identified on the exteriors of several residential structures. These include residences at 111 and 113 9<sup>th</sup> St., and 802 Forbes St.

Other suspect material for buildings of this age include but are not limited to floor tile, ceiling tile, spray ceiling texture, roofing materials, and pipe/duct insulation.

#### 6.4 PCB's

A visual survey was not performed on existing fluorescent light fixtures in the buildings, so a determination that the ballasts are "non-PCB" could not be made. For this reason, it is recommended that all fluorescent light fixtures be assumed to contain PCB's and be disposed of accordingly.

#### 6.5 Mercury

All fluorescent light fixtures should be assumed to contain mercury in the light tubes. Most fluorescent fixtures in the guest rooms have already had tubes removed, but the remaining tubes should be disposed of appropriately.

#### 6.6 Drainage

There are seven curb inlets around the subject property that drain water away form the paved streets. These are primarily along 9<sup>th</sup> St, Evans St., and 8<sup>th</sup> St. In addition, three drains are across 9<sup>th</sup> St. from the property, and one across 8<sup>th</sup> St. The collected water is drained away by the city storm drainage system. Any construction activities should take the underground drainage into account.

#### 7.0 QUALIFYING STATEMENTS

NFE has performed this limited Phase I Environmental Site Assessment of the proposed site of the Greenville Multimodal Transportation Center.. We have done so by conforming to the scope and limitations of *ASTM Practice E 1527-05*. NFE has employed investigative and research procedures during the course of this assessment that should be understood to indicate actual conditions only at the precise locations investigated. Additionally, the conclusions rendered from this work are based on qualitative information gathered on or near the date of this report.

As is customary with such investigations, NFE has made certain inferences and conclusions based on our findings and results. Outside sources have provided NFE with data and information regarding current site conditions, test results collected by others, and facility operations. As is customary, NFE has assumed the data and information supplied by Environmental Data Resources to be factual and complete. Conclusions rendered from these data are subject to professional opinion, and thus, could result in differing interpretations.

#### 7.1 Limitations

The site assessment described herein is limited to observations made during NFE's visual inspection and data research of the subject site. No soil, surface water, or ground water samples have been collected for laboratory analysis during this investigation. NFE makes no representations or certifications concerning any building materials, hidden items, soil, surface water, or groundwater quality.

#### 7.2 Restrictions

NFE performed this limited environmental site assessment to identify potential liabilities associated with current site conditions based on existing documentation and information available at the time of this report. This work has been performed in accordance with generally accepted engineering practices. No other warranty is expressed or implied. Recommendations rendered from our work in no way eliminate site hazards or the owner's obligation to federal, state, or local laws. NFE will not be held liable for the future discovery or elimination of hazards encountered that may potentially cause damage, accidents, or injuries. The site and adjacent property owners are solely responsible to notify the proper authorities of any condition that violates current applicable laws and regulations. Changes to the content or form of this report require NFE's expressed, written approval.

# 8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Dr. Harry W. Boyd conducted the research and site inspection necessary to complete this Phase I Environmental Site Assessment. The work was approved by Mr. V. K. Goel, P.E.

Mr. Harry W. Boyd, PG NC License No. 1145 Senior Geologist/Environmental Manager

Signature

Signature

Mr. V. K. Goel, P.E. N.C. License No. 18283 President

Date: 09/30/08

## APPENDIX A

# SITE MAPS AND FIGURES

Fig. 1: Topographic Map

Fig. 2: Tax Parcel Map

Fig. 3: Area Zoning Map

Fig. 4: Soils Map

Fig. 5: Groundwater Flow Map

Fig.6: Floodplain Map

Table 1: Table of UST's within 1/4 Mile

Fig. 7: Locator Map for UST Table

Table 2: Power Pole and Transformer Information

# APPENDIX B

# ENVIRONMENTAL DATA BASE RESEARCH SERVICE

# APPENDIX C SITE AND VICINITY PHOTOGRAPHS

# APPENDIX D

# REPRODUCED FIGURES FROM SITE-SPECIFIC PUBLICATIONS

Sanborn Maps Historic Aerial Photographs

# APPENDIX E

# Chain of Title Records