Environmental Impact Assessment

For

COUNTYLINE SELF STORAGE

Chatham County, North Carolina

April 29, 2014

Prepared by:

Warren D. Mitchell, PE 253 Tobacco Farm Way Chapel Hill, NC 27516

Proposed Project Description and Need

1) Describe the overall project in detail, including all proposed phases.

This project includes the construction of 2 – multi-story self storage buildings. The project will be built in 2 phases, one building in each phase. The existing land is a 3.7 acre parcel with one brick ranch single family dwelling occupying the property.

- 2) Provide a project location map showing surrounding areas. **See attachment A-18.**
- 3) Provide a project site plan showing existing and proposed facilities. **See attachment A-13 and A-14.**
- 4) Describe how this project fits into larger plans or connects with adjacent projects.

This project is compatible with the adjacent properties along US 15-501. The Wal-Mart to the north of this property was opened in 2013. The Wal Mart property is zoned B1. The Wal Mart property wraps around the east side of the property also. To the south is property owned by the State of North Carolina. The University of North Carolina uses this property for a park-and-ride parking lot to serve the University. There are 2 single family lots to the south.

This site is located on a transportation corridor, US 15-501 which is mentioned several times in the Chatham County Land Development Plan as suitable for development in appropriate locations.

- 5) List and describe any public facilities or public benefits provided by the project.

 This self-storage facility will provide a public benefit whereby

 Chatham County residents can safely store belongings convenient to where they live.
- 6) Discuss the land acreage to be disturbed during each phase.

The first building will be constructed during phase 1. The entire site will be prepared, graded and stabilized during construction of building 1. The total site area to be disturbed is 3.4 acres. The pad for building 2 will be prepared during phase 1. During phase 2, only the building area will be disturbed to construct building 2.

7) List square footage and height (in stories) of new buildings.

Building one has a footprint of 18,000 square feet x 4 floors = 72,000 square feet. Building two has a footprint of 12,600 square feet x 4 floors = 50,400 square feet. Both buildings will have a maximum height of 46 feet.

8) Describe proposed uses of all buildings and proposed facilities.

The uses being requested with this application are "self-storage facility / mini-warehouse storage facility with related retail and Services (i.e. moving truck rental)"

- 9) Show number of parking spaces in parking lots and decks.

 Sheet A-14 shows 7 standard parking spaces and one handicap space.
- 10) Show areas to be cleared, graded, filled, paved, and landscaped. **See attachments A-14, A-15, A-16 and A-17.**
- 11) Show connections to existing utility and sewer lines or new utilities.

The facility will require a public waterline sized for fire protection of the buildings. The sanitary sewer will use a conventional septic system. The electrical needs will be met with using the existing utility lines along 15-501.

12) Show wastewater management systems on a map.

The wastewater system / septic system is shown on drawing C2 (See attachment A-14).

13) Show proposed areas of impervious and semi-pervious surfaces. **See attachment A-14**

14) Show and describe any proposed stormwater control devices.

See attachment A-15. The stormwater system for this project will be designed to meet or exceed the County's stormwater ordinance. A stormwater basin is proposed for the project to capture the stormwater and mitigate the quantity and quality from the development. The stormwater requirements are exceeded because the stormwater basin is designed to detain the 100-year storm event. A wet detention basin is being used to control the peak discharge, provide 90%TSS removal, and reduce the nitrogen and phosphorous from the development.

Alternatives Analysis

1) Discuss and compare all reasonable development alternatives (site selection, facility layout, utilities, stormwater management, construction methods, open space preservation, and any other pertinent alternative considerations).

The buildings were placed closer to 15-501 and the driveway access. This kept it off the southern and eastern property boundaries. The stormwater basin had to be placed on the lowest side of the property. The site was graded so that the stormwater would flow into the stormwater basin. There was no alternative to the location for the stormwater basin. With a Wal Mart to the north and a Park-and-ride facility to the south and a

4 lane highway to the west, this site is more suited to a commercial use than a residential use.

2) Discuss how the preferred alternative was selected and its benefits relative to other alternatives (including a no-build alternative, if applicable).

The stormwater basin design determined how the site would be laid out. The stormwater basin could not be located anywhere else on the site. One building could have been designed instead of two. One building would have allowed more storage space in the project, but having two buildings allows us to construct the project in 2 phases. Having 2 phases gives us flexibility to delay a portion of the project until the market conditions warrant the additional space.

Existing Environment and Project Impacts

For each resource topic below, describe:

A. Existing resources and conditions.

This 3.7 acre tract has one brick single family home and the property is wooded. The trees are a mix of hardwoods and pines. The age of the woods on this tract is approximately 50-60 years. There are no streams or wetlands located on the site. A ridge bisects the property from north to south and creates runoff to the west and east. The site has a gentle slope averaging 5-10%. There are no naturally occurring steep slopes on this site. When the driveway was installed, a small area near the highway has a steep slope. (see attachment A-13)

B. Anticipated impacts (short-term construction impacts, long-term operation impacts, and indirect or secondary impacts).

The short term construction impacts include clearing 3.4 acres of trees. The timber will be sold for lumber or pulp wood and the stumps and branches will be turned to mulch. The soil will be graded to create a site with a gentle slope suitable for parking. There will be no significant long term operation impacts. The stormwater basin should be inspected annually and repairs or maintenance done as needed to the basin. Landscaping will be maintained as required.

C. Discuss how potential impacts to the resource will be avoided and minimized through alternative selection, design strategies, construction methods, and long-term maintenance procedures.

There are no significant trees on the property in size or species. The slope of the site is considered gentle and no special methods are required for the earthmoving operations. The gentle slope of the site means the anticipated stormwater runoff will not create the same problems you would have on sites with more severe slopes. Sedimentation from earthmoving operations will be managed using a sediment basin that will become the permanent stormwater basin following site stabilization and the completion of the facility.

D. For unavoidable impacts, describe whether any compensatory mitigation is planned or required.

There are no streams or wetlands on this site. Neither of the other impacts (trees, soil) will require mitigation therefore none is planned.

1) Geography

- Discuss the geographic setting, geology, and topography of the project area and adjacent areas.

The natural geography of the area is gentle. The dominant soil type indicated on the county soil map is WeB –Wedowee and HeB – Herndon series. See attachment A-19.

- Provide a topographic map of the property and surrounding area, use the county GIS website topography (2' contour interval) data at a scale appropriate for the project size, i.e., 1'' = 100', etc.).

See attachment A-13 for the site topo and attachment A-20 for the surrounding area topo.

- Identify any 100-year floodplains (FEMA Special Flood Hazard Areas) on or adjacent to the property. If present, provide an appropriate-scale map of these flood-prone areas defined by the NC Flood Mapping Program.

No 100-year floodplains exist on or adjacent to the property.

- Show areas that will be graded or filled, and provide estimated cut/fill volumes.

See attachment A-15. The cut and fill operation will be executed to create a balanced site. The estimate of cut/fill is approximately 6,000 – 8,000 cubic yards.

- If the project includes pond or dam work, show areas that will be flooded.

The project does not include pond or dam work.

2) Soils and Prime Farmlands

- Identify dominant soils in the project area (County GIS or NRCS website) and show on a map.

WeB – Wedowee and HeB – Herndon series. See attachment A-19.

- Discuss any soil constraints (fill, wetland soils, septic suitability, slopes, etc.), and indicate those areas on a map.

The soil is suitable for the proposed improvements being requested based on the earthmoving operations that took place on the existing facility. There are no wetlands on site or unsuitable soils expected. A new septic system will be installed for the office.

- Describe any soil disturbance or contamination expected as a result of this project.

 The soil disturbance expected is shown on attachment A-15. No contamination is expected as a result of this project.
- If contamination is expected, discuss containment plans and procedures. *No contamination is anticipated.*
- If soil will be relocated, specify the number of square yards/feet to be moved, and its relocation site.

Soil will not be relocated. The site is designed to balance.

- Describe runoff management plans for the project.

Stormwater runoff from the proposed project will drain into a stormwater basins shown on attachment A-15.

- If soil disturbance is proposed, describe the off-site impacts expected from this activity.

There will be no offsite impacts from soil disturbance.

- Provide a map of any prime or unique farmland soils in the project or service areas, and include references used to make this determination.

See attachment A-21. Chatham County GIS.

- Describe impacts to prime or unique farmland soils, including acreage estimates of lost farmland soils and retained farmland soils.

This site will disturb less than one acre of prime farmland soils which is currently wooded. Approximately 0.5 acres of these same soils will be retained / undisturbed.

- 3) Land Use
- Provide a map showing current use of land on the site and surrounding properties.

 See attachment A-22.
- Discuss how the current land use fits into the surrounding area (conservation, development, ecological function, etc).

The current land use is single family. Within the past 10 years, a park and ride facility and a large retail commercial use has been built adjacent to this property. There are still 2 single family properties adjacent to this parcel.

- Provide the current zoning of the project site and the surrounding area.
 - See attachment A-23

- Discuss how the proposed uses fit into the intended land use of the area (conservation, development, ecological function, quality of life).

This project is suited for this parcel because other commercial uses have been developed on both sides of the property in recent years. The

highway used to be a 2 lane road. Now the highway is 4 lanes and getting busier all the time. For these reasons, this property is more suitable for this commercial use than a single family residence. The storm pond will be designed to control the 100-year storm and slowly release it over 48 – 72 hours. The discharge rate will be less after development than the rate today. Full cutoff lighting fixtures will be used to focus the light only where needed and limit offsite light impacts.

This site is located on a transportation corridor, US 15-501 which is mentioned several times in the Land Development Plan as suitable for development in appropriate locations.

The following are two recommendations of the technical and advisory committees that worked on the Land Development Ordinance:

- Site commercial uses along major highways in clusters at specific, designated locations; design these commercial sites to retain a rural crossroads or village character; and integrate these uses with other nearby development.
- Site commercial clusters/compact communities so that they might be able to be served by transit in the future, especially along US 15-501 north of Pittsboro and US 64 east of Pittsboro.
- Indicate whether zoning or local land use plans will need to be changed after project completion.

Local land use plans will not need to be changed after project completion.

4) Wetlands

- Indicate whether wetlands are present; describe the basis for this determination and the identity of the person who made the determination.

No wetlands are present on site. This determination was made by Scott Mitchell, Mitchell Environmental, P.A.

- Show identified wetlands on a map, and describe all relevant details, such as acreage, types, delineation, function, etc.).

No wetlands are present on this site.

- If wetlands are to be filled, specify the number of acres that will be affected.

 No wetlands are present on this site.
- List all required permits and permitting agencies.

No wetlands are present on this site.

- If any diversions/additions/withdrawals of surface water will affect wetlands, describe those activities.

No wetlands are present on this site.

- 5) Public Lands and Scenic, Recreational, and State Natural Areas
- Provide a map of County or municipal parks, scenic, recreational, or state natural areas (SNHAs, State or Federal Forests, etc.) on or adjacent to the site/project area.

None of these places exist on or adjacent to the site/project area. This was confirmed by the Chatham County GIS and NC one map.

- 6) Areas of Archaeological or Historical Value
- Discuss any archaeological or historical studies of the project location; provide relevant references.

No archaeological or historical studies exist for the project site.

- Describe and identify on a map any structures (i.e., walls, buildings, etc.) on the site and provide estimated ages of those structures.

There is one brick single family residence on site. See attachment A-13.

- Describe all impacts to any archaeological or historical resources in the proposed project area.

No archaeological or historical resources are known to exist on the proposed project property.

- Describe plans for demolishing or rebuilding any structures.

There are plans to move the single family residence on site.

- Provide photographs of any significant resources, including all structures older than 50-years.

There are no significant resources in the project area.

- Provide relevant correspondence with the Chatham County Historical Association and NC SHPO.

I talked with Bev Wiggins of the Chatham County Historical Association on Thursday April 24, 2014 about the possibility of any cemeteries or historical relevance of this property. She said that the CCHA didn't have any records of cemeteries on this property. The surveyor did not identify any graves on the property.

- 7) Air Quality
- Describe the project's impacts on ambient air quality.

No impacts on ambient air quality will occur.

- Describe plans for any open burning during or after construction.

There are no plans for any open burning during or after construction.

- Indicate the number of proposed parking spaces, if applicable.

Eight parking spaces are proposed. See attachment A-14.

- Describe whether the project will increase odor levels, or the likelihood of odor complaints.

No odors are anticipated with this storage facility.

- Provide a copy of any required traffic studies.

A traffic study was not required or prepared for this project.

8) Noise Levels

- Discuss current noise levels; use a benchmark, if possible.

The current home doesn't produce any unusual or excessive noise. This is just a typical home.

- Describe any increases in noise levels expected from this project.

The existing use is single-family so any development activity will be an increase over the existing use. The new facility will be an indoor facility which will is quieter than a facility where all the activity is outdoors. Self-storage facilities are not known as loud or noisy.

- Specify the distance at which the increased noise will be heard.

Storage is a very quiet business because items do not make noise while they are inside storage units. The only noise expected from the project is people talking and vehicles being driven. These are normal domestic occurrences that you would hear at houses in any neighborhood.

- Discuss whether surrounding properties will be affected by noise levels.

Surrounding properties should not be affected by noise from this facility. As mentioned before, moving furniture and personal belongings could be considered a domestic activity.

- If commercial uses are proposed, specify the hours of operation.

The office hours will be typical; 8:00 am to 6:00 pm. People can still get to their unit after 6:00 and on weekends but most customers come during the day.

9) Light Levels

- Describe lighting plans for the project, including how lighting will impact adjacent residents and wildlife.

Only cut-off light fixtures will be used on the project. Outdoor fixtures will be LED which use a fraction of the energy that other types of fixtures use. This is the best lighting option for having the smallest impact on adjacent residents and wildlife. The lighting plan is included on attachment A-17.

10) Surface and Groundwater Resources (discuss separately)

- Identify and provide a map of surface waters in the project area. Describe groundwater (aquifers) in the project area.

There are no surface waters on site. The site is located at ridge or actually the peak of a ridge. Stormwater flows in several directions from this property. See attachment A-24.

Groundwater aquifers are not close to the surface in this area which may be due to the topography, soils or a combination of both.

- Include names, locations, classifications, and use support ratings for surface waters. There are no surface waters on this site nor any that will be affected by this project.
- Specify and show on a map the river basin in which the project is located.

 The project is located in the Cape Fear River Basin.

 See attachment A-25.
- Discuss any known groundwater quality issues.

I do not know of any groundwater quality issues. The landowner lives on the property and drinks water from the well. She has not mentioned that there is any problem with her drinking water.

- Discuss drinking water sources.

There is a well that supplies all water needs including drinking water for the existing home. US Hwy 15-501 has a public waterline that will be the source of drinking water for the new facility.

11) Fish and Aquatic Habitats

- Describe fish and aquatic habitats in and adjacent to the site/project area.

This land is at the break point between 2 minor watersheds. There are no streams on site and no fish or aquatic habitats in or adjacent to the site/project area.

- Discuss impacts to fish and aquatic life and their habitats, including a map showing those habitats.

N/A

12) Wildlife and Natural Vegetation

- Describe and provide a map of natural community types on and adjacent to the site/project area.

The site and the adjacent lands contain native hardwoods and pines. Wildlife on the property includes deer, squirrel and possum. No other animals of any size have been observed.

- List the species of dominant plants and animals observed on the site that typify those communities.

The site and the adjacent lands contain native hardwoods and pines. Species of trees include oak, hickory, poplar, beech, cedar, holly, and maple and loblolly pine. Wildlife on the property includes deer.

- Evaluate and discuss whether suitable habitat exists for rare, threatened, and/or endangered species, as described by the NC Natural Heritage Program.

There are no suitable habitats on or adjacent to this property that exist for rare, threatened and/or endangered species as evidenced by the NC Natural Heritage Program layers on the Chatham County GIS.

- If wildlife will be displaced, discuss any limitations of adjacent areas to support them.

There is an abundance of adequate areas east of this property to support the wildlife displaced from this development.

- Identify, list, and describe the distribution of the invasive species present on the site. Consult the NC Botanical Garden's Web page, "Plants to Avoid in the Southeast US" for a list of invasive species common to the region.

No invasive species have been found on site.

- If forests will be cleared, discuss the extent of planned deforestation and specify the forestry methods to be used, including BMPs.

Approximately 3.4 acres will be cleared. The trees will be used for lumber or pulp wood. The stumps and branches will be chipped and used for mulch.

13) Hazardous Materials

- List all hazardous materials to be stored or introduced during construction or operation.

No hazardous materials are expected to be stored or introduced during construction. The self-storage lease will prohibit all hazardous materials.

- For each hazardous material, other than in deminimis quantities or for routine housekeeping purposes, describe the procedures to be used to ensure their proper management, storage, and disposal.

No hazardous material will be stored or introduced on site.

<u>References</u>

Exhibits (Maps, Figures, Tables, Photos, etc.)

State and Federal Permits Required

C. Topographic Map

A topographic map with contours at vertical intervals of not more than five (5) feet, at the same scale as the First Plat, for all major subdivisions unless not deemed necessary by staff. Staff may require a topographic map for other subdivisions if necessary for adequate review. The date and method of preparing the topographic survey shall be stated.

See attachment A-13 and A-20.

D. Soils Evaluation

A soils evaluation shall be performed by a certified/licensed soil scientist or persons approved by the Health Department to perform such evaluations or investigations. Such evaluations shall be performed unless a central sewage disposal system is proposed. A soils map showing the location of suitable soils and a letter of explanation shall be submitted to perform such evaluations or investigations.

Scott Mitchell, PE, LSS of Mitchell Environmental PA has evaluated the soils and found area suitable for the septic field to serve the facility.

E. Utility Plans

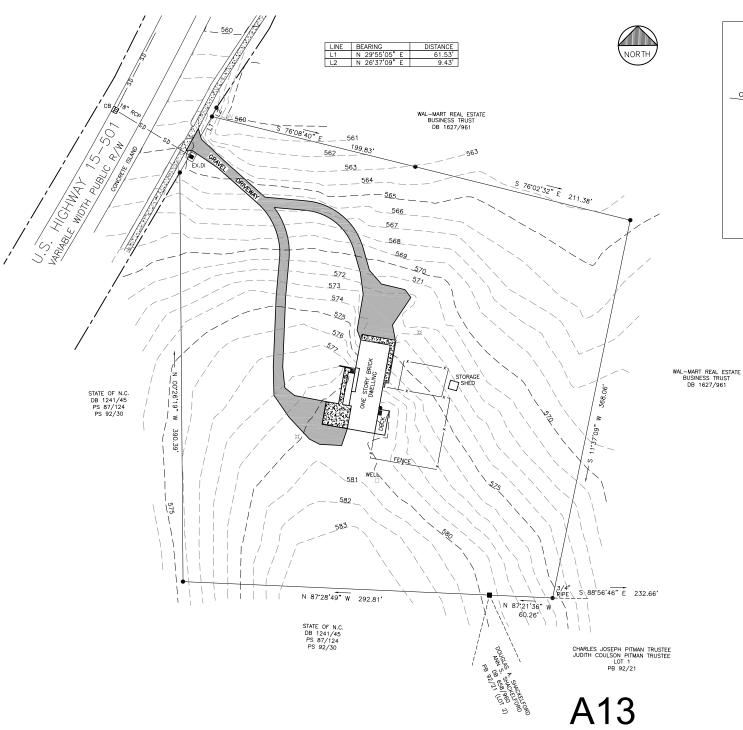
Plans of proposed utility layouts for sewer and water where applicable, showing feasible connections to the existing utility system, or any proposed utility system.

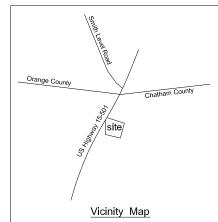
A new waterline will be installed for fire protection and water use in the new facility. This line is shown on attachment A-14

F. U.S. Army Corps of Engineers and Division of Water Quality Permits or Certifications

Indicate if US Army Corps of Engineers and/or NC Division of Water Quality permits or certifications will be required. These permits and/or certifications may be required when development improvements may involve the placement of excavated material or fill material into streams, creeks, lakes, or wetlands. If any of these permits or certifications will be required, copies of the approved permits shall be submitted at time of Construction Plan submittal.

There are no State or Federal permits required for this project.





Property Information

SIZE = 3.677 ACRES (160,172 SF) PARCEL ID: 18727

PIN 9776-56-4988 DB 1718 / 65 OWNER: Diane Dodge

ADDRESS: 12330 US 15-501 Highway

EXISTING ZONING: R1

WATERSHED: FJ/B - Upper New Hope

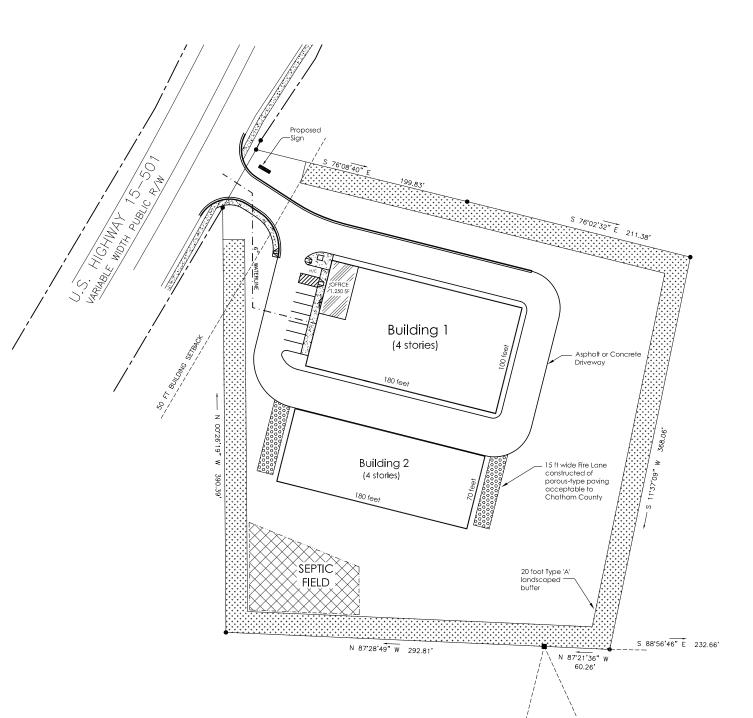
Warren D. Mitchell, PE Civil Engineering 233 Tabacco Farm Way CHAPE, HLL, NORTH AZSIG Warrendmetselbe Spraincom P (919) 573-1916 SEAL 22547 REVISIONS

Self-Storage Conditions Existing Countyline

April 15, 2014

Scale: 1"=30"





Zoning and Site Plan Information

ZONING: Existing R1 Proposed CD-RB BUILDING HEIGHT: 50 Feet maximum IMPERVIOUS SURFACE: 36% Proposed

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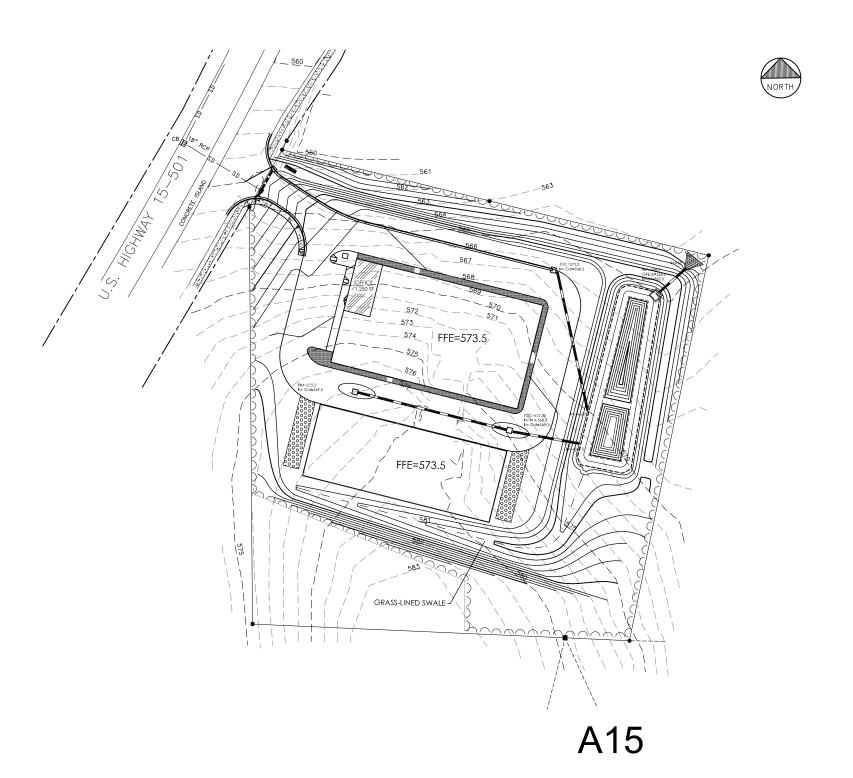


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Self-Storage

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April 15, 2014 Scale: 1"=30"



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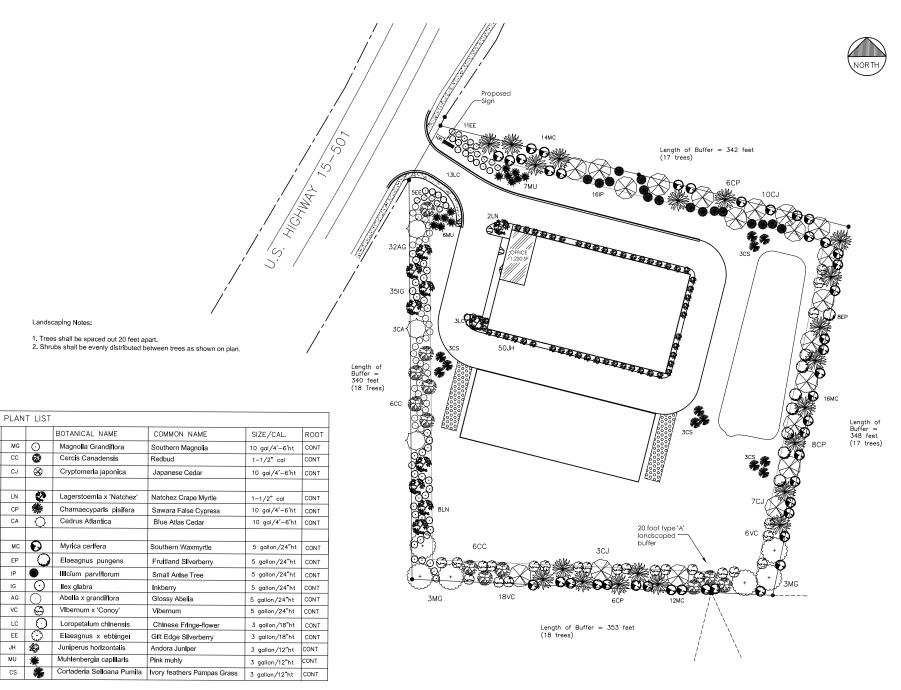
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Self-Storage

Grading and Stormdrainage Plan Countyline Chatham Count

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Self-Storaginty, North Carolina and Buffer Plan

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Chatham Co.

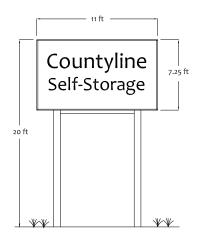
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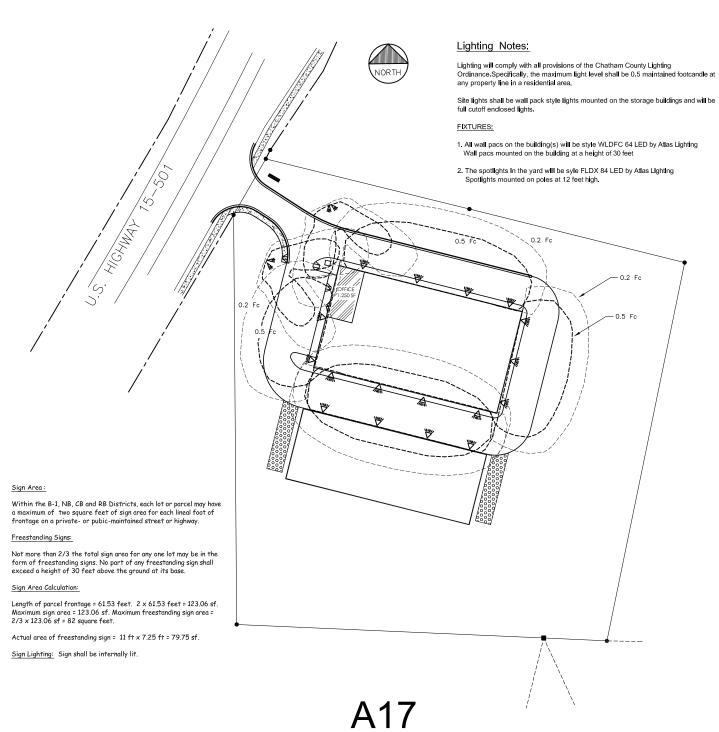
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PROPOSED SIGN



Warren D. Mitchell, PE Civil Engineering 233 Tebacco Farri Way CHAPEL IIII, NORTHA ASOLINA 27516 warrendmitchelpe@gmail.com P (919) 593-1916



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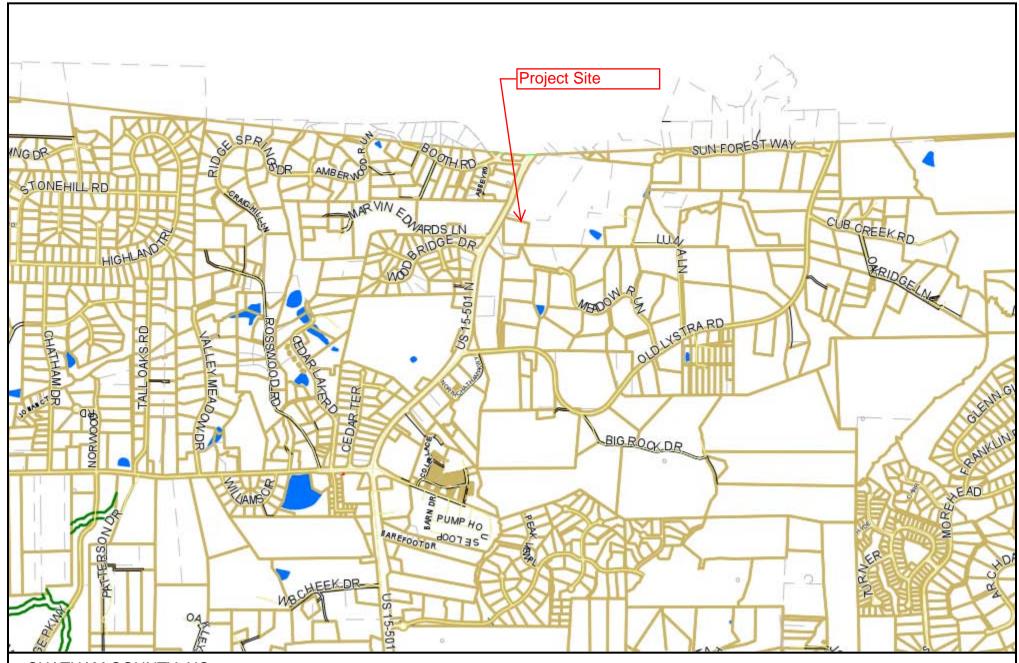
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April 15, 2014

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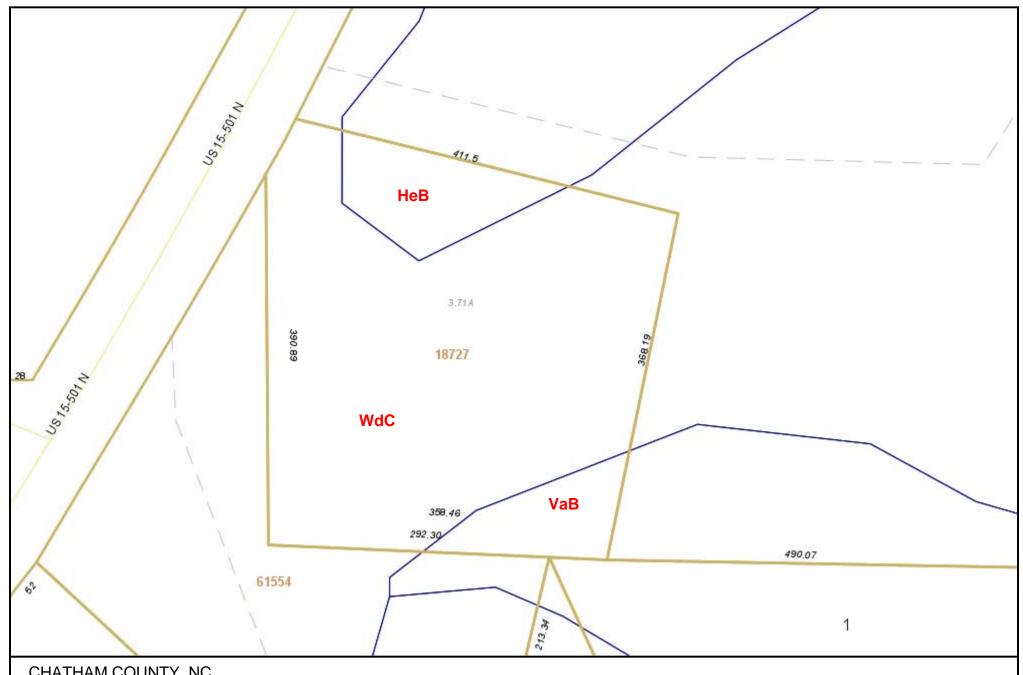


Property Map

Disclaimer:
The data provided on this map are prepared for the inventory of real property found within Chatham County, NC and are compiled from recorded plats, deeds, and other public records and data. This data is for informational purposes only and should not be substituted for a true title search, property appraisal, survey, or for zoning verification.

A18



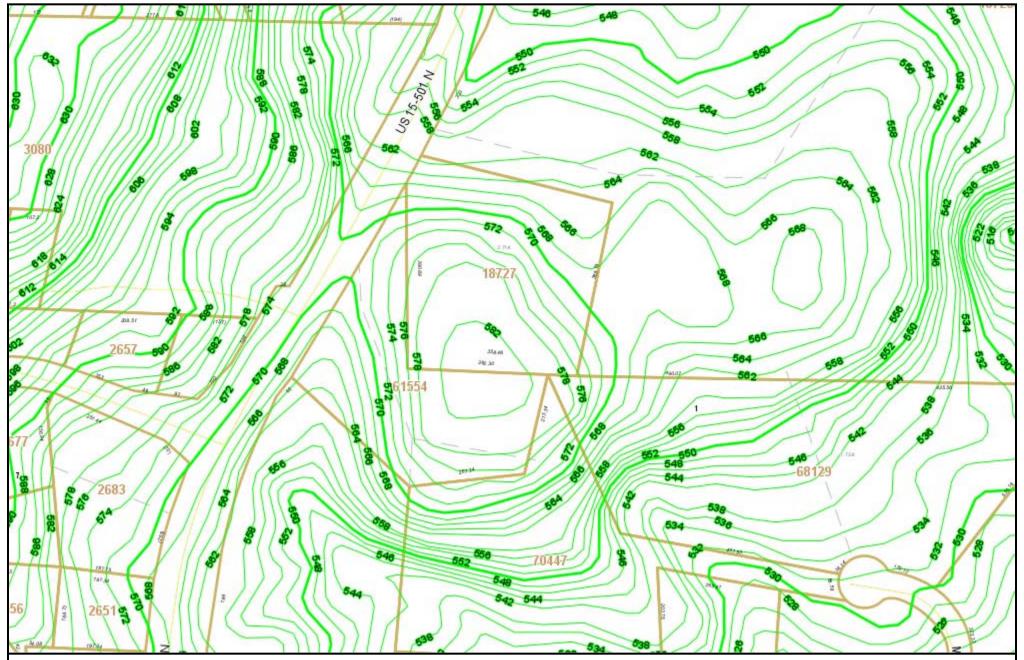




Property Map





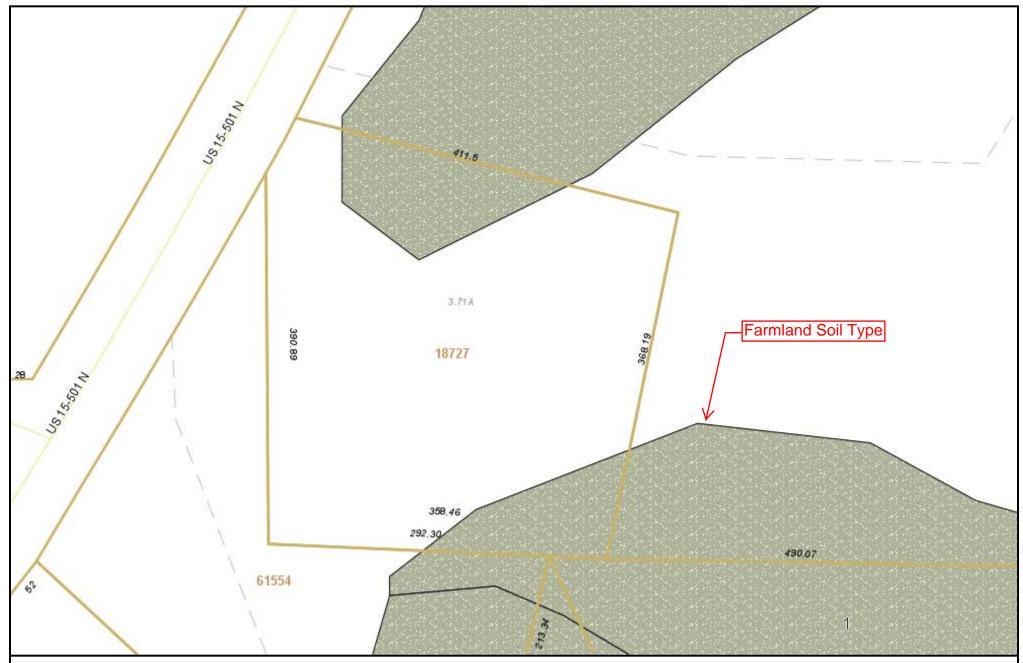




Property Map





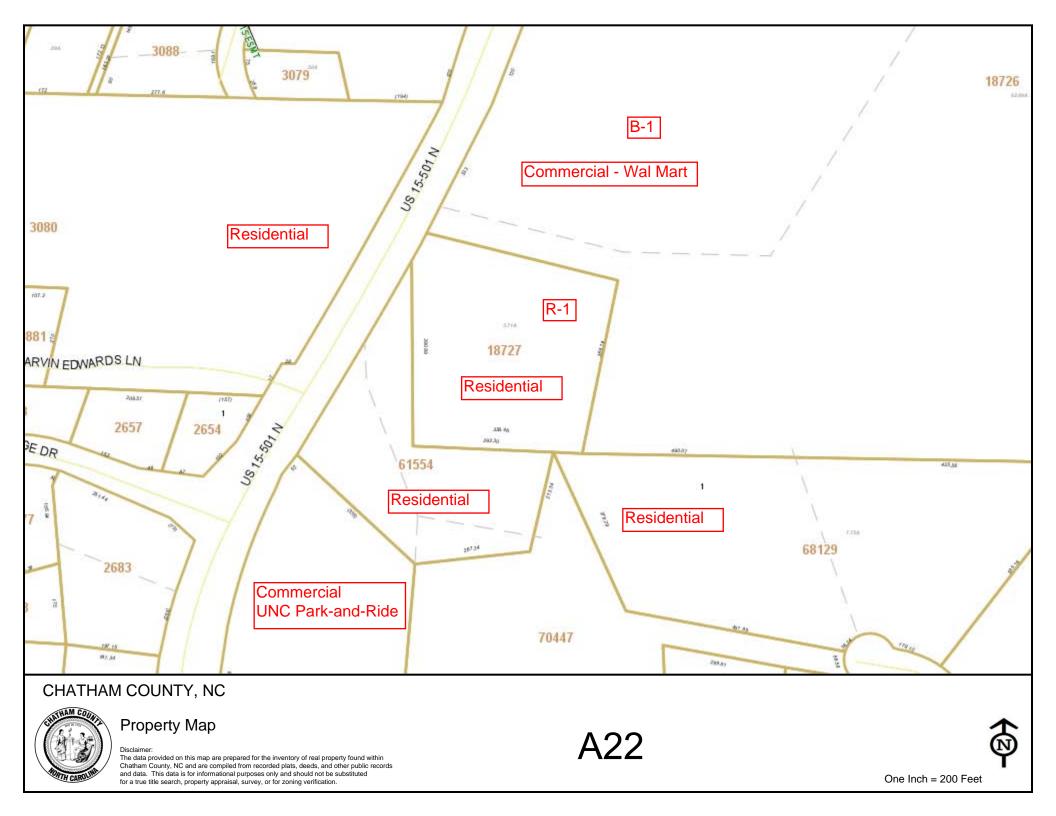




Property Map











Property Map









Property Map

Disclaimer





