PLANNING BOARD
AGENDA

Members:

Chairman: ***Mark Lane (ETJ)***
Vice-Chairman: ***Debbie Howard (Town)***

Doris Wallace(Town)
Bryan Stanley(Town)
Wiley Narron (Alternate)
Ashley Spain (ETJ)
Alisa Bizzell (Town)

Stephen Wensman, AICP, ALA, Planning Director
Mark Helmer, AICP, CFM, Senior Planner
Julie Edmonds, Administrative Assistant

Meeting Date: ***Thursday, December 1, 2022***
Meeting Time: ***6:00 p.m.***
Meeting Place: ***Council Chambers, Smithfield Town Hall***

PLANNING BOARD AGENDA

FOR REGULAR MEETING
DECEMBER 1, 2022
MEETING TIME: 6:00 PM
TOWN HALL COUNCIL CHAMBERS

Call to Order.

Pledge of Allegiance.

Identify voting members.

Approval of the agenda.

Approval of the minutes for November, 3 2022.

Approval of the 2023 meeting schedule.

New Business.

ZA-22-04 Town of Smithfield: The applicant is requesting an amendment to Unified Development Ordinances, Article 10, Part VI, Stormwater Management that incorporates revisions mandated by the North Carolina Department of Environmental Quality.

CA-22-04 Town of Smithfield: The applicant is requesting an amendment to the comprehensive land use plan that considers removing the proposed third I-95 crossing from its current proposed location.

Old Business.

Permit Report for October-November 2022

Adjournment.

Town of Smithfield
Planning Board Minutes
Thursday, November 3rd, 2022
Town Hall Council Chambers
6:00 PM

Members Present:	Members Absent:
Chairman Mark Lane	Ashley Spain
Vice-Chairman Debbie Howard	
Debbie Howard	
Wiley Narron	
Alisa Bizzell	
Brian Stanley	
Doris Wallace	

Staff Present:	Staff Absent:
Mark Helmer, Senior Planner	Stephen Wensman, Planning Director
Julie Edmonds, Administrative Support Specialist	

CALL TO ORDER

PLEDGE OF ALLEGIANCE

APPROVAL OF AGENDA Doris Wallace made a motion to approve the agenda; seconded by Debbie Howard. Unanimously approved

APPROVAL OF MINUTES for October 6th, 2022
Doris Wallace made a motion to approve the minutes, seconded by Debbie Howard. Unanimously approved**.**

NEW BUSINESS

SUP-22-03 Bobby Huskey: The applicant is requesting a special use permit to construct and operate private bar on property located within the B-3 (Highway Entrance Business) zoning district. The property considered for approval is located on the east side of Venture Drive approximately 250 feet south of its intersection with Magnolia Drive and further identified as Johnston County Tax ID# 15L11009M.

Mark Helmer stated that the applicant Bobby Huskey is requesting a special use permit to construct and operate a private bar located within a B-3 (Highway Entrance Business) Zoning District. The property considered for approval is known as Venture Business Park and located on the east side of Venture Drive approximately 250 feet south of its intersection with Magnolia

Drive. Venture Business Park is constructed to modern zoning standards and designed with adequate parking to accommodate a wide range of uses that are often found in shopping centers. The applicant has expressed the desire for an outdoor seating area in the future. Staff recommends that any future proposed outdoor seating receive administrative site plan approval and permitting prior to the applicant beginning construction.

FINDINGS OF FACT (Staff findings in bold italic)

4.9.4.5.1. The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, or general welfare. The project will not be detrimental to or endanger the public health, safety or general welfare. **The proposed private bar at this location will not endanger the public and is a common use w within the B-3 district zoning district. All public health and safety standards to include fire codes and building codes can and will be met. Therefore, staff believes the special use will not be a determent to the public, health, safety or general welfare.**

4.9.4.5.2. The establishment of the special use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district. **The project will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.**

4.9.4.5.3. Adequate utilities, drainage, parking, or necessary facilities have been or are being provided. The development will provide adequate utilities, drainage, parking and necessary facilities. **The development will have adequate utilities, drainage, parking and necessary facilities.**

4.9.4.5.4. The proposed use shall not be noxious or offensive by reason of vibration, noise, odor, dust, smoke, or gas. **The use will not create such nuisances.**

4.9.4.5.5. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets. Proper ingress and egress will be provided. **Adequate ingress and egress will be provided as required.**

4.9.4.5.6. That the use will not adversely affect the use or any physical attribute of adjoining or abutting property. **The use will have no adverse impacts on the abutting or adjoining properties.**

4.9.4.5.7. That the location and character of the use, if developed according to the plan as submitted and approved, will be in harmony with the area in which it is to be located. **The proposed bar is adjacent to other retail shopping centers and will be in harmony w with the area.**

4.9.4.5.8. The special use shall, in all other respects, conform to all the applicable regulations of the district in which it is located. **The proposed project will be in conformance w with the UDO requirements.**

Planning Staff will recommend to Town Council that the proposed Special Use Permit request be approved with the condition that any future outdoor seating areas receive administrative site plan approval prior to construction.

Debbie Howard asked if this proposed bar was on the end of the strip mall furthest from the entrance?

Mark Helmer said yes

Doris Wallace asked if this proposed bar was near the Urgent Care?

Mark Helmer said it's in a different strip mall than the Urgent Care. It's across the road from the Urgent Care.

Doris Wallace asked if the bar would bring a lot of additional traffic to the area.

Mark Helmer said no, the other surrounding businesses would be closed when the bar was at its busiest.

No vote is necessary from the Planning Board; however, they did review it. This request will move on before the Town Council on December 6th, 2022 at 7:00 pm.

RZ-22-05 Highway 70 QOZB, LLC: The applicant is requesting to rezone a 9.04-acre tract of land from the LI (Light Industrial) zoning district to the HI (Heavy Industrial) zoning district. The property considered for rezoning approval is located on the southeast end of Gulfstream Court and further identified as Johnston County Tax ID# 15079005D

Mark Helmer stated that Sanderson Engineering is requesting the rezoning of a 9.04-acre property at the end of Gulf Stream Court from Light Industrial to Heavy Industrial for a food (protein) manufacturing use. The property is located at the end of Gulf Stream Court off Citation Lane near the Johnston County Regional Airport.

The Town updated the UDO Article 6 Table of Uses in 2021 with the 160D updates and at that time made food manufacturing a Heavy Industrial use. At times, food manufacturing can emit odors that are unpleasant to adjacent properties. In this case, the proposed use is a company that manufactures protein, and the manufacturing process is expected to emit minimal odors. Furthermore, the use of the site will not create any nuisance issues because the site is surrounded by other industrial properties. The request for heavy industrial zoning in a light industrial area raises the concern about spot zoning, however, on 12/5/17, a Heavy Industrial Zone was created adjacent to this site to accommodate the Thomas Concrete site development. This current request for rezoning will result in a larger Heavy Industrial Zoning District.

• **Comprehensive Plan.** The comprehensive plan identifies this property suitable for

Industrial/Employment land uses.

CONSISTENCY STATEMENT (Staff Opinion):
With approval of the rezoning, the Planning Board/Town Council is required to adopt a statement describing whether the action is consistent with adopted comprehensive plan and other applicable adopted plans and that the action is reasonable and in the public interest. Planning Staff considers the action to be consistent and reasonable:

- **Consistency with the Comprehensive Growth Management Plan -**The Comprehensive Land Use Plan guides the area for Industrial/Employment.

- **Consistency with the Unified Development Code –** the site will be developed in conformance with the UDO.

- **Compatibility with Surrounding Land Uses -** The property considered for rezoning will be compatible with the surrounding land uses which are all industrial and will result in a larger Heavy Industrial area.

Bryan Stanley asked Mark Helmer if the proposed use would have combustibles and if so, can the Wilson's Mills Fire Department properly handle a call of that nature?

Mark Helmer said the Wilson's Mills Fire Department will be given an opportunity to review the development plan once it is submitted for staff review. At this time, we aren't sure exactly what will go into the space, we will know more once we see plans in review. There will be fire code requirements. He feels sure the area fire departments will be well equipped.

Stephen Sanderson of Sanderson Engineering located at 2485 Wendell Boulevard, Wendell, NC came forward. He stated they were building this building for a protein manufacturing plant for plant-based protein. A fire sprinkler system will be required.

Mark Lane asked what the chances were of this not being a food protein plant?

Stephen Sanderson said as of now, none. He said this is a done deal.

Mark Helmer asked how many employees will be hired.

Stephen Sanderson said for now they will have one production line with 12 employees per line with the ability to expand to three production lines in the future.

RECOMMENDATION:
Debbie Howard made a motion to approve zoning map amendment, RZ-22-05, finding it consistent with the Town of Smithfield Comprehensive Growth Management Plan and other adopted plans, and that the amendment is reasonable and in the public interest, seconded by Doris Wallace. Unanimously approved.

ZA-22-01 Town of Smithfield: The applicant is requesting an amendment to Unified Development Ordinances, Article 10, Section 10.114 as it pertains to recreation and park dedication requirements for major subdivisions, commercial developments, and industrial parks.

This was brought before the Planning Board on 10-6-22, however they tabled it until tonight. Planning Board reviewed the request

Mr Helmer gave a brief presentation on the proposed amendment and asked if there were any questions. There was none.

Doris Wallace recommended approval of zoning text amendment, ZA-22-01, finding the amendment consistent with the Town of Smithfield Comprehensive Growth Management Plan and other adopted plans, and that the amendment is reasonable and in the public interest, seconded by Bryan Stanley. Unanimously approved

OLD BUSINESS: None

Adjournment

Being no further business, Doris Wallace made a motion seconded by Bryan Stanley to adjourn the meeting. Unanimously approved.

Respectfully Submitted,

Julie Edmonds

Julie Edmonds
Administrative Support Specialist

2023
Planning Board Meeting Schedule

Thursday, January 5, 2023

Thursday, February 2, 2023

Thursday, March 2, 2023

Thursday, April 6, 2023

Thursday, May 4, 2023

Thursday, June 1, 2023

Thursday, July 13, 2023

Thursday, August 3, 2023

Thursday, September 7, 2023

Thursday, October 5, 2023

Thursday, November 2, 2023

Thursday, December 7, 2023

****All meetings begin at 6:00pm and are located inside the Council Chambers****

Request for Planning Board Action

Consent Agenda Item:	ZA-22-04
Date:	12/1/22

Subject: Stormwater Ordinance Update
Department: Planning Department
Presented by: Stephen Wensman, AICP, Planning Director
Presentation: Business Item

Issue Statement

Staff is requesting an amendment to Town of Smithfield Unified Development Ordinance, Article 10, Part VI, Stormwater Management.

Financial Impact

None

Action Needed

The Planning Board should review and discuss the proposed amendment and make a recommendation to the Town Council.

Recommendation

Staff recommends the Planning Board recommend approval of ZA-22-01, updating the stormwater management regulations.

Approved: ☐Town Manager ☐ Town Attorney

Attachments:

1. Staff report
2. Proposed ordinance.
3. Consistency Statement
4. Application

Staff Report

Agenda Item: ZA-22-04

OVERVIEW:

The North Carolina Department of Environmental Quality (NCDEQ) updates its Local Program requirements for stormwater management from time to time. This year the Town was required to resubmit its Local Program to the NCDEQ for review. The local program consists of the following:

a. New development plan review and approval
b. Stormwater control measure (SCM) maintenance
c. Rule enforcement procedures
d. Public education
e. Storm sewer system mapping
f. Illegal discharge removal

As part of the Local Program review, the Town is required to update its stormwater management ordinance. NCDEQ has approved the draft ordinance and the Town has 6-months to adopt the new ordinance (May 1, 2023).

Current Rules:

- Exempt
  - SF projects that disturb less than one acre are exempt
  - MF, Commercial and Industrial that disturb less than ½ acre are exempt
- Treatment:
  - Developers provide onsite stormwater treatment if the development's untreated nitrogen export exceeds 6lb/ac/yr for residential or 10lb/ac/yr for other land uses
  - (No treatment requirements based on project built-upon area (BUA) density)
- Peak flow rate match required for 1yr, 24hr storm
- Nutrient Offset
  - Reductions not achieved onsite can be covered with nutrient offsets
  - Developers fill in a form subsequently developed by DWQ to request local approval of nutrient offsets
  - Offsets are obtained in units of pounds of nitrogen

New Rules:

- Exempt
  - Single family and duplex residential and related recreational development and expansion of development that disturbs less than one acre is exempt.

    - Development of an individual single-family or duplex residential lot that is not part of a larger common plan of development or sale and does not result in greater than five (5) percent built-upon area on the lot is exempt from the provisions of this ordinance.
    - Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and does not expand existing structures is exempt.
    - Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and expands existing structures on a parcel but does not result in a cumulative built-upon area for the parcel exceeding twenty-four (24) percent is exempt.
    - Development that disturbs less than the above thresholds are not exempt if such activities are part of a larger common plan of development or sale and the larger common plan exceeds the relevant threshold, even though multiple, separate or distinct activities take place at different times on different schedules.
    - Existing development or redevelopment if built-upon area is not increased is exempt from the provisions of this ordinance.

- Treatment:
    - Developers provide onsite stormwater treatment for all cumulative built-upon area (BUA) if the project density > 24% BUA, and meet other low-density, high-density and other stormwater requirements of DEMLR's 02H .1003
    - Stricter onsite treatment requirements may apply where development falls under DEMLR Water Supply Watershed Rule.
    - Dedicated offsite regional SCMs may be used for stormwater treatment covering multiple otherwise unrelated projects
    - Projects meeting the definition of "runoff volume match" do not need to further address nutrient export.
- (Peak flow rate match not required)
- Nutrient Offset:
    - Nutrient reduction needs not achieved following treatment requirements can be covered with nutrient offsets
    - Projects ≤ 24% BUA may meet nutrient rate targets entirely by nutrient offsets, but must also meet low density stormwater requirements of 02H .1003
    - Public road/sidewalk expansions may meet nutrient reductions entirely by nutrient offsets
    - SNAP tool can auto-generate the local government offset approval form
    - Offsets are obtained in units of pounds per year of nitrogen or phosphorus
- Additional Requirements for HOAs:
    - The draft ordinance includes new strengthened language for stormwater operations and maintenance and special requirements for Homeowners Associations (HOAs). HOAs will be required to establish escrow accounts to ensure there are adequate funds for long term maintenance.

CONSISTENCY STATEMENT (STAFF OPINION):

Staff finds the zoning text amendment as proposed consistent with the Town of Smithfield Comprehensive Growth Management Plan and other adopted plans, and that the amendment is reasonable and in the public interest.

RECOMMENDATION:

Planning Staff recommend the Planning Board recommend approval of the zoning text amendment ZA-22-01 with a statement declaring the request consistent with the Town of Smithfield Comprehensive Growth Management Plan and that the request is reasonable and in the public interest.

RECOMMENDED MOTION:

“move to recommend approval of zoning text amendment, ZA-22-01, finding the amendment consistent with the Town of Smithfield Comprehensive Growth Management Plan and other adopted plans, and that the amendment is reasonable and in the public interest.”

THE TOWN OF SMITHFIELD
UNIFIED DEVELOPMENT ORDINANCE
AMENDMENT CONSISTENCY STATEMENT
BY THE SMITHFIELD PLANNING BOARD
ZA-22-01

Whereas the Smithfield Planning Board, upon acting on a zoning ordinance amendment to the *Unified Development Ordinance* and pursuant to NCGS §160A-383, is required to approve a statement describing how the action is consistent with the Town of Smithfield *Comprehensive Growth Management Plan*; and

Whereas the Smithfield Planning Board, upon acting on a zoning ordinance amendment to the *Unified Development Ordinance* and pursuant to NCGS §160A-383, is required to provide a brief statement indicating how the action is reasonable and in the public interest.

NOW THEREFORE, BE IT ADOPTED BY THE SMITHFIELD PLANNING BOARD AS APPROPRIATE:

IN THE EVENT THAT THE MOTION TO RECOMMEND APPROVAL OF THE ORDINANCE AMENDMENT,

That the final action regarding zoning ordinance amendment ZA-22-01 is based upon review of and consistency with, the Town of Smithfield *Comprehensive Growth Management Plan* and any other officially adopted plan that is applicable, along with additional agenda information provided to the Planning Board and information provided at the regularly scheduled meeting of Planning Board; and

It is the objective of the Town of Smithfield Planning Board to have the *Unified Development Ordinance* promote regulatory efficiency and consistency and the health, safety, and general welfare of the community. The zoning ordinance amendment promotes this by offering fair and reasonable regulations for the citizens and business community of the Town of Smithfield as supported by the staff report and attachments provided to the Planning Board at their regularly scheduled meeting. Therefore, the ordinance amendment is reasonable and in the public interest.

IN THE EVENT THAT THE MOTION TO RECOMMEND APPROVAL OF THE ORDINANCE FAILS,

That the final action regarding zoning ordinance amendment ZA-22-01 is based upon review of, and consistency, the Town of Smithfield Comprehensive Growth Management Plan and other officially adopted plans that are applicable; and

It is the objective of the Planning Board to have the *Unified Development Ordinance* promote regulatory efficiency and consistency and the health, safety, and general welfare of the community. The zoning ordinance amendment does not promote this and therefore is neither reasonable nor in the public interest.

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
RICHARD E. ROGERS, JR.
Director

NORTH CAROLINA
Environmental Quality

November 1, 2022

Stephen Wensman
Stormwater Program Administrator
Planning Department
350 East Market Street
Smithfield, NC 27577

Dear Mr. Wensman:

This letter is to notify you that the Town of Smithfield's Neuse Draft Local Program was approved by the Environmental Management Commission on September 8, 2022.

The next step in local implementation is adoption and implementation of the approved Draft Local Program and accompanying draft ordinance changes. The target date for completing local adoption of these materials is six months from the date of this letter, May 1, 2023. Within 30 calendar days, please provide Trish D'Arconte (trish.darconte@ncdenr.gov) the anticipated schedule for local approval and implementation. Once the final version has been adopted, provide a copy to DWR via email (trish.darconte@ncdenr.gov).

We recognize your jurisdiction may require small adjustments based on internal and public feedback. Notify DWR (trish.darconte@ncdenr.gov) of any proposed changes **prior** to finalizing adoption of the materials for review and approval by DWR [as required per 15A NCAC 02B .0711 (6)(f)/.0731(f)(6)].

DEQ has a Stormwater Nitrogen and Phosphorus (SNAP) tool that can be used for purposes of implementing this rule, available online: https://deq.nc.gov/about/divisions/water-resources/water-planning/nonpoint-source-planning/nutrient-practices-and-crediting. We understand the importance of providing an updated tool for your use. The enforcement of revised local programs will take into account all training and the integration of the updated SNAP Tool with the local programs. An update of the Tool is in progress to incorporate user requests:

December 2022	Beta version released for public comment
February 2023	Formal release of the revised tool
Early March 2023	Online training* for local government plan review staff
Mid-March 2023	Online training* for consultants

* Note: these trainings will be recorded for those who cannot attend

Please contact Trish D'Arconte with any concerns via email (trish.darconte@ncdenr.gov) or phone (919-707-3678).

Sincerely,

Richard E. Rogers, Jr.

cc: Trish D'Arconte, Rich Gannon, Karen Higgins

North Carolina Department of Environmental Quality | Division of Water Resources
512 North Salisbury Street | 1611 Mail Service Center | Raleigh, North Carolina 27699-1611
919.707.9000

PART VI. STORMWATER MANAGEMENT.

SECTION 10.42 PURPOSE.

The purpose of this Article is to protect, maintain and enhance the pubic health, safety, environment and general welfare by establishing minimum requirements and procedures to control the adverse effects of nitrogen in stormwater runoff and nonpoint and point source pollution associated with new development in the water shed of the Neuse River Basin. ~~establish minimum criteria to control and minimize quantitative and qualitative impacts of stormwater runoff from development within the Town of Smithfield, a nutrient management program for new development~~ in accordance with the statutory authority of planning and regulations of development, NCGS 160-D Article 2, 3, 4, including particularly but not limited to NCGS 160D-404 (enforcement), NCGS 160D Article 8 (subdivision), NCGS 160D Article 7 (zoning) and 15A NCAC 2B.0235 Neuse River Basin Nutrient Sensitive Waters Management Strategy: Basinwide Stormwater Requirements. It has been determined that proper management of construction related and post development stormwater runoff will minimize damage to public and private property and infrastructure; safeguard the public health, safety and general welfare; and protect water and aquatic resources.

This ordinance seeks to meet its general purpose through the following specific objectives and means:

10.42.1. Establishing decision-making processes for *development* that protects the integrity of watersheds and preserve the health of water resources;

10.42.2. Requiring that new *development* not exceed export targets for *nitrogen in stormwater* runoff for the watershed through site layout, *engineered stormwater controls*, or *permanent nutrient offset credits*;

10.42.3. Establishing minimum post-*development stormwater* management standards and design criteria for the regulation and control of *stormwater* runoff quantity and quality;

10.42.4. Establishing design and review criteria for the construction, function, and use of *engineered stormwater controls* that may be used to meet the minimum post-*development stormwater* management standards;

10.42.5. Encouraging the use of better management and site design practices, such as the use of vegetated conveyances for *stormwater* and the preservation of greenspace, riparian buffers and other conservation areas to the maximum extent practicable;

10.42.6. Establishing provisions for the long-term responsibility for and maintenance of *engineered stormwater controls* to ensure that they continue to function as designed, are maintained appropriately, and pose no threat to public safety;

10.42.7. Establishing administrative procedures for the submission, review, approval and disapproval of *stormwater management plans*, for the inspection of approved *projects*, and to assure appropriate long-term maintenance;

10.72.8. Controlling illicit discharges into the municipal separate *stormwater system* and waters of the State.

10.42.9. Providing education and outreach to the public regarding methods to prevent and minimize pollutant contributions to the municipal separate *stormwater system* and waters of the State.

SECTION 10.43 APPLICABILITY; EXCEPTIONS TO APPLICABILITY.

10.43.1. The provisions of this section shall apply to all development and expansion of development in areas within the planning jurisdictional limits of the Town of Smithfield, unless exempt as provided in Section 10.43.2.

10.43.2. The provisions of this section shall not apply to:

10.43.2.1. Single family and duplex residential and related recreational development and expansion of development that disturbs less than one acre is exempt from the provisions of this ordinance.

10.43.2.2. Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and does not expand existing structures on a parcel is exempt from the provisions of this ordinance.

10.43.2.3. Commercial, industrial, institutional, multifamily residential or local government development that disturbs less than one half acre and expands existing structures on a parcel but does not result in a cumulative built-upon area for the parcel exceeding twenty-four (24) percent is exempt from the provisions of this ordinance.

10.43.2.4. Development that disturbs less than the above thresholds are not exempt if such activities are part of a larger common plan of development or sale and the larger common plan exceeds the relevant threshold, even though multiple, separate or distinct activities take place at different times on different schedules.

10.43.2.5. Development of an individual single-family or duplex residential lot that is not part of a larger common plan of development or sale and does not result in greater than five (5) percent built-upon area on the lot is exempt from the provisions of this ordinance.

10.43.2.6. Existing development or redevelopment if built-upon area is not increased is exempt from the provisions of this ordinance.

10.43.2.7. Activities subject to requirements of the Neuse River Basin Agriculture Rule, 15A NCAC 02B .0712 | .0732 is exempt from the provisions of this ordinance.

10.43.2.8. Development or expansion of development with a vested right per the standards of N.C.G.S. 160D-108 is exempt from the provisions of this ordinance.

10.43.2.9. Development or expansion of development for which the permit application was submitted prior to adoption of this ordinance is optionally exempt from the provisions of this ordinance per the requirements of N.C.G.S. 143-755.

10.43.3. **No Development or Expansion Until Compliance and Permit.** No development or expansion of development shall occur except in compliance with the provisions of this ordinance or unless exempted. No development or expansion of development for which a permit is required pursuant to this ordinance shall occur except in compliance with the provisions, conditions, and limitations of the permit.

SECTION 10.44 INTERPRETATION.

10.44.1. **Meaning and Intent.** All provisions, terms, phrases, and expressions contained in this ordinance shall be construed according to the general and specific purposes set forth in Section 10.42, Purpose. If a different or more specific meaning is given for a term defined elsewhere in Town of Smithfield Unified Development Ordinance, the meaning and application of the term in this ordinance shall control for purposes of application of this ordinance.

10.44.2. **Text Controls in Event of Conflict.** In the event of a conflict or inconsistency between the text of this ordinance and any heading, caption, figure, illustration, table, or map, the text shall control.

10.44.3. **Authority for Interpretation.** The Stormwater Administrator has authority to determine the interpretation of this ordinance. Any person may request an interpretation by submitting a written request to the Stormwater Administrator, who shall respond in writing within 30 days. The Stormwater Administrator shall keep on file a record of all written interpretations of this ordinance.

10.44.4. **References to Statutes, Regulations, and Documents**. Whenever reference is made to a resolution, ordinance, statute, regulation, manual (including the Design Manual), or document, it shall be construed as a reference to the most recent edition of such that has been finalized and published with due provision for notice and comment, unless otherwise specifically stated.

10.44.5. **Computation of Time.** The time in which an act is to be done shall be computed by excluding the first day and including the last day. If a deadline or required date of action falls on a Saturday, Sunday, or holiday observed by the Town of Smithfield, the deadline or required date of action shall be the next day that is not a Saturday, Sunday, or holiday observed by the Town of Smithfield. References to days are calendar days unless otherwise stated.

10.44.6. **Delegation of Authority.** Any act authorized by this Ordinance to be carried out by the Stormwater Administrator of the Town of Smithfield may be carried out by his or her designee.

SECTION 10.45 DESIGN MANUAL

10.45.1. **Reference to Design Manual.** The Stormwater Administrator shall use the policy, criteria, and information, including technical specifications and standards, in the Design Manual as the basis for decisions about stormwater permits and about the design, implementation and performance of engineered stormwater controls and other practices for compliance with this ordinance.

The Design Manual includes a list of acceptable stormwater treatment practices, including specific design criteria for each stormwater practice. Stormwater treatment practices that are designed, constructed, and maintained in accordance with these design and sizing criteria will be presumed to meet the minimum water quality performance standards of the Neuse River Basin Nutrient Sensitive Waters Management Strategy

10.45.2. **Relationship of Design Manual to Other Laws and Regulations.** If the specifications or guidelines of the Design Manual are more restrictive or apply a higher standard than other laws or regulations, that fact shall not prevent application of the specifications or guidelines in the Design Manual.

10.45.3. **Changes to Standards and Specifications.** If the standards, specifications, guidelines, policies, criteria, or other information in the Design Manual are amended subsequent to the submittal of an application for approval pursuant to this ordinance but prior to approval, the applicant shall have the choice of using the new Design Manual in reviewing the application and in implementing this ordinance with regard to the application, or using the old Design Manual.

SECTION 10.46 STORMWATER PERMIT APPLICATION PROCESS AND REVIEW PROCEDURES.

10.46.1. **Permit Required; Must Apply for Permit.** A stormwater permit is required for all development and expansion of development unless exempt pursuant to this ordinance. A permit may only be issued subsequent to a properly submitted and reviewed permit application, pursuant to this section.

10.46.2. **Effect of Permit.** A stormwater permit shall govern the design, installation, and construction of stormwater management and control practices on the site, including engineered stormwater controls and elements of site design for stormwater management other than engineered stormwater controls.

The permit is intended to provide a mechanism for the review, approval, and inspection of the approach to be used for the management and control of stormwater for the development site consistent with the requirements of this ordinance, whether the approach consists of engineered stormwater controls or other techniques such as low-impact or low-density design. The permit

does not continue in existence indefinitely after the completion of the project; rather, compliance after project construction is assured by the maintenance provisions of this ordinance.

10.46.3. **Authority to File Applications.** All applications required pursuant to this Ordinance shall be submitted to the Stormwater Administrator by the land owner, a lessee or person holding an option or contract to purchase or lease land, or an authorized agent of the landowner. An easement holder may also apply for development approval for such development as is authorized by the easement.

10.46.4. **Establishment of Application Requirements and Fees**

10.46.4.1. **Application.** The application shall be filed with the town on a form supplied by the town and shall be accompanied with the information identified in the stormwater design manual. At a minimum, the stormwater permit application shall describe in detail how post-development stormwater runoff will be controlled and managed, the design of all engineered stormwater controls, and how the proposed project will meet the requirements of this ordinance.

10.46.4.2. **Fees.** A list of fees associated with this section is available at the planning department in the Smithfield Town Hall in accordance with Section 2.7

10.46.4.3. **Submittal of Complete Application and Review**. An application shall be considered as timely submitted only when it contains all elements of a complete application pursuant to this ordinance, along with the appropriate fee. If the Stormwater Administrator finds that an application is incomplete, the applicant shall be notified of the deficient elements and shall be provided with an opportunity to submit a complete application.

10.46.4.4. **Approval.** If the Stormwater Administrator finds that the application complies with the standards of this ordinance, the Stormwater Administrator shall approve the application. The Stormwater Administrator may impose conditions of approval as needed to ensure compliance with this ordinance. The conditions shall be included as part of the approval.

10.46.4.5. **Fails to Comply.** If the Stormwater Administrator finds that the application fails to comply with the standards of this ordinance, the Stormwater Administrator shall notify the applicant and shall indicate how the application fails to comply. The applicant shall have an opportunity to submit a revised application.

10.46.4.6. **Revision and Subsequent Review.** A complete revised application shall be reviewed by the Stormwater Administrator after its re-submittal and shall be approved, approved with conditions or disapproved.

If a revised application is not re-submitted within thirty (90) calendar days from the date the applicant was notified, the application shall be considered withdrawn, and a new submittal for the same or substantially the same project shall be required along with the appropriate fee for a new submittal.

SECTION 10.51 STORMWATER PERMIT APPLICATION FOR APPROVAL.

10.51.1. **Concept Plan and Consultation Meeting.** Before a submitting a stormwater management permit application or before one is deemed complete, the Stormwater Administrator or developer may request a consultation on a concept plan for the post-construction stormwater management system to be utilized in the proposed development project. The purpose of this meeting is to discuss the stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to stormwater management designs before formal site design engineering is commenced. A Concept Plan should include:

10.51.1.2. **Existing Conditions / Proposed Site Plans**. Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys (if available); stream and other buffers and features used in designing buffers and meeting any applicable buffer requirements; boundaries of existing predominant vegetation; proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas and other impervious surfaces.

10.51.1.2. **Natural Resources Inventory.** A written or graphic inventory of natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, geologic features, topography, wetlands, and native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas such as lakes, ponds, floodplains, stream buffers and other setbacks (e.g., drinking water well setbacks, septic setbacks, etc.). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development and stormwater management.

10.51.1.3. **Stormwater Management System Concept Plan.** A written or graphic concept plan of the proposed post-development stormwater management system including: preliminary selection and location of proposed engineered stormwater controls; low-impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and

downstream properties and drainages; and preliminary location of any proposed stream channel modifications, such as bridge or culvert crossings.

10.51.2. **Stormwater Management Permit Application**. The stormwater management permit application shall detail how post-development stormwater runoff will be controlled and managed and how the proposed project will meet the requirements of this ordinance, including Section 10.54, General Standards. All such plans shall be prepared by a qualified registered North Carolina professional engineer, surveyor, soil scientist or landscape architect, and the engineer, surveyor, soil scientist or landscape architect shall perform services only in their area of competence, and shall verify that the design of all stormwater management facilities and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies found in the Design Manual, and that the designs and plans ensure compliance with this ordinance.

The submittal shall include all of the information required in the submittal checklist established by the Stormwater Administrator. Incomplete submittals shall be treated pursuant to Section xx-202(D).

10.51.3. **As-Built Plans and Final Approval.** Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs and shall submit actual "as built" plans for all stormwater management facilities or practices after final construction is completed.

The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance. A final inspection and approval by the Stormwater Administrator shall occur before the release of any performance securities.

10.51.4. **Other Permits.** No certificate occupancy shall be issued without final as-built plans and a final inspection and approval by the Stormwater Administrator, except where multiple units are served by the stormwater practice or facilities, in which case a percentage of certificates of occupancy may be withheld until as-built plans are submitted and final inspection and approval has occurred.

SECTION 10.52 APPROVALS.

10.52.1. **Effect of Approval.** Approval authorizes the applicant to go forward with only the specific plans and activities authorized in the permit. No deviations from the terms of the application or the approval shall be made until written approval of proposed changes or deviations has been obtained through permit revision and review. The approval shall not be construed to exempt the applicant from obtaining other applicable approvals from local, state, and federal authorities.

10.52.2. **Time Limit/Expiration.** An approved plan shall become null and void if the applicant fails to make substantial progress on the site within one year after the date of approval. The Stormwater Administrator may grant a single, one-year extension of this time limit, for good cause shown, upon receiving a written request from the applicant before the expiration of the approved plan.

In granting an extension, the Stormwater Administrator may require compliance with standards adopted since the original application was submitted unless there has been substantial reliance on the original permit and the change in standards would infringe the applicant's vested rights.

SECTION 10.53 APPEALS.

10.53.1. **Right of Appeal.** Except as provided in N.C.G.S. 160D-1403.1, any aggrieved person affected by any decision, order, requirement, or determination relating to the interpretation or application of this ordinance made by the Stormwater Administrator, may file an appeal to the Board of Adjustment or governing board within 30 days from receipt of the notice of a determination. Appeals of variance requests shall be made in accordance with Section 4.10..

SECTION 10.54 GENERAL STANDARDS.

All projects to which this ordinance applies shall comply with the standards of this section. The approval of the stormwater permit shall require an enforceable restriction on property usage that runs with the land, such as a recorded deed restriction or protective covenants, to ensure that future development and expansion of development maintains the site consistent with the approved project plans.

10.54.1. **Nitrogen Loading Rate Targets.**

10.54.1.1. The project shall meet either a nitrogen stormwater loading rate target of 3.6 pounds per acre per year (lb/ac/yr) or meet "runoff volume match" as defined in 15A NCAC 02H .1002.

10.54.1.2. The project area used for nutrient calculation and stormwater requirements includes the site area less any existing built-upon area. The project density used for determining stormwater requirements is the amount of built-upon area subject to this ordinance at project completion divided by the project area.

10.54.1.3. The developer shall determine the nitrogen load and loading rate generated from the project area without engineered stormwater controls and determine the needed nitrogen load reduction to meet nutrient targets by using the approved accounting tool.

10.54.2. Nitrogen Standard is Supplemental. The nitrogen loading standards in this ordinance are supplemental to, not replacements for, stormwater standards otherwise required by federal, state or local law, including without limitation any riparian buffer requirements applicable to the location of the development. This includes, without limitation, the riparian buffer protection requirements of 15A NCAC 02B .0714 | .0734 and .0295.

10.54.3. **Control and Treatment of Runoff Volume.**

10.54.3.1. All projects shall meet the stormwater system design requirements set forth in 15A NCAC 02H .1003. Projects shall use a project density threshold of greater than twenty-four (>24%) percent built-upon area, whereupon high-density stormwater design is required. All engineered stormwater controls will meet the standards set in the Design Manual and the State's Minimum Design Criteria, 15A NCAC 02H .1059 through .1062.

10.54.2.2. Where high-density stormwater design is required, stormwater systems shall meet the standards set forth in 15A NCAC 02H .1003(3) and be designed to control and treat the volume of runoff generated from all built-upon area by one inch of rainfall or equivalent runoff volume in one or more Primary SCMs. These projects may utilize offsite Primary SCMs dedicated to treating an area encompassing the project.

10.54.2.3. Where high-density stormwater design is not required, stormwater systems shall meet the low-density stormwater design standards set forth in 15A NCAC 02H .1003(2).

10.54.3. Methods to Meet Nutrient Control Requirements.

Projects subject to this ordinance shall meet nitrogen loading targets through a combination of the following methods:

10.54.3.1. Projects may reduce export of nitrogen through any combination of engineered stormwater controls treating runoff on the site, in an approved offsite regional engineered stormwater control, or through the acquisition of permanent nutrient offset credits. The developer shall calculate the nitrogen reduction provided by these controls using the approved accounting tool.

10.54.3.2. Proposed development undertaken by a local government solely as a public road expansion or public sidewalk project, or proposed development subject to the jurisdiction of the Surface Transportation Board, may meet nitrogen reduction needs for the project entirely through the use of permanent nutrient offset credits pursuant to the Nutrient Offset Credit Trading Rule, 15A NCAC 02B .0703.

10.54.4. Use of Permanent Nutrient Offset Credits.

10.54.4.1. Sufficient permanent nutrient offset credits to meet project nutrient reduction needs not provided by engineered stormwater controls serving the project shall be acquired prior to approval of the development plan. The Stormwater Administrator shall issue an approval letter for the development that documents the needed nitrogen credits and where the development is located relative to the Neuse River Basin Nutrient Sensitive Waters Management Strategy; Basinwide Stormwater requirements. All permanent nutrient offset credits permitted by this ordinance shall meet the requirements of 15A NCAC 02B .0703.

10.54.4.2*. Permanent nutrient offset credits shall be acquired pursuant to N.C.G.S. 143-214.26 and 15A NCAC 02B .0703 prior to the start of construction of the project.*

10.54.4.3. *A developer subject to this ordinance may acquire permanent nutrient offset credits through one of the following methods:*

10.54.4.3.1. *Through a private nutrient bank;*

10.54.4.3.2. *Through offsite offset provided by the developer and approved by Town of Smithfield;*

10.54.4.3.3. *Through payment into the Riparian Buffer Restoration Fund established in N.C.G.S. 143-214.21.*

10.54.4.4. *Excess permanent nutrient offset credits acquired beyond what is required for the development may not be applied to any other development.*

10.54.5. Evaluation of Standards for Stormwater Control Measures.

10.54.5.1. **Evaluation According to Contents of Design Manual.** All engineered stormwater controls and stormwater systems required under this ordinance shall be evaluated by the Stormwater Administrator according to the policies, criteria, and information, including technical specifications and standards and the specific design criteria for each stormwater practice in the Design Manual. The Stormwater Administrator shall determine whether proposed engineered stormwater controls will be adequate to meet the requirements of this ordinance.

10.54.5.2. Determination of Adequacy; Presumptions and Alternatives. Engineered stormwater controls that are designed, constructed, and maintained in accordance with the criteria and specifications in the Design Manual will be presumed to meet the minimum water quality and quantity performance standards of this ordinance. Whenever an applicant proposes to utilize a practice or practices not designed and constructed in accordance with the criteria and specifications in the Design Manual, the applicant shall have the burden of demonstrating that the practice(s) will satisfy the minimum water quality and quantity performance standards of this ordinance. The Stormwater Administrator may require the applicant to provide the documentation, calculations, and examples necessary for the Stormwater Administrator to determine whether such an affirmative showing is made.

SECTION 10.55 GENERAL STANDARDS FOR MAINTENANCE

10.55.1. Function of Engineered Stormwater Controls As Intended. The owner of each engineered stormwater control installed pursuant to this ordinance shall ensure adequate maintenance and operate it so as to preserve and continue its function in controlling stormwater

quality and quantity at the degree or amount of function for which the engineered stormwater control was designed.

10.55.2. Annual Maintenance Inspection and Report. The person responsible for maintenance of any engineered stormwater control installed pursuant to this ordinance shall submit to the Stormwater Administrator an inspection report from a qualified professional certified by the North Carolina Cooperative Extension Service for stormwater treatment practice inspection and maintenance. The inspection report shall contain all of the following:

10.55.2.1. The name and address of the land owner;

10.55.2.2. The recorded book and page number of the lot of each engineered stormwater control;

10.55.2.3. A statement that an inspection was made of all engineered stormwater controls;

10.55.2.4. The date the inspection was made;

10.55.2.5. A statement that all inspected engineered stormwater controls are performing properly and are in compliance with the terms and conditions of the approved maintenance agreement required by this ordinance; and

10.55.2.6. The original signature and seal of the engineer, surveyor, or landscape architect.

All inspection reports shall be on forms supplied by the Stormwater Administrator. An original inspection report shall be provided to the Stormwater Administrator beginning one year from the date of as-built certification and each year thereafter on or before the date of the as-built certification.

10.55.3. if the required annual inspection SCM is not submitted to the Town, the Stormwater Administrator may perform the annual inspection at the expense of the personal responsible for maintenance and inspection of the SCM in accordance with the Section 2.7 and 10.56.4.

SECTION 10.56 OPERATION AND MAINTENANCE OF ENGINEERED STORMWATER CONTROLS:

10.56.1. **Operation and Maintenance Plan.** There shall be an Operation and Maintenance Plan (O&M Plan) for every engineered stormwater control. The O&M Plan shall specify all operation and maintenance work necessary for the function of all engineered stormwater control components, including the stormwater conveyance system, perimeter of the device, inlet(s), pretreatment measures, main treatment area, outlet, vegetation, and discharge point.

The O&M Plan shall require the owner to maintain, repair and, if necessary, reconstruct the engineered stormwater controls, and shall state the terms, conditions, and schedule of maintenance for the engineered stormwater controls. The O&M Plan shall specify methods to be

used to maintain or restore the engineered stormwater controls to design specifications in the event of failure.

The O&M Plan shall be signed by the owner and notarized. The owner shall keep maintenance records and these shall be available upon request by the Stormwater Administrator.

10.56.2. **Operation and Maintenance Agreement.** Prior to the conveyance or transfer of any lot or building site to be served by engineered stormwater controls pursuant to this ordinance, and prior to issuance of any permit for *development* requiring engineered stormwater controls pursuant to this ordinance, the applicant or owner of the site must enter into an Operation and Maintenance Agreement (O&M Agreement) with the Stormwater Administrator. The O&M Agreement shall require the applicant or owner to maintain, repair, or reconstruct the engineered stormwater controls in accordance with the approved design plans and the Operation and Maintenance Plan. The O&M Agreement shall be binding on all subsequent owners of the site, portions of the site, and lots, or parcels served by the engineered stormwater control. Until the transference of all property, sites, or lots served by the engineered stormwater control, the original owner or applicant shall have primary responsibility for carrying out the provisions of the O&M Agreement.

The O&M Agreement shall grant to Town of Smithfield a right of entry in the event that the Stormwater Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the engineered stormwater control; however, in no case shall the right of entry, of itself, confer an obligation on Town of Smithfield to assume responsibility for the engineered stormwater controls.

The O&M Agreement must be approved by the Stormwater Administrator prior to development plan approval, and it shall be referenced on the final plat and shall be recorded with the county Register of Deeds upon final plat approval. A copy of the recorded O&M Agreement shall be given to the Stormwater Administrator within fourteen (14) days following its recordation.

10.56.3. Special Requirement for Homeowners' and Other Associations. For all engineered stormwater controls required pursuant to this ordinance and that are to be or are owned and maintained by a homeowners' association, property owners' association, or similar entity, the required O&M Agreement shall include all of the following provisions:

> ***10.56.3.1.*** Acknowledgment that the association shall continuously operate and maintain the engineered stormwater controls according to the specifications laid out in the Operation and Maintenance Plan.
>
> ***10.56.3.2.*** Establishment of an escrow account, which can be spent solely for sediment removal, structural, biological or vegetative replacement, major repair, or reconstruction of the engineered stormwater controls. If engineered stormwater controls are not performing adequately or as intended or are not properly maintained, the Town of Smithfield, in its sole discretion, may remedy the situation, and in such instances the the Town of Smithfield shall be fully reimbursed from the escrow account. Escrowed funds may be spent by the association for sediment removal, structural, biological or vegetative replacement, major repair, and reconstruction of the engineered stormwater controls, provided that the Town of Smithfield shall first consent to the expenditure.
>
> ***10.56.3.3.*** Both developer contribution and annual sinking funds shall fund the escrow account. Prior to plat recordation or issuance of construction permits, whichever shall first occur, the developer shall pay into the escrow account an amount equal to fifteen (15) per

cent of the initial construction cost of the engineered stormwater controls. Two-thirds (2/3) of the total amount of sinking fund budget shall be deposited into the escrow account within the first five (5) years and the full amount shall be deposited within ten (10) years following initial construction of the engineered stormwater controls. Funds shall be deposited each year into the escrow account. A portion of the annual assessments of the association shall include an allocation into the escrow account. Any funds drawn down from the escrow account shall be replaced in accordance with the schedule of anticipated work used to create the sinking fund budget.

10.56.3.4. The percent of developer contribution and lengths of time to fund the escrow account may be varied by the Town of Smithfield depending on the design and materials of the engineered stormwater controls.

10.56.3.5. Granting to the Town of Smithfield a right of entry to inspect, monitor, maintain, repair, and reconstruct engineered stormwater controls.

10.56.3.6. Allowing the Town of Smithfield to recover from the association and its members any and all costs the Town of Smithfield expends to maintain or repair the engineered stormwater controls or to correct any operational deficiencies. Failure to pay the Town of Smithfield all of its expended costs, after forty-five days written notice, shall constitute a breach of the agreement. In case of a deficiency, the Town of Smithfield shall thereafter be entitled to bring an action against the association and its members to pay, or foreclose upon the lien hereby authorized by the agreement against the property, or both. Interest, collection costs, and attorney fees shall be added to the recovery.

10.56.3.7. A statement that this agreement shall not obligate the Town of Smithfield to maintain or repair any engineered stormwater controls, and the Town of Smithfield shall not be liable to any person for the condition or operation of engineered stormwater controls.

10.56.3.8. A statement that this agreement shall not in any way diminish, limit, or restrict the right of the Town of Smithfield to enforce any of its ordinances as authorized by law.

10.56.3.9. A provision indemnifying and holding harmless the Town of Smithfield for any costs and injuries arising from or related to the engineered stormwater controls, unless the name of Town of Smithfield has agreed in writing to assume the maintenance responsibility for the engineered stormwater controls and has accepted dedication of any and all rights necessary to carry out that maintenance.

10.56.4 **Deed Recordation and Indications on Plat.** The inspection and maintenance agreement shall be recorded in the register of deeds at the expense of the applicant.

10.56.4. **Inspection Program.** Inspections and inspection programs by Town of Smithfield may be conducted or established on any reasonable basis, including but not limited to routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in the engineered stormwater controls; and evaluating the condition of engineered stormwater controls.

If the owner or occupant of any property refuses to permit such inspection, the Stormwater Administrator shall proceed to obtain an administrative search warrant pursuant to N.C.G.S. 15-

27.2 or its successor. No person shall obstruct, hamper or interfere with the Stormwater Administrator while carrying out his or her official duties.

10.56.5 Performance Security for Installation and Maintenance.

10.56.5.1. The Town of Smithfield may, at its discretion, require the submittal of a performance security or bond with surety, cash escrow, letter of credit or other acceptable legal arrangement prior to issuance of a permit in order to ensure that the engineered stormwater controls are:

10.56.5.1.1.installed by the permit holder as required by the approved stormwater management plan, and/or

10.56.5.1.2. maintained by the owner as required by the Operation and Maintenance Agreement.

10.56.5.2. Amount.

10.56.5.2.1. **Installation.** The amount of an installation performance security shall be the total estimated construction cost of the engineered stormwater controls approved under the permit, plus 25%.

10.56.5.2.2. **Maintenance.** *The amount of a maintenance performance security shall be the present value of an annuity of perpetual duration based on a reasonable estimate of the annual cost of inspection, operation and maintenance of the engineered stormwater controls approved under the permit, at a discount rate that reflects the jurisdiction's cost of borrowing minus a reasonable estimate of long-term inflation.*

10.56.5.3. **Uses of Performance Security**

10.56.5.3.1. **Forfeiture Provisions.** The performance security shall contain forfeiture provisions for failure, after proper notice, to complete work within the time specified, or to initiate or maintain any actions which may be required of the applicant or owner in accordance with this ordinance, approvals issued pursuant to this ordinance, or an Operation and Maintenance Agreement established pursuant to this ordinance.

10.56.5.3.2. **Default.** Upon default of the owner to construct, maintain, repair and, if necessary, reconstruct any engineered stormwater control in accordance with the applicable permit or Operation and Maintenance Agreement, the Stormwater Administrator shall obtain and use all or any portion of the security to make necessary improvements based on an engineering estimate. Such expenditure of funds shall only be made after requesting the owner to comply with the permit or Operation and Maintenance Agreement. In the event of a default triggering the use of installation performance security, the Town of Smithfield shall not return any of the unused deposited cash funds or other security, which shall be retained for maintenance.

10.56.5.3.3. **Costs in Excess of Performance Security.** If Town of Smithfield takes action upon such failure by the applicant or owner, the Town of Smithfield may collect from the applicant or owner the difference between the amount of the

reasonable cost of such action and the amount of the security held, in addition to any other penalties or damages due.

10.56.5.3.3. **Refund.** Within sixty days of the final approval, the installation performance security shall be refunded to the applicant or terminated, except any amount attributable to the cost (plus 25%) of landscaping installation and ongoing maintenance associated with the engineered stormwater controls covered by the security. Any such landscaping shall be inspected one (1) year after installation with replacement for compliance with the approved plans and specifications and, if in compliance, the portion of the financial security attributable to landscaping shall be released.

SECTION 10.57. RECORDS OF INSTALLATION AND MAINTENANCE ACTIVITIES.

The owner of each engineered stormwater control shall keep records of inspections, maintenance, and repairs for at least five years from the date of creation of the record and shall submit the same upon reasonable request to the Stormwater Administrator.

SECTION 10.58 EASEMENTS AND SCM ACCESS.

Easements for stormwater ~~BMP~~ SCM s shall include the area of the ~~BMP~~ SCM, ~~area of ponded water~~, and enough area for access and maintenance from a public right-of-way in accordance with the Town's Standard Detail and Specifications Manual. The easement shall be recorded in the register of deeds at the expense of the applicant and shall be depicted on the final plat or recorded map prior to approval of the certificate of occupancy or final plat.

SECTION 10.59 ILLEGAL DISCHARGE.

No person shall cause or allow the discharge, disposal, pouring or pumping directly or indirectly to any stormwater conveyance structure, stormwater conveyance system, stream, lake, pond, wetland, or other body of water, or upon the land in proximity to the same, any fluid, solid, or other substance (other than stormwater). Prohibited substances include, but are not limited to oil, anti-freeze, chemicals, animal waste, paints, garbage, and litter. Examples of illegal discharges are:

10.59.1. Dumping of oil, anti-freeze, paint or cleaning fluids;

10.59.2. Untreated commercial carwash wash water;

10.59.3. Industrial challenges;

10.59.4. Contaminated foundation drains;

10.59.5. Cooling waters, unless no chemicals added and has valid NPDES permit;

10.59.6. Wash water from commercial and industrial activities;

10.59.7. Chlorinated backwash and draining associated with swimming pools;

10.59.8. Domestic wastewater;

10.59.9. Septic system effluent;

10.59.10. Washing machine discharges.

SECTION 10.60 ALLOWABLE DISCHARGES.

Examples of allowed discharges are:

10.60.1. Water line flushing;

10.60.2. Irrigation;

10.60.3. Uncontaminated groundwater pumping;

10.60.4. Street wash water;

10.60.5. Dechlorinated backwash and drainage associated with swimming pools;

10.60.6. NPDES permitted discharges.

SECTION 10.61 ILLEGAL CONNECTIONS.

Connections to a stormwater conveyance system or structure that allow the discharge(s) of non-stormwater are unlawful. Prohibited connections include but are not limited to:

10.61.1. Floor drains;

10.61.2. Waste water from washing machines or sanitary sewers;

10.61.3. Wash water from commercial vehicle washing or steam cleaning;

10.61.4. Waste water from septic systems.

SECTION 10.62 DETERMINATION OF CONNECTION.

Upon determining that said connection:

10.62.1. May result in the discharge of hazardous materials, may pose a threat to health and safety, or is likely to result in immediate injury or harm to human or animal life, natural resources, to real or personal property, or habitat, or

10.62.2. Was made in violation of any applicable regulation or ordinance, the UDO Administrator shall outline in a notice of violation, sent by certified mail, the time in which the connection shall be removed. Failure to comply with the terms and deadline set in the notice of violation will constitute a violation of this Ordinance.

SECTION 10.63 RIPARIAN BUFFERS.

Fifty-foot wide riparian buffers shall be maintained along both sides of a stream, river or other water body as required by the Neuse River Basin: Nutrient Sensitive Waters Management Strategy - Protection and Maintenance of Riparian Buffers, Section 3(a-b). Riparian buffer shall be noted on the maps submitted for stormwater management plan approval and shall be noted on the final, recorded map.

If new development is proposed within the WS-IV-CA or WS-IV-PA Districts, the buffer shall be in accordance with Section 10.29.9.

Determination of exemptions as noted in 15A NCAC 2B.0233 Neuse River Basin: Nutrient Sensitive Waters Management Strategy - Protection and Maintenance of Riparian Buffers, Section 3 (a-b) shall be made by the NCDEQ Division of Water Resources.

SECTION 10.64 RIGHT TO ENTER.

Any town personnel, or contractors for the town shall be permitted to enter upon public or private property for the purposes of inspection, sampling, monitoring, testing, or otherwise verifying compliance. Should the town personnel, or contractor for the town, be denied reasonable access to any property, the UDO Administrator shall obtain an administrative search warrant.

No person shall obstruct, hamper or interfere with any such representative while carrying out his/her official duties.

Request for Planning Board Action

Agenda Item: CA-22-02
Date: 12/06/22

Subject:	Transportation Plan and Growth Management Plan Amendment
Department:	Planning
Presented by:	Stephen Wensman, Planning Director
Presentation:	Business item

Issue Statement

Staff is requesting an amendment to the Town's Transportation Plan and Comprehensive Growth Management Plan, collectively called the Town Plan.

Financial Impact

None

Action Needed

To review the proposed Transportation Plan and Comprehensive Growth Management Plan Amendment and make a recommendation to the Town Council.

Recommendation

Staff recommends the Planning Board recommend approval of the amendments to the Transportation Plan and Comprehensive Growth Management Plan

Approved: ☐ Town Manager ☐ Town Attorney

Attachments:

1. Staff Report
2. Feasibility Study US 70 From SR 1003 (Buffalo Rd) near Selma to SR 2372 (Edwards Rd) in Princeton.

Staff Report

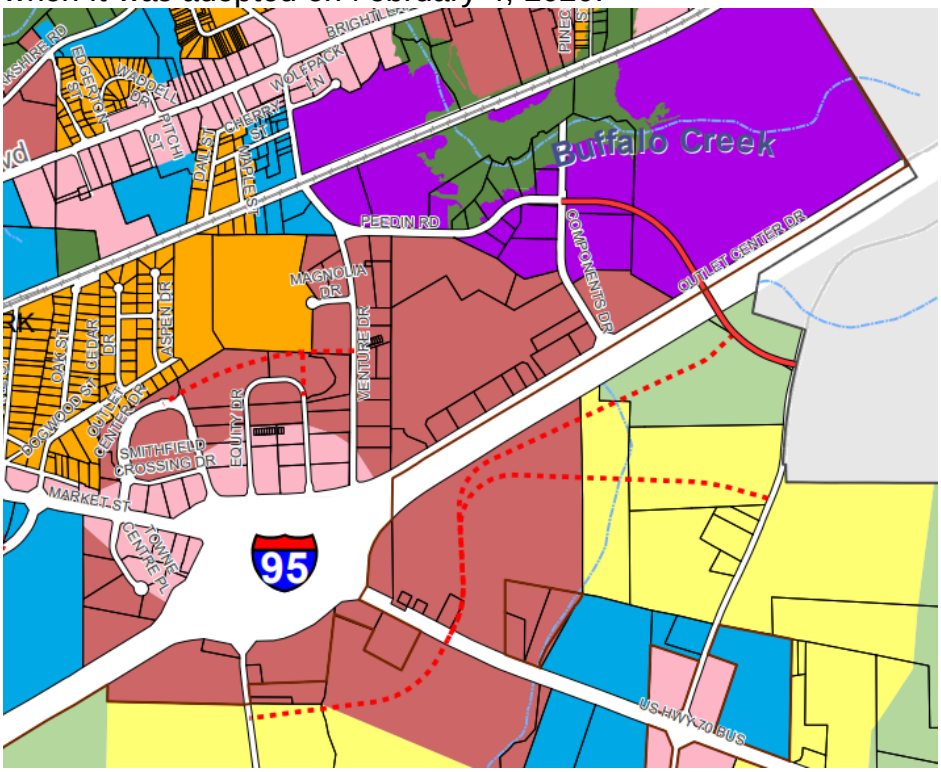
Agenda Item: CA-22-02

INTRODUCTION:

The Town approved the current Town Plan (Transportation Plan and Comprehensive Growth Management plan) on February 4, 2020. Comprehensive Plans are typically long-range planning documents and are typically renewed every ten years. Smithfield has been experiencing unprecedented growth and amendments are needed from time to time to address changes caused by existing or future development or other reasons.

TOWN PLAN:

The future extension of Peedin Road from Outlet Center Drive to the east side of I-95 was first suggested as part of the Southeast Area Study completed in 2017. A portion of this proposed route, the extension of Peedin Road over I-95 became part of the Town Plan when it was adopted on February 4, 2020.



Cut-out from the Town Plan Future Land Use Map

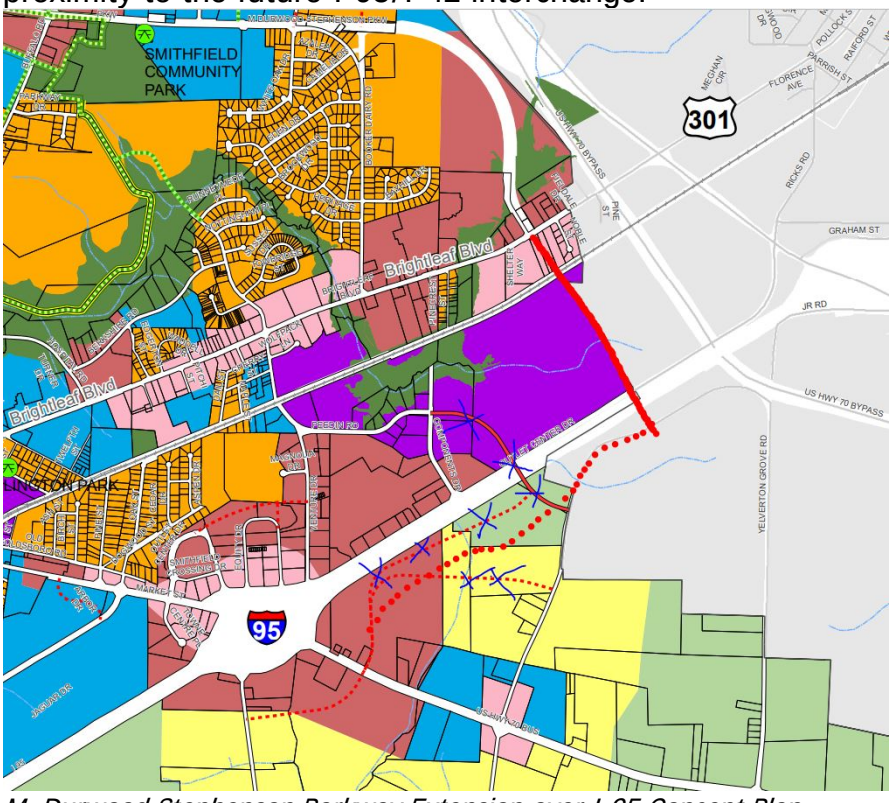
This proposed future street alignment came into question recently when the Smithfield Business Park proposed selling the wooded southwest corner of their property for commercial development. The requirement for this segment will adversely affect the sale of the property and likely drive the proposed development away. As a result, Staff has

reconsidered this route. Staff believes there is a need for additional crossings of I-95, but the proposed route was originally part of a greater planned corridor that is no longer viable:

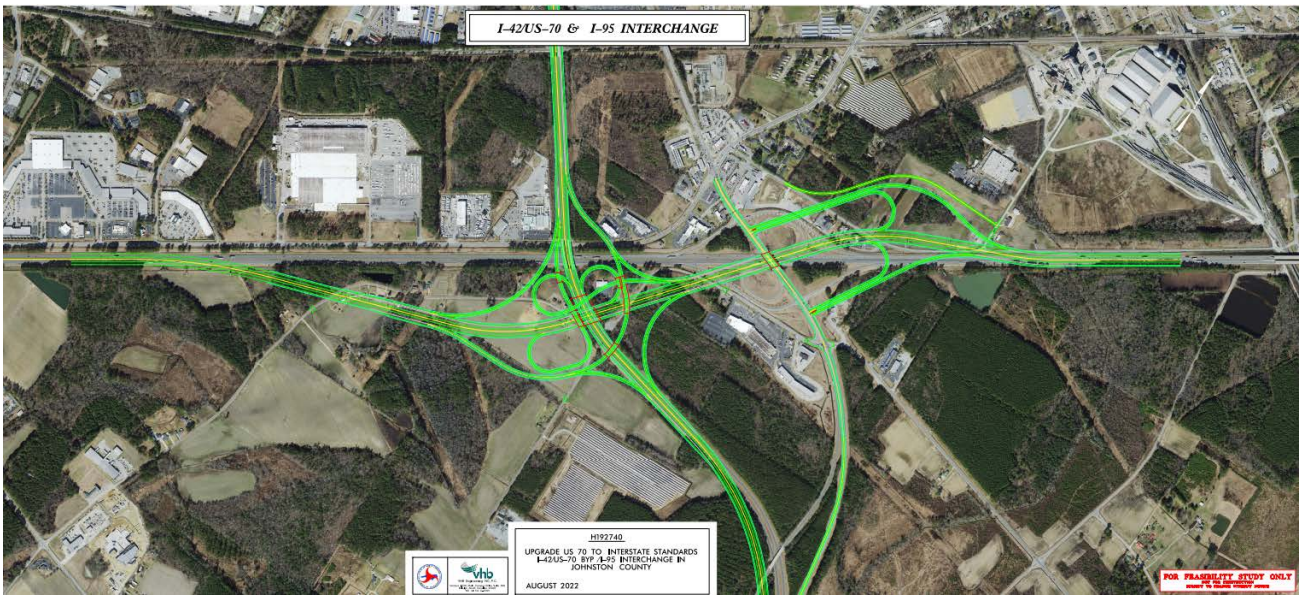
- The idea for the route sprung from the Southeast Area Study in 2017. It would have extended the planned Smithfield Crossings corridor which is no longer viable because of recent and planned development.

Smithfield Crossings Corridor Concept Plan.

- Staff has looked at an alternative that would extend M. Durwood Stephenson Parkway over the railroad and over I-95, however this route is problematic because of the cost and space constraints of constructing a bridge over the railroad and the proximity to the future I-95/I-42 interchange.

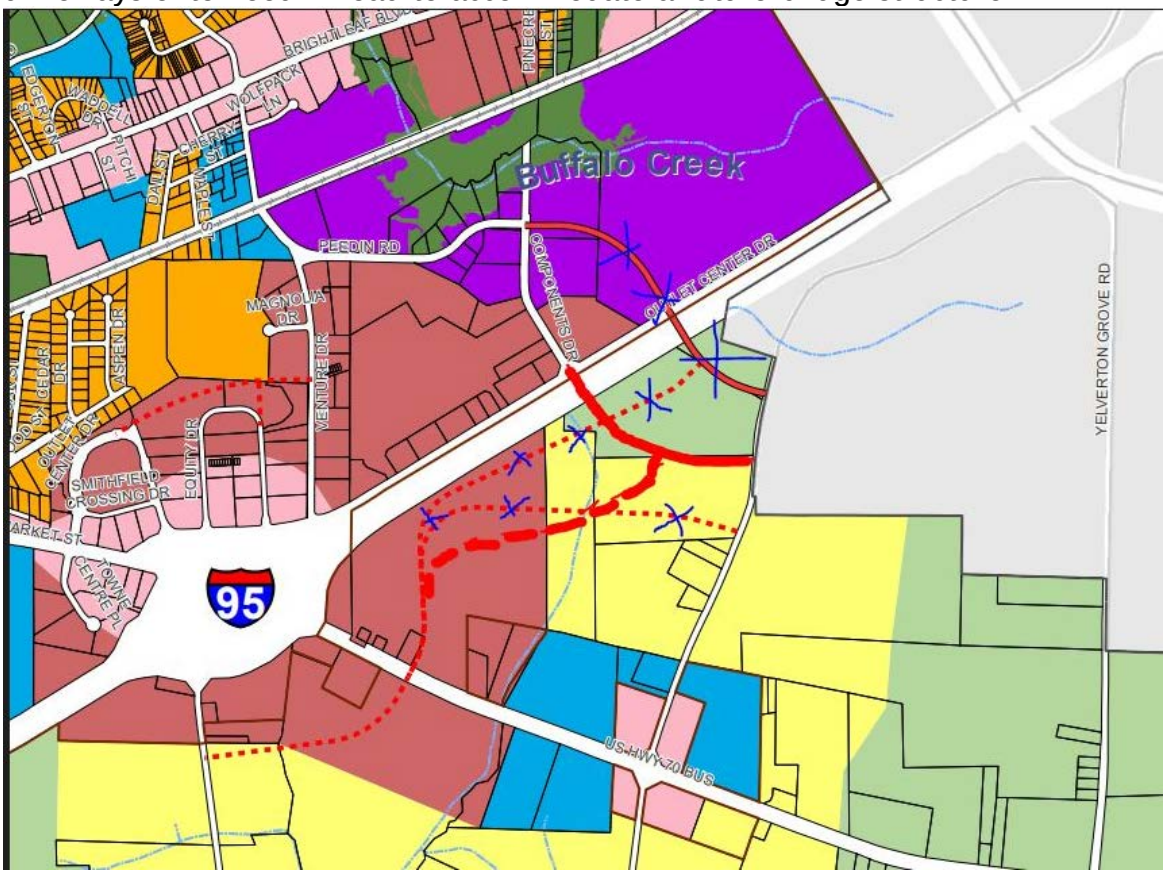


M. Durwood Stephenson Parkway Extension over I-95 Concept Plan



Proposed I-42/U-70 and I-95 Interchange Map

- Staff also considered moving the I-95 crossing to align with Peedin Road, however this would likely result in the future closing of the Carolina Premium Outlet's driveways onto Peedin Road to accommodate a future bridge structure.



Peedin Road Extension over I-95 Concept Plan

OPTIONS:

There are several options for the Planning Board/Council to consider:

- Do nothing. The route is still relevant to the Town's long range transportation plan.

- Delete the route from the Comprehensive Land Use Plan Map as it is no longer relevant given the recent and planned development changes.

- Realign the route with Peedin Road, understanding that access to the Carolina Premium Outlet driveways onto Peedin Road would likely be closed with a future bridge.

RECOMMENDATION:

Staff recommends the Planning Board recommend deleting the route from the comprehensive plan.

RECOMMENDED MOTION:

"move to recommend the Town Council approve the proposed amendments to the 'Town Plan', Transportation Plan and Comprehensive Growth Management Plan."

FEASIBILITY STUDY

US 70
From SR 1003 (Buffalo Road) near Selma to SR 2372 (Edwards Road) in Princeton

Johnston County, Division 4
FS-1604A

Prepared for:

N.C. Department of Transportation
Division of Planning and Programming
Feasibility Studies Unit

8/17/18

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1.0 INTRODUCTION

The proposed project is planned to improve the existing US 70 facility between SR 1003 (Buffalo Road) near Selma to SR 2372 (Edwards Road) in Princeton. This report evaluates upgrading the existing US 70 facility to interstate design standards considering eight interchanges and five grade separation locations and frontage road system for access. The project study area is in Johnston County between the Towns of Selma and Princeton. The purpose of the project is to improve regional mobility and provide better connectivity between Raleigh and Morehead City. This report provides an examination of the feasibility of this proposed project for the improvement alternatives.

This is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project including cost and to identify potential problems that may require consideration in the planning and design phases. Once a candidate project is identified for funding in the STIP, the Feasibility Study is followed by a rigorous planning and design process that meets the requirements of the National Environmental Policy Act (NEPA), where either an Environmental Impact Statement (EIS) or an Environmental Assessment (EA) is done.

1.1 BACKGROUND

US 70 is an important regional facility in the eastern part of North Carolina as it serves to connect many municipalities of all sizes including Raleigh, Goldsboro, New Bern and Morehead City. There are a number of improvement projects along the US 70 corridor between Raleigh and Morehead City in various stages of planning, construction and completion. The US 70 Corridor Commission was formed to provide a central location for the multiple US 70 projects to be discussed and provide ongoing updates to planning studies and construction schedules. The intent of the US 70 Corridor Commission is "to partner with local, regional and state government agencies to effectively support initiatives enhancing safety, mobility and economic vitality along the Highway 70 corridor through land use planning, transportation improvement and economic development strategies."

1.2 STUDY AREA

The scope of the study area for this project includes approximately 1,000 feet on either side of existing US 70 and extends approximately 1.6 miles from Buffalo Road on the western end, to SR 2815 (Turnage Road/Bear Farm Road) and approximately 1,000 feet from Edwards Road on the eastern end so as to include an area large enough for all potential improvement solutions.

The study area widens variably near the I-95 interchange and extends along I-95 approximately 2 miles north and 2.5 miles south from the I-95/US 70 interchange (Figure 1-1).

The study area also includes existing intersections along US 70, grade separation locations and frontage road system for access considerations. These intersections are included as part of the traffic capacity evaluation to determine the impact that a freeway facility may have on the existing infrastructure.

The following are the major intersections included in the study area, as shown in Figure 1-1:

- US 70 and SR 1003 (Buffalo Road)
- US 70 and I-95
- US 70 Bypass and I-95
- US 70 and US 70 Business/SR 2308 (Peedin Road Extension)
- US 70 and SR 2310 (Davis Mill Road)
- US 70 and SR 2312 (Country Store Road)/SR 2519 (Braswell Road)
- US 70 and US 70 Alt
- US 70 and SR 1002 (Rains Mill Road)
- US 70 and SR 2372 (Edwards Road)
- SR 2305 (Firetower Road)
- SR 2309 (Creech's Mill Road)
- SR 2556 (Dr. Donnie H. Jones Jr. Boulevard)
- SR 2316 (Old Rock Quarry Road/Barden Street)

These locations were evaluated for upgrade or alternation to support the interstate design. Some are proposed for interchange locations and/or grade separations, while others will not access US 70, but will be serviced by a frontage road system.

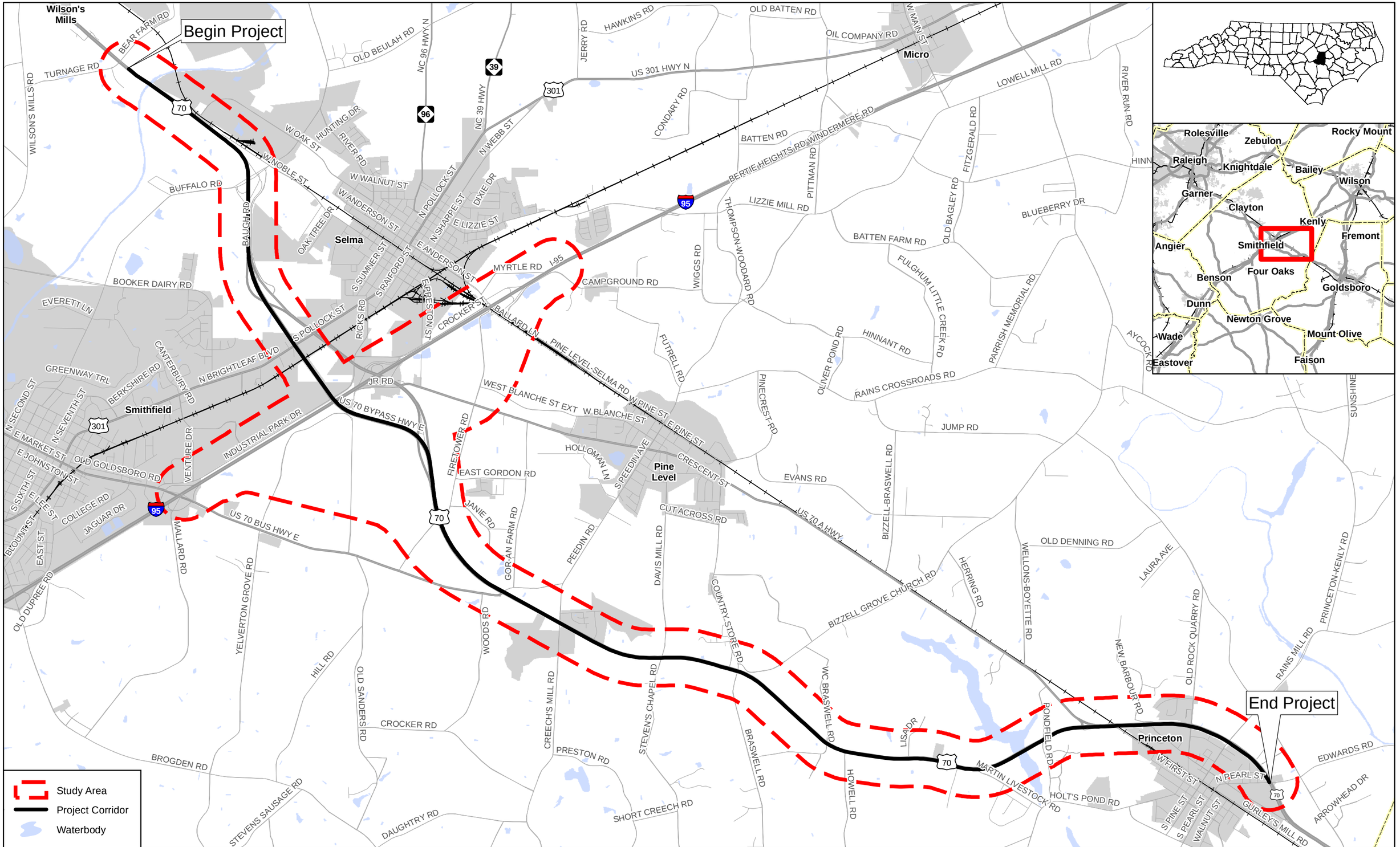


Figure 1-1
Project Study Area

FS-1604A US 70
From SR 1915 (Bear Farm Road/Turnage Road) to
SR 2372 (N. Pearl Street/Edwards Road)

1.3 PROJECT ALTERNATIVES

This study analyzed various base year and future year scenarios. These scenarios are based on multiple design alternatives and present traffic projections for each condition, as described below.

- **Base Year (2016) – No-Build:** This scenario represents existing roadway conditions and accounts for base year volumes.
- **Base Year (2016) – Improve Existing Alternative:** This scenario includes upgrading the existing facility to interstate design standards considering eight interchange locations, five grade separation locations and frontage road systems for access; it accounts for base year volumes.
- **Base Year (2016) – US70/US 70 Bypass/I-95 System Interchange:** This scenario includes a new location, fully directional interchange between US 70 and I-95; it accounts for base year volumes.
- **Design Year (2040) – No-Build:** This scenario projects the traffic conditions along the study corridor with forecasted volumes; future roadway conditions excluding the proposed project are reflected.
- **Design Year (2040) – Improve Existing Alternative:** This scenario includes upgrading the existing facility, primarily on existing location with the exception of the US 70/I-95 interchange system, which is proposed to shift to the east. There are two options for the US 70 alignment in the Princeton area (A and B).
    - Option A includes an interchange with US 70 Alternate at SR 2556 (Dr. Donnie H. Jones Jr. Boulevard). Under this Option, US 70 would remain at grade, on existing alignment, with grade separations taking SR 2316 (Old Rock Quarry Road/Barden Street and SR 1002 (Rains Mill Road) over US 70.
    - Option B includes an interchange with US 70 Alternate near its existing location, west of SR 2556 (Dr. Donnie H. Jones Jr. Boulevard). In this Option, a frontage road would connect the interchange to SR 2556 (Dr. Donnie H. Jones Jr. Boulevard). To minimize right-of-way impacts along US 70, the mainline would be elevated and shifted slightly to the north with grade separations taking US 70 over SR 2316 (Old Rock Quarry Road/Barden Street and SR 1002 (Rains Mill Road).
    - In both Options, there are proposed improvements to Ginger Drive/Boon Hill Drive to improve access to SR 2316 (Old Rock Quarry Road).
- **Design Year (2040) – Upgrade Existing Shoulders Alternative:** This scenario includes only the improvements needed to upgrade the existing shoulders along US 70 such that the corridor can be designated as an interstate. Improvements include upgrading shoulders from the project start, just east of SR 2815 (Bear Farm Road) to west of SR 2309 (Creech's Mill Road/Peedin Road). Also included in this alternative are the improvements

required for a grade separation at SR 2305 (Fire Tower Road) and at SR 2309 (Creech's Mill Road/Peedin Road).

2.0 EXISTING CONDITIONS

2.1 EXISTING ROADWAY AND TRAFFIC CONDITIONS

2.1.1 Existing Roadway

Based on the functional class assigned by the North Carolina Department of Transportation (NCDOT), US 70 is classified as "Other Principal Arterial." It provides connectivity between Raleigh and Morehead City as well as regional mobility in the Goldsboro area. It is a median divided, four-lane highway with grassy median and exclusive turn lanes present at major intersections.

2.1.2 Existing Traffic

The traffic volumes utilized in the traffic capacity analysis were taken from the forecasts completed by NCDOT in September 2016 for purpose and use in this report. A forecast from August 2015 for a previously delivered project, U-5795A was also applicable. A portion of that forecast was directly applicable to this project, therefore used in this report. The volumes utilized for the existing conditions analysis are derived from the Base Year (2016) volumes provided in the September 2016 forecast.

The 2016 daily volumes vary within the study area from between 7,400 – 20,900 vehicles per day (vpd) between the US 70 Bypass intersections on the western end of the US 70 project corridor to 17,900 – 26,000 vpd at the eastern end of the US 70 project corridor after the US 70 Bypass intersection. Side streets within the study area are relatively minor in volume, and range from 200 – 8,000 vpd with the exception of S. Pollack Street which has daily volumes of 13,300 – 23,400 vpd.

Because traffic capacity and congestion are not the driving force behind the need for this project, and projected traffic volumes are within the ranges of generally acceptable operations for four-lane interstate facilities, a formal peak hour capacity analysis was not completed. Interchange ramp intersection designs were based on standard turning lane width and tapers for low volume roadways.

2.2 ENVIRONMENTAL FEATURES

An environmental screening was completed for the project study area utilizing existing GIS resources. This screening analysis indicated areas of possible environmental concern, including stream and wetland areas, protected species, historic resources, and locations of active and

inactive hazardous material sites. These data were obtained from a variety of sources including the GIS sources listed below:

- Johnston County GIS
- NC Center for Geographic Information and Analysis – NC One Map Geospatial Portal
- NC Conservation Planning Tool (CPT)
- NC Flood Risk Information System
- NC Department of Cultural Resources – State Historic Preservation Office (NCSHPO)
- NCDEQ Division of Water Resources (DWR)
- NCDEQ Division of Coastal Management (DCM)
- NCDEQ-Division of Waste Management (DWM)
- NCDOT GIS Unit
- NC Natural Heritage Program (NHP)
- NC Wildlife Resources Commission (WRC)
- US Fish and Wildlife Services (USFWS)
- US National Park Service

Figure 2-1 illustrates the known environmental features present within the project study area as indicated by the environmental screening process.

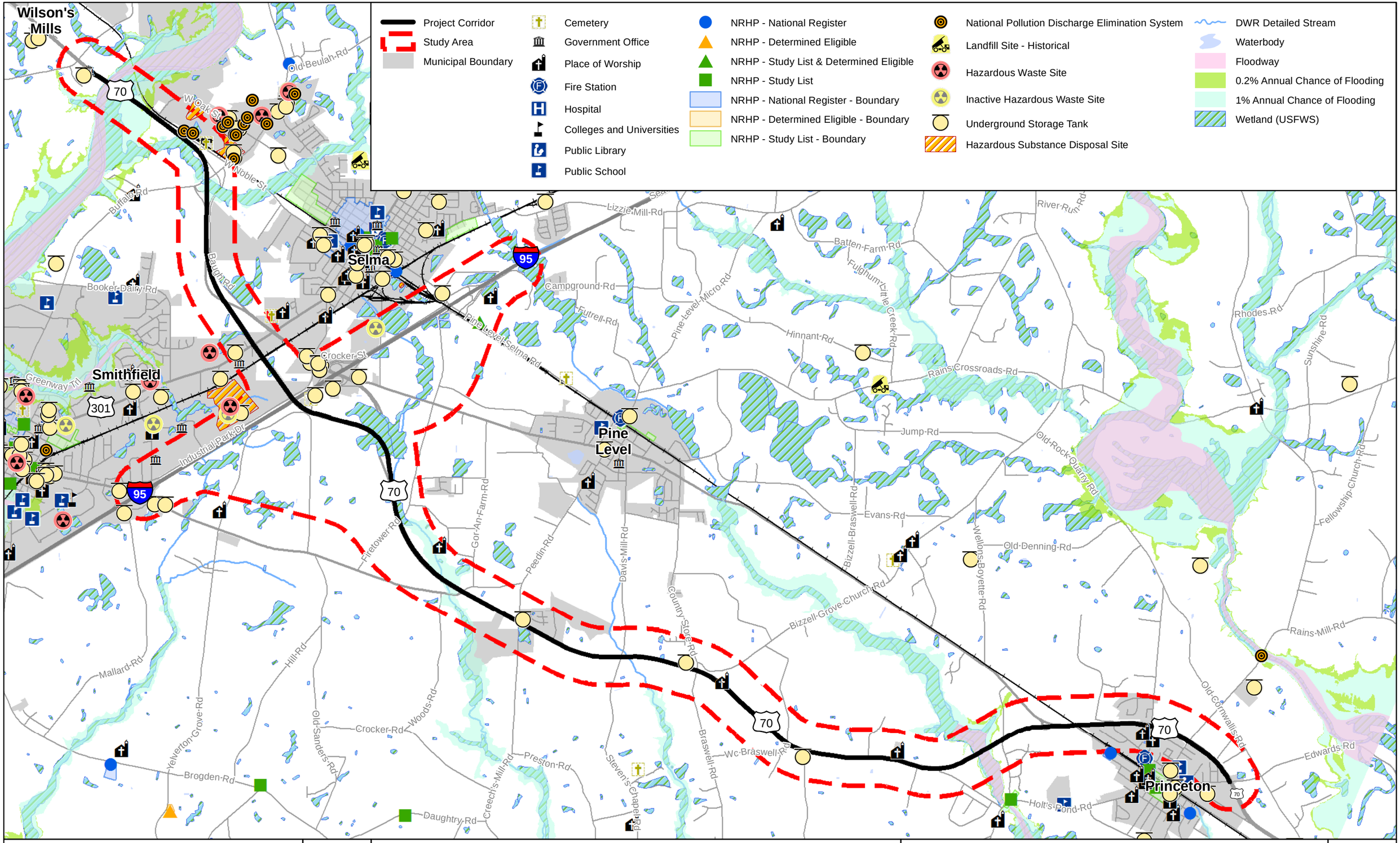
2.2.1 Historic and Cultural Resources

There are no properties located in the study area that are currently listed on the National Register of Historic Places (NRHP). However, the Smithfield Fire Lookout Tower was determined eligible for the NRHP in 2017 and is located on the west side of SR 2305 (Fire Tower Road), north of US 70. While this property falls within the study area, the project as evaluated in this report is not expected to have a direct impact to this resource.

Additionally, two surveyed houses are located near the US 70 project study area, the Howard Oliver House and the Waverly H. Edwards House, but the project as evaluated in this report is not expected to have a direct impact to these potential resources.

2.2.2 Streams, Wetlands, and Flood Plains

The Division of Water Resources (DWR), a subset of the NC Department of the Environment Quality, is responsible for the protection, classification and enhancement of all streams and water bodies within North Carolina. The project study area is located within the Neuse River Basin of North Carolina. The Neuse River Basin is divided into four sections: The Upper, Middle and



Scale
0 0.5 1 2 Miles

Figure 2-1
Environmental Features

FS-1604A US 70
From SR 1915 (Bear Farm Road/Turnage Road) to SR 2372 (N. Pearl Street/Edwards Road)

Lower Neuse, and Contentnea Creek sub basins. The project study area lies in the Upper Neuse sub basin. There are five named streams that drain water from the study area. Only Moccosin Creek is classified as impaired as of the 2014 Final 303(d) list. Four streams are classified as Class C waters protected for secondary recreation and one stream is classified as WS-IV waters used as a drinking water supply and are found in moderately to highly developed watersheds. All streams are nutrient sensitive waters (NSW):

- Mill Creek (WS-IV; NSW) – Walnut Creek watershed
- Buffalo Creek (C; NSW) – Walnut Creek watershed
- Bawdy Swamp (C; NSW) – Moccasin Creek watershed
- Quicosin Swamp (C; NSW) – Moccasin Creek watershed
- Moccosin Creek (C; NSW) – Moccasin Creek watershed

According to DWR datasets there several stream crossings throughout the project study area along US 70 and on secondary roads. Four stream crossings of US 70 are within the project limits. Mill Creek crosses US 70 through a culvert at the western end of the project study area near the intersection with Buffalo Road (SR 1003). Bawdy Swamp crosses US 70 through a culvert near the US 70 Business intersection. Quicosin Swamp crosses US 70 just east of Davis Mill Road. This crossing is not included in the NCDOT inventory but is visible on aerial imagery. Just west of Pondfield Road (SR 2314) are two bridges along US 70 that cross Moccasin Creek (Holts Pond), one on westbound and one on eastbound US 70.

Johnston is a Coastal Plain county of North Carolina and is included within the Division of Coastal Management's wetland dataset collection (NC-CREWS). Available wetland GIS datasets include numerous wetland features located within the project study area, including features along the existing roadway. A higher density of wetlands is located between Buffalo Road in Selma and Peedin Road. The existing US 70 roadway crosses several wetland features, with some being in the same area as stream crossings.

There are areas of designated 100-year and 500-year floodplain within the project study area, along Moccasin Creek. Additionally, areas of designated 100-year floodplains are present along Bawdy Swamp and Mill Creek within the project study area.

2.2.3 Water Supply Watersheds and Public Water Sources

The project study area lies between three public supply watersheds with intakes located downstream from the project study area on the Neuse River. Each is classified as protected water supply watersheds (WS-IV NSW). These watersheds are the Neuse River (Smithfield) to the north and both Neuse River (Goldsboro) and Little River, to the south. These watersheds flow into the Neuse River. One ground water well, Smithfield Moose Lodge, is located within the project study

area along the US 70 service road near I-95. There are also various Ground Water Community wells adjacent to the US 70 corridor study area in the Town of Selma. There are no other groundwater sources that will be affected in the study area.

2.2.4 Protected Species

The United States Fish and Wildlife (USFWS) lists federally protected species for Johnston County (Table 2-1). Four species are protected under the Endangered Species Act (ESA) and are listed as either threatened or endangered. Species listed as endangered, E, are in danger of extinction throughout all or a significant portion of its range. The bald eagle was delisted from the Endangered Species Act in August 2007 but is still protected under the Bald and Golden Eagle Protection Act. There are several federal species of concern (FSC) listed for Johnston County by the USFWS. These species are not protected by the ESA, but appear to be in decline or otherwise in need of conservation and are under consideration for listing or currently, there is insufficient information to support the listing.

Table 2-1
Federally Protected Species Listed for Johnston County

	Scientific Name	Common Name	Federal Status
Vertebrate:			
	Anguilla rostrata	American eel	FSC
	Haliaeetus leucocephalus	Bald eagle	BGPA
	Noturus furiosus	Carolina madtom	FSC
	Dendroica cerulea	Cerulean warbler	FSC
	Lythrurus matutinus	Pinewoods shiner	FSC
	Picoides borealis	Red-cockaded woodpecker	E
	Ambloplites cavifrons	Roanoke bass	FSC
Invertebrate:			
	Fusconaia masoni	Atlantic pigtoe	FSC
	Alasmidonta heterodon	Dwarf wedgemussel	E
	Lasmigona subviridis	Green floater	FSC
	Parvaspina steinstansana	Tar River spinymussel	E
	Lampsilis cariosa	Yellow lampmussel	FSC
	Elliptio lanceolata	Yellow lance	P
Vascular Plant:			
	Lindera subcoriacea	Bog spicebush	FSC
	Macbridea caroliniana	Carolina bogmint	FSC
	Rhus michauxii	Michaux's sumac	E

	Solidago verna	Spring-flowering goldenrod	FSC
	Trillium pusillum var. *virginianum*	Virginia least trillium	FSC

FSC= Federal Species of Concern
E = Endangered
P = Proposed
BGPA = Bald and Golden Eagle Protection Act

While it is not expected that the project would directly impact these species, caution should be taken to protect the habitats of these species within the project study area. A formal screening of federally protected species was not completed as part of this report but should be completed during later stages of project planning and design.

2.2.5 Conservation Areas

There is one managed area within the project study area. This site is NCDOT Mitigation Site Points 051-005, STIP ID R-0084BA, and is located within the gore area of the US 70 and US 70 Business ramps. This area is a wetland that is part of the Neuse River Basin; it currently has a closed-out status. There are no dedicated nature preserves, or federally owned lands within the project study area.

2.2.6 Hazardous Materials and NPDES Sites

According to the most recently available NCDENR Division of Waste Management GIS data, there is one active hazardous material substance disposal site located within the project study area. This site is Skyware Global and is located in the Smithfield Business Park along SR 2398 (Outlet Center Drive) approximately one-half mile southwest from US 70 and is currently in compliance with all regulations.

There are two inactive hazardous waste sites, GTE Sylvania and Eaton Manufacturing. GTE Sylvania is located approximately 0.2 miles south of US 70, along US 301. Eaton Manufacturing is located approximately 1 mile north of the US 70 and I-95 interchange along East Preston Street. Eaton Manufacturing is located directly in the project study area, while GTE Sylvania is slightly outside the study area.

There are no NPDES facilities located within the project study area.

Numerous gas stations are located throughout the project study area that actively operate underground storage tanks. Two gas stations are located directly adjacent to US 70, a BP at Peedin Road intersection and a Citgo at Country Store Road. However, there is no current

indication that these tanks pose an environmental threat nor are they expected to be impacted by the proposed project.

2.2.7 Animal Operations

There are no animal farm operations located within the project study area.

2.2.8 Community Resources

There are six identified churches located within the project study area. Only two churches, Hephzibah Baptist Church and Princeton Church of God are located adjacent to US 70; however, the proposed project is not expected to directly impact any of the church buildings or result in any significant acquisition of the church properties. There are two identified cemeteries within the project study area; both are in Selma with one located off W Noble St and the other adjacent to S Pollock St and US 70. Various schools have been identified, however, none of these schools are within the study area of the project. One fire department in Princeton has been identified as being in the project vicinity, however it is not within the project study area. There are no hospitals, golf courses or community parks within the project study area.

2.3 CRASH ANALYSIS

The crash analysis was derived from five years of available collision data obtained from the NCDOT Safety Planning Group. The data covered the period from June 1, 2011 to May 31, 2016. The summary includes collisions that were reported along the 12-mile stretch of US 70 from Buffalo Road (SR 1003) to Edwards Road (SR 2372) in Johnston County.

The main type of collision in the study area was fixed object collisions, which constituted 22 percent of the overall collisions during the study period; rear-end, side-swipe, angle, and animal collisions were also common, composing 18 percent, 12 percent, 12 percent, and 10 percent of the total collisions in the area, respectively. Table 2-2 summarizes severity of crashes and Table 2-3 shows crash totals by location in the study area.

The Safety Planning Group provides calculated rates for facility types based on data collected statewide. For comparison purposes, the analyzed corridor is classified as a Rural US Route with 4 or more lanes (divided, no access control). As shown in Table 2-4, the crash rates for the facility are higher than the statewide averages for similar facilities across the state, except in the category of fatalities and wet crashes. The total crash rate is only slightly higher than similar facilities across the state, while the Non-Fatal Injury and Night crash rates are notably higher than similar facilities.

Each intersection within the project study area was evaluated for crashes. These crashes were divided into categories based on collision. The top categories, starting with the highest percentage of crashes are: Fixed Object (22%), Rear End (18%), Angle (12%), Sideswipe (12%), Other (12%).

Table 2-2
Crash Severity and Totals

Intersection	Fatal	Injury	PDO	Total
Buffalo Rd	0	0	1	**1**
Between Intersections	0	3	15	**18**
70 Bypass (diverge)	0	1	4	**5**
Between Intersections	0	9	43	**52**
70 Bypass (merge)	0	0	1	**1**
Between Intersections	0	3	9	**12**
Firetower Rd	0	4	5	**9**
Between Intersections	0	9	18	**27**
US 70 Bus / Peedin Exd / SR 2307	1	18	19	**38**
Between Intersections	0	10	16	**26**
Peedin Rd	0	14	10	**24**
Between Intersections	0	6	20	**26**
Davis Mill Rd	0	8	3	**11**
Between Intersections	0	6	18	**24**
Braswell Rd / Country Store Rd	0	9	10	**19**
Between Intersections	0	3	12	**15**
Wc Braswell Rd	0	1	0	**1**
Between Intersections	0	1	0	**1**
Howell Rd	0	1	1	**2**
Between Intersections	0	4	2	**6**
Lisa Dr	0	0	1	**1**
Between Intersections	0	0	14	**14**
Martin Livestock Rd	0	6	2	**8**
Between Intersections	0	3	17	**20**
Pondfield Rd	0	2	2	**4**
Between Intersections	0	2	0	**2**
W Edwards St / US 70 Alt	0	4	9	**13**
Between Intersections	0	1	8	**9**
New Barbour Rd / DDH Jones Jr Blvd	0	1	1	**2**
Between Intersections	0	0	2	**2**
Old Rock Quarry Rd	0	0	3	**3**
Between Intersections	0	2	6	**8**
N Pine St / Rains Mill Rd	0	14	15	**29**
Between Intersections	0	3	3	**6**
Edwards Rd / N Pearl St	0	5	6	**11**
Totals	***1***	***153***	***296***	***450***

Table 2-3
Crash Totals by Location

Intersection	Total
Buffalo Rd	**1**
Between Intersections	**18**
70 Bypass (diverge)	**5**
Between Intersections	**52**
70 Bypass (merge)	**1**
Between Intersections	**12**
Firetower Rd	**9**
Between Intersections	**27**
US 70 Bus / Peedin Exd / SR 2307	**38**
Between Intersections	**26**
Peedin Rd	**24**
Between Intersections	**26**
Davis Mill Rd	**11**
Between Intersections	**24**
Braswell Rd / Country Store Rd	**19**
Between Intersections	**15**
Wc Braswell Rd	**1**
Between Intersections	**1**
Howell Rd	**2**
Between Intersections	**6**
Lisa Dr	**1**
Between Intersections	**14**
Martin Livestock Rd	**8**
Between Intersections	**20**
Pondfield Rd	**4**
Between Intersections	**2**
W Edwards St / US 70 Alt	**13**
Between Intersections	**9**
New Barbour Rd / DDH Jones Jr Blvd	**2**
Between Intersections	**2**
Old Rock Quarry Rd	**3**
Between Intersections	**8**
N Pine St / Rains Mill Rd	**29**
Between Intersections	**6**
Edwards Rd / N Pearl St	**11**
Total	***450***

Table 2-4

Crash Rate* Comparison of Study Area to Statewide Averages

Rural US Routes	Total Crash Rate	Fatal Crash Rate	Non-Fatal Injury Crash Rate	Night Crash Rate	Wet Crash Rate
US 70	92.82	0.21	31.56	29.91	17.12
4+ Lanes (Divided, No Access Control)	87.01	0.76	24.42	15.33	32.38
Exceeds Statewide Average?	*Y*	*N*	*Y*	*Y*	*N*

**All crash rates per 100 Million Vehicle Miles Traveled (VMT)*

3.0 BACKGROUND TRANSPORTATION AND LAND USE PLANS

This section presents an overview of published and adopted transportation and land use plans that include the project study area. A review of these plans builds the framework for the project need and gives insight into the history of the vision for the proposed project.

3.1 TRANSPORTATION PLANS

A review of existing transportation plans that influence the future of the US 70 corridor was completed; each document and recommendations pertinent to the project study area are summarized below.

3.1.1 NCDOT State Transportation Improvement Plan

The North Carolina Department of Transportation (NCDOT) has established a multi-year schedule for all its transportation projects called the State Transportation Improvement Program (STIP). This project is not listed in the currently adopted 2018-2027 STIP (August 2017).

3.1.2 North Carolina Transportation Network and Strategic Transportation Corridors Framework

The most recent *North Carolina Transportation Network and Strategic Transportation Corridors Framework* was published in August 2015. The report identifies transportation system links and nodes that are considered critical for achieving the state's Strategic Transportation Corridor (STC) goals of system connectivity, mobility (including multimodal facilities), and economic prosperity (i.e. access to activity centers). These facilities, which are grouped into corridors, are intended to facilitate the movement of high volumes of people and goods over long distances. Maintenance and improvement of these corridors is given high priority by NCDOT. The stretch of US 70 between I-440 in Wake County and the Morehead City Port is listed as a STC corridor, specifically corridor P (US 70E / NCRR). The report recommends upgrading US-70 to freeway standards and making safety improvements through rural sections that currently have uncontrolled access.

3.1.3 Johnston County Comprehensive Transportation Plan

Johnston County's *Comprehensive Transportation Plan* (CTP) was published in December 2014 and most recently revised in September 2015. The document provides recommendations for improving highway, rail, public transit, bicycle, and pedestrian transportation networks through the year 2035, and a number of these recommendations impact the FS-1604A study corridor. Between the bypass merge in Selma and the Wayne County line, the plan recommends converting

US 70 to a 4-lane continuous freeway; constructing interchanges near where US 70-Business and US 70 merge and near the intersection of US 70 and Stevens Chapel Hill Rd.; and implementing the state's plan for safety improvements to US 70 near Pine Level (STIP project W-5107).

3.1.4 Thoroughfare Plan Report for the Town of Princeton

The *Thoroughfare Plan Report* for the Town of Princeton was published in January 1999. The document evaluates the need for constructing new or improving existing transportation facilities within the Town, based on projected future traffic volumes and development patterns through 2025. The plan recommends that US 70 be widened to six lanes and have controlled access (access via interchanges only). It also notes that there will be commercial development (a grocery store and strip mall shops) at the eastern terminus of the FS-1604A study corridor.

3.1.5 Resolution in Support for a Feasibility Study to Improve US 70 from I-95 to the Wayne County Line in Johnston County, NC

In January 2016, the Upper Coastal Plain Rural Planning Organization (UCPRPO) Transportation Advisory Committee endorsed upgrading the US 70 corridor to interstate standards and called upon the state to undertake a project feasibility study for improving the segment between I-95 and the Wayne County Line. The UCPRPO believes the upgrading of US 70 will improve mobility and safety for its users and promote economic development for surrounding communities. The project is also perceived to be aligned with the intentions of the federal Fixing America's Surface Transportation Act.

3.1.6 US 70 Access Management Study

The *US 70 Access Management Study*, published in July 2005, examines the US 70 corridor between Clayton and Morehead City. The report makes recommendations that further the aims of the state's Strategic Transportation Corridors vision, particularly with regard to reducing travel time and enhancing safety for motorists using US 70 to access regional destinations. A couple of the priority segments identified in the document coincide with the FS-1604A study corridor, namely: the corridor between Peedin Rd Ext and Davis Mill Rd (with particular attention to safety issues at the Peedin Rd intersection), and the corridor between Old Rock Quarry Rd and N Pearl St/Edwards Rd in Princeton (with particular attention to safety issues at the Pearl St intersection). The report's recommendations include numerous mainline directional crossovers and median closures, some signal removals, and an array of other intersection improvements.

3.2 LAND USE AND ZONING

3.2.1 Town of Smithfield Comprehensive Growth Management Plan

Smithfield's *Comprehensive Growth Management Plan* was adopted in May 2003. The document inventories existing land use patterns and establishes guidelines for future development patterns that will preserve the Town's character. The FS-1604A study corridor is not addressed in the text of the plan, but two small sections of the corridor are visible in the plan's Future Land Use Map. The surrounding land uses have been designated as open space and low density residential, with small pockets of conservation districts or wetlands. Within the study area of this project, current land use is anticipated to change as the Town of Smithfield rezones for higher density zoning as part of a Comprehensive Plan Update.

3.2.2 Town of Selma Land Use Plan

The *Town of Selma Land Use Plan*, adopted in October 2009, lays out policies to guide future development in the Town through 2030. The plan is intended to be supported by the area's transportation network and associated planning efforts. The Town aims to achieve a gradient of land uses along the FS-1604A study corridor, the general pattern being: industrial uses in the north (Buffalo Rd to just north of Pollock St), commercial uses along most of the US 70 Bypass, and residential uses south of the US 70 Bypass and east of Yelverton Grove Rd. The commercial stretch of the corridor is expected to pass through parts of two distinct activity centers, one along S Pollock St and the other surrounding the US 70 / I-95 interchange (Exit 97).

3.2.3 Johnston County 2030 Comprehensive Plan

The *Johnston County 2030 Comprehensive Plan*, adopted in 2009, establishes a framework for decision-making about growth management in the county. The plan states that a median barrier will be installed along the northern half of the FS-1604A study corridor. The document also projects that the Clayton Bypass will stimulate development in Wilson's Mills and east along the study corridor. The County favors concentrating development there, as the area has a supply of available and suitable land, pre-existing development (residential and non-residential), and good connectivity with the Raleigh-Durham-RTP area. The County's Land Use Plan (map update, March 2009) indicates that most of the land lying along the FS-1604A study corridor and within the County's planning jurisdiction is designated as a primary growth area, with the exception of a small stretch of land (south of US 70, between New King Rd and Lisa Dr), which is designated as an agricultural / rural conservation area. Where US 70 Business and US 70 merge, the County anticipates there being a Community Commercial Activity Center that could include grocery stores. Further east along the study corridor, near Steven's Chapel Rd, there will be a Neighborhood Commercial Activity Center with smaller businesses like convenience stores.

3.3 OTHER STIP PROJECTS

3.3.1 W-5107

Safety improvements on US 70 from SR 2305 (Firetower Road) to east of SR 2310 (Davis Mill Road/Stevens Chapel Road). Total length of the project is 2.7 miles. Interchanges at SR 2308 (Peedin Road Extension) and SR 2310 (Davis Mill Road) will be improved, and median breaks will be closed. This project is currently under construction and will have a total cost of $25.7 million.

3.3.2 I-5786, I-5784 and I-3318

I-3318 is an interstate project on I-95, spanning a total length of 10.2 miles, from US 70 (exit 97) to US 301 (exit 107). This project consists of both bridge and pavement rehabilitation. Section A of this project, which spans from US 70 (exit 97) to north of SR 1001 (mile marker 100) has been completed. Replacement of bridge number 116 and approaches over Little River are currently under construction. Section BA, north of SR 1001 (mile marker 100) to US 301 (exit 107), is listed as unfunded, future years. The total cost for this project is $32.7 million. All funding for this project is from NHPIM (National Highway Performance Program Interstate Management).

I-5784 is a pavement rehabilitation project on I-95 from mile marker 84 (end of I-5803) to 0.4 mile north of US 70 bypass (mile marker 84), spanning a total of 12.5 miles. The total cost of this project is $12.6 million and was completed in September 2017.

I-5786 is a pavement rehabilitation project on I-95 from south of SR 1001 (Lizzie Mill Road) to the Johnston/Wilson county line north of NC 222. Part of this project will also include replacing bridge number 108 on SR 1001 and bridge number 111 on SR 2141 (Bizzell Grove Road). The project length is 8.5 miles with a total cost of $76.6 million. Funding for this project is from NHPIM (National Highway Performance Program Interstate Management). This project is currently under construction.

3.3.3 U-5726

Access management improvements are planned for the stretch of US 301 between Booker Dairy Road and Ricks Rd, for a total of 1.6 miles. Right of way and utilities are anticipated to start in 2023. Construction is expected to start in 2025. This project is listed in the currently adopted 2018-2027 STIP as U-5726. Total project cost is $15.1 million. Funding for this project is from the State Highway Trust Funds.

3.3.4 R-5718

Buffalo Rd, between SR 1934 (Old Beulah Rd) and US 70, will be widened to three lanes. The length of this project is 1.3 miles. Planning/design is currently in progress. Right of way and utilities are planned for 2018 and construction is anticipated to start in 2019. This project is listed in the currently adopted 2018-2027 STIP as R-5718. Total cost for this project is $7.7 million, with funding from the State Highway Trust Funds.

3.3.5 U-5795 and U-3334B

U-5795 widens Ricks Road, from US 70 to US 301, to three lanes. The total length of this project is 0.8 miles and has a total cost of $4.7 million. Right of way is currently in progress, with construction starting in 2018. Funding for this project is from the State Highway Trust Funds.

U-3334 widens SR 1923 (Booker Dairy Road Extension), between US 70 business west of Smithfield to US 301 (Bright Leaf Boulevard) in Smithfield, to multi-lanes. Section A, US 70 Business to SR 1003 (Buffalo Road) is complete. Right of way is currently in progress for Section B, SR 1003 (Buffalo Road) to US 301 (Bright Leaf Boulevard). Construction for section B is scheduled to begin in 2018. The total length of this project is 3.7 miles, with a total cost of $40.9 million. Funding for this project is through the State Highway Trust Funds.

3.3.6 I-5972

I-5972 modifies exit 95, the interchange for I-95 and US 70 Business in Smithfield. The total length of this project is 4 miles and has a total cost of $15.7 million. Right of way and utilities are planned for 2019, with construction programmed for 2020. Funding for this project is from the National Highway Performance Program.

3.3.7 R-5829

R-5829 upgrades US 70 to freeway standards, between US 70 Bypass to east of SR 2314 (Pondfield Rd). The total length of this project is 6.8 miles and has a total cost of $130.5 million. This project is split into two sections, A and B. Section A is from US 70 Bypass to west of SR 1229 (Luby Smith Rd). Right-of-way, utilities and construction are planned to start in 2023 for section A. Section B, from west of SR 1229 (Luby Smith Rd) to east of SR 2314 (Pondfield Rd) is currently unfunded, but planned for future years. Funding for this project is from the National Highway Performance Program. Section 4 of FS-1604A is included in Part B of this STIP project.

4.0 EVALUATED ALTERNATIVES

There are two build alternatives that were developed for evaluation. This section presents each alternative and describes the design criteria used to develop the conceptual designs. Plots of the conceptual designs are provided as an attachment to this report.

4.1 DESIGN CRITERIA

The design criteria for this project include upgrading the facility to a principal arterial with a 75-mph design speed and 70-mph posted speed. The proposed future right-of-way would be between 180 and 200 feet. The facility was designed with full control of access, with no sidewalks or bicycle lanes. The same design criteria, summarized in Table 4-1, applies to all alternatives.

4.2 TYPICAL SECTIONS

The proposed typical section for this project includes a 50-foot depressed grass median, two 12- foot lanes in each direction, and a 12-foot paved inner and outer shoulder. This typical section is applicable to all freeway segments of the proposed project.

4.3 DESIGN YEAR (2040) NO-BUILD

This scenario projects the traffic conditions along the study corridor with forecasted volumes; future roadway conditions excluding the proposed project are reflected. Under the No-Build Alternative, the project corridor would maintain the partial control of access it is operates under today. Major cross streets would have direct access to US 70 with full movement intersections or superstreet configurations as are present today; minor side streets and driveways would access US 70 as right-in/right-out intersections.

4.4 IMPROVE EXISTING ALTERNATIVE

Traffic volumes utilized in the traffic capacity analysis were taken from the forecasts completed by Kimley Horn and Associates for NCDOT in September 2016 for this project (Appendix A). Since the project falls primarily outside of the MPO area, the STIP is the primary source for project information. Forecasts were developed with output from the Triangle Regional Model (TRM) and the North Carolina Statewide Travel Model (NCSTM) utilizing a Horizon Year (2040) while considering future population and growth projections.

In an effort to upgrade the current US 70 facility to freeway standards from Raleigh to Morehead City, improving the facility, primarily on existing location was evaluated. The locations of proposed interchanges and grade separations were determined based on expected traffic demand and interchange spacing requirements. Two versions of interchange locations were initially evaluated; however, in an effort to maintain interchange locations currently under construction, the following locations were established as interchange locations:

- US 70 and SR 1003 (Buffalo Road)
- US 70 and I-95
- US 70 and US 70 Business/SR 2308 (Peedin Road Extension)
- US 70 and SR 2310 (Davis Mill Road)
- US 70 and SR 2312 (Country Store Road)/SR 2519 (Braswell Road)
- US 70 and US 70 Alt or SR 2556 (Dr. Donnie H. Jones Jr. Boulevard)

In addition to these interchange locations along US 70, this study incorporated designs for the purpose of cost estimations for the interchange of I-95 and SR 1927 (Pine Level Selma Road).

Table 4-1 Design Criteria

ROUTE	US 70	I-95	REFERENCE
LINE	-L-	-Y-	OR REMARKS
TRAFFIC DATA			
ADT LET YR = 2016	23,300 vpd	42,100	September 15, 2016 Traffic Forecast
ADT DESIGN YR = 2040	45,000 vpd	67,900 vpd	
TTST	8%	24%	
DUALS	5%	5%	
K (DHF)	8%	7%	
DIR	55%	55%	
CLASSIFICATION	Interstate	Interstate	
TERRAIN TYPE	Rolling	Rolling	
DESIGN SPEED km/hr or mph	75 MPH	75 MPH	
POSTED SPEED km/hr or mph	70 MPH	70 MPH	
PROP. R/W WIDTH m or ft	Variable	Variable	
CONTROL OF ACCESS	Full	Full	
RUMBLE STRIPS (Y/N)	Y	Y	
TYPICAL SECTION TYPE	4 Lane Med. Div.	6 Lane Med. Div.	
LANE WIDTH m or ft	12 ft.	12 ft.	
SIDEWALKS (Y/N)	N	N	
BICYCLE LANES (Y/N)	N	N	
MEDIAN WIDTH m or ft	50 ft.	50 ft.	
MED. PROTECT. (GR/BARRIER)	Cable Barrier	GR	
SHOULDER WIDTH (total)			
MEDIAN m or ft	6 ft.	14 ft.	Rdy. Dsn. Man. 1-2B, Fig. 2B
OUTSIDE w/o GR m or ft	14 ft.	14 ft.	Rdy. Dsn. Man. 1-2B, Fig. 2B
OUTSIDE w/ GR m or ft	17 ft.	17 ft.	Rdy. Dsn. Man. 1-2B, Fig. 2B
PAVED SHOULDER			
OUTSIDE TOTAL/FDPS m or ft	12 ft. / 12 ft.	12 ft. / 12 ft.	Rdy. Des. Man. Pvd. Shlder. Policy 1-4O
MEDIAN TOTAL/FDPS m or ft	6 ft. / 4 ft.	12 ft. / 12 ft.	Rdy. Des. Man. Pvd. Shlder. Policy 1-4O
GRADE			
MAX.	4%	4%	AASHTO Design Standards Interstate
MIN. (DESIRABLE)	0.5%	0.5%	Hydraulic Minimum 0.3%
K VALUE			
SAG	206	206	AASHTO pg. 3-161 TABLE 3-36
CREST	312	312	AASHTO pg. 3-155 TABLE 3-34
HORIZ. ALIGN.			
MAX. SUPER.	0.10	0.10	Rdy. Des. Man. 1-15
MIN. RADIUS m or ft	1970 ft.	1970 ft.	AASHTO pg. 3-49 Table 3-11b
SPIRAL (Y/N)	Y	Y	Rdy. Dsn. Man. 1-11
CROSS SLOPES			
PAVEMENT	0.02	0.02	Rdy. Des. Man. 1-3B
PAVED SHOULDER	0.04	0.04	RSD. 560.02 SHEET 3 OF 3
TURF SHOULDER	0.04	0.04	RSD. 560.02 SHEET 3 OF 3
MEDIAN DITCH	6:1	6:1	
DITCH TYPICAL (A,B,C)	A	A	Rdwy. Design Manual 1-2A, F-1
CLEAR ZONE m or ft	30-34 ft.	30-34 ft.	Rdwy. Des. Man. 1-4M "A" & 1-4N

The following locations are proposed as grade separations with US 70 without direct access to US 70:

- US 70 and US 70 Bypass
- US 70 and SR 2035 (Firetower Road)
- US 70 and SR 2309 (Creech's Mill Road)
- US 70 and SR 2316 (Old Rock Quarry Road/Barden Street)
- US 70 and SR 1002 (Rains Mill Road)

To address such a long corridor in manageable pieces, the corridor was split into 4 Sections:

- Section 1: Project start to US 301
- Section 2: US 301 to west of SR 2309 (Creech's Mill Road)
    - Includes the I-95 realignment and I-95 interchange with US 70, US 70 Alt and Pine Level Selma Road
- Section 3: west of SR 2309 (Creech's Mill Road) to SR 2314 (Pondfield Drive)
- Section 4: SR 2314 (Pondfield Drive) to Project end

Section 4, which encompasses the Princeton area, is currently being accelerated as part of the STIP R-5829 project, currently in the planning and design stage, which improves US 70 to interstate standards from SR 2314 (Pondfield Drive) to US 70 Bypass in Goldsboro. During the early stages of this study, two design options, detailed below, were evaluated for Section 4, and the project team requested cost estimates each.

Section 4, Option A

This option includes an interchange between US 70 Alternate and US 70 that would incorporate SR 2556 (Dr. Donnie H. Jones Jr. Boulevard). This option would require the realignment of US 70 Alternate from its existing tie in point with US 70 toward the east approximately 3,000 feet, including a new grade separated crossing of the existing rail line. Under this option, SR 2316 (Old Rock Quarry Road/Barden Street) and SR 1002 (Rains Mill Road) would become grade separated crossings, going over US 70. US 70 would stay primarily on existing alignment.

Section 4, Option B

Due to potentially high right-of-way implications expected in Option A, Option B was developed. This option includes an interchange between US 70 Alternate and US 70 near its existing location, with a new frontage road along the south side of US 70, connecting to Commercial Drive. With this option, US 70 is realigned slightly north of existing alignment and US 70 would go over SR 2316 (Old Rock Quarry Road/Barden Street) and SR 1002 (Rains Mill Road) as grade separations. This was developed in an effort to minimize potential Y-line impacts in Princeton.

Section 4, Option C

In addition to Options A and B, Option C would be constructed regardless of the interchange location and includes the upgrade to Ginger Drive/Boon Hill Drive to at least subdivision standards. This connection is needed to provide adequate access to SR 2316 (Old Rock Quarry Road/Barden Street) from New Barbour Road.

A capacity analysis was not performed for each of the alternative scenarios as the purpose and need for this project is not capacity driven but focuses on improving regional mobility and providing better connectivity between Raleigh and Morehead City. Thus, a high-level evaluation of freeway operations was completed for the segments along the main corridor to ensure that the proposed number of through lanes on the interstate facility would be sufficient to handle future demand.

Per methodologies laid out in the Highway Capacity Manual (HCM), 6th Edition, a level of service (LOS) was estimated for the proposed freeway segments along the facility, as well as a weighted average LOS for the facility. This method utilizes the projected segment flow rate, accounting for the expected peak hour volume, as well as the proposed speed along the facility. Using Exhibit 12-16 in the HCM, the plotted result indicates that under Build 2040 conditions, all segments, as well as the weighted average of segments, is expected to operate at LOS B.

4.5 UPGRADE EXISTING SHOULDERS ALTERNATIVE

The Upgrade Existing Shoulders Alternative proposes to only construct shoulders as needed to bring the existing facility to interstate standards for shielding purposes between the Project Start and just west of SR 2309 (Creech's Mill Road), in Sections 1 and 2.

4.6 STRUCTURES AND HYDROLOGY

According to the NCDOT Bridge Inventory, there are thirteen existing bridge locations (some with dual structures) and four culverts (72" pipe or greater) within the feasibility study area. There are existing bridges over roadways, the railroad, and a water body. In addition, there are bridges under construction as part of the interchanges of W-5107. The proposed interchanges will also involve new bridge structures.

4.6.1 Hydraulic Structures

The Improve Existing Alternative would require the lengthening of two existing culverts at the Buffalo Road interchange. It may also require lengthening of two culverts at the US 70 Business/Peedin St Extension interchange, that is currently under construction as part of W-5107. As part of W-5107, the existing culverts are being extended. None of the existing culverts are

structurally deficient or functionally obsolete. Details of these existing hydraulic structures are shown in Table 4-2.

Table 4-2
Potentially Impacted Existing Hydraulic Structures

Bridge Number	General Location	Structure Type
500508	Along US 70, within Buffalo Rd interchange area	Double 8'X7' RCBC inlet Double 10'X6' outlet
500518	US 70 WB Off-Ramp at Buffalo Road interchange	Double 10'X10' RCBC
500511	Along US 70, just west of US 70 Business/Peedin St Extension (W-5107)	Single 8'X10' RCBC
500531	Along US 70 Business/Peedin St Extension (W-5107), near US 70	Triple 9'X9' RCBC

The Upgrade Existing Shoulders Alternative would only affect the hydraulic structures along US 70, not those on the y-lines.

4.6.2 Bridge Structures

For the purposes of this feasibility study, the existing bridges are assumed to be replaced due to realignment of the mainline and/or structural degradation expected over time. The exception is the eastbound US 70 bridge over the railroad just west of Princeton, as it was recently replaced. Details of these existing bridge structures are shown in Table 4-3.

Table 4-3
Potentially Impacted Existing Bridge Structures

Bridge Number	General Location	Existing Structure Description
500002/500505	Dual bridge over Neuse River	Dual 38'X266'
500005/500506	Dual overflow bridge for Neuse River	Dual 38'X168'
500517	Buffalo Road Interchange Overpass	Single 78'X205'
500507	US 70 Bus Flyover	Single 38'X385'
500519/500520	Dual Bridge over US 301 at Selma	Dual 40'X150'
500521/500522	Dual Bridge over Railroad along US 70	Dual 40'X160'
500523/500524	Dual Bridge over I-95 at Selma	Dual 40'X360'
500509	US 70 Business Flyover (to be removed)	Single 37'X270'
500042	US 70 Alt over I-95 (to be removed)	Single 88'X310'
500106/500107	Dual Bridge over Railroad and Pine Level Selma Rd	Dual 46'X390'
500087/500465	Dual Bridge over Holts Pond	Dual 42'X150'
500097/500103	Dual Bridge over Railroad west of Princeton	Dual 42'X270'

In addition to the existing bridge structures there would be new bridges built at/near the following locations:

- I-95 Cloverleaf (US 70 over I-95)
- I-95 access interchange (US 70 Alternate over I-95)
- SR 2035 (Firetower Road) overpass over US 70
- US 70 Business/SR 2308 (Peedin Road Extension) interchange overpass over US 70; under construction, to remain
- SR 2309 (Creech's Mill Road) overpass over US 70
- SR 2310 (Davis Mill Road) interchange overpass over US 70; under construction, to remain
- SR 2312 (Country Store Road)/SR 2519 (Braswell Road) interchange overpass over US 70
- US 70 Alt interchange overpass over US 70
- US 70 Alt bridge over railroad
- SR 2316 (Old Rock Quarry Road/Barden Street) overpass over US 70 (Section 4, Option A)
- SR 1002 (Rains Mill Road) overpass over US 70 (Section 4, Option A)
- US 70 overpass over SR 2316 (Old Rock Quarry Road/Barden Street) (Section 4, Option B)
- US 70 overpass over SR 1002 (Rains Mill Road) (Section 4, Option B)

The Upgrade Existing Shoulders Alternative is not expected to affect any existing bridges over roadways; however, the project would replace an existing bridge over the Neuse River and an existing overflow bridge and would include an overpass along SR 2035 (Firetower Road) over US 70 for control of access purposes.

5.0 OPINION OF PROBABLE COST

5.1 COST ESTIMATES

Cost estimates for construction, utility relocation, and right-of-way were completed for each build alternative. These estimates are based on the conceptual designs prepared for the improvements. Tables 5-1 and 5-2 summarize the cost estimates for each component of each alternative and provides a total of estimated cost per alternative.

Table 5-1
Estimated Costs for Each Alternative, Sections 1 Through 3

Description		Construction	Utility Relocation	Right of Way	*Total*
Alternative 1 Improve Existing	Section 1	$48,800,000	$700,000	$2,600,000	$52,100,000
	Section 2	$148,300,000	$0	$28,800,000	$177,100,000
	Section 3	$66,500,000	$400,000	$41,000,000	$107,900,000
Total Alternative 1		**$263,600,000**	**$1,100,000**	**$72,400,000**	**$337,100,000**
Alternative 2 Upgrade Shoulders	Section 1	$17,200,000	n/a	n/a	$17,200,000
	Section 2	$24,300,000	$200,000	$3,400,000	$27,900,000
	Section 3	n/a	n/a	n/a	n/a
Total Alternative 2		**$41,500,000**	**$200,000**	**$3,400,000**	**$45,100,000**

Table 5-2
Estimated Costs for Section 4

Description		Construction	Utility Relocation	Right of Way	*Total*
Alternative 1 Improve Existing	Section 4A	$38,800,000	$300,000	$20,900,000	***$60,000,000***
	Section 4B	$36,200,000	$100,000	$13,600,000	***$49,900,000***
	Section 4C	$1,500,000	$100,000	$300,000	***$1,900,000***

6.0 ALTERNATIVES EVALUATION AND RECOMMENDATIONS

This section details and evaluates the quantitative impacts of the presented alternatives such as stream impacts, relocations and cost estimates. It also includes a discussion comparing the alternatives, resulting in the recommendation of a preferred alternative.

6.1 IMPACTS OF ALTERNATIVES

Tables 6-1 and 6-2 provide a comparison of the quantitative impacts to each resource for each alternative.

The environmental features, including impacted wetland acreage, floodplain acreage and linear feet of stream impact estimates are derived from data publicly available through NC Department of Environment and Natural Resources, Division of Coastal Management (NCDENR-DCM) and Wayne County and Johnston County GIS resources. Other reported impacts, such as USTs and historic properties are also based on available GIS and not the result of extensive geotechnical or cultural resource surveys.

Parcel information was obtained through the Wayne and Johnston Counties' GIS resources and are not the product of project specific surveys. Estimated relocations and impacted parcel totals are taken from the relocation estimate reports completed by NCDOT.

6.2 CONCLUSIONS AND RECOMMENDATIONS

Based on the data presented in this study, it is recommended that Alternative 1 - Improve Existing ultimately be implemented for the US 70 corridor. This alternative accounts for the ultimate needs of the corridor that bring the facility to interstate standards while accounting for access and connectivity needs for the area. This alternative has been evaluated from a cost perspective in four sections; those sections should be considered for implementation on separate schedules to have the improvements constructed in a meaningful, efficient way. Further break down of each segment for planning, design and construction purposes may be warranted and should be evaluated in future phases of the project.

As a shorter-term improvement, Alternative 2 – Upgrade Existing Shoulders may be considered to provide interstate designation for Sections 1 and 2.

Table 6-1
Alternatives Major Impact Comparison Sections 1 Through 3

Description		Alternative 1 Improve Existing	Alternative 2 Upgrade Shoulders
Relocations	Section 1	1 Res, 0 Bus	0 Res, 0 Bus
	Section 2	16 Res, 6 Bus	8 Res, 0 Bus
	Section 3	49 Res, 25 Bus	n/a
	Total	66 Res, 31 Bus	8 Res, 0 Bus
Wetlands (acres)	Section 1	19 acres	4 acres
	Section 2	44 acres	14 acres
	Section 3	4 acres	n/a
	Subtotal	67 acres	18 acres
Stream Crossings (linear feet)	Section 1	1,830 ft	854 ft
	Section 2	2,231 ft	697 ft
	Section 3	1,785 ft	n/a
	Subtotal	5,846 ft	1,551 ft
USTs	Section 1	0	0
	Section 2	0	0
	Section 3	0	n/a
	Subtotal	0	0
National Register of Historic Places Sites	Section 1	0	0
	Section 2	0	0
	Section 3	0	n/a
	Subtotal	0	0
Right of Way (impacted parcels)	Section 1	20	n/a
	Section 2	111	62
	Section 3	191	n/a
	Subtotal	322	62

Table 6-2
Alternatives Major Impact Comparison Section 4

Description		Alternative 1 Improve Existing	Alternative 2 Upgrade Shoulders
Relocations	Section 4A	23 Res, 10 Bus	n/a
	Section 4B	14 Res, 2 Bus	n/a
	Section 4C	0 Res, 0 Bus	n/a
	Total	37 Res, 12 Bus	n/a
Wetlands (acres)	Section 4A	0 acres	n/a
	Section 4B	0 acres	n/a
	Section 4C	0 acres	n/a
	Subtotal	0 acres	n/a
Stream Crossings (linear feet)	Section 4A	0,000 ft	n/a
	Section 4B	0,000 ft	n/a
	Section 4C	0,000 ft	n/a
	Subtotal	0,000 ft	n/a
USTs	Section 4A	0	n/a
	Section 4B	0	n/a
	Section 4C	0	n/a
	Subtotal	0	n/a
National Register of Historic Places Sites	Section 4A	0	n/a
	Section 4B	0	n/a
	Section 4C	0	n/a
	Subtotal	0	n/a
Right of Way (impacted parcels)	Section 4A	132	n/a
	Section 4B	79	n/a
	Section 4C	22	n/a
	Subtotal	233	n/a

APPENDICES

APPENDIX A

Traffic Forecast

Kimley»Horn

421 Fayetteville Street,
Suite 600
Raleigh, North Carolina
27601

September 15, 2016

Memorandum To: Lynnise Hawes, PE
Feasibility Studies Engineer
Feasibility Studies Unit

From: Tim Padgett, PE
Kimley-Horn and Associates, Inc.

Subject: Traffic Forecast for FS-1604A, Upgrade US 70 to Interstate Standards, WBS 34263.1.1, Johnston County, NC

Please find attached the 2016 Traffic Estimates and 2040 Traffic Forecasts for the above mentioned project. Project FS-1604A is defined as the study of upgrading US 70 to interstate standards from SR 1003 (Buffalo Road) to SR 2372 (N. Pearl Street/Edwards Road). The following scenarios are provided:

- Base Year 2016 No Build
- Base Year 2016 Build
- Future Year 2040 No Build
- Future Year 2040 Build

A Forecast for project U-5795 was previously delivered in August 2015. A portion of this forecast was directly applicable to the FS-1604A forecast and was reviewed and used as part of the forecasting process.

Certain assumptions were made in the development of the forecast:

Fiscal Constraint. Within the Metropolitan Planning Organization (MPO) area, future forecasts are based on projects included in the Financial Plan for the 2040 Capital Area Metropolitan Planning Organization (CAMPO) Metropolitan Transportation Plan (MTP). This information, along with the same for the Durham - Chapel Hill – Carrboro Metropolitan Planning Organization (DCHC MPO) is included in the official version of the TRM. Since this project falls primarily outside the MPO area, the State Transportation Improvement Program (STIP) is the primary source for project information.

Future Conditions and Development Activity. The forecast was developed using output from the Triangle Regional Model (TRM) along with the North Carolina Statewide Travel Model (NCSTM). Future population and growth projections were also considered.

Forecast Methodology. Horizon Year 2040 estimates provided in the attached forecast were developed using a method under which observed traffic data as well as 2010 and 2040 model output were considered, along with historic and projected growth.

If it is determined that any of these assumptions have become inconsistent with the project and surrounding area activity, please request updated projections at this location.

This forecast was reviewed and approved by TPB on September 13, 2016.

Cc: Brian Wert, PE, Transportation Planning Branch
Karen Roberson, Transportation Planning Branch
Scott Walston, PE, Transportation Planning Branch
Doumit Y. Ishak, Congestion Management Section
Clark Morrison, PhD, PE, Pavement Management Unit
Glenn Mumford, PE, Roadway Design Unit
Chris Lukasina, Planning Manager, Capital Area MPO
James Salmons, Upper Coastal Plain RPO
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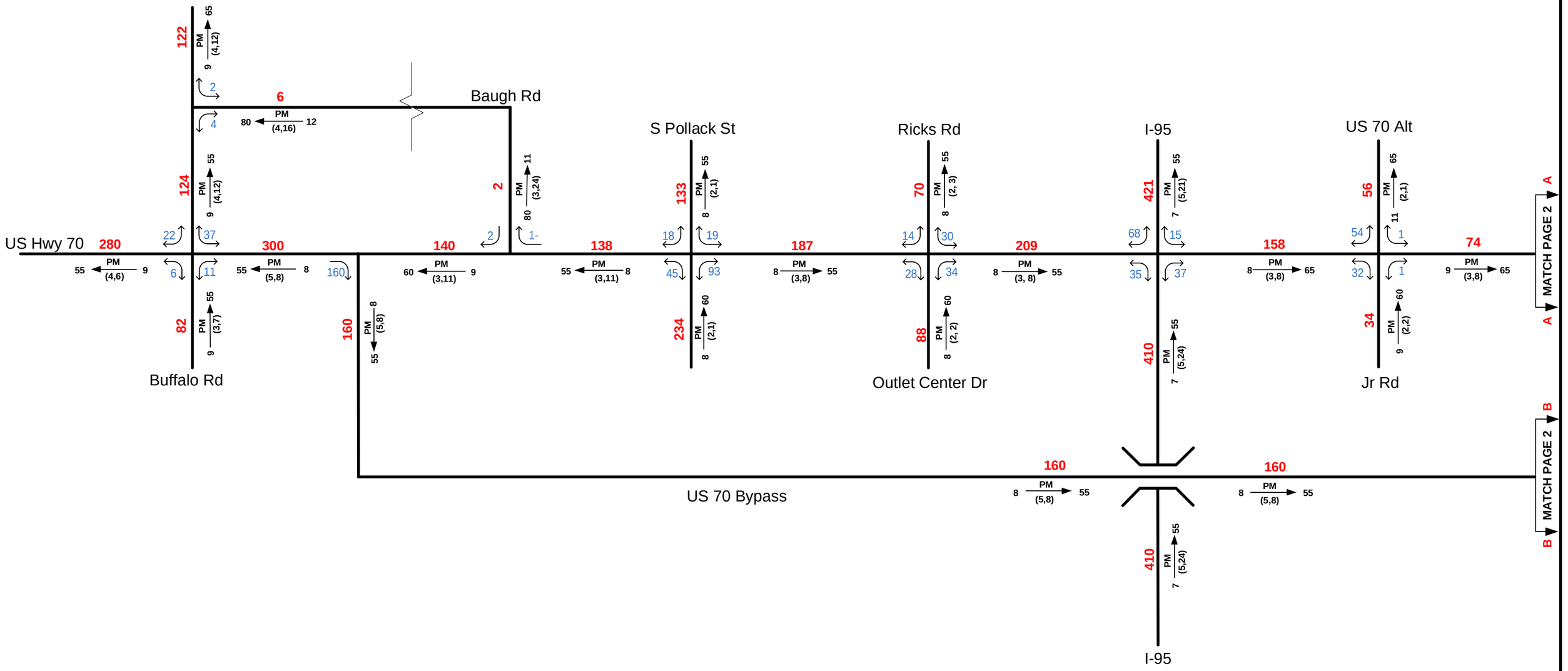
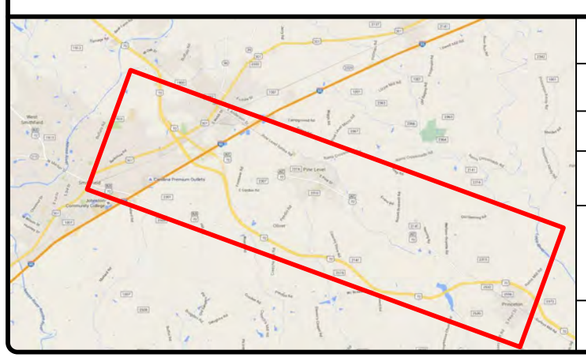




TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
PREPARED BY: Kimley-Horn and Associates	
LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

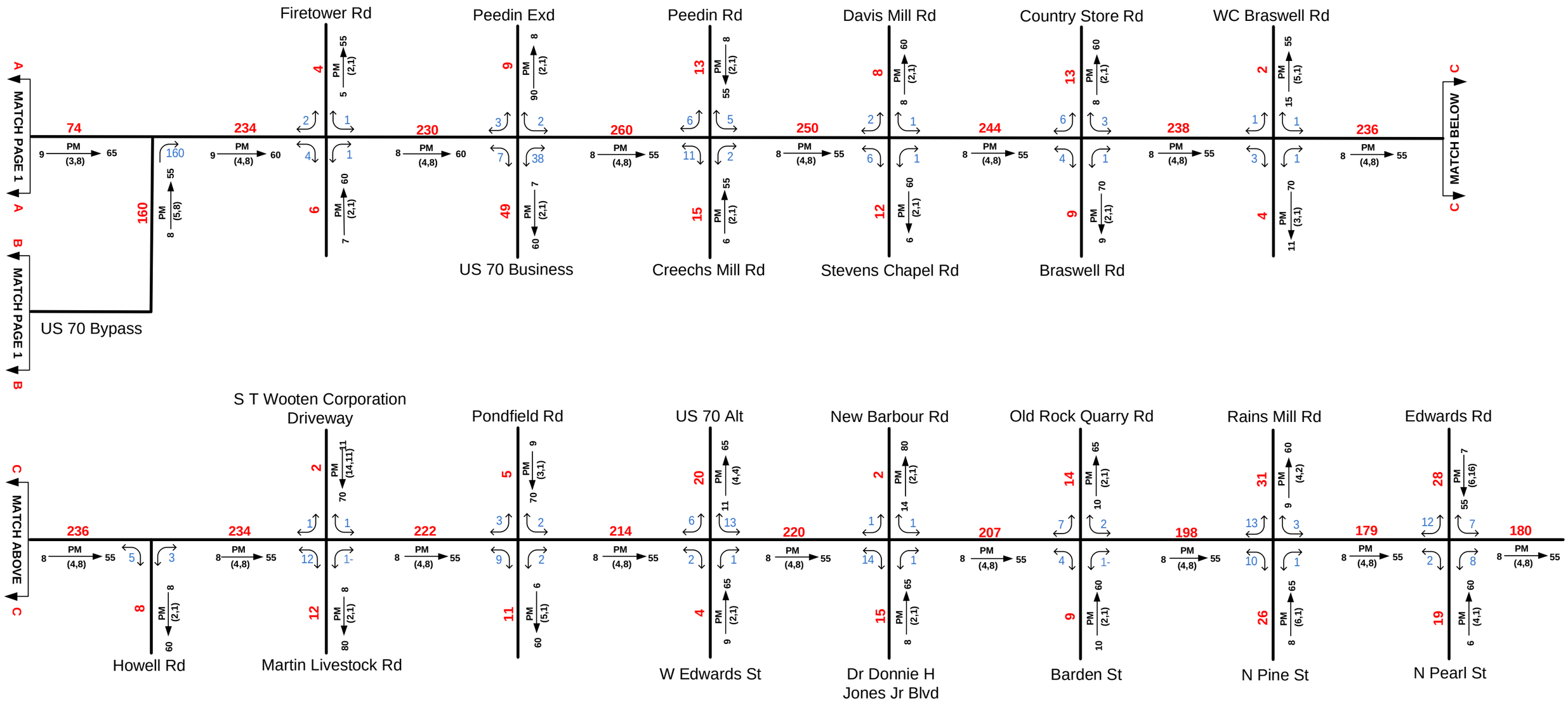
2016

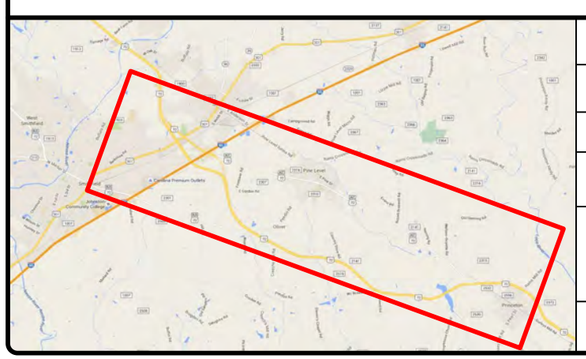
AVERAGE ANNUAL DAILY TRAFFIC

2016 No-Build
Sheet 1 of 8

LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)





TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
PREPARED BY: Kimley-Horn and Associates	
LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

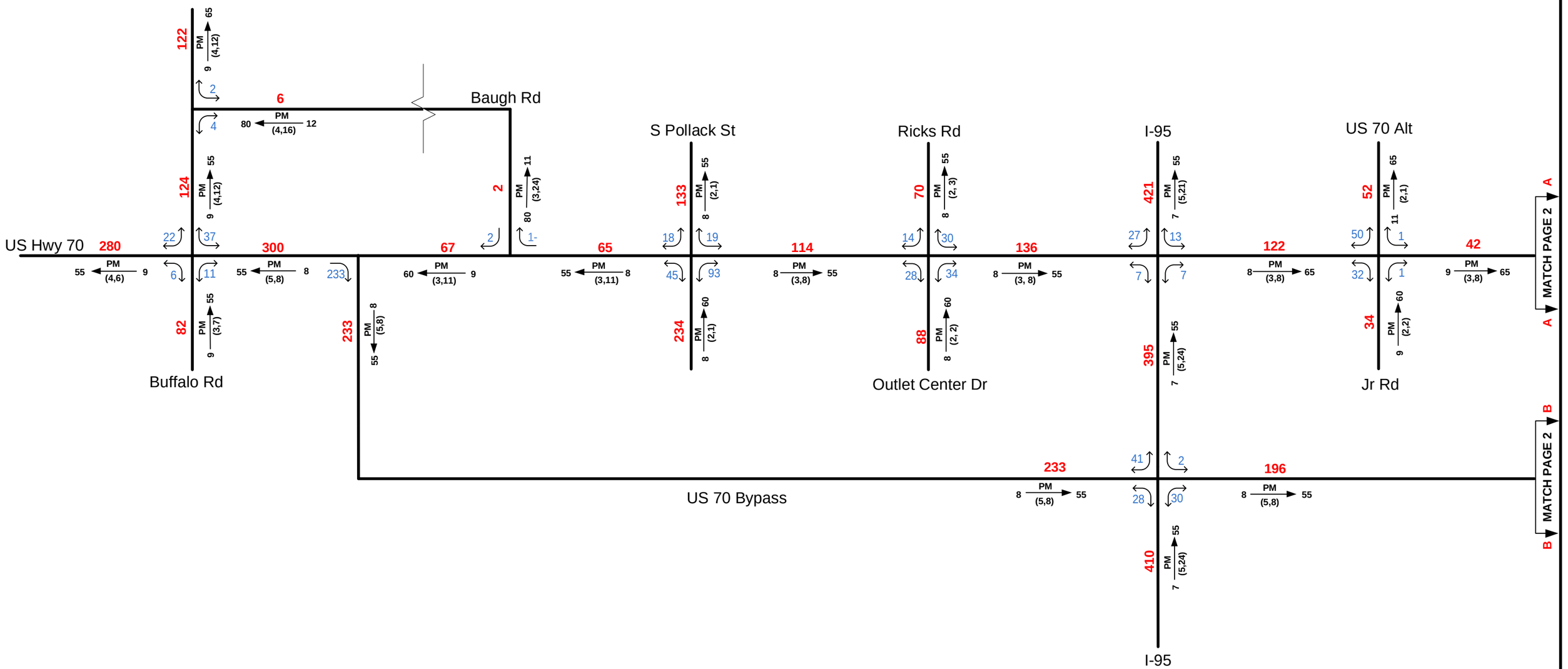
2016

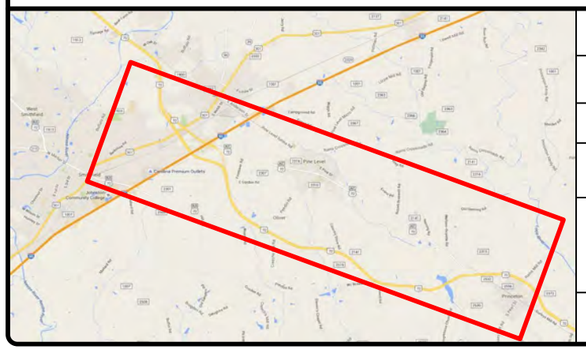
AVERAGE ANNUAL DAILY TRAFFIC

2016 No-Build
Sheet 2 of 8

LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)





TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
PREPARED BY: Kimley-Horn and Associates	
LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

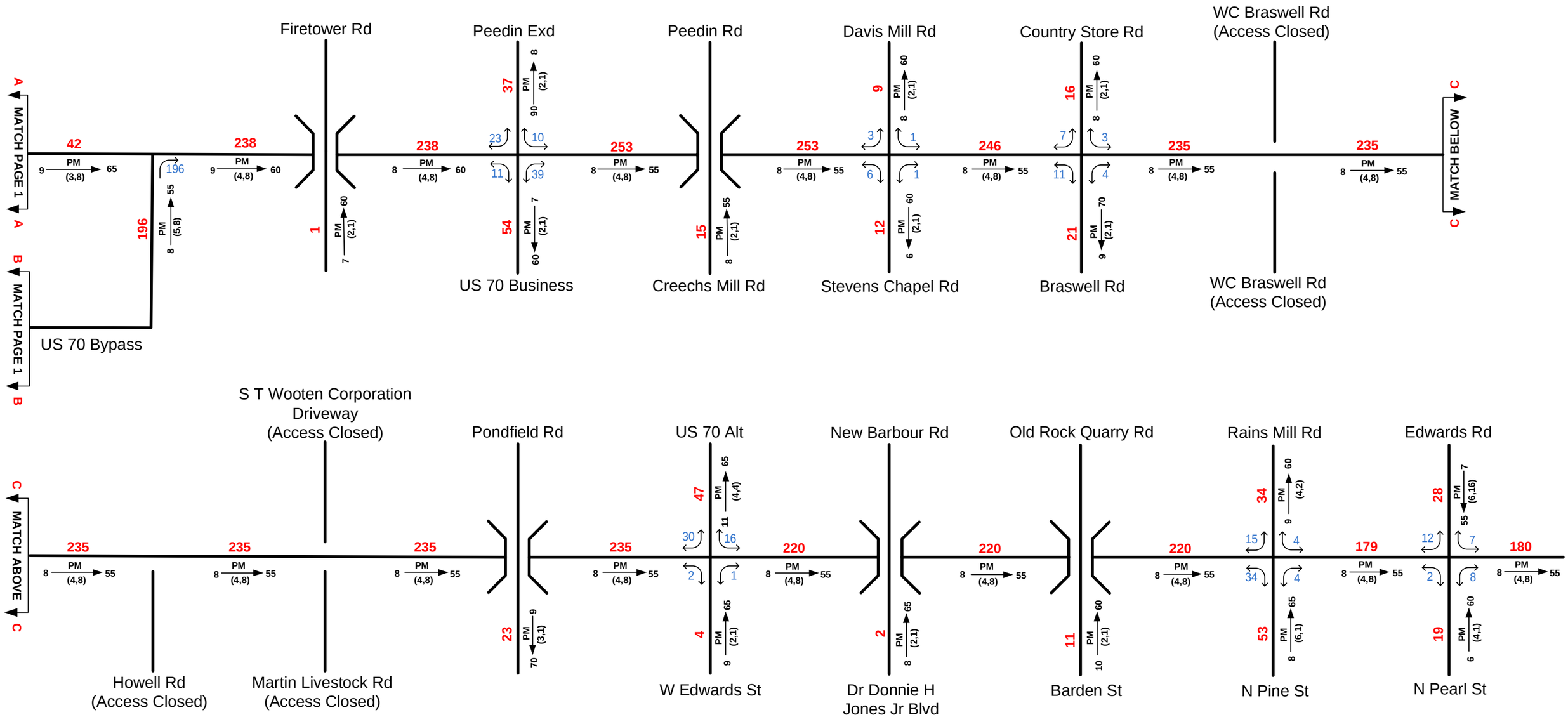
2016

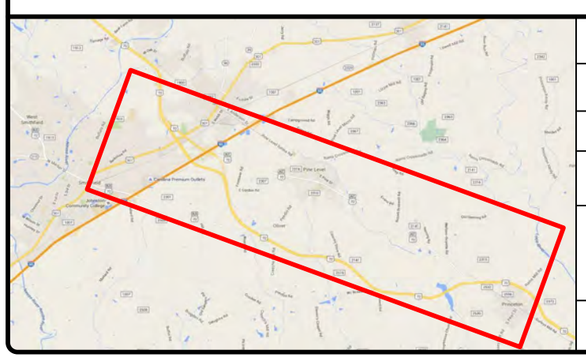
AVERAGE ANNUAL DAILY TRAFFIC

2016 Build 1
Sheet 3 of 8

LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)





TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
PREPARED BY: Kimley-Horn and Associates	
LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

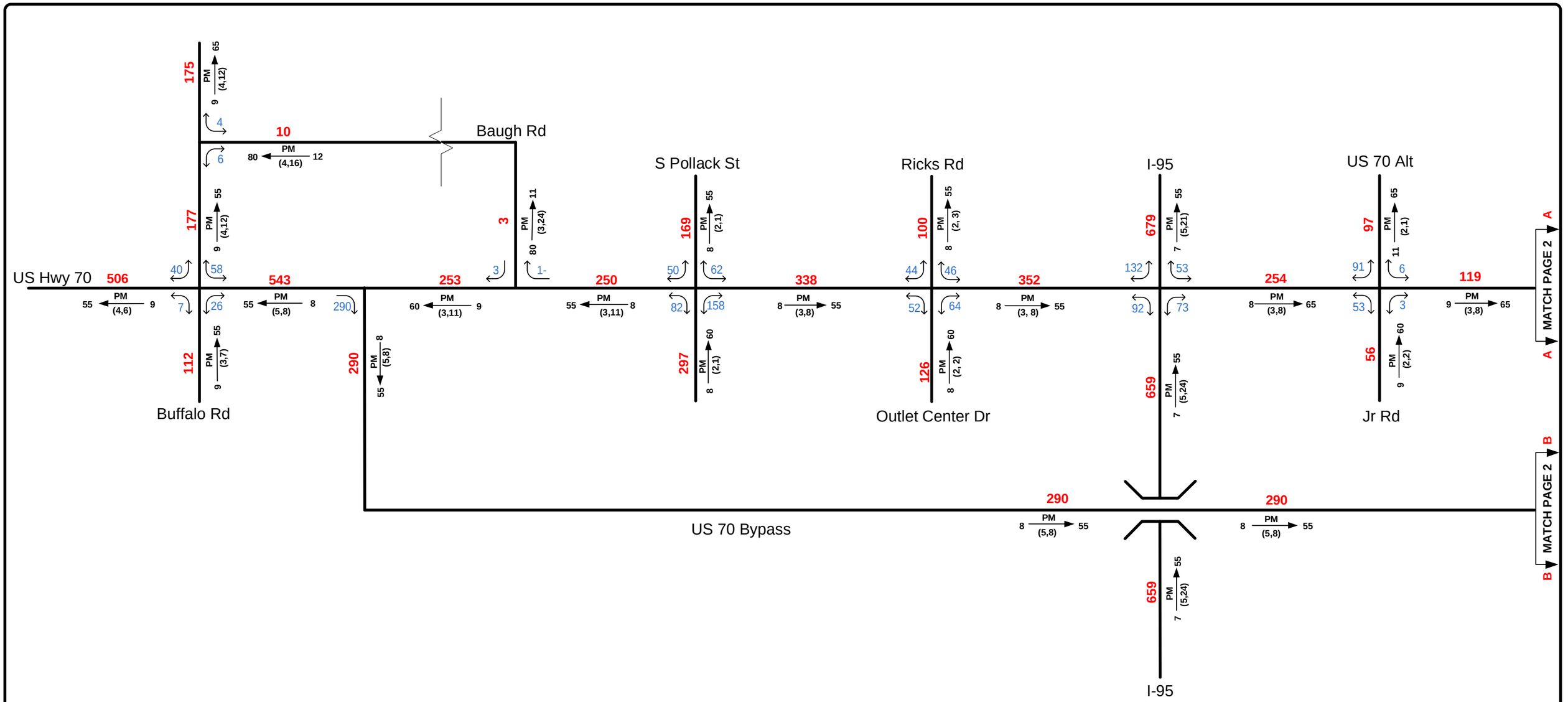
2016

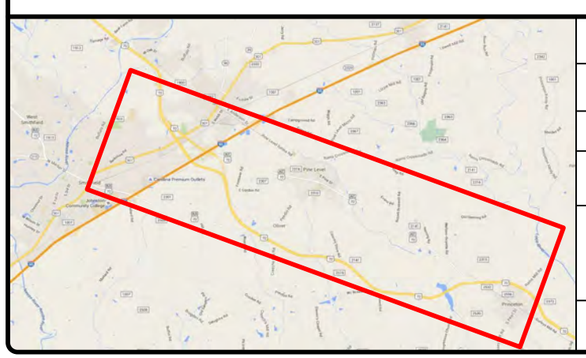
AVERAGE ANNUAL
DAILY TRAFFIC

2016 Build 1
Sheet 4 of 8

LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)





TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
PREPARED BY: Kimley-Horn and Associates	
LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

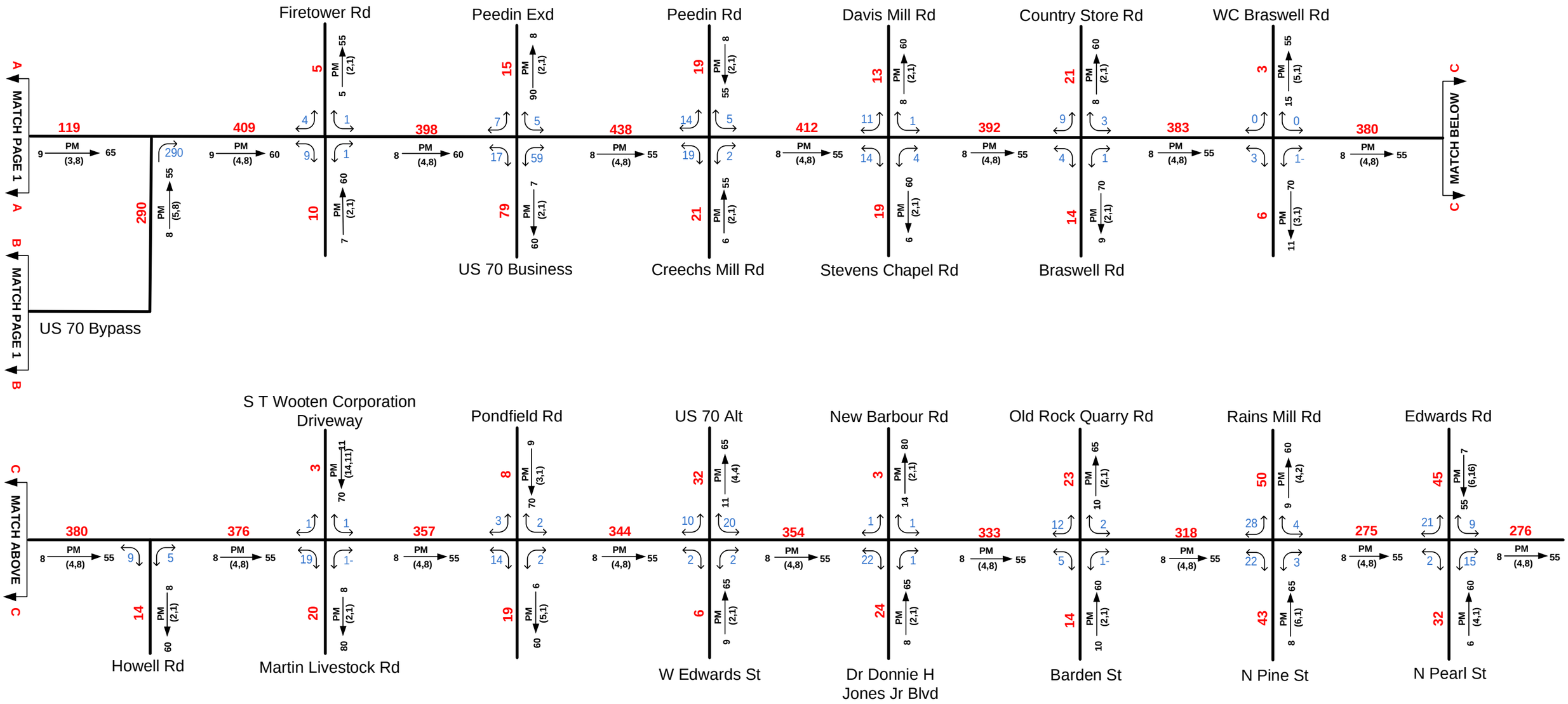
2040

AVERAGE ANNUAL DAILY TRAFFIC

2040 No-Build
Sheet 5 of 8

LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)



TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
PREPARED BY: Kimley-Horn and Associates	
LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

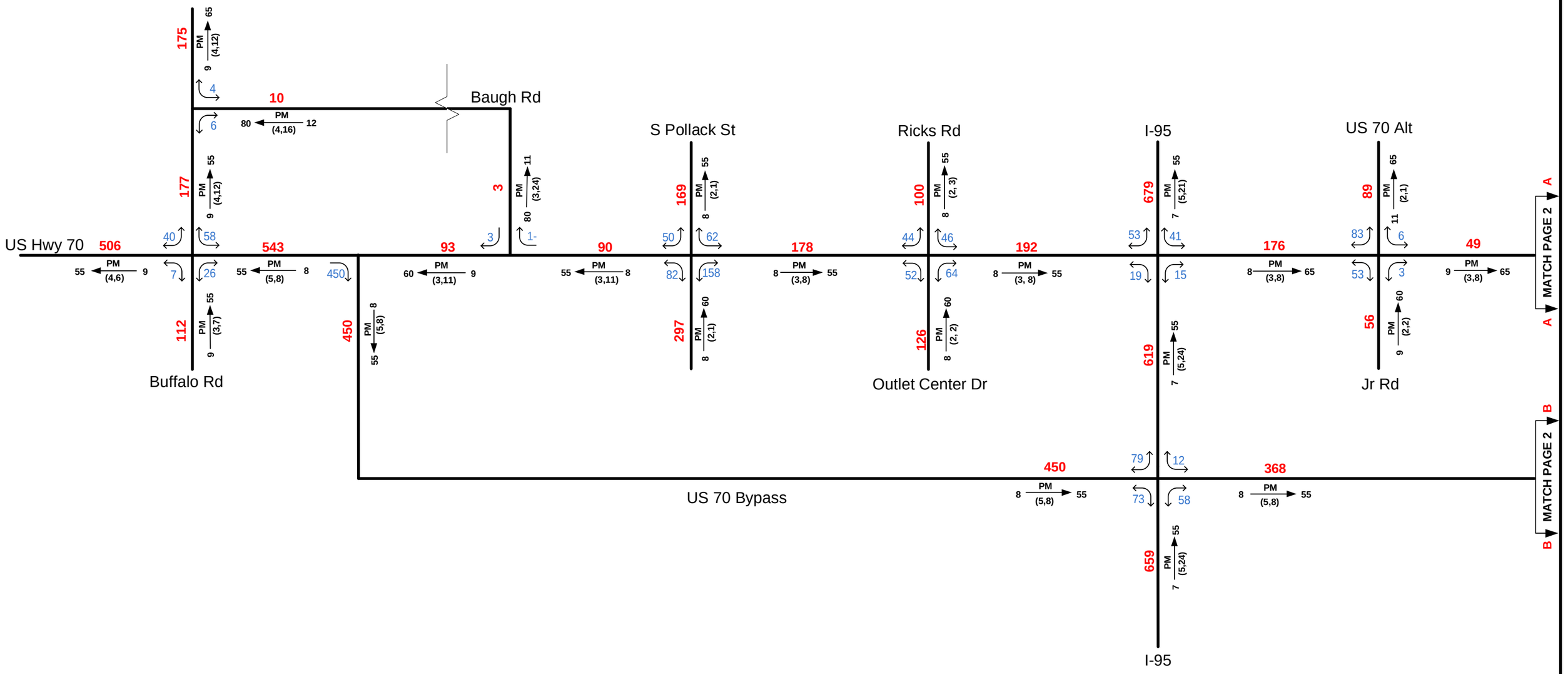
2040

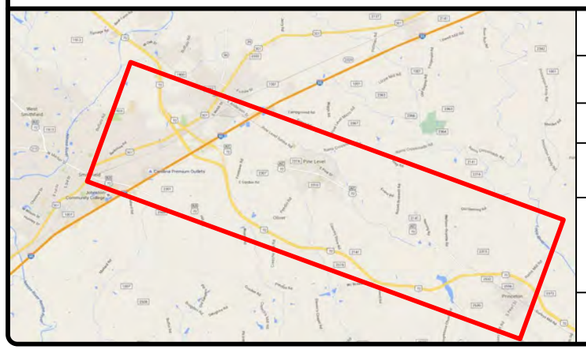
AVERAGE ANNUAL DAILY TRAFFIC

2040 No-Build
Sheet 6 of 8

LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)





TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
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LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

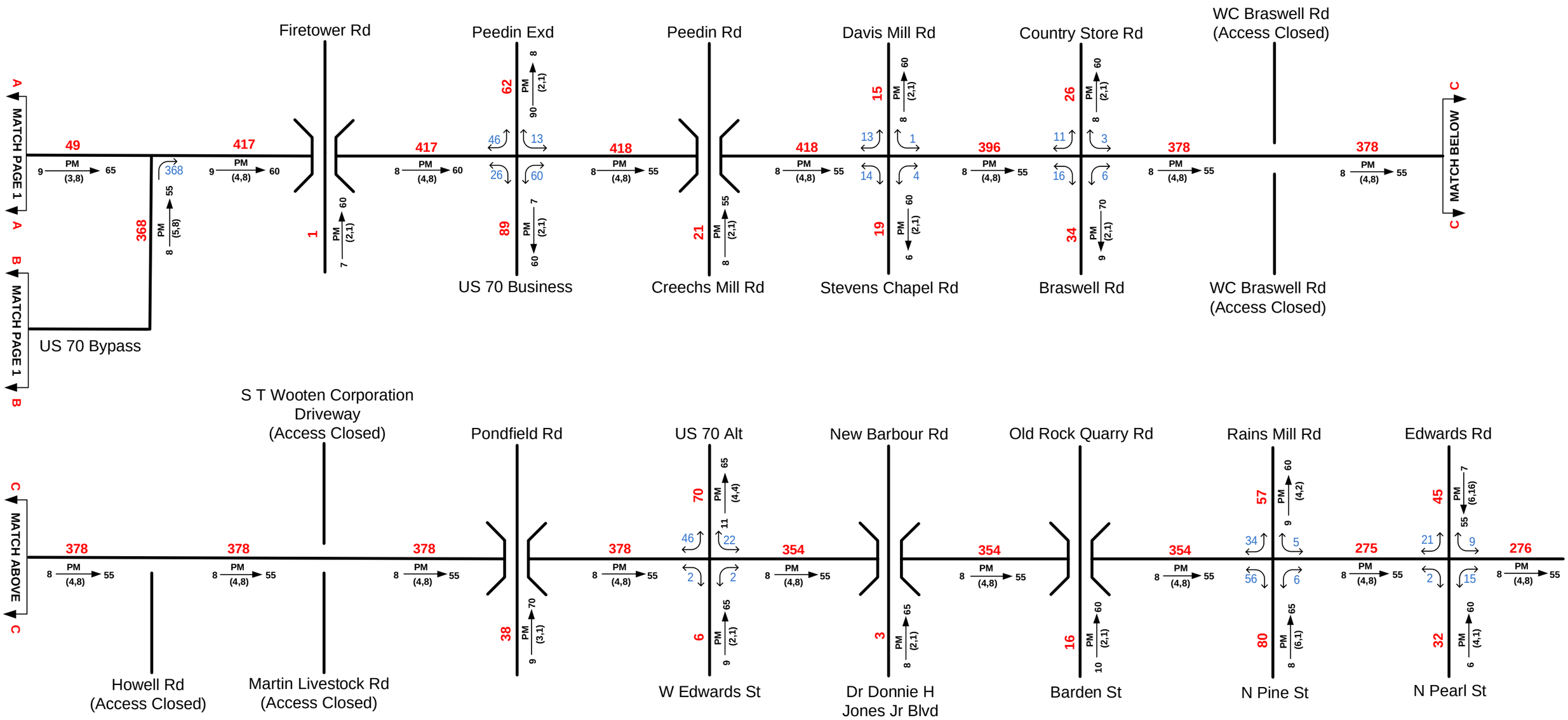
2040

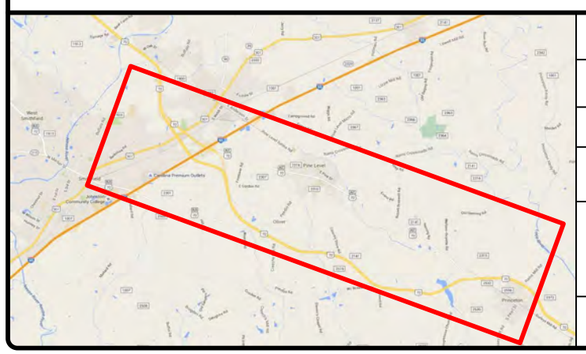
AVERAGE ANNUAL DAILY TRAFFIC

2040 Build 1
Sheet 7 of 8

LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)





TIP: FS-1064A	**WBS: 34263.1.1**
COUNTY: Johnston	**DIVISION: 4**
DATE: 9/15/2016	
PREPARED BY: Kimley-Horn and Associates	
LOCATION: US - 70 from SR 1003 (Buffalo Rd) to SR 2372 (N Pearl St/Edwards Rd)	
PROJECT: US – 70 Improvements	

2040

AVERAGE ANNUAL
DAILY TRAFFIC

2040 Build 1
Sheet 8 of 8

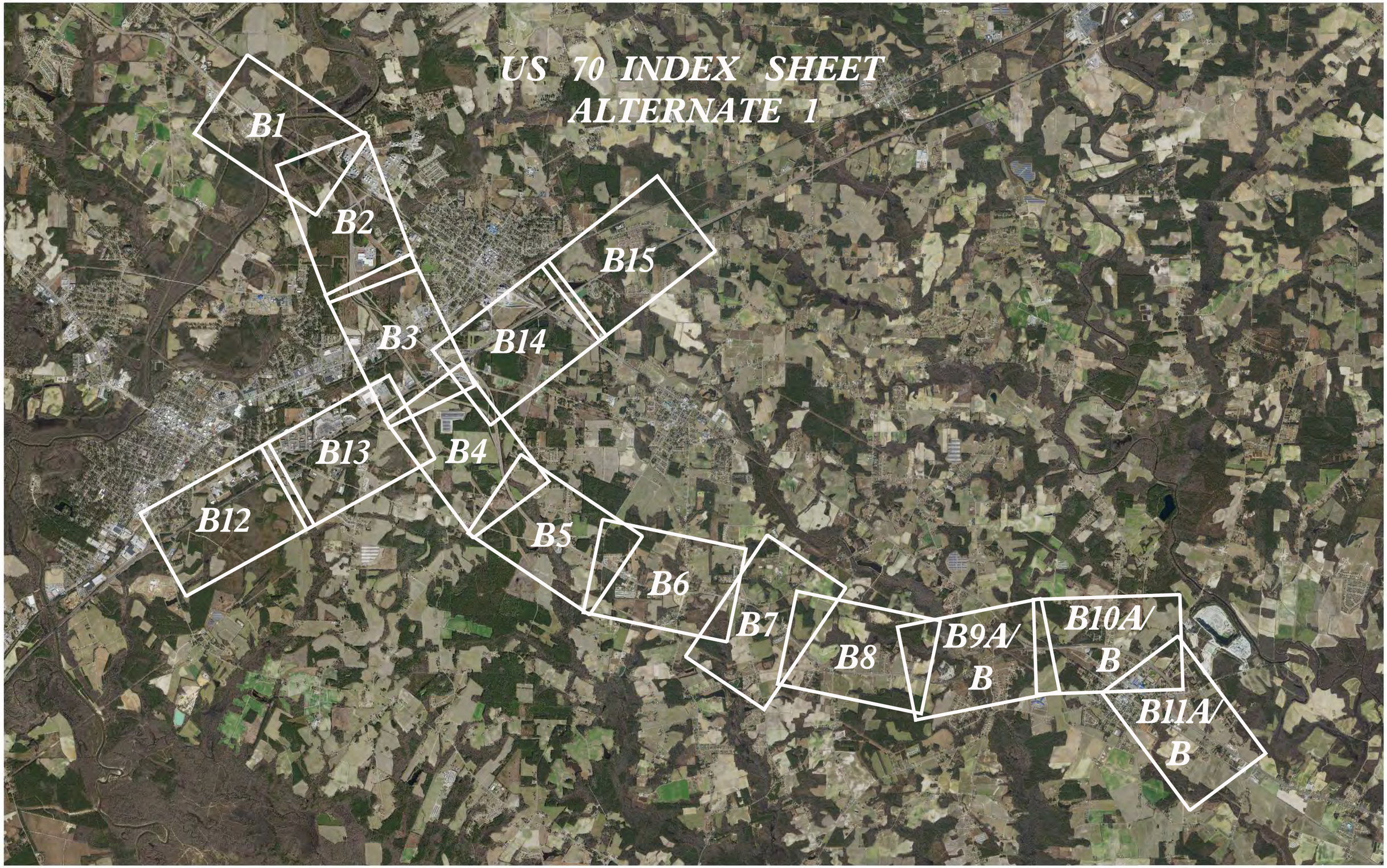
LEGEND

###	No. of Vehicles Per Day in 100s
1-	Less than 50 vpd
X	Movement Prohibited
K PM (d, t) D	
K	Design Hour Factor (%)
PM	PM Peak Period
D	Peak Hour Directional Split (%)
→	Indicates Direction of D
(d, t)	Duals, TT-STs (%)

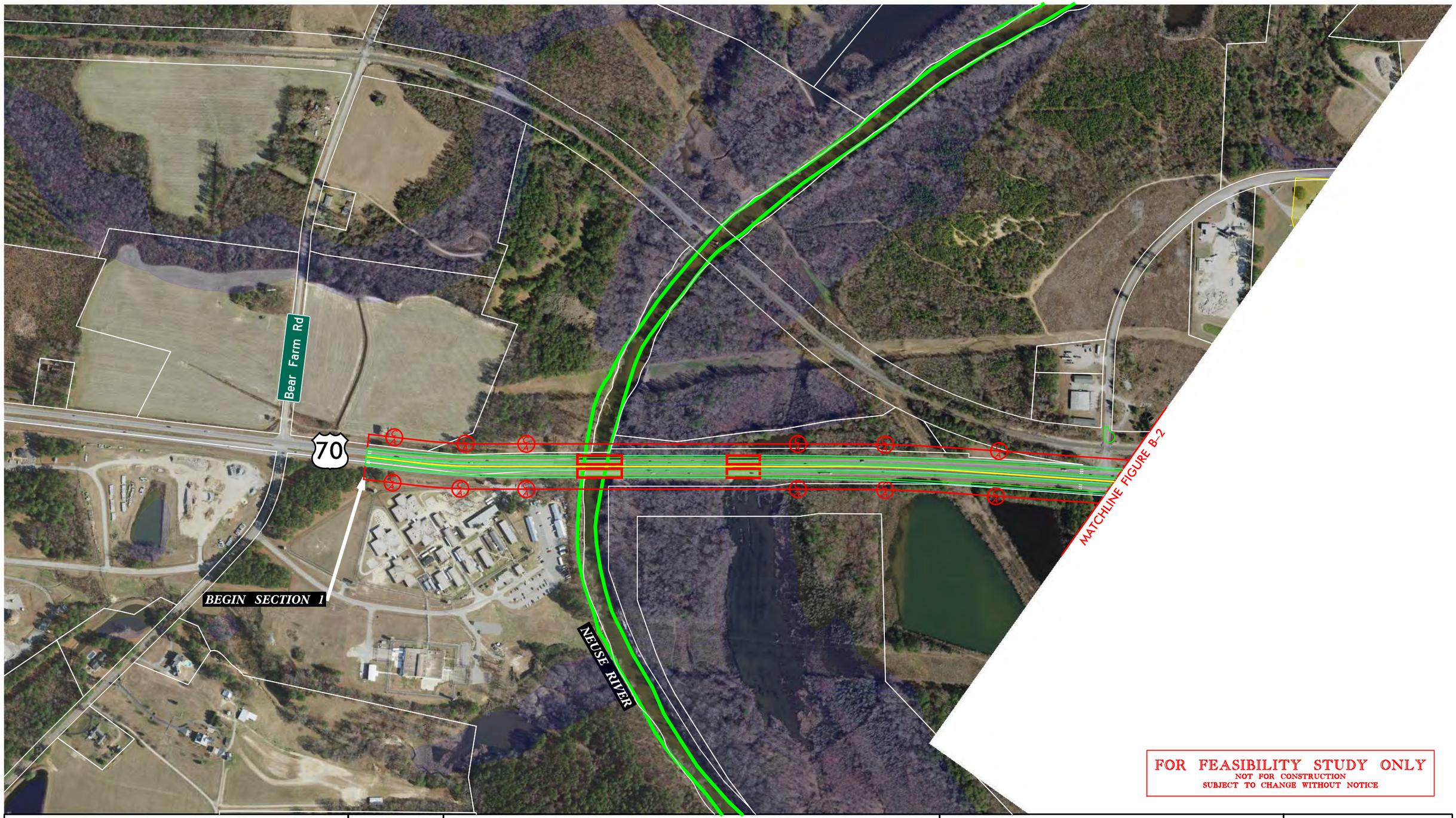
APPENDIX B

Conceptual Designs

US 70 INDEX SHEET
ALTERNATE 1



US 70 INDEX SHEET
ALTERNATE 2



FOR FEASIBILITY STUDY ONLY
NOT FOR CONSTRUCTION
SUBJECT TO CHANGE WITHOUT NOTICE

500′ 0′ 500′ 1000′
250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–1
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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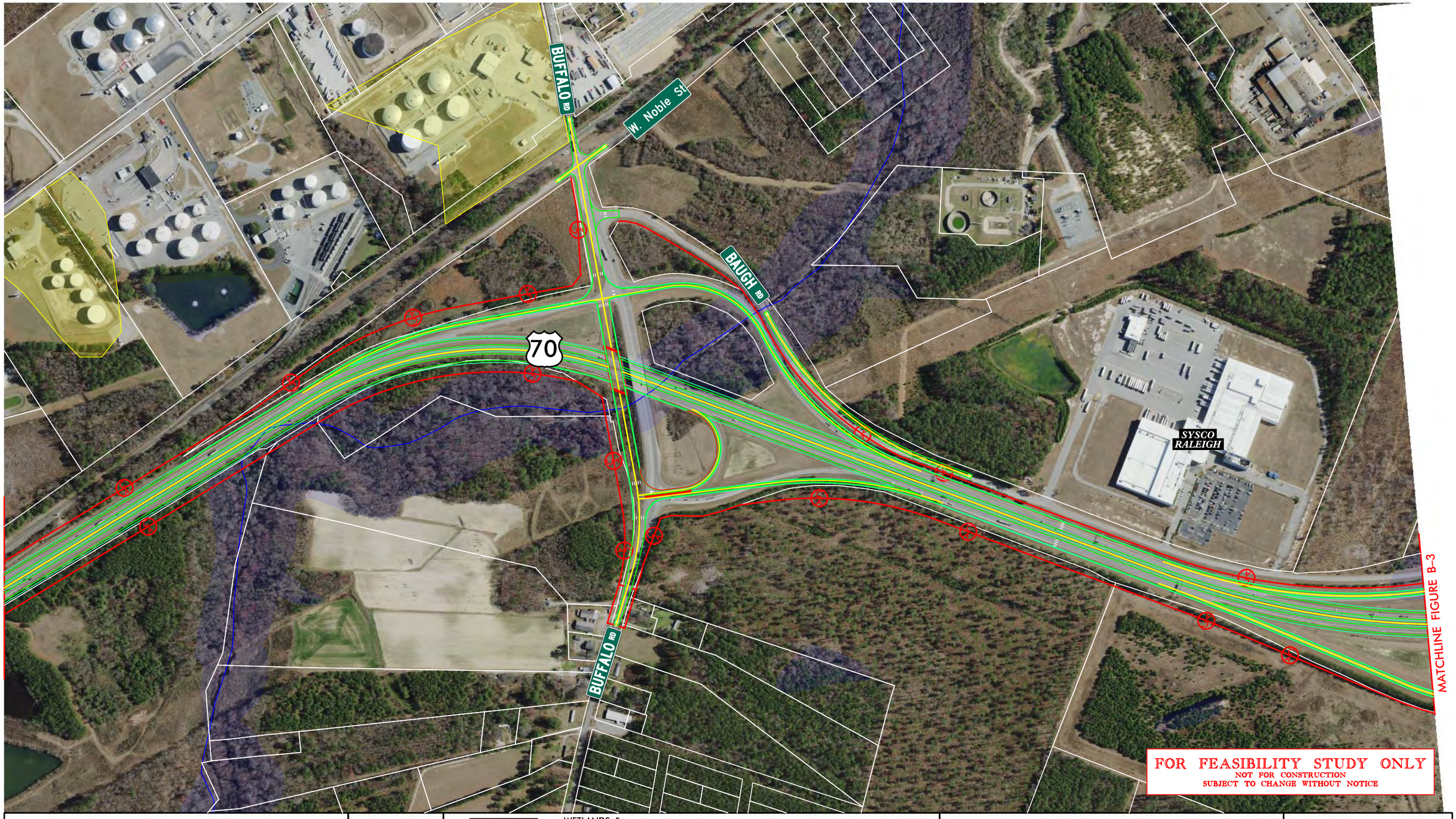
VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606



500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–2
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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SELMA MEMORIAL GARDENS

Ricks Rd

70

MASTERS INN

QUALITY INN

HAMPTON INN SELMA

FAMILY DOLLAR

PIZZA INN

FOOD LION

LEONARD BUILDINGS & TRUCK ACCESSORIES

S POLLOCK ST

DeWAYNE'S

Outlet Center Dr

LIBERTY USED MOTORS

CROOKED ROW PRODUCE

CAMPERS INN RV OF RALEIGH

END SECTION 1/ BEGIN SECTION 2

BYP 70

MATCHLINE FIGURE B–2

MATCHLINE FIGURE B–4

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500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–3
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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vhb
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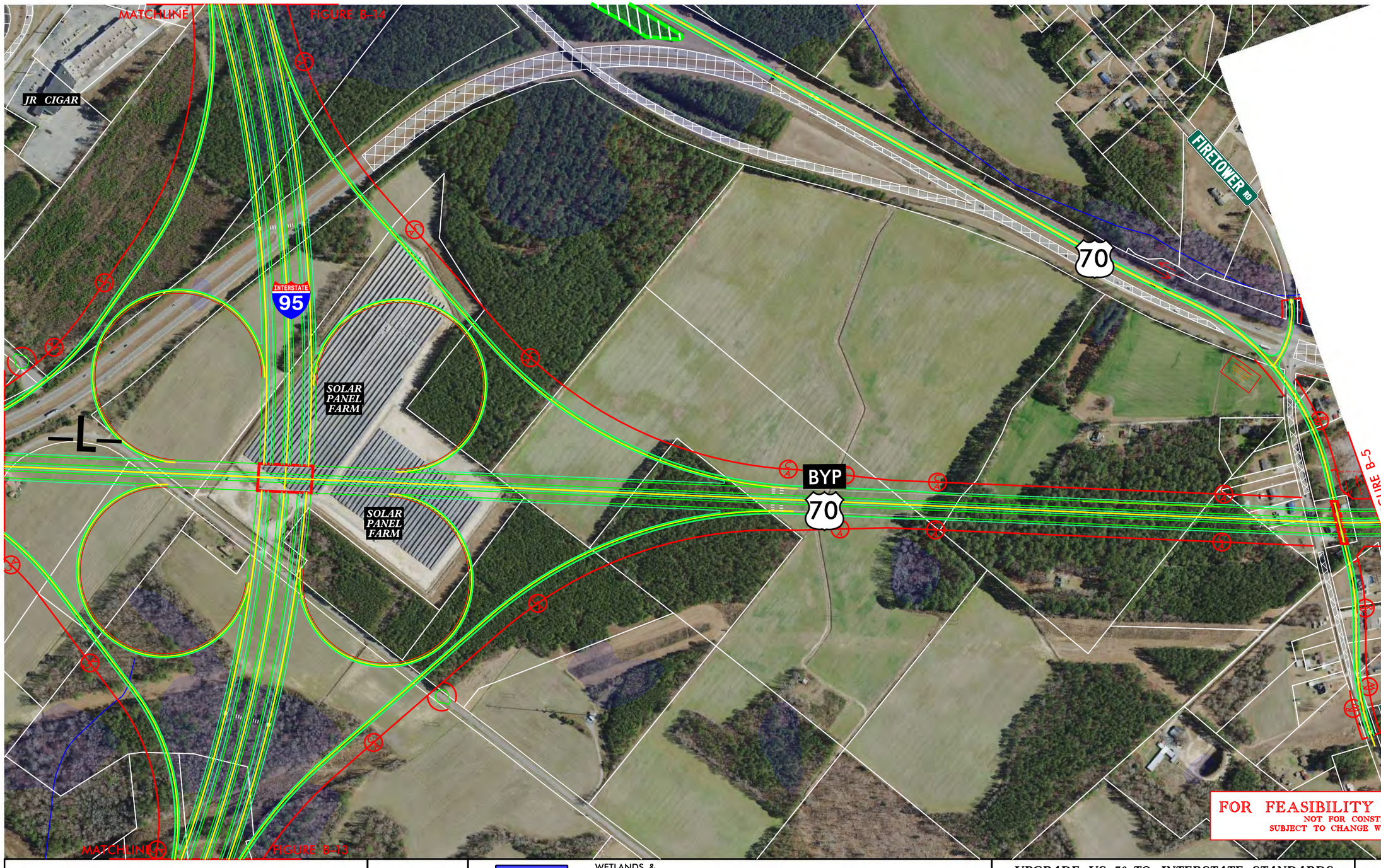

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–4
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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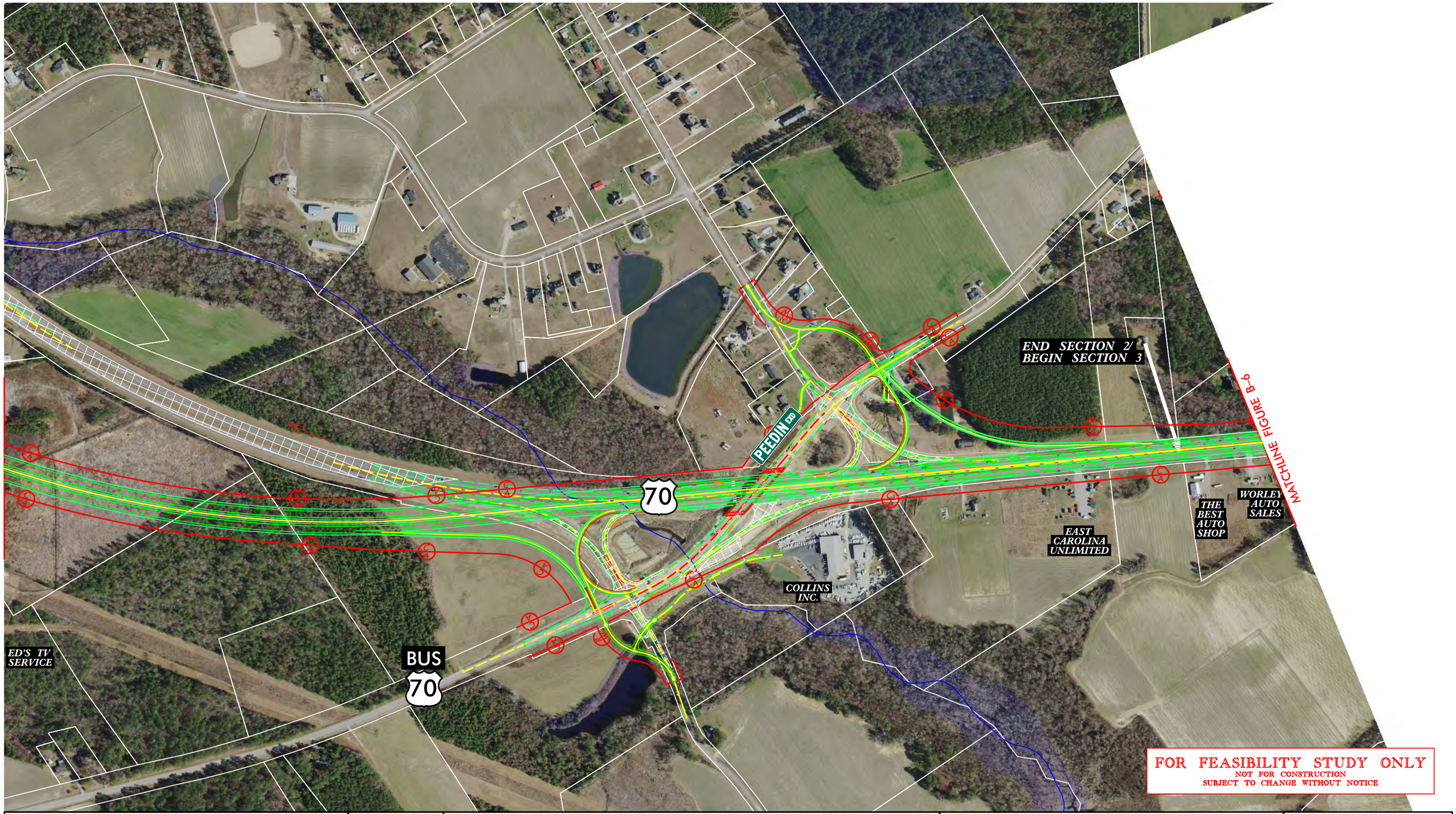
Raleigh, NC 27606



500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–5
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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Raleigh, NC 27606

MATCHLINE FIGURE B–5

MATCHLINE FIGURE B–7

PEEDIN RD

Service Road

BP/HASTY MART

PINE VALLEY COMMERCE CENTER (STRIP MALL)

PINE ST

GEORGE'S USED TIRES & UHAUL

IDEAL STORAGE SOLUTIONS

Service Road

70

PINE ST

Service Road

TARHEEL TOOLING & PRECISION MACHINING

EAGLE HOMES OF SMITHFIELD

GREENS MILL RD

DAVIS MILL RD

CHEM–STATION

JYMCO DEVELOP–MENT

STEVENS CHAPEL RD

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SUBJECT TO CHANGE WITHOUT NOTICE

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–6
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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MATCHLINE FIGURE B–6

CHARLIE SNIPES TRUCK BROKERS

BRADY MOTOR

MYERS COMM–UNITY MART/ SHELL

HEPHZIBAH BAPTIST CHURCH/ CEMETARY

BIZZELL GROVE CHURCH RD

BRASWELL RD

HEPHZIBAH BAPTIST CHURCH/ CEMETARY

70

CLASSIC STONE SUPPLY

PARTNERS COMMERCIAL REALTY, LLC

FOR FEASIBILITY STUDY ONLY
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MATCHLINE FIGURE B–8

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–7
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

vhb
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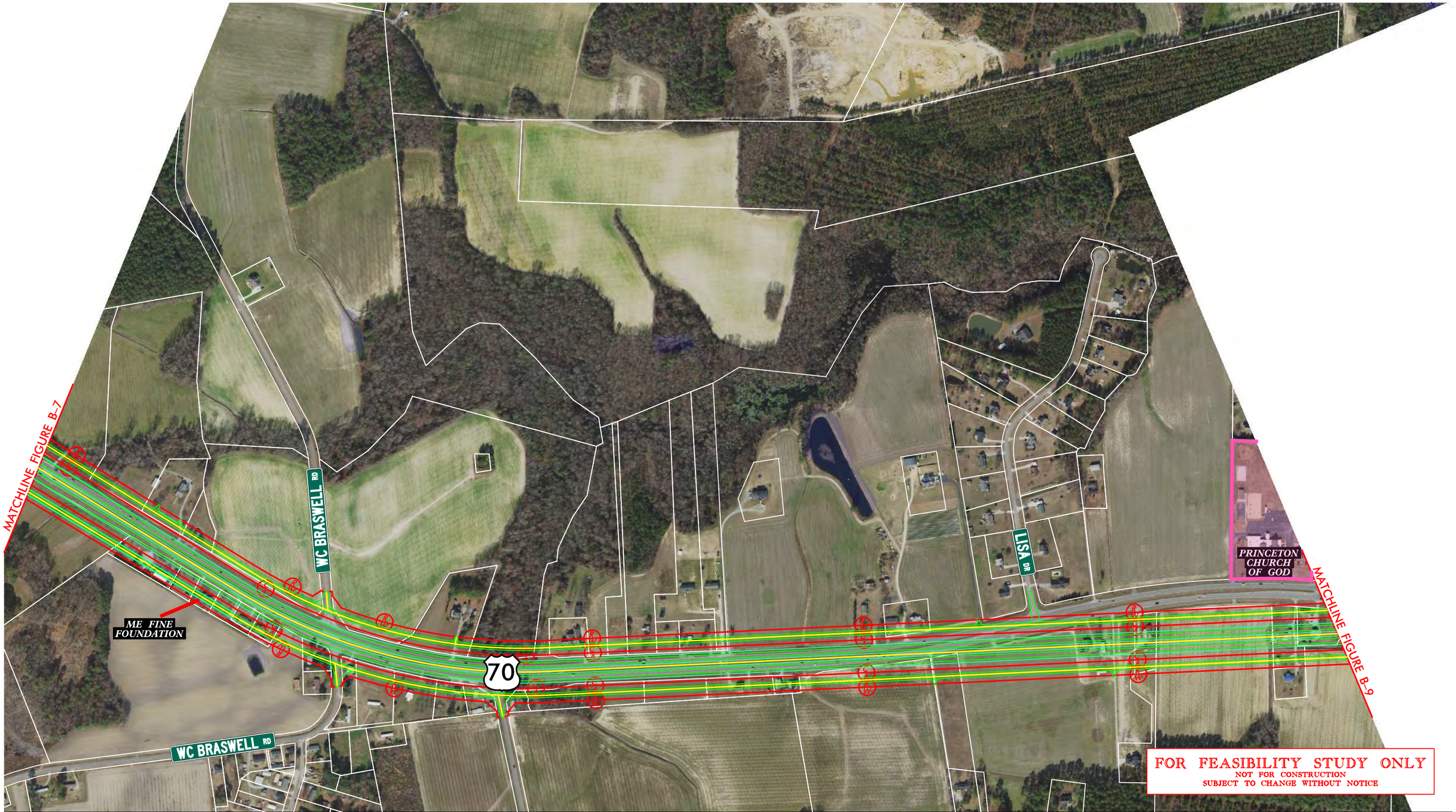
Raleigh, NC 27606



500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–8
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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Raleigh, NC 27606

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SUBJECT TO CHANGE WITHOUT NOTICE

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–9A
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

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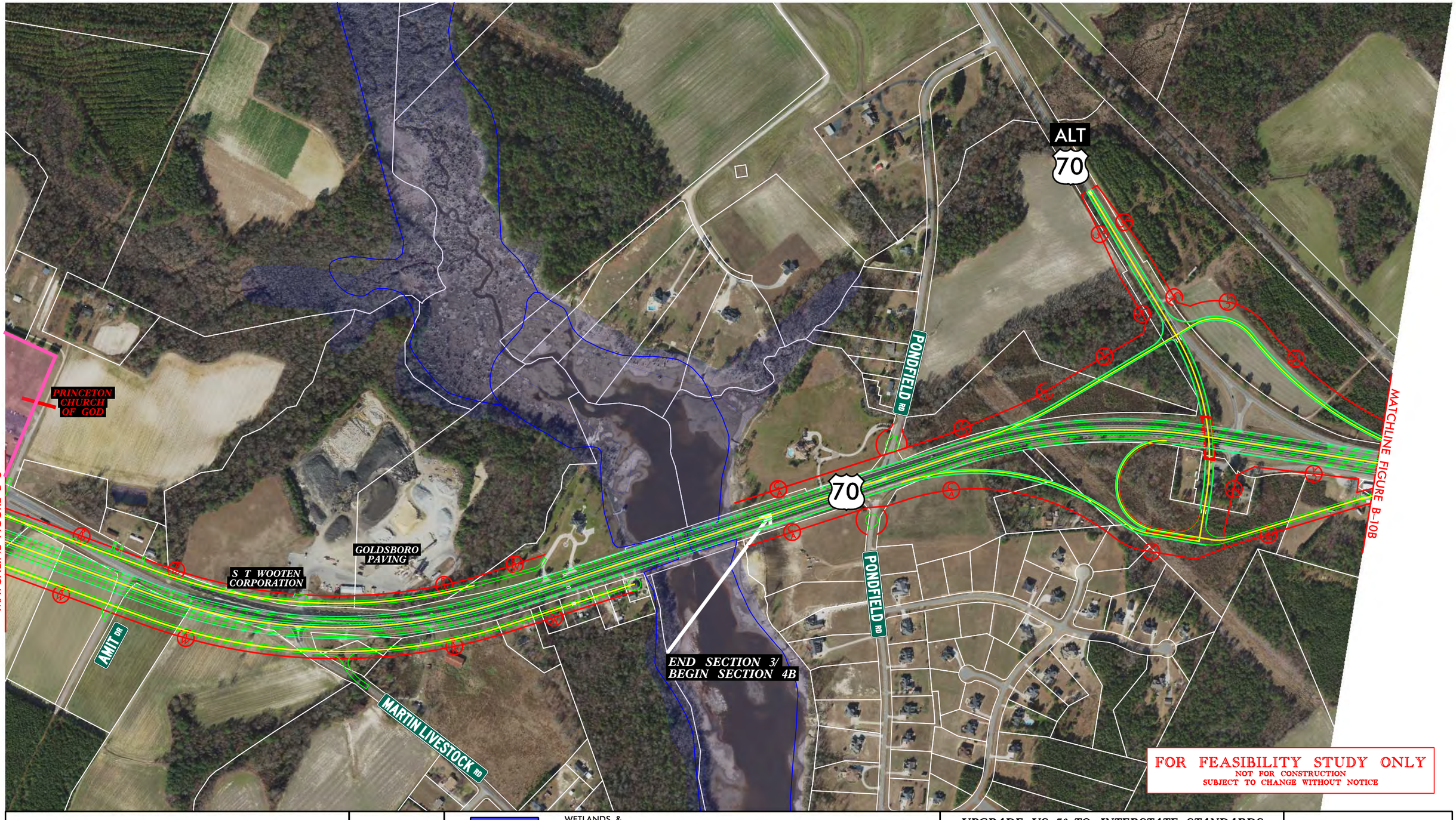
Raleigh, NC 27606



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SUBJECT TO CHANGE WITHOUT NOTICE

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–9B
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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Raleigh, NC 27606

MATCHLINE FIGURE B–9A

GINGER DR / BOON HILL DR

NEW BARBOUR RD

OLD ROCK QUARRY RD

RAINS MILL RD

70

W EDWARDS ST

DEACON JONES CLEARANCE CENTER

PRAISE SANCTUARY CHURCH

HORIZON FAMILY MEDICINE, PA

PERFECT TOUCH

PRINCETON PEDIACTRICS

DR DONNIE H JONES JR BLVD

GRACE BAPTIST CHURCH

PRINCETON DAY CARE

BARDEN ST

MATCHLINE FIGURE B–11A

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SUBJECT TO CHANGE WITHOUT NOTICE

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–10A
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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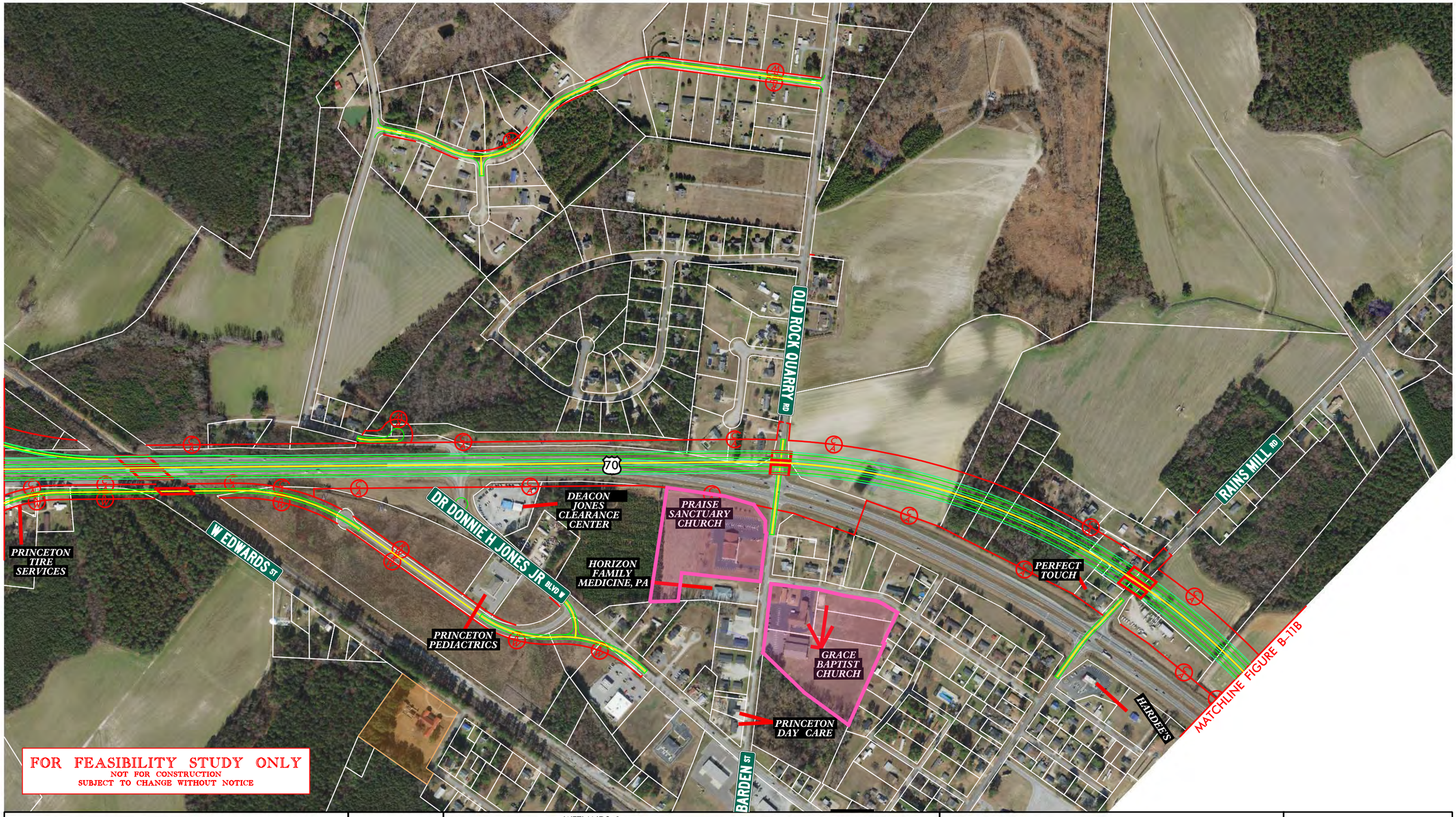

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–10B
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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MATCHLINE FIGURE B–10A

HANDY MART

MASSEY AUTO SALES

HWY 55 BURGERS SHAKES & FRIES

EDWARDS DR

AJ's DIAGNOSTICS AND AUTO REPAIR

70

HARDEE'S

BOJANGLES' FAMOUS CHICKEN 'N BISCUITS

N PEARL ST

END SECTION 4A

PRINCETON HIGH SCHOOL

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500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–11A
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

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Raleigh, NC 27606

MATCHLINE FIGURE B–10B

MASSEY AUTO SALES

HANDY MART

HWY 55 BURGERS SHAKES & FRIES

EDWARDS DR

AJ's DIAGNOSTICS AND AUTO REPAIR

70

HARDEE'S

BOJANGLES' FAMOUS CHICKEN 'N BISCUITS

N PEARL ST

END SECTION 4B

PRINCETON HIGH SCHOOL

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SUBJECT TO CHANGE WITHOUT NOTICE

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–11B
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

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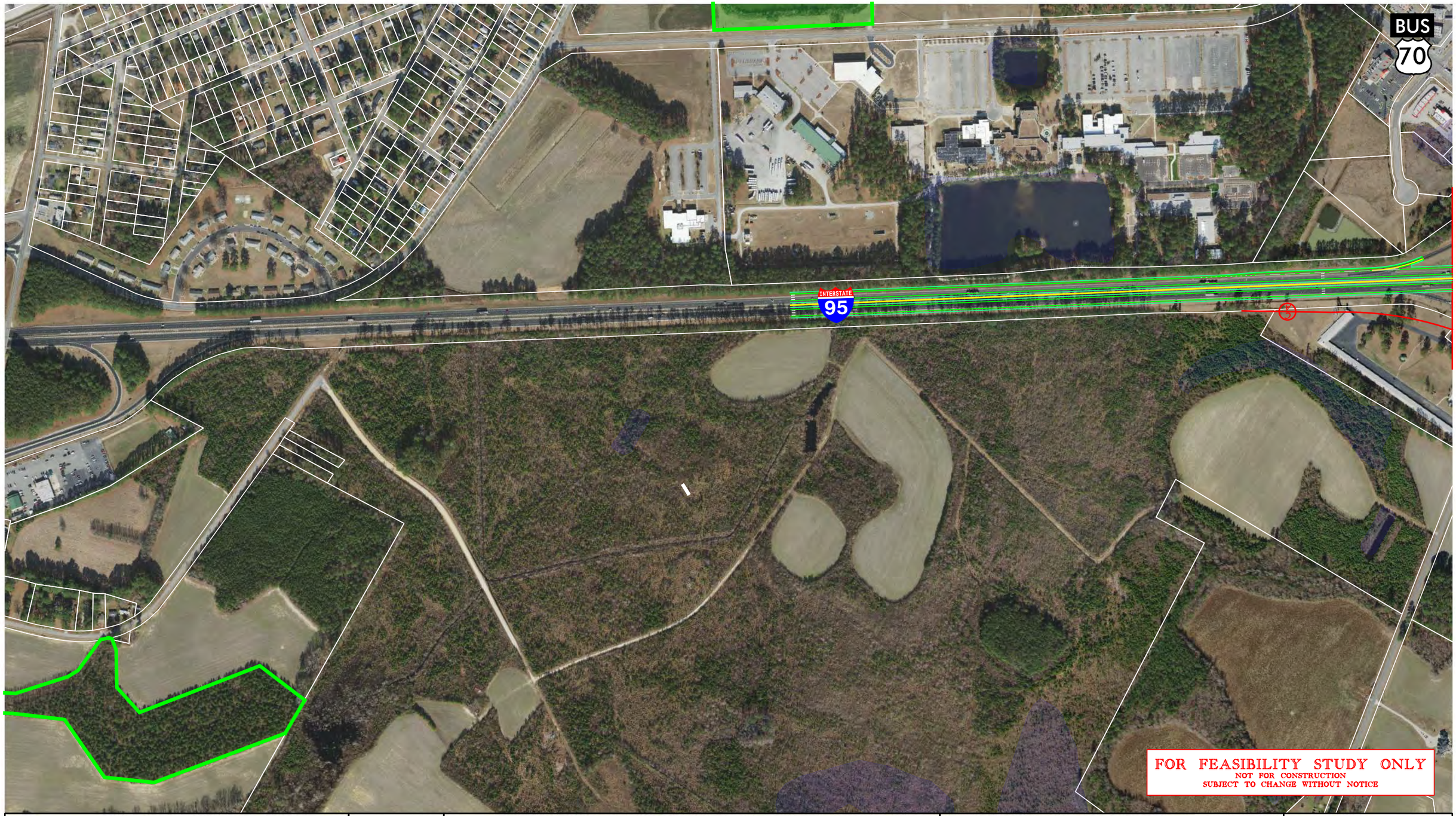

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–12
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

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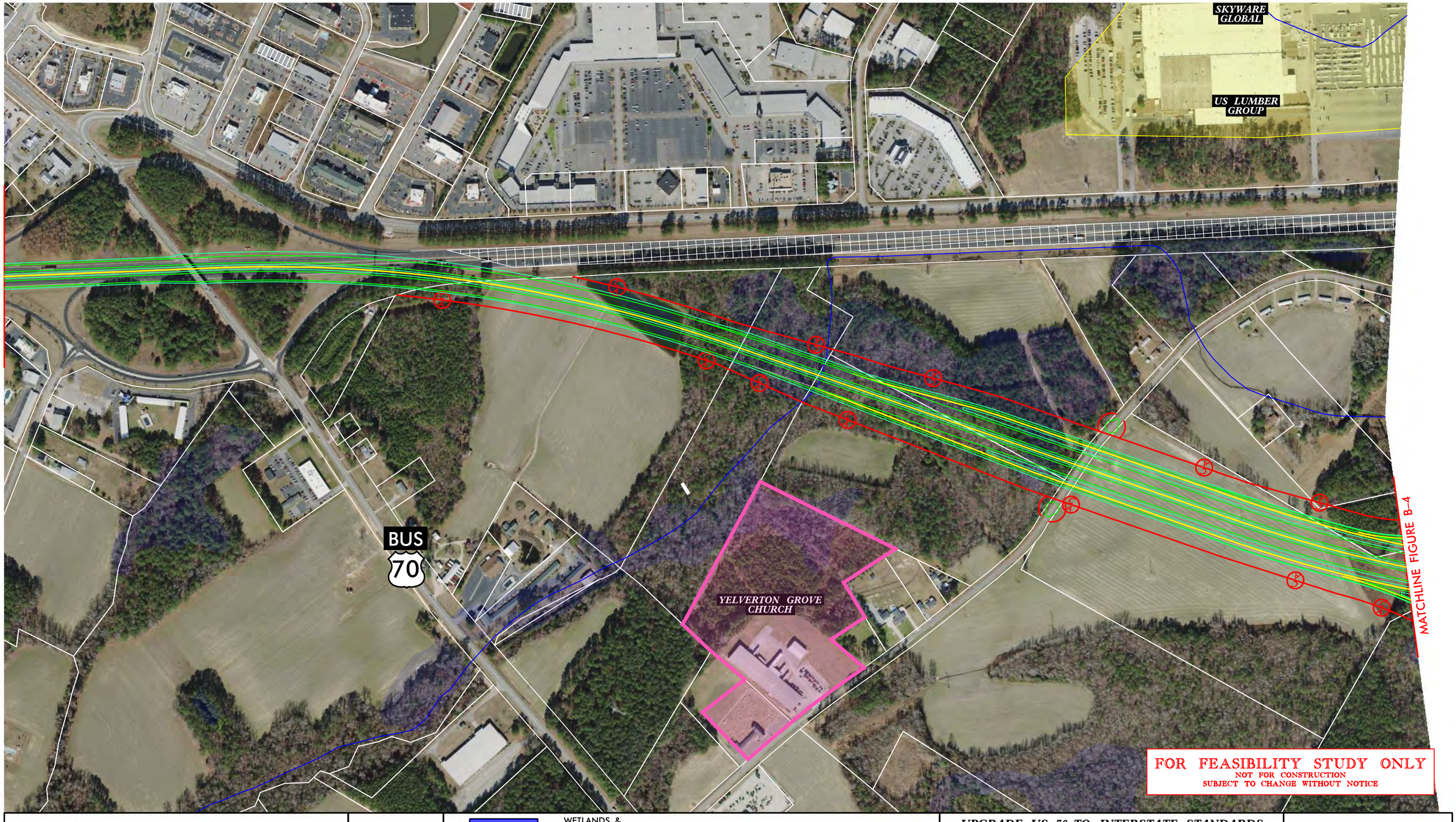


500′ 0′ 500′ 1000′

250′

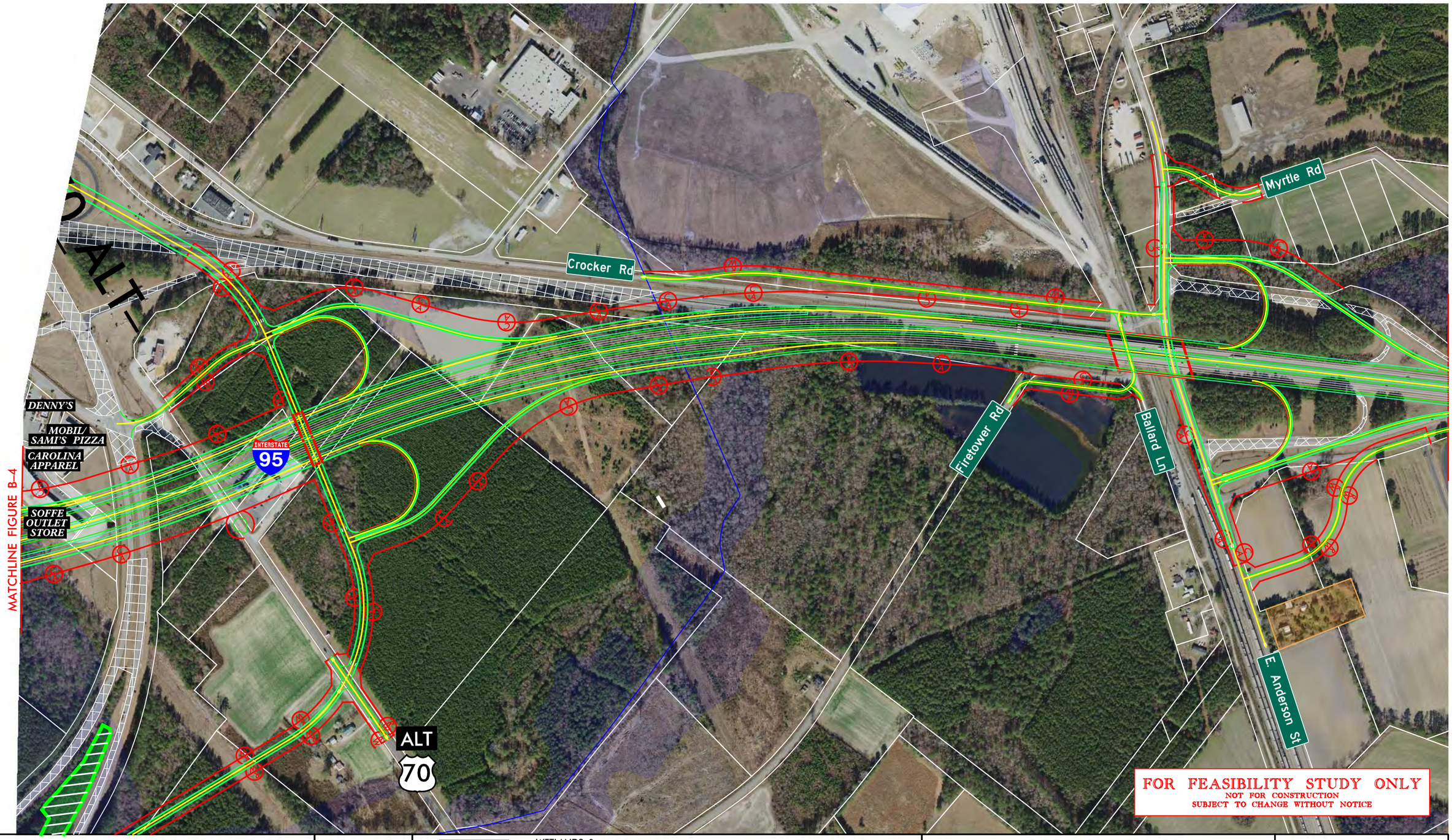
WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–13
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606



500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–14
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

MATCHLINE FIGURE B–14

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

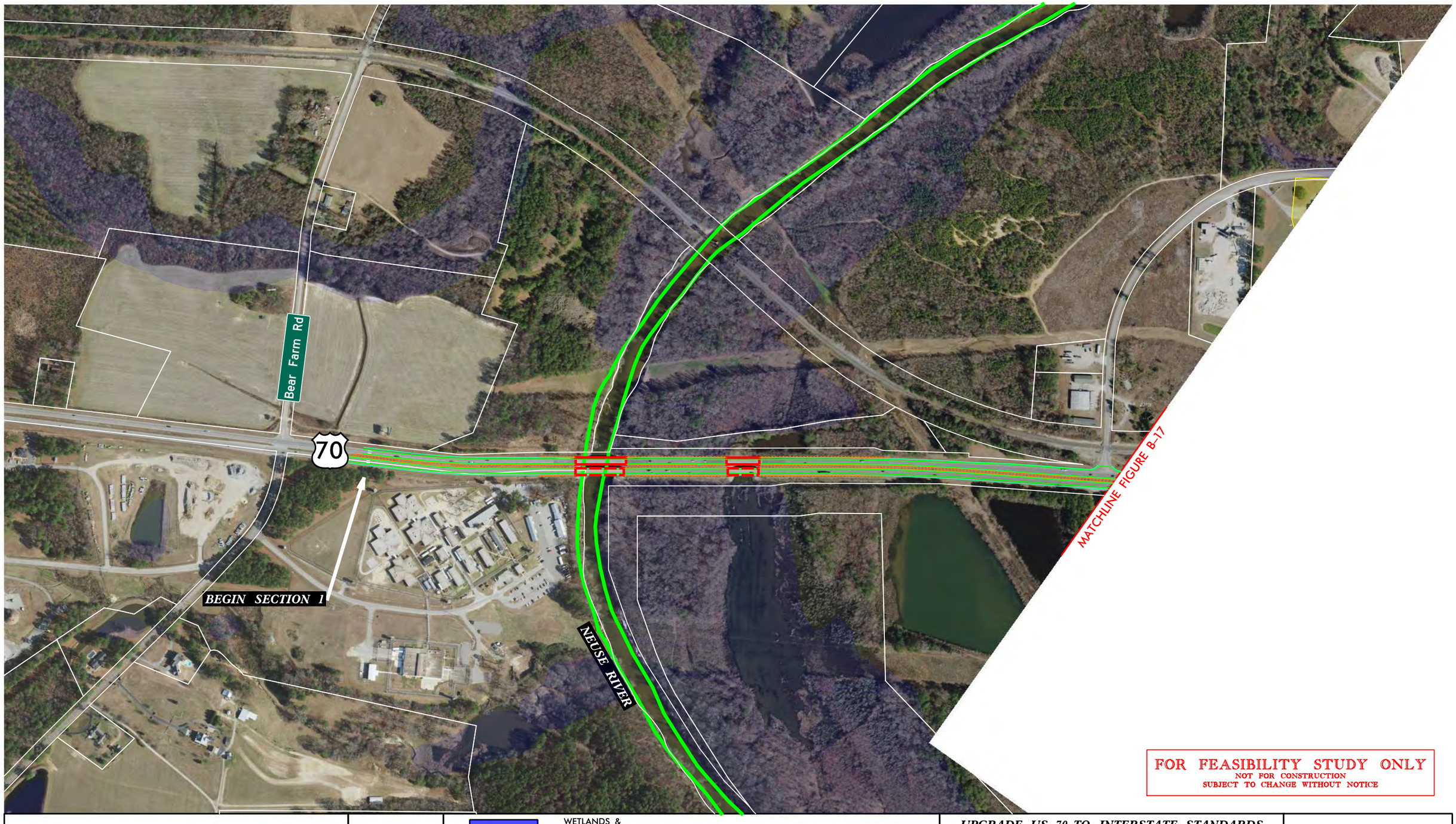
NATURAL AREA

FIGURE B–15
CONCEPTUAL ROADWAY PLAN
ALTERNATE 1

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606



FOR FEASIBILITY STUDY ONLY
NOT FOR CONSTRUCTION
SUBJECT TO CHANGE WITHOUT NOTICE

500′ 0′ 500′ 1000′
250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–16
CONCEPTUAL ROADWAY PLAN
ALTERNATE 2

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–17
CONCEPTUAL ROADWAY PLAN
ALTERNATE 2

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

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500′ 0′ 500′ 1000′
250′

WETLANDS & STREAMS
HISTORIC
HAZARDOUS
NATURAL AREA

FIGURE B–18
CONCEPTUAL ROADWAY PLAN
ALTERNATE 2

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

500′ 0′ 500′ 1000′

250′

WETLANDS & STREAMS

HISTORIC

HAZARDOUS

NATURAL AREA

FIGURE B–19
CONCEPTUAL ROADWAY PLAN
ALTERNATE 2

UPGRADE US 70 TO INTERSTATE STANDARDS FROM SR 1003 (BUFFALO Rd.) NEAR SELMA TO SR 2372 (EDWARDS Rd.) IN PRINCETON JOHNSTON COUNTY

STIP# FS–1604A

VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

PLANNING DEPARTMENT
Mark E. Helmer,AICP
Senior Planner

Notice of Public Meeting

Notice is hereby given that a public meeting will be held before the Planning Board of the Town of Smithfield, N.C., on Thursday, December 1, 2022 at 6:00 P.M., in the Town Hall Council Chambers located at 350 East Market Street to consider the following requests:

> **ZA-22-04 Town of Smithfield:** The applicant is requesting an amendment to Unified Development Ordinances, Article 10, Part VI, Stormwater Management that incorporates revisions mandated by the North Carolina Department of Environmental Quality.
>
> **CA-22-04 Town of Smithfield:** The applicant is requesting an amendment to the comprehensive land use plan that considers removing the proposed third I-95 crossing from its current proposed location.

All interested persons are encouraged to attend. To accommodate disabilities and to comply with ADA regulations, please contact the town office if you need assistance. Further inquiries regarding this matter may be directed to the Smithfield Planning Department at (919) 934-2116 or online at www.smithfield-nc.com.

Run Legal ad in the Johnstonian on November 23 and November 30, 2022.

Town of Smithfield
Planning Department
350 E. Market St Smithfield, NC 27577
P.O. Box 761, Smithfield, NC 27577
Phone: 919-934-2116
Fax: 919-934-1134

Permit Issued for Oct - Nov 2022

			Permit Fees	Permits Issued
	Zoning	Land Use	$1100.00	11
	Site Plan	Minor Site Plan	$1,650.00	57
	Zoning	Sign	$450.00	9
		Report Period Total:	$3,200.00	77
		Fiscal YTD Total:	$9,640.00	146

Z22-000147	Zoning	Land Use	Spanky's Christmas Trees	404 North Brightleaf Blvd
SP22-000112	Site Plan	Minor Site Plan	14x70 Class B Manu Home	3382 NC 210 Highway
Z22-000132	Zoning	Sign	Perfume Outlet	1025 Outlet Center Dr
SP22-000113	Site Plan	Minor Site Plan	10'x 10' enclosed patio	176 Sunfish St
SP22-000109	Site Plan	Minor Site Plan	Class B Manufactured Home	6162 Swift Creek Rd
SP22-000110	Site Plan	Minor Site Plan	14 x 70 Class B Manu Home	6162 Swift Creek Rd
SP22-000111	Site Plan	Minor Site Plan	14 x 70 Class B Manu Home	6162 Swift Creek Rd
Z22-000124	Zoning	Sign	Johnston County Meuseum	329 E Marklet St
Z22-000126	Zoning	Sign	Hickory Farms	1025 Outlet Center Dr
Z22-000143	Zoning	Sign	The Insurance Shoppe Sign	121 Kellie Dr
Z22-000137	Zoning	Sign	Woodbridge	1025 Outlet Center Dr
Z22-000123	Zoning	Sign		505 S Brightleaf Blvd
Z22-000125	Zoning	Sign	Tommy Hilfiger	1246 Outlet Center Dr
Z22-000127	Zoning	Land Use	Mainstreet Family Care	1202 D North Brightleaf Blvd
Z22-000128	Zoning	Sign	Mainstreet Family Care	1202 D North Brightleaf Blvd
SP22-000114	Site Plan	Minor Site Plan	Single Family Dwelling	320 Sturgeon St
SP22-000115	Site Plan	Minor Site Plan	Single Family Dwelling	328 Sturgeon St
SP22-000116	Site Plan	Minor Site Plan	Single Family Dwelling	336 Sturgeon St
SP22-000117	Site Plan	Minor Site Plan	Single Family Dwelling	340 Sturgeon St
SP22-000118	Site Plan	Minor Site Plan	Accessory Building	111 Old Sanders Rd
SP22-000119	Site Plan	Minor Site Plan	Single Family Dwelling Add	2 Eden Dr
SP22-000120	Site Plan	Minor Site Plan	12' x 24' Accessory Structure	101 McCoy Dr

SP22-000121	Site Plan	Minor Site Plan	Single Family Dwelling	312 Sturgeon St
SP22-000122	Site Plan	Minor Site Plan	Single Family Dwelling	339 Sturgeon St
SP22-000123	Site Plan	Minor Site Plan	Single Family Dwelling	331 Sturgeon St
SP22-000124	Site Plan	Minor Site Plan	Single Family Dwelling	323 Sturgeon St
SP22-000125	Site Plan	Minor Site Plan	Single Family Dwelling	317 Sturgeon St
SP22-000126	Site Plan	Minor Site Plan	Single Family Dwelling	311 Sturgeon St
SP22-000127	Site Plan	Minor Site Plan	Neuse River Amphitheatre	200 S Front St
Z22-000129	Zoning	Land Use	Excel Sports Complex, LLP	1025 Outlet Center Dr
Z22-000130	Zoning	Land Use	Narron Wenzel, PA Law Firm	102 & 108 S Third St
Z22-000131	Zoning	Land Use	Strategic Logistics NC, LLC	328 North Brightleaf Blvd
SP22-000128	Site Plan	Minor Site Plan	Single Family Dwelling	194 Galilee Branch Dr
SP22-000129	Site Plan	Minor Site Plan	Single Family Dwelling	184 Galille Branch Dr
SP22-000130	Site Plan	Minor Site Plan	Single Family Dwelling	174 Galilee Branch Dr
SP22-000131	Site Plan	Minor Site Plan	Single Family Dwelling	158 Galille Branch Dr
SP22-000132	Site Plan	Minor Site Plan	Single Family Dwelling	130 Galille Point Dr
SP22-000133	Site Plan	Minor Site Plan	Single Family Dwelling	118 Galilee Branch Dr
SP22-000134	Site Plan	Minor Site Plan	Single Family Dwelling	123 Galilee Branch Dr
SP22-000135	Site Plan	Minor Site Plan	Single Family Dwelling	528 S Sixth St
SP22-000136	Site Plan	Minor Site Plan	Single Family Dwelling	298 Werman Place
Z22-000133	Zoning	Sign	Things Forever	1025 Outlet Center Dr
SP22-000137	Site Plan	Minor Site Plan	Single Family Dwelling	711 E St
Z22-000134	Zoning	Land Use	316 Print Company LLC	1338 N Brightleaf Blvd
SP22-000138	Site Plan	Minor Site Plan	Ampitheater Remodel	200 S Front St
Z22-000135	Zoning	Land Use	Vida Wood US	219 E Peedin Rd
Z22-000136	Zoning	Land Use	1 Word Bail Bonding, NC LLC	839 S Brightleaf Blvd
Z22-000140	Zoning	Land Use	Wise Development	835 Venture Dr
SP22-000139	Site Plan	Minor Site Plan	Single Family Dwelling Add	304 N Third St
Z22-000144	Zoning	Land Use	Primenra Iglesia	116 Britt St
SP22-000140	Site Plan	Minor Site Plan	Single Family Dwelling	407 Collier St
SP22-000152	Site Plan	Minor Site Plan	Single Family Dwelling	176 Pepperbush Dr
SP22-000153	Site Plan	Minor Site Plan	Single Family Dwelling	180 Pepperbush Dr
SP22-000154	Site Plan	Minor Site Plan	Single Family Dwelling	172 Pepperbush Dr
SP22-000155	Site Plan	Minor Site Plan	Single Family Dwelling	168 Pepperbush Dr
SP22-000156	Site Plan	Minor Site Plan	single Family Dwelling	166 166 Pepperbush Dr

SP22-000157	Site Plan	Minor Site Plan	Single Family Dwelling	162 Pepperbush Dr
SP22-000158	Site Plan	Minor Site Plan	Single Family Dwelling	153 Pepperbush Dr
SP22-000159	Site Plan	Minor Site Plan	Single Family Dwelling	157 Pepperbush Dr
SP22-000160	Site Plan	Minor Site Plan	Single Family Dwelling	161 Pepperbush Dr
SP22-000161	Site Plan	Minor Site Plan	Single Family Dwelling	163 Pepperbush Dr
SP22-000162	Site Plan	Minor Site Plan	Single Family Dwelling	167 Pepperbush Dr
SP22-000163	Site Plan	Minor Site Plan	Single Family Dwelling	171 Pepperbush Dr
SP22-000164	Site Plan	Minor Site Plan	Single Family Dwelling	173 Pepperbush Dr
SP22-000165	Site Plan	Minor Site Plan	Single Family Dwelling	177 Pepperbush Rd
SP22-000166	Site Plan	Minor Site Plan	Single Family Dwelling	177 Pepperbush Dr
SP22-000167	Site Plan	Minor Site Plan	Single Family Dwelling	116 E Jessamine Ct
SP22-000168	Site Plan	Minor Site Plan	Single Family Dwelling	112 E Jessamine Ct
SP22-000169	Site Plan	Minor Site Plan	Single Family Dwelling	108 E Jessamine Ct
SP22-000170	Site Plan	Minor Site Plan	Single Family Dwelling	104 E Jessamine Ct
SP22-000171	Site Plan	Minor Site Plan	Single Family Dwelling	103 W Jessamine Ct
SP22-000172	Site Plan	Minor Site Plan	Single Family Dwelling	107 W Jessamine Ct
SP22-000173	Site Plan	Minor Site Plan	Single Family Dwelling	111 W Jessamine Ct
SP22-000174	Site Plan	Minor Site Plan	Single Family Dwelling	113 W Jessamine Ct
SP22-000175	Site Plan	Minor Site Plan	Single Family Dwelling	117 W Jessamine Ct
SP22-000176	Site Plan	Minor Site Plan	Single-Family Dwelling Add	3158 US Hwy 70 Business E
Z22-000145	Zoning	Land Use	Strike Eagle Cornhole, LLC	505 S Brightleaf Blvd