



March 10, 2020

U.S. Army Corps of Engineers
Charleston Regulatory Office
69A Hagood Avenue
Charleston, South Carolina 29403

Attention: Dr. Richard Darden, Project Manager

Reference: **Response to Comment Letters**
Project Inspector – SAC-2019-00924
Rock Hill, York County, South Carolina
S&ME Project No. 4261-19-077

Dear Dr. Darden:

S&ME, Inc. (S&ME) is providing information requested in your January 13, 2020 letter as well as the South Carolina Department of Natural Resources letter of December 20, 2019.

◆ USACE Letter Comments

1. Plan sheets 11 and 12 show piping impacts to two segments of tributary NWW-2A as 218 and 532 linear feet. The impact summary text box on Sheet 12 shows this total as 755 lf. Note that the total appears to actually be 750 lf. This would result in the TOTAL entry for NWW-2A being 770 lf (not 775 lf). Revised plans and summary tables on Sheet 15 should reflect this correction.

Response: The total impacts to NWW-2A include 775 lf. This includes 755 lf of piping and 20 lf of rip-rap armor. The error has been corrected on Sheets 11-12 to show the impacts to second segment of NWW-2A below the culvert as 537 lf (not 532 lf as originally shown). The summary table on Sheet 15 for NWW-2A remains as 775 lf of total impact. See attached revised Sheets 11-12 ([ATTACHMENT A](#)).

2. Based on the tributary impact numbers shown on all plan sheets, including the 5 lf adjustment noted above, the total tributary impacts appear to be 4,986 lf instead of the 4,991 lf entered in Block 37 of the permit application. Revised plans/application form should reflect this correction.

Response: The total impacts are 4,991 lf. The error was corrected on Sheets 11-12 to reflect the 5 lf that was inadvertently left of the impact total off NWW-2A.



3. Plan Sheets 2A and 2B depict the locations of proposed roads and interchange, substation, and future development. Each of these project elements is noted on the plan sheets as “conceptual” and subject to change. For those project elements which will involve impacts to wetlands and/or tributaries, please provide additional design detail (location, impact acreage) as part of revised plans.

Response: The inclusion of Sheets 2A and 2B were to provide a visual aid as to what the broad concepts and overall locations of the proposed developmental areas. However, the impacts as shown on Sheets 5-14 are the proposed impacts to the wetlands and tributaries and are not conceptual. No further impacts to the on-site jurisdictional features are anticipated other than the impacts depicted on Sheets 5-14. If needed, Sheets 2A and 2B can be removed from the overall suite of final permit figures to avoid confusion.

4. It is our understanding that design work is continuing on the compensatory mitigation plan provided in Appendix VI of the permit application. Please provide the finished compensatory mitigation plan along with the completed site protection documents as part of the final revised plan set for this project.

Response: The final compensatory mitigation plan was submitted to your attention via e-mail/sharefile link on March 4, 2020. Due to the size of the file, the PDF is not included in this letter.

5. Please provide a revised final document that includes results of cultural resources investigation for the Landsford Tract compensatory mitigation site. This information is necessary to allow conclusion of consultation with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act.

Response: The revised final document for cultural resources was submitted to your attention via e-mail/sharefile link on February 13, 2020 as well as mailed hard copies on the same date.

6. The Level 2 Conclusion of the Alternatives Analysis asserts that “there are no practicable alternatives...that do not include impacts on special aquatic sites.” However, the alternatives analysis does not present any assessment of impacts to special aquatic sites at any of the locations, including the proposed site or alternative locations. If a comparison of impacts to special aquatic sites is relevant to the alternatives analysis, please provide the information on which this assertion was based.

Response: A revised final Alternatives Analysis was conducted to reflect the items addressed in the USACE letter. Level 2 Analysis includes a more detailed comparison of two off-site alternatives, the Blanchard-Blackwell Site and the Firetower Road Business Park. The Level 2 Analysis included the potential impacts to on-site jurisdictional streams and wetlands of these two off-site alternatives. Also, the Level 3 Analysis included two on-site layouts (Alternatives B and C) which depict more impacts to streams and wetlands than the Preferred Alternative (Alternative A). See attached revised Alternatives Analysis ([ATTACHMENT B](#)).



◆ SCDNR Letter Comments

1. Proposed Project Area

The permit application indicates that a partial cloverleaf interchange will be constructed to access the site via Interstate 77; however, the permit drawings provided indicate that the interchange layout, grading and drainage plans are to be designed by the South Carolina Department of Transportation. If the interchange is to be permitted under the same permit as the proposed facilities additional, more detailed design plans will be required for review.

Response: The impacts from the SCDOT interchange portion of the project are being considered in the Individual Permit. The plans submitted on the permit sheets reflect design by the SCDOT for the interchange at this time. Impacts to the jurisdictional features include fill, piping, and armoring as depicted on the permit sheets.

2. Project Phases

During the Environmental Stakeholders Meeting on December 11, 2019 it was stated that a 30-year permit would be preferred by the applicant. The description of the project phases states that Phase I is planned from 2020 through 2022 and Phase II will take place over a seven-year time frame following Phase I. What is planned to occur during the remaining time frame?

Response: The proposed impacts to jurisdictional streams and wetlands will take place in between 2020-2022. The includes the construction of the interchange, the Panthers training facility, and infrastructure (internal roads, stormwater detention, etc.). The seven-year time frame was for the completion of Phase II was given providing a thriving and stable economy during this time. Full built-out of the entire site could take longer than seven years and the 30-year permit would cover future time needed to develop the entire site.

3. Surface Waters

More information should be provided on the streams on the project site. This information should include the Rosgen classification of the streams proposed for impacts and a more detailed description of the existing impairments.

Response: Detailed information on the on-site streams was provided in the initial permit application (Appendix V). The information included Low-Gradient Stream Assessment data sheets for each of the impacted streams as well as photographic documentation depicting the various impairments. The on-site streams to be impacted scored between 8.5 and 11 on the data sheets indicating Impaired or Partially Impaired conditions. These conditions were due to past and present land use activities (previous cattle farming, interstate, etc.), existing culverts, channel incision, sediment, bank stability, lack of in-stream habitat, riparian vegetation composition, and flow regime.



4. Floodplains

Please include a copy of FEMA FIRM Panel 4501930328F for the project area in the permit application.

Response: According to the FEMA FIRM Panel 4501930328F, the project area is located in Zone X and not in a 100-year floodplain. See attached FIRM ([ATTACHMENT C](#)).

5. Permit Exhibits

The design plans indicate on Sheets 6 and 7 that Wetland B, Wetland C and Stream NWW-1 are proposed to be filled for an area identified as an open space and park. Can all or portions of these wetlands/streams be incorporated into the design? If not, please provide a justification.

Response: The preservation of streams/wetlands was given consideration in the design phases of the project. At this specific location on Sheets 6-7, the stream/wetland were unable to be incorporated into the overall design for the following reasons:

- The open space/park concept was designed to provide a large, contiguous space for events. Preservation of the stream/wetland would effectively split this area in half.*
- Poor existing conditions of the stream/wetland. NWW-1 scored a 10.5 (Impaired) on the Low-Gradient Stream Assessment. Wetland B was also impaired due to its current location within a utility easement.*
- Per the proposed design, the upstream and downstream areas from the proposed open space/park are to be impacted by buildings/parking/roads (upstream) and stormwater detention/road/culvert (downstream). Due to the large amounts of proposed impervious surfaces likely putting more water into the remaining system, the isolating of these features between large impacts, and existing conditions of the stream/wetland, preservation of NWW-1 and Wetlands B-C on Sheets 6-7 was not practicable.*

6. Alternative Analysis

The Alternative Analysis considers eight potential alternatives under a Level 1 screening. This Level screening also considered a no action alternative. A Level 2 analysis further considered three of the eight alternatives and the no action alternative. Please quantify the environmental impacts as a part of the site selection process in the Alternative Analysis. Additionally, the Blanchard Blackwell Site is approximately 31 miles from the Bank of America Stadium and 31.6 miles from Charlotte Douglas International Airport, just slightly passed the 30 miles required. Please provide further documentation as to why this site was not chosen versus the Hutchinson Site in the Alternative Analysis.

Response: A revised final Alternatives Analysis was conducted to reflect the items addressed in the SCDNR letter. Level 2 Analysis includes a more detailed comparison of two off-site alternatives, the Blanchard-Blackwell Site and the Firetower Road Business Park. The Level 2 Analysis included the potential impacts to on-site jurisdictional streams and wetlands of these two off-site alternatives. The analysis also provides an explanation for why the Preferred Alternative was selected over Blanchard-Blackwell Site.



7. Proposed Compensatory Mitigation

Response: The final compensatory mitigation plan was submitted to your attention via e-mail/sharefile link on March 4, 2020. In the submittal, direct responses to the SCDNR comments regarding the compensatory mitigation plan were included.

◆ **Closing**

Thank you for your time and attention to this project. If we can provide additional information, please do not hesitate to contact me at 803-561-9024.

Sincerely,

S&ME

A handwritten signature in black ink that reads "Chris Daves".

Chris Daves, P.W.S.
Senior Scientist
cdaves@smeinc.com

Attachment A – Revised Sheets 11-12

Attachment B – Final Alternatives Analysis

Attachment C – FEMA FIRM

Attachments

Attachment A

Revised Sheets 11-12

ALL GRADING, DRAINAGE, SITE LAYOUT
TO BE DESIGNED BY SCDOT

INTERCHANGE TO BE
DESIGNED BY SCDOT

EX. CULVERT

NWW-2A
(PIPE)

218 LF

NWW-2A
(PIPE)

537 LF

EX. DETENTION POND
"NON-JURISDICTIONAL"

PROJECT BOUNDARY

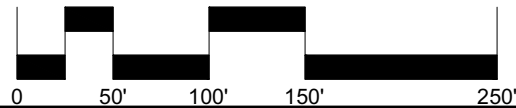
INTERSTATE ACCESS

INTERSTATE 77

SEE SHEET 10

SEE SHEET 12

SCALE: 1"=100'



APPLICATION TRACKING NUMBER:

SAC- 2019-00924

Date: 10/28/19

Scale:

Project #: 1019189

Sheet #:

SCDOT 2

PROJECT INSPECTOR
ROCK HILL, SC
CAROLINA PANTHERS

POPULOUS

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ALL GRADING, DRAINAGE, SITE LAYOUT
TO BE DESIGNED BY SCDOT

NWW-2A IMPACTS SUMMARY
PIPE (755 LF)
ARMOR (20 LF)
TOTAL: 775 LF

INTERCHANGE TO BE
DESIGNED BY SCDOT

NWW-2A
(PIPE)
537 LF

NWW-2A
(ARMOR)
20 LF

SEE SHEET 12

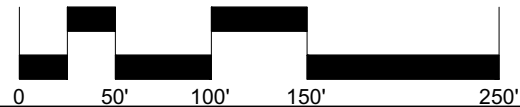
INTERSTATE ACCESS

NWW-2A

PROJECT BOUNDARY

INTERSTATE 77

SCALE: 1"=100'



APPLICATION TRACKING NUMBER:
SAC- 2019-00924

Date: 10/28/19

Scale:

Project #: 1019189

Sheet #:

12

PROJECT INSPECTOR

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Attachment B

Final Alternative Analysis

PROJECT INSPECTOR

ALTERNATIVES ANALYSIS

This document is prepared and submitted pursuant the permitting jurisdiction of the Department of the Army, U.S. Army Corps of Engineers (USACE or Corps) under Section 404 of the Clean Water Act (CWA) and certain requirements set forth under the National Environmental Policy Act, 42 U.S.C.A. §§ 4321 *et seq.* (NEPA).

1.0 Proposed Project

The South Carolina Department of Commerce (Commerce) and Panthers Football, LLC (Panthers) (collectively, the Applicant), jointly submit an application for a project that would result in an impact on the environment and involve the discharge of dredge and fill material into waters of the United States. Section 404 of the CWA establishes a regulatory program over such discharges, including wetlands, through issuance of Department of Army (DA) permits. The Applicant proposes to develop, construct, and operate a world-class professional sports practice and training facility, a state-of-the-art corporate headquarters, and a mixed-use and integrated development on a property near Rock Hill, South Carolina, in close proximity to Bank of America Stadium, the Panthers' NFL gameday stadium in Charlotte, North Carolina, including an interstate interchange for transportation connectivity (Proposed Project). This analysis is drafted to aid and assist compliance with the guidelines promulgated by the United States Environmental Protection Agency (USEPA) in conjunction with the Secretary of the Army under the authority of Section 404(b)(1) of the Clean Water Act (Guidelines)¹ and NEPA.

1.1 Project Background

Commerce is an instrumentality of the State of South Carolina, whose statutory purpose, as set forth in set forth in S.C. Code Ann. § 13-1-20, is to implement a statewide program for the stimulation of economic activity to develop the potentialities of the State, and enhance the economic growth and development of the State through strategic planning and coordinating activities, among other activities.

The Panthers are an American football team and organization that competes in the National Football League (NFL) based in Charlotte, North Carolina.

In accordance with Commerce statutory authority, along with the Panthers mission and purpose, the Applicant proposes to develop a site for the construction of a sports practice training facility, headquarters, and associated development in South Carolina as an economic development project.

¹ 40 C.F.R. Part 230.

The Proposed Project is intended to accommodate, and thereby consolidate, the majority of the Panthers' non-gameday activities, personnel, and facilities into a single integrated site that streamlines operations and creates a destination for Panthers employees and fans alike. The design of the Proposed Project has been developed under a master plan concept that is innovative in its proposal for a mixed-use, pedestrian-friendly community anchored by the Panthers' practice/training facilities and headquarters offices, as well as an emphasis on retail/entertainment, employment, research and development, residential dwellings, recreation, and open space uses.

The onsite work for the Proposed Project facilities will be built in two phases of planned construction and operation in order to better meet current and expected demand. Phase 1 of the Proposed Project would begin construction in 2020 and is contemplated to include the construction of the practice/training facilities and headquarters offices and associated road infrastructure. Specifically, this portion of the Proposed Project will consist of practice facilities, corporate offices, sports/entertainment venues, a medical office, and a mixed-use village located on the east-central portion of the overall site. Indoor, outdoor, and partially covered athletic fields, weight rooms, wellness facilities, training facilities, spectator viewing areas, and associated facilities associated with football activities will be located in this area.

Phase 2 of the Proposed Project would be constructed and operational after completion of Phase 1 and is contemplated to include the construction of additional office and commercial space and mixed-use sites, including retail, restaurant, and hospitality facilities.

1.1.1 Proposed Project Area

The Proposed Project site, known as the Hutchinson site, sits adjacent to and on the west side of Interstate 77 (I-77), approximately in between and to the northeast of the City of Rock Hill, and to the southwest of Town of Fort Mill, in York County, South Carolina (34.9560°N, -80.9800°W) (Property). The Property is approximately 234 acres and provides direct frontage and visibility from I-77, which principally bounds the property to the east, although the site currently does not have a direct interchange off of I-77. The Property is further bounded by Eden Terrace (Highway 284) to the north, Hutchinson Place neighborhood and portions of Mt. Gallant Road to the west, and the Norfolk Southern A-Line rail line and right-of-way to the south.

Today, the Property is mostly wooded, raw land, with the exception of a cleared power line easement that runs north to south, the length of the Property. The Property consists of five separate tracts: TMP#664-00-00-022, consisting of 15 total acres; TMP#664-00-00-021, consisting of 33.9 total acres; TMP#664-00-00-020, consisting of 207 acres; TMP#664-00-00-011, which consists of 16.83 total acres; and TMP#664-00-00-009, consisting of 1.95 acres. Part of the Property will require rezoning.

Substantial wetlands, environmental, geotechnical, and archaeological studies have been performed for the Property, including a Cultural Resource Identification Survey, Boundary Survey, Protected

Species Assessment, Preliminary Geotechnical Exploration, Phase 1 Environmental Site Assessment (ESA), Topographical Survey, and a Wetlands Delineation.

The climate of the Proposed Project site is considered subtropical, with hot, humid summers and cool, dry winters. Average temperatures, by season, range from: 1) Spring, 66°F to 81°F; 2) Summer, 89°F to 91°F, with July being the warmest month of the year; 3) Fall, with average temperatures falling from 83°F in August, to 54°F by December; and 4) Winter, with average temperatures bottoming out at 51°F, with January typically being the coldest average month of the year. York County has above-average levels of sunshine annually, when compared nationally, with approximately 212 days of sunshine, and average levels of precipitation annually, when compared nationally, with approximately 113 days of precipitation and an average annual rainfall of approximately 43 inches. Precipitation does not vary greatly between seasons. Freezing rain or snow occurs infrequently, with an average of 4.5 inches annually.

The Proposed Project site is located in the Piedmont region of South Carolina, which is the largest geographic region in the state, covering nearly one-third of the state and the majority of the northwest corner, and is generally considered to be a hilly region. The Property is located within the Burgis Creek-Catawba River (Watershed ID#030501030602), Fishing Creek Reservoir-Catawba River (Watershed ID#0305010306) and the Lower Catawba River (Watershed ID#03050103) of the Catawba Basin. Other land uses in the vicinity of Proposed Project site include industrial, commercial, residential, and agricultural. The Property contains a number of wetlands and streams, and the Proposed Project calls for impacts to approximately 0.87 acres of jurisdictional wetlands, and approximately 4,991 feet of linear stream impacts.

1.2 The USACE Authority and Scope of Analysis

1.2.1 Section 404 of the Clean Water Act

The Applicant understands that the Proposed Project is subject to the jurisdiction of the USACE under Section 404 of the CWA based on the contemplated placement and discharge of dredged or fill material into navigable waters and/or wetlands of the United States. The USACE administers the Section 404 program on behalf of the Secretary of the Army. The USEPA has the authority to determine the scope of Section 404 jurisdiction, has issued Guidelines on the discharge of dredged or fill material, and will generally prohibit a discharge if it determines under Section 404 that a discharge will result in unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas. The USEPA can exercise its Section 404(c) authority to veto the issuance of a Section 404 Permit of the USACE.

The USACE's review of the Proposed Project includes a determination of compliance with the Guidelines contained in 40 C.F.R. Part 230, including review of four specific requirements:

- **40 C.F.R. § 230.10(a):** An evaluation of alternatives to the Proposed Project to determine whether there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem than of the Proposed Project, so long as the alternative does not have other significant adverse environmental consequences. The alternative identified by this test is referred to as the *least environmentally damaging practicable alternative*, or the LEDPA.
- **40 C.F.R. § 230.10(b):** Whether the discharge would violate any applicable state water quality standards, Section 307 of the CWA, the Endangered Species Act (ESA), or federal laws concerning marine sanctuaries.
- **40 C.F.R. § 230.10(c):** Whether the discharge would cause or contribute to significant degradation of waters of the United States.
- **40 C.F.R. § 230.10(d):** Whether appropriate and practicable steps have been taken that will minimize potential adverse impacts of the discharge on the aquatic ecosystem.

Evaluation of a proposed project under all four of the requirements set forth in the Guidelines constitutes a determination of compliance with Section 404(b)(1).

The Corps' regulations also address the relationship between the Corps and state and local land use planning agencies. The regulations expressly state that "the primary responsibility for determining zoning and local land use matters rest with state and local and tribal authorities." 33 C.F.R. § 320.4(j)(2). The regulations direct that upon compliance with the Corps' rules and other applicable federal law, in the absence of "overriding national factors of the public interest" that may be revealed during a permit application, a permit "will be generally issued following receipt of a favorable state determination." 33 C.F.R. § 320.4(j)(4). While making a compliance determination, the Corps may gather information sufficient to support and make its decisions by soliciting comments from other federal, tribal, state, and local resource agencies and the public. Notwithstanding, the Corps is solely responsible for reaching a decision on the merits of the permit application, including determination of the project purpose, the extent of the alternatives analysis, which alternatives are practicable, the LEDPA, the amount and type of mitigation that is to be required, and all other aspects of the decision-making process.

1.2.2 National Environmental Policy Act

Because the required permit authorization from the USACE is a major federal action, the USACE must either prepare an Environmental Assessment for a determination of the significance of the environmental impacts or conduct an Environmental Impact Statement pursuant to the National Environmental Policy Act (NEPA).

According to the Guidelines, the alternatives analysis required in a NEPA evaluation is similar to that conducted under the Section 404(b)(1):

For actions subject to NEPA, where the Corps of Engineers is the permitting agency, the analysis of alternatives required for NEPA environmental documents, including supplemental Corps NEPA documents, will in most cases provide the information for the evaluation of alternatives under these Guidelines.

40 C.F.R. § 230.10(a)(4). Additionally, USACE program literature has recognized that “Districts should not conduct or document separate alternatives analyses for NEPA and the 404(b)(1) Guidelines.” See USACE, *Standard Operating Procedures for the USACE’s Regulatory Program* (July 2009) (USACE SOP).

To meet the requirements of the Guidelines under the USACE’s regulatory program, as well as satisfy the alternative requirements under NEPA, alternatives were developed to incorporate the LEDPA, and the Applicant submits that no additional alternatives are necessary as part of the USACE’s Guidelines evaluation process of the Proposed Project.

1.3 Practicable Alternatives Framework (40 C.F.R. § 230.10 (a))

The Applicant is informed that the USACE’s analysis of practicable alternatives is found in the Guidelines. The first requirement of the Guidelines provides:

(a) Except as provided under Section 404(b)(2), no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

(1) For the purpose of this requirement, practicable alternatives include, but are not limited to:

(i) Activities which do not involve a discharge of dredged or fill material into the waters of the United States or ocean waters;

(ii) Discharges of dredged or fill material at other locations in waters of the United States or ocean waters;

(2) An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.

(3) Where the activity associated with a discharge which is proposed for a special aquatic site (as defined in subpart E)² does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not “water dependent”), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

1.4 Guidelines (40 C.F.R. § 230.10(a)).

As provided above, the Guidelines prohibit the discharge of dredged or fill material in a special aquatic site unless it can be shown that there is no practicable alternative which would have less adverse impact on the aquatic ecosystem. A practicable alternative is subject to reasonable interpretation; however, the Guidelines generally define a practicable alternative as one that is “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” 40 C.F.R. § 230.10(a)(2).

Under subsection (a)(3), an initial determination must be made by the USACE with respect to whether the proposed discharges are “water dependent.” The Guidelines provide that, when an activity associated with the discharge of dredged or fill material in a special aquatic site does not require access or proximity to that special aquatic site to fulfill its basic purpose, the activity is not “water dependent.” A determination by the USACE that a proposed discharge is *not* water dependent carries with it two inherent presumptions that must be rebutted by a successful applicant.

The first presumption is that practicable alternatives that do not include impacts on special aquatic sites exist and are available to the applicant. It is thus incumbent upon the applicant to clearly demonstrate otherwise. The determination of water dependency by the USACE is preceded by a clear understanding of the purpose of the Proposed Project, both the “overall project purpose” and the “basic purpose”. After evaluating the water dependency of a proposed project, the USACE must then consider the full range of practicable alternatives that are capable of achieving the overall project purpose.

² *Special aquatic sites* are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. 40 C.F.R. § 230.3. These include sanctuaries and refuges (§ 230.40), wetlands (§ 230.41), mudflats (§ 230.42), vegetated shallows (§ 230.43), coral reefs (§ 230.44), and riffle and pool complexes (§ 230.45). Because the Proposed Project involves the discharge into and fill of wetlands, these more restrictive provisions apply to the Proposed Project.

The second inherent presumption created by a non-water dependency determination is that all practicable alternatives (not including the proposed discharge) which do not involve a discharge of dredged or fill material into a special aquatic site (wetland), are presumed as having less of an adverse impact on the aquatic ecosystem than the proposed discharge, unless clearly demonstrated otherwise.

The evaluation of practicable alternatives in this analysis is based on the range of reasonable alternatives set forth below. This process was developed and implemented in a manner cognizant of the requirements of the Guidelines and NEPA. See USACE (Jax. Dist.), *Information for Preparing an Alternatives Analysis Under Section 404* (June 2014); USACE (Sav. Dist.), *Guidelines For Preparation of Analysis of Section 404 Permit Applications Pursuant to the Section 404(B)(1) Guidelines of The Clean Water Act (40 C.F.R., Section 230)*. Thus, the alternatives analysis forms the basis from which the USACE will identify practicable alternatives and determine whether the Applicant's Proposed Project is the LEDPA.

2.0 Project Purpose

Establishing the underlying purpose and need for a project is a key initial step in the USACE's process of evaluating the Proposed Project's compliance with the Guidelines. USACE regulations establish a three-part process for developing the official purpose of a project. As described below, one statement is provided by the applicant, and the other two are determined by the USACE:

- The Applicant develops and clearly states an overall purpose and need in the application to the USACE;
- The USACE determines the "basic" purpose of the project, which informs the conclusion as to whether the project is water dependent under Section 404(b)(1) of the CWA; and
- The USACE determines the "overall" purpose of the project.

These three statements of the Proposed Project's purpose and need form the basis by which the USACE will evaluate the compliance of the Proposed Project with the Guidelines, including the range of practicable alternatives. These statements are also used as part of the analysis required under NEPA. Although the three statements were developed to meet distinct objectives within the USACE's evaluation of the Proposed Project's compliance with the Guidelines, it is expected that the alternatives analysis will overlap with and may, in most cases, provide the information required for the evaluation of alternatives under NEPA. Additionally, while consideration may be given to the Applicant's pronouncement of the Proposed Project's basic and overall purpose, the USACE is the ultimate arbiter of that conclusion and is entitled to determine the final statements without undue influence of the Applicant's views.

2.1 The Applicant's Purpose and Need

An applicant's stated purpose and need is an expression of the underlying goals for a proposed project. The USACE takes an applicant's purpose and need into account when determining the USACE's overall purpose. Mindful of those considerations, the Applicant respectfully submits that the purpose and need of the Proposed Project is as follows.

The Applicant respectfully submits that the purpose of the Proposed Project is to develop, construct, and operate a world-class professional sports practice and training facility along with a state-of-the-art corporate headquarters in northern South Carolina as well additional mixed-use development as on a property that has sufficient contiguous acreage, proximity to Charlotte, direct Interstate highway frontage and/or access, and is located close to a major airport.

The Applicant further contends that the need for the Proposed Project is to provide development of master plan concept that is an innovative mixed-use, pedestrian-friendly community anchored by the National Football League's Carolina Panthers practice/training facilities and corporate headquarters with emphasis on retail, entertainment, research and development, residential dwellings, commercial offices, medical facilities, recreation, and open space uses. The Proposed Project will be built in phases in order to better meet current and expected demand.

Under NEPA regulations, alternatives to be evaluated must be reasonable. The Guidelines also require evaluation of practicable alternatives. The Corps uses the overall project purpose to identify the range of potential alternatives that will be evaluated. If an alternative does not meet the applicant's need, as determined by the Corps, it may be rejected from further consideration.

The Corps' regulatory guidelines further provide:

[T]he applicant's needs, and the type of project being proposed should be considered. The overall project purpose should be specific enough to define the applicant's needs, but not so restrictive as to constrain the range of alternatives that must be considered under the 404(b)(1) guidelines.

USACE SOP.

In consideration of the above criteria, the USACE has determined that the overall purpose of the Proposed Project is:

to develop, construct, and operate a professional sports practice and training facility and corporate headquarters in northern South Carolina as well as additional mixed-use development on a property that has sufficient contiguous acreage, proximity to Charlotte, interstate highway frontage and/or access, and is located close to a major airport.

As further provided above, the Guidelines require that the USACE determine whether a project is water dependent. *Water dependent* means that the project by its very nature requires access or proximity to, or siting within, a special aquatic site to fulfill its “basic purpose.” The Guidelines prohibit the discharge of dredged or fill material in special aquatic sites unless it can be shown that there is no practicable alternative which would have less adverse impact on the aquatic ecosystem. For both water dependent and non-water dependent discharges, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise. A practicable alternative is subject to reasonable interpretation; however, the Guidelines generally define a practicable alternative as one that is “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” 40 C.F.R. § 230.10(a)(2).

In addition to the overall project purpose, the USACE has determined that the basic purpose of the discharges of dredged or fill material associated with the Proposed Project is:

to build a commercial development.

Based on the determination reached by the USACE, the Proposed Project has been deemed not to be water dependent by the USACE, a determination the Applicant does not challenge. Accordingly, as a part of the alternatives analysis contained herein, the application will rebut the presumptions, described above, employed by the USACE.³

3.0 Alternatives Development

Based on the requirements imposed under NEPA, regulations developed by the CEQ, and the USACE, the Applicant initially considered all available alternatives for the Proposed Project.⁴ The goal of this process is to identify and consider the broadest range of possible alternatives, working to

³ The overall project purpose, basic purpose, and water dependency determinations derive from the USACE’s January 13, 2020, letter and request for additional information.

⁴ The NEPA alternatives analysis required consideration of all alternatives for a project has its roots in the fact that NEPA is a procedural statute, rather than one dictating substantive analysis or mandating a particular outcome. At its core, NEPA is a “stop, look, and listen” statute that is intended to result in an informed agency decision making process. The Guidelines impose a stricter, substantive standard to the range of reasonable alternatives identified under NEPA that is designed to arrive at a practicable alternative that has the least adverse impact on the aquatic ecosystem.

narrow the scope of alternatives to the range of reasonable and practicable alternatives that could meet the overall purpose of the Proposed Project. Through the process of developing the purpose and need, the Applicant applied the basic project concepts to the full array of available alternatives in order to guide the identification of a “reasonable range” of alternatives as required by NEPA. Under NEPA, reasonable alternatives include those that are practical or feasible from a technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant. 46 Fed. Reg. 18026 (March 23, 1981).

In identifying and developing this list of alternatives,⁵ the Applicant considered and included alternatives falling within the following categories:

- The proposed alternative;
- Alternatives that would involve no construction and therefore no discharges of dredged or fill material into the waters of the United States (such as the “no action” alternative);
- Alternative offsite locations, including those that might involve less adverse impact to waters of the United States;
- Alternatives which might result in less adverse impact to waters of the United States, including modifications to the alignments, site layouts, or design options in the physical layout and operation of the project to reduce the amount of impacts to the waters of the United States; and
- Alternatives that would involve greater adverse impact to waters of the United States but avoid or minimize other significant adverse environmental consequences.

The range of reasonable alternatives identified in the initial NEPA analysis (through application of the above purpose and need to the full panoply of alternatives) screened out unreasonable alternatives resulting in the reasonable alternatives addressed in the Level 1 analysis.

In addition to meeting the initial “reasonability” requirement under NEPA, the Guidelines impose further restrictions and deliberation on practicability considerations related to the range of reasonable alternatives. Under the Guidelines, the USACE typically only considers those alternatives that are available to the applicant and meet the overall purpose.⁶ In support of the identified alternatives, the

⁵ This analysis considers a range of alternatives which might enhance environmental quality or have a less detrimental effect on the environment than the proposed activity and demonstrates that there is no *feasible* and *prudent* alternative that will have a less environmentally damaging effect. An alternative is *feasible* if it is available and consistent with sound engineering principles, such that the alternative can be successfully constructed or implemented. An alternative is *prudent* if it is economically reasonable in light of the benefits the activity would provide, but cost alone does not render an alternative imprudent.

⁶ See 40 C.F.R. § 230.10(a)(2) (“If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded, or managed in order to fulfill the basic

Applicant is providing documentation that demonstrates that the proposed location and configuration is necessary in order to achieve the project purpose and need with the least environmentally damaging design.

Once the appropriate range of reasonable alternatives is identified, the practicability analysis of the project alternatives is conducted in two levels:

1. Level 1 Analysis is a refined screening process employed to evaluate certain identified reasonable alternatives with respect to consistency with the Proposed Project's purpose and need as well as the overall project purpose.
2. Level 2 Analysis reviews those alternatives that are not screened out during Level 1 Analysis and employs the more rigorous practicability standards under the Guidelines, including:
 - a. Availability;
 - b. Cost;
 - c. Technological considerations, including the state of existing technology to be utilized for the project;
 - d. Logistical considerations, including infrastructure assessments and requirements; and
 - e. Environmental, social, historical, and cultural impacts.

The goal of the Level 2 Analysis is to identify the preferred site location of the Proposed Project.

3. Level 3 Analysis reviews different site designs of the Proposed Project at the preferred site location. Taking into consideration all of the above, the goal of Level 3 Analysis is to provide sufficient information from which the USACE can identify the LEDPA.

4.0 Identification of Alternatives

4.1 Proposed Project Criteria

In furtherance of the purpose and need of the Proposed Project, the Applicant has developed certain criteria necessary to achieve that purpose and satisfy those needs identified by the Panthers and

purpose of the proposed activity may be considered.”). By contrast, a NEPA analysis often requires consideration of alternatives that are not available to the applicant. *See* USACE SOP. The alternatives analysis undertaken by the Applicant satisfies the requirements of both the Guidelines and NEPA alternatives analyses.

discussed herein, as well as fulfills Commerce's statutory purpose set out in S.C. Code Ann. § 13-1-20. In developing these criteria, the Applicant seeks to fulfill its vision of creating a world-class professional sports practice and training facility and corporate headquarters, while also achieving the operational and functionality requirements of a large corporate organization whose mission requires that those facilities be interactive and inviting to the public. To achieve that purpose, the Proposed Project needs to be sufficiently close to Charlotte and Bank of America Stadium, the Panthers' geographic home and stadium, the proposed project site must be of sufficient contiguous acreage to locate the team's facilities and the desired mixed-use development, it needs to be both highly visible and oriented in a way that is easily accessible, providing existing direct access to I-77 or capable of creating same, and it needs to be in sufficient proximity to the Charlotte Douglas International Airport, given the frequent required travel of the Panthers' team and personnel. In consideration of the foregoing, the Applicant determined that the Proposed Project requires, at a minimum, a site that meets the following characteristics and criteria:

- Minimum of 150 acres of available, contiguous, and developable land sufficient to support the planned team and mixed-use development facilities;
- Frontage on or visibility from I-77;
- Existing direct interchange access to I-77, or sufficient acreage to create same;
- Located within 30 miles of Bank of America Stadium; and
- Located within 30 miles of Charlotte Douglas International Airport.

5.0 Range of Alternatives

The goal of providing a list of alternatives that satisfy some or all of the above criteria established by the Applicant is to disclose and evaluate potential impacts that may result from the proposed project and to evaluate the proposed alternative's ability to fulfill the project purpose and need consistent with criteria provided. The Applicant arrived at its preferred alternative after conducting stages of increasingly thorough analysis, while balancing the environmental impacts with economic, technological, and logistical concerns.

The following list provides a narrative explanation (to accompany the graphical representation attached as Exhibit A) of the range of reasonable alternatives identified by the Applicant for consideration for the location of Proposed Project, along with a short, descriptive identification of the alternative:

5.1 No-Action

The Proposed Project is not constructed.

5.2 Hutchinson Site

- a. Tax Map IDs: 664-00-00-022; 664-00-00-021; 664-00-00-020; 664-00-00-011; 664-00-00-009.
- b. The Proposed Project site is comprised of five separate properties comprising approximately 236 acres and is located approximately in between and to the northeast of the City of Rock Hill, and to the southwest of Town of Fort Mill, within the corporate limits of the Rock Hill and in York County. The Property is mostly wooded, raw land, with the exception of a cleared power line easement that runs north to south, the length of the Property. The site currently does not have direct interchange access to I-77, but there is sufficient acreage to create such access. The site is approximately 21 miles southwest of Bank of America Stadium, and 22.8 miles south of the Charlotte Douglas International Airport.

5.3 Aspen Commerce Park

- a. Tax Map IDs: 542-03-01-001; 589-01-01-021
- b. This site is approximately 205.83 acres, of which 163.13 acres are listed as developable, and is located within the corporate limits of the City of Rock Hill, in York County. The property is adjacent to and bounded by Old York Road, to the north, Heckle Blvd to the southwest, Hollis Lakes Road for portions of the south, and a residential neighborhood accessible by Hollis Lakes Road, along with other undeveloped property, to the east. The Rock Hill-York County Airport is adjacent to the northeast part of the property, on the opposite side of Celanese Road. The site is located approximately 5 miles from the city center of Rock Hill, it does not have direct access to I-77, and it does not have the capability of adding an interchange. The site is approximately 25 miles southwest of Bank of America Stadium, and 26.6 miles south of the Charlotte Douglas International Airport.

5.4 Blanchard Blackwell Site

- a. Tax Map IDs: 617-00-00-001; 617-00-00-084; 617-00-00-026; 617-00-00-085; 617-00-00-086
- b. This site is comprised of five properties totaling approximately 167 acres, of which 152 acres are listed as developable, and is located within the unincorporated limits of York County. The property is adjacent to and bounded on the east/southeast side by I-77, with the exception of a carve out area where the Blanchard Machinery facility is located, residential properties accessible by Strawberry Road to the northwest, and

undeveloped property, including the Lazy Hawk Site to the south. The site has direct access to I-77 at Exit 73. The site is approximately 29.4 miles southwest of Bank of America Stadium, and 30.5 miles south of the Charlotte Douglas International Airport.

5.5 Bradley Industrial Park - East

- c. Tax Map ID: 020-13-01-063
- d. This site is approximately 200 acres, of which 64.50 are listed as developable, and is located within the corporate limits of the Town of Fort Mill, in York County. The property is adjacent to and bounded on the west side by Banks Road (2-lane Highway 65), and other undeveloped property on the remaining sides. It is also potentially accessible by residential road JW Wilson Road. The site is approximately 2.6 miles from the Exit 83 interchange of I-77, and 3.6 miles from the Exit 82 interchange of I-77. Due to its location, the site is not capable of accommodating a direct interchange with I-77. The site is approximately 21.4 miles southwest of Bank of America Stadium, and 23.1 miles due south of the Charlotte Douglas International Airport.

5.6 Daimler Site

- a. Tax Map ID: 488-00-00-008
- b. This site is approximately 396 acres, of which 261 acres are listed as developable, and is located within the unincorporated limits of York County. The property is adjacent to and bounded Daimler Blvd., to the north, Charlotte Highway (Hwy 49) to the west/southwest, undeveloped property to the south and east, including portions of Lake Wyle, and is adjacent to Hands Mill Highway (Hwy 274) to the east. The site does not have direct access to I-77 and, due to its location, the site is not capable of accommodating a direct interchange with I-77, but it is located approximately 12.2 miles from the Exit 82 interchange of I-77. The site is approximately 27.4 miles southwest of Bank of America Stadium, and 24.1 miles south of the Charlotte Douglas International Airport.

5.7 Firetower Road Business Park

- a. Tax Map IDs: 542-03-01-001; 589-01-01-021
- b. This site is approximately 100 acres, of which an undetermined amount is developable, and is located within the unincorporated limits of York County. The property is adjacent to and bounded by I-77 to the east/southeast, by Firetower Road to the north, largely undeveloped property to the west, including a portion of Porter Road, and by undeveloped property to the south. The site is located approximately 2.5 miles from the city center of Rock Hill. The site currently does not have direct interchange access to I-77, but there is sufficient acreage to create same. Today, the site is located

approximately 1 mile from Exit 77 interchange of I-77, via Marine Drive. The site is approximately 25.7 miles southwest of Bank of America Stadium, and 27.4 miles south of the Charlotte Douglas International Airport.

5.8 Highway 274 Steadman Site

- a. Tax Map IDs: 490-00-00-044; 490-00-00-011
- b. This site is comprised of two properties totaling approximately 172 acres, of which an undetermined amount is developable, and is located within the unincorporated limits of York County. An additional 230 acres are listed as available, although they are not listed as contiguous. The property is bounded by Campbell Road to the north, and shows access to Hands Mill Highway (Hwy 274) to the east. The remaining portions of the property are bounded by undeveloped properties. The site does not have direct access to I-77 and, due to its location, the site is not capable of accommodating a direct interchange with I-77. The site is approximately 31 miles southwest of Bank of America Stadium, and 23.5 miles southwest of the Charlotte Douglas International Airport.

5.9 Lazy Hawk Site

- a. Tax Map ID: 615-00-00-005
- b. This site is approximately 122 acres, of which an undetermined amount is developable, and is located within the unincorporated limits of York County. The property is adjacent to and bounded by I-77 to the east/southeast. It is accessible by Lazy Hawk Road, to the north, and the property boundary is near Bechtler Road, to the south. The remaining boundaries are undeveloped land, and includes the Blanchard Blackwell Site to the north. The site currently does not have direct interchange access to I-77, but there is sufficient acreage to create same. Today, the site is approximately 1 mile from the Exit 73 interchange of I-77. The site is approximately 31 miles southwest of Bank of America Stadium, and 31.3 miles south of the Charlotte Douglas International Airport.

6.0 Alternatives Analysis

6.1 Level 1 Analysis

Level 1 of the alternatives analysis evaluates the range of reasonable alternatives for their ability to best satisfy the purpose and need criteria of the Proposed Project. This step of the analysis is intended to identify on a macro level which of the alternatives might reasonably meet the purpose and need, and those alternatives that clearly do not meet the requisite criteria were not considered further within this analysis.

The Level 1 screening evaluated eight (8) potential alternative locations, including the No-Action Alternative. These sites were assessed with respect to varying aspects of their location, size, and general site characteristics within the primary characteristics and criteria identified by the Applicant.

Alternatives		Minimum 150 acres of contiguous developable land	Frontage on or visibility from I-77	Existing direct I-77 interchange or sufficient acreage to add interchange	Within 30 miles Bank of America Stadium	Within 30 miles of Charlotte Douglas International Airport
1.	No Action (No Build)	○	○	○	○	○
2.	Hutchinson Site	●	●	●	●	●
3.	Aspen Commerce Park	●	○	○	●	●
4.	Blanchard Blackwell Site	●	●	●	Ø	Ø
5.	Bradley Industrial Park - East	○	○	○	●	●
6.	Daimler Site	●	○	○	●	●
7.	Firetower Road Business Park	○	●	Ø	●	●
8.	Highway 274 Steadman Site	Ø	○	○	Ø	●
9.	Lazy Hawk Site	○	●	●	○	○

- = passes criterion
- = fails criterion
- Ø = partially passes criterion

As a result of the Level 1 analysis applied above, six (6) of the identified alternatives were eliminated as not reasonably being able to fulfill the purpose and need of the Proposed Project (*i.e.*, failing not less than two of the criteria). The eliminated alternatives include:

- *No Action (No Build)*
 - The No-Action (No Build) alternative fails to meet any of the purpose and need criteria of the Proposed Project. Notwithstanding, this alternative is retained for further comparison in the alternatives practicability analysis in order to ensure a complete environmental impact evaluation, as well as provide a baseline comparison to other alternatives in the Level 2 analysis.
- *Aspen Commerce Park*

- The Aspen Commerce Park fails to meet two (2) of the primary characteristics and criteria identified by the Applicant. Although the site is a minimum of 150 acres, is within 30 miles of Bank of America Stadium, and within 30 miles of Charlotte Douglas International Airport, the site does not have frontage on or visibility from I-77, or existing direct I-77 interchange (or sufficient acreage to add interchange). Because this alternative fails to meet the basic minimum site requirements of the Proposed Project, it was eliminated from consideration by Level 1 analysis.
- *Bradley Industrial Park – East*
 - The Bradley Industrial Park – East fails to meet three (3) of the primary characteristics and criteria identified by the Applicant. Although the site is within 30 miles of Bank of America Stadium and Charlotte Douglas International Airport, the site does not have a minimum of 150 acres of contiguous developable land, frontage on or visibility from I-77, or existing direct I-77 interchange (or sufficient acreage to add interchange). Because this alternative fails to meet the basic minimum site requirements of the Proposed Project, it was eliminated from consideration by Level 1 analysis.
- *Daimler Site*
 - The Daimler Site fails to meet two (2) of the primary characteristics and criteria identified by the Applicant. Although the site is a minimum of 150 acres, is within 30 miles of Bank of America Stadium, and within 30 miles of Charlotte Douglas International Airport, the site does not have frontage on or visibility from I-77, or existing direct I-77 interchange (or sufficient acreage to add interchange). Because this alternative fails to meet the basic minimum site requirements of the Proposed Project, it was eliminated from consideration by Level 1 analysis.
- *Highway 274 Steadman Site*
 - The Highway 274 Steadman Site fails to fully meet four (4) of the primary characteristics and criteria identified by the Applicant. Although the site is within 30 miles of Charlotte Douglas International Airport, that is the only characteristic and criteria that it fully meets. In turn, the site is 31 miles from Bank of America Stadium, and while the site is 172 acres, the amount of developable land is undetermined at this time, while the additionally-listed 230 acres is not contiguous to the property. Further, the site does not have frontage on or visibility from I-77, or existing direct I-77 interchange (or sufficient acreage to add interchange). Because this alternative fails to meet the basic minimum site requirements of the Proposed Project, it was eliminated from consideration by Level 1 analysis.
- *Lazy Hawk Site*
 - The Lazy Hawk Site fails to meet three (3) of the primary characteristics and criteria identified by the Applicant. Although the site has frontage on or visibility from I-77, as well as existing direct I-77 interchange (or sufficient acreage to add interchange), it is not within 30 miles of Bank of America Stadium and Charlotte Douglas International Airport, and the site does not have a minimum of 150 acres of contiguous developable land. Because this alternative fails to meet the basic minimum

site requirements of the Proposed Project, it was eliminated from consideration by Level 1 analysis.

6.2 Level 2 Analysis

The Level 2 analysis evaluates the three site locations that passed a majority of the characteristics and criteria established by the Applicant, as well as the no action alternative, by comparing additional factors to determine which alternative provides the least environmentally damaging practicable alternative and meets the overall purpose of the Proposed Project.

6.2.1 No Action Alternative

The No Action alternative means either no permit is to be required or that a permit is to be denied. In this specific case, the Applicant submits that it is not possible to fulfill the purpose and need of the project, meeting the characteristics and criteria identified by the Applicant, while entirely avoiding wetland impacts. Therefore, the No Action alternative would be equivalent to permit denial. Permit denial would meet the overall project purpose *only if* there was another parcel available that could accommodate the Proposed Project, including the characteristics and criteria identified by the Applicant, with no wetland impacts and no other significant environmental impact or effect.

Although selection of the No Action Alternative would render this analysis futile, the No Action Alternative is nevertheless retained as a baseline for evaluation of a Build Alternative. Under the No Action Alternative, the Applicant would be unable to meet the identified need of a world-class professional sports practice and training facility, a state-of-the-art corporate headquarters, along with an adjacent mixed-use and integrated development. Under the No Action Alternative, this identified need would not be met such a facility in South Carolina, but would instead not be built at all or be located in a less efficient and connected location.

Commerce is obligated under its statutory authority and responsibility to pursue such actions and projects as will meet the long-term strategic needs of potential clients, including the contribution to economic development in South Carolina through the cultivation and stimulation of the types of facilities proposed here by the Panthers. Because the No Action Alternative would fulfill neither Commerce's nor the Panthers' strategic missions, and would also not effectuate the Proposed Project's purpose and need, it was eliminated from consideration through this Level 2 analysis.

6.2.2 Hutchinson Site

The Hutchinson Site alternative was identified by the Applicant as the preferred location of the Proposed Project because it uniquely satisfies all of the characteristics and criteria identified by the

Panthers for the development of its proposed team facilities, as well as the associated and mixed-use facilities.

First and foremost, the site is of sufficient size (236 acres) to accommodate the Proposed Project, including all planned team and mixed-use facilities. The Proposed Project is intended to accommodate, and thereby consolidate, the majority of the Panthers' non-gameday activities, personnel, and facilities into a single integrated site. It is imperative from the Applicant's perspective that these facilities be able to accommodate the streamlining of operations, while also becoming a destination for fans, businesses and events. To that end, the design of the Proposed Project has been developed under a master plan concept that is innovative in its proposal for a mixed-use, pedestrian-friendly community anchored by the Panthers' practice/training facilities and headquarters offices, as well as an emphasis on retail/entertainment, employment, research and development, residential dwellings, recreation, and open space uses. This concept requires sufficient contiguous acreage to accommodate these facilities in a thoughtful and useful way. The Hutchinson Site thus fulfills the Applicant's initial characteristic and criteria.

Second, the site provides both frontage on and visibility from I-77. The Panthers are a brand, and likely any great brand, the Panthers seek a project site that provides it the ability to increase brand awareness. Creating awareness of the Panthers' facilities to individuals traveling in the I-77 corridor is an intrinsic benefit to the team and its business, as well as any future businesses that decide to co-locate their facilities within the mixed-use development. The Hutchinson site thus fulfills this characteristic and criteria of the Applicant as well.

Third, while the site does not have an existing interchange providing direct access to I-77, there is sufficient acreage to accommodate the planned construction of a new interchange. Given the nature of the Panthers' business, which is expected to attract a significant number of fans and visitors, in addition to team and corporate employees, as well as any associated businesses that co-locate their facilities within the mixed-use development, ease of ingress and egress to the site is imperative to the operational success of the site by the Applicant. Because direct interstate access can be achieved, the Hutchinson site thus fulfills this characteristic and criteria of the Applicant as well.

Finally, the site is within 30 miles of Bank of American Stadium and Charlotte Douglas International Airport. As described above, while the Proposed Project will consist of the practice and training facility and corporate headquarters of the Panthers, the team's gameday stadium – Bank of American Stadium – is located in downtown (Uptown) Charlotte. The location of these proposed facilities must therefore be close enough to the stadium in order to allow Panthers' personnel, both team and corporate, along with all of the associated support systems, to be efficiently run and managed in a manner required by a professional sports team. The travel distance between this Proposed Project site and the international airport and stadium are less than the other two site alternatives, which results in less highway miles and less air emissions from vehicle traffic between these locations for Panthers' business. Because the

Hutchinson Site is within the mileage window identified by the Applicant, it fulfills this characteristic and criteria as well.

In addition, and finally, the site is also under common ownership, resulting in an impact to a single landowner for acquisition and construction purposes. The adjoining parcels are not developed, providing for a buffer for the Proposed Project in the immediate future, potential future expansion, and no interference with neighboring businesses. There are no cultural resource issues on the site. There would be environmental impacts to waters of the United States.

6.2.3 Blanchard Blackwell Site

The Blanchard Blackwell Site alternative was carried through to Level 2 analysis based on its ability to satisfy, at the macro-level, the majority of the primary characteristics and criteria identified by the Applicant for the Proposed Project including, principally, its size and available acreage, as well as its frontage on I-77, and the potential for direct interchange access. However, the site failed to fully satisfy the Level 1 criteria in several respects. First, while the amount of available acreage is listed as 167 acres, with 152 acres listed as developable, additional available information suggests that the amount of developable acreage could be as low as 111 acres, accounting for areas designated as buffers and easements. In addition, the site's proximity to both Bank of America Stadium, as well as Charlotte Douglass International Airport does not fully meet the criteria identified by the Applicant. While the distance to each is close to the threshold identified by the Applicant, the 30-mile radius represented the very outer limit of properties that could be considered reasonable, given the substantial amount of travel expected by team and corporate personnel on nearly a daily basis. These increases in the travel distance between this location and the international airport and stadium, result in more highway miles and more air emissions from vehicle traffic between these locations for Panthers' business. Given the availability of suitable alternatives within the 30-mile radius threshold, the Blanchard Blackwell Site's failure to fully meet this critical criterion of the Applicant contributed to the determination of unsuitability of the alternative to meet the purpose and need of the Project.

In addition, while the site is under single ownership, resulting in an impact to a single landowner for acquisition and construction purposes, the layout of developable land within the property is atypical as it relates to I-77 and lacks sufficient interstate frontage. In particular, an adjoining parcel to the site is currently developed for industrial use as the Blanchard Caterpillar (Cat) Machinery Rock Hill facility, and that parcel occupies the majority of the frontage on I-77, located in the middle of the site. As a result, the available acreage wraps around the Cat property in a horseshoe shape, decreasing the amount of I-77 frontage. The result is that a majority of the available acreage for development is located behind the Cat facility with no I-77 frontage. As discussed above, interstate frontage is an important consideration for the Panthers due to the brand awareness that a location along a heavily-traversed section of interstate can provide, in addition to the inherent benefit such a location provides to team and corporate personnel traveling to the site on a regular basis. Because design layouts accounting for the Cat facility would necessarily have to wrap around this manufacturing facility, cutting off valuable and necessary interstate frontage and necessitating the placement of the Panthers'

facilities away from the interstate and behind the Cat facility, the site does not fulfill the Applicant's critical criterion and further contributed to the determination of unsuitability of the alternative to meet the purpose and need of the project.

Finally, a wetlands delineation of the site has been conducted and indicates that there would be unavoidable impacts to 0.07 acres (3,022/sf) of jurisdictional wetlands, as well as 648 linear feet (0.14 acres, 6,217/sf) of tributary streams by the location of the Proposed Project on the site, given its size; therefore, there would also be environmental impacts to waters of the United States as a result of locating the Proposed Project at the Blanchard Blackwell Site. Cultural resource impacts on the site are also unknown.

As a result of the issues identified and the less suitable and desirable impacts and location, the Applicant determined that the Blanchard Blackwell Site did not meet the characteristics and criteria identified by the Applicant for the Proposed Project.

6.2.4 Firetower Road Business Park

The Firetower Road Business Park Site alternative was carried through to Level 2 analysis based on its ability to satisfy, at the macro-level, the majority of the primary characteristics and criteria identified by the Applicant for the Proposed Project including, principally, its frontage on I-77. But it has no direct interchange access and the parcel is simply too small to accommodate the planned development. In addition, the location is also farther away from the international airport and stadium than the preferred alternative, which increases the travel distance between this location and the international airport and stadium, resulting in more highway miles and more air emissions from vehicle traffic between these locations for Panthers' business.

The site is under multiple ownership, resulting in a more difficult acquisition process. Further, an adjoining parcel is currently developed for industrial use, which could impact expansion plans or create interference issues. Cultural resource impacts on the site are unknown.

Finally, a preliminary wetlands investigation of the site indicates that there are approximately 2,423 linear feet of streams which would be unavoidably impacted by the location of the Proposed Project on the site, given its size; therefore, there would also be environmental impacts to waters of the United States as a result of locating the Proposed Project at the Firetower Road Business Park.

As a result of the issues identified and the less suitable and desirable impacts and location, the Applicant determined that the Firetower Road Business Park Site did not meet the characteristics and criteria identified by the Applicant for the Proposed Project.

Level 2 Conclusion:

Consideration of these alternatives reveals that there are no practicable alternatives available to the Applicant, and which meet the project purpose and needs, that do not include impacts on special

aquatic sites exist. Moreover, of the range of reasonable alternatives considered by the Applicant, the Hutchinson Site is uniquely capable of accommodating the Applicant's characteristics and criteria for a world-class professional sports practice and training facility, a state-of-the-art corporate headquarters, along with an adjacent mixed-use and integrated development.

6.3 Level 3 Analysis

Level 3 of the Alternatives Analysis traditionally focuses on the site layout in terms of positioning the proposed project within the site in a manner that incorporates the consideration of accessibility, efficiency, and the site's environmental impacts. Due to the size and scope of the project, which is dictated by the Applicant's desire to accommodate the streamlined operations of all non-gameday activities, personnel, facilities, and corporate offices into a single integrated site, onsite alternatives were necessarily constrained by the need to fulfill the basic functionality of the purpose of the site. Consideration of a number of site-specific alternatives was also constrained by the shape of the Hutchinson Site, where the majority of the developable acreage is located in a southern block, with the additional acreage extending north in a thin segment that parallels I-77. Within the main area of southern acreage, the northern portion of that section of the site abuts residential development, necessitating the incorporation of a buffer area between the development and the Proposed Project, pushing the area of ideal development further south.

In addition, two of the site's primary areas of special aquatic sites are located in the southern acreage, consisting of tributary streams with intermittent wetland areas running roughly parallel to each other, north to south. Due to the size and centralized configuration of the Proposed Project, the project area could not be positioned in a way that would avoid both the tributaries, while a centralized siting might result in impacts to both (*see* Site Layout Alternative B, below). Rather than choose a site layout that would result in impacts to both areas, the Applicant chose to avoid and minimize impacts to the wetlands running along the western boundary of the Property (NWW-5 and Wetland J), which are among the highest quality streams and wetlands on the site. In addition, the Applicant, in conjunction with the South Carolina Department of Transportation (SCDOT), evaluated modifications to the proposed interchange within the limited confines conceivable on the site in order to minimize impacts wetlands. Each option evaluated in Level 3 of the Alternatives Analysis was considered by the Applicant in the development of the Proposed Project in coordination with the requirements, needs, and specifications of the for the site. These site designs reviewed differed from each other slightly, as they were modified over time to reflect considerations and requirements of the Applicant. Each of the alternative site layouts were developed with an eye to minimizing wetland impacts, while still meeting the project purpose and need.

6.3.1 Site Layout Alternative A

Alternative A, depicted in the Applicant's application and attached to this analysis as Exhibit B, is the preferred site layout for the Proposed Project. Alternative A positions the primary practice facilities

of the Panthers at the center of the southern block of acreage. These include sufficient buildings and practice space to accommodate the consolidation of the Panthers' non-gameday activities, personnel, and facilities into a single integrated site, consistent with the purpose and need of the Applicant. This portion of the Proposed Project is Phase 2 and will consist of practice facilities, corporate offices, sports/entertainment venues, a medical office, and a mixed-use village located on the east-central portion of the overall site. Indoor, outdoor, and partially covered athletic fields, weight rooms, wellness facilities, training facilities, spectator viewing areas, and associated facilities associated with football activities will also be located in this area. The location of these facilities and the attendant roads on the site is positioned sufficiently East such that it avoids impacts to Wetland J, as well as minimizes impacts to NWW-5, along the Western boundary of the site. Siting these primary facilities in this manner was a purposeful choice by the Applicant in reviewing iterations of the site design and layout in order to avoid and minimize additional impacts to wetlands.

Phase 2 of the Proposed Project is located along the Eastern boundary of the site, providing the visibility and branding on I-77 that the Applicant desires. This visibility on I-77 will also help the Applicant attract future businesses to co-locate their facilities within the mixed-use development, providing an intrinsic benefit to the Panthers and those businesses, in addition to the practical benefit that the new interstate interchange will provide in terms of ease of ingress and egress to the site.

Due to the size of the Proposed Project, as dictated by the needs of the Applicant, combined with Commerce's desire to fulfill its statutory purpose and responsibility to pursue such actions and projects as will meet the long-term strategic needs of potential clients, including the contribution to economic development in South Carolina through the cultivation and stimulation of the types of facilities proposed here by the Panthers, Alternative A best fulfills the project's purpose and need while maintaining the maximum amount of existing hydrologic features of the site and is the Applicant's preferred alternative.

6.3.2 Site Layout Alternative B

Alternative B, depicted in the Applicant's application and attached to this analysis as Exhibit C, was one of the iterative site layouts for the Proposed Project developed by the Applicant. As described above, the Applicant looked at a number of ways in which the primary Panthers facilities could be aligned and located within the center of the southern block of acreage. Ultimately, Alternative B was eliminated as being unable to fulfill the purpose and need of the project, including the minimum characteristics and criteria of the Proposed Project advanced by the client.

As shown in Exhibit C, Alternative B is oriented with the primary Panthers facilities located further to the north of the southern block of acreage. This concept contemplated access from the I-77 interchange to the Panthers facilities closer to the middle of those facilities than Alternative A. In addition, the primary thoroughfare within the site was contemplated as being more curved in shape, with the Panthers' facilities being the focal point within a circular thoroughfare on the site. Further,

because the Panthers' facilities were located further north, there was additional room for support facilities to be located along the southern border of the site. As shown in Exhibit C, the Phase 2 mixed-use development of the Proposed Project was still located along the eastern side of the site, with visibility on I-77.

Ultimately, a number of factors contributed to the Applicant rejecting Alternative B. First, the circular thoroughfare along the Western boundary of the site would have caused unnecessary impacts to the NWW-5 tributary and Wetland J. These impacts included additional culverts and a partial impoundment to the NWW-5 stream tributary. These impacts would have caused an additional 1,310 linear feet of stream impacts through the impoundment, and an additional 300 linear feet of the stream would have been carried through the additional culverts. Second, it was determined that the project should have a greater buffer between the site development and the existing residential properties bordering the site to the north. This caused the primary Panthers facilities to be shifted further south. The desired buffer also made it impracticable to include an arc to the main thoroughfare to the North of the Panthers facilities. Instead, it was determined that a more linear access drive on an East-West axis cutting across the project site was preferred, allowing for easier direct access from the interchange. Shifting the practice facilities further south meant that there was insufficient space for the additional Panthers' facilities within the circular thoroughfare shown in Exhibit C.

Due to the Applicant's desire to avoid and minimize these additional impacts, as well as provide a sufficient buffer to the existing residential development, the Applicant determined that Alternative B did not fully satisfy the primary characteristics and criteria that it identified and therefore did not fulfill the purpose and need of the Proposed Project.

6.3.3 Site Layout Alternative C

Alternative C, depicted in the Applicant's application and attached to this analysis as Exhibit D, is not an overall site layout for the Proposed Project, but instead looks at two variations of the new I-77 interchange component of the Proposed Project. Exhibit D shows a side-by-side of two of the alternatives considered in conjunction with SCDOT, and more specifically, it shows the proposed new on- and off-ramps for the northbound direction of I-77 at the proposed new interchange. Both of the displayed alternatives show the proposed impacts to the NWW-2A tributary, located to the East of I-77 (*i.e.*, on the opposite side of I-77 from the remainder of the Hutchinson site).

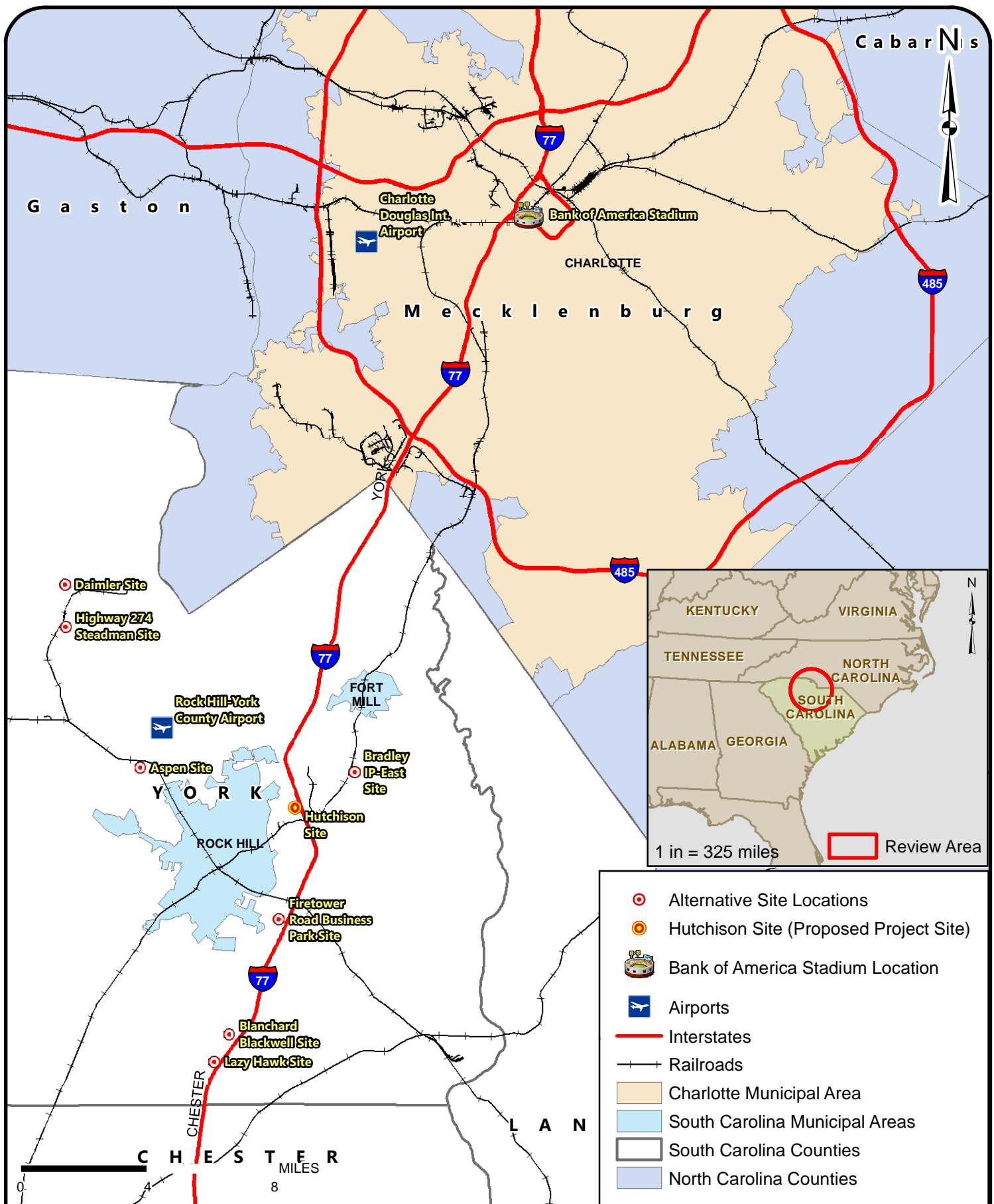
Labeled "Alternative," the first iteration shows a more circular loop for the on-ramp, as well as a longer and less direct off-ramp. Due to the location of the on- and off-ramps, this alternative is estimated to have 944 linear feet of impacts, via both piping and placement of rip-rap.

Labeled "Preferred Alternative," the second iteration shows a flatter loop for the on-ramp, as well as a shorter and more direct off-ramp. The Preferred Alternative is estimated to have 775 linear feet of impacts, via both piping and placement of rip-rap. These proposed changes resulted in approximately

169 linear feet fewer impacts to the NWW-2A tributary than the original. Because Preferred Alternative allowed the Applicant to further avoid and minimize impacts to wetlands, it better fulfilled the characteristics and criteria identified by the Applicant, while also fulfilling the purpose and need of the Proposed Project.

Level 3 Conclusion:

After consideration of alternative site layouts for the Proposed Project at the Hutchinson Site, the Applicant has concluded that Alternative A, combined with the Preferred Alternative for the I-77 interchange, best fulfill the purpose and need of a world-class professional sports practice and training facility, a state-of-the-art corporate headquarters, along with an adjacent mixed-use and integrated development and interstate interchange, that also meets the needs of the Applicant and limits the impact on the environment.



Off-Site Alternative Locations

Project Inspector

Rock Hill, York County, South Carolina

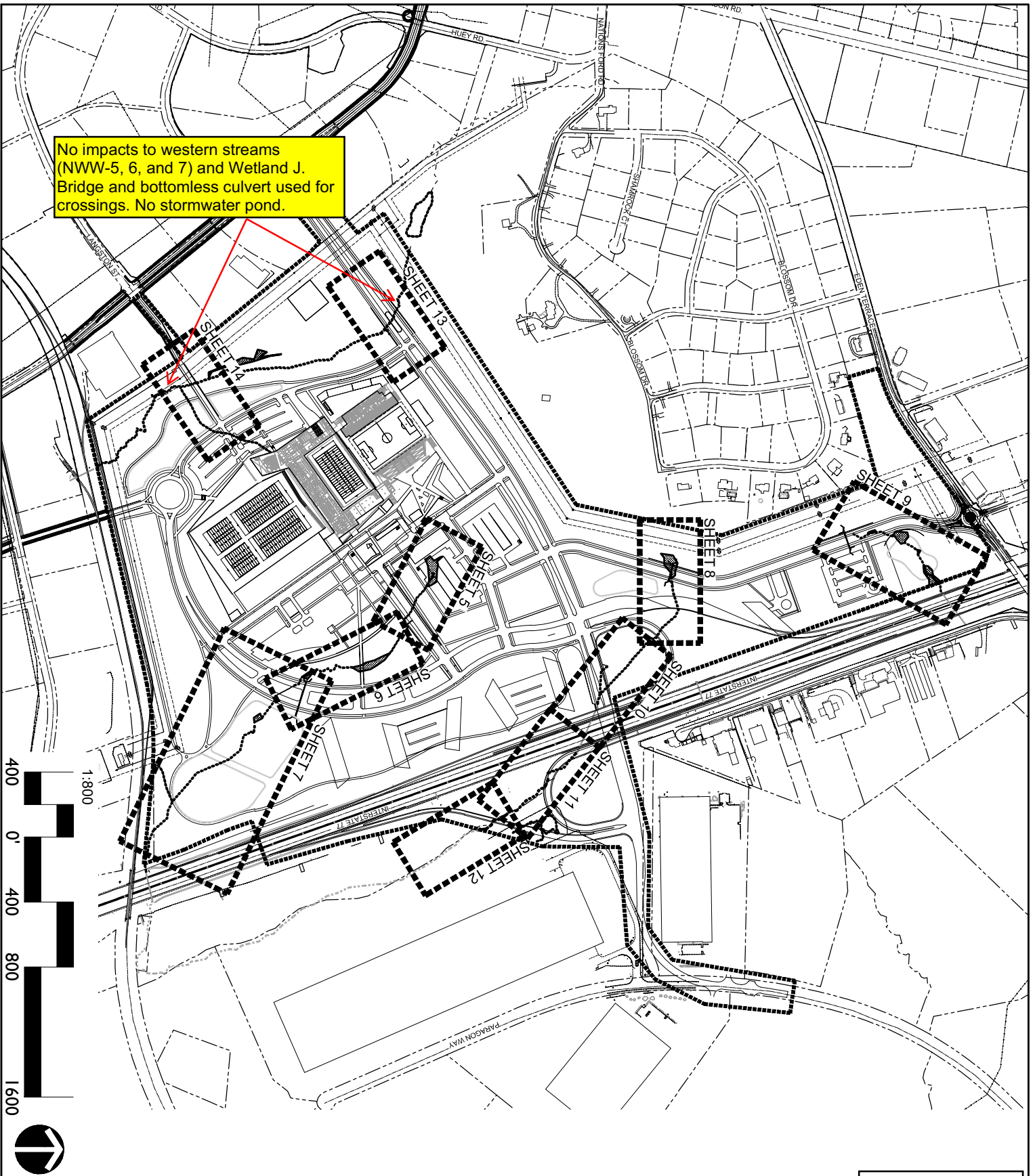
SCALE:
1" = 4 miles

DATE:
11-21-19

EXHIBIT

A

No impacts to western streams (NWW-5, 6, and 7) and Wetland J. Bridge and bottomless culvert used for crossings. No stormwater pond.



APPLICATION TRACKING NUMBER:

SAC- 2019-00924

Impacts
4,991 LF Stream
0.087 AC Wetland

Date: 3/4/20
Scale: As Shown
Project #: 1019189

EXHIBIT B

PROJECT INSPECTOR
ROCK HILL, SC
CAROLINA PANTHERS

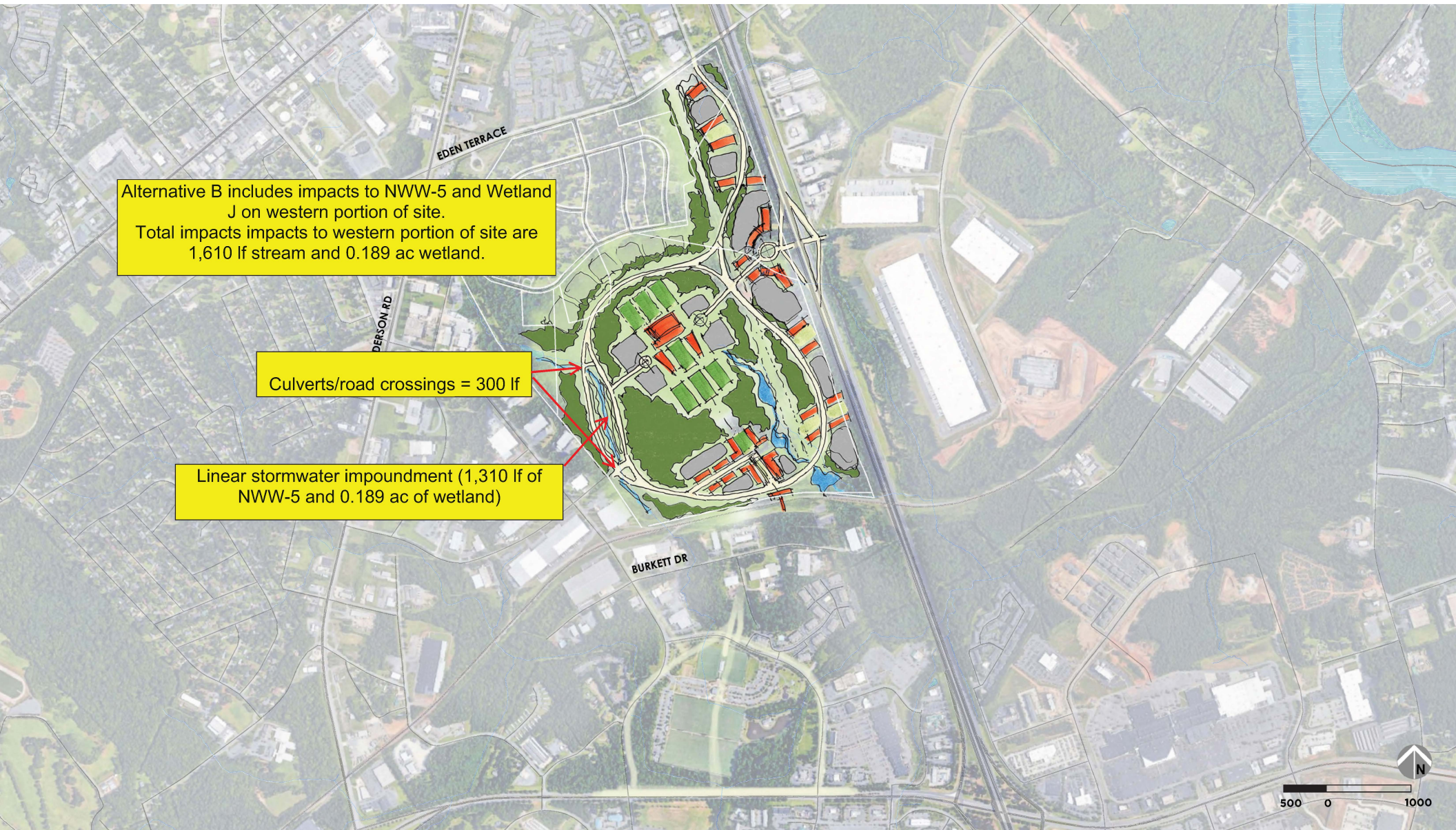
OVERALL SITE PLAN

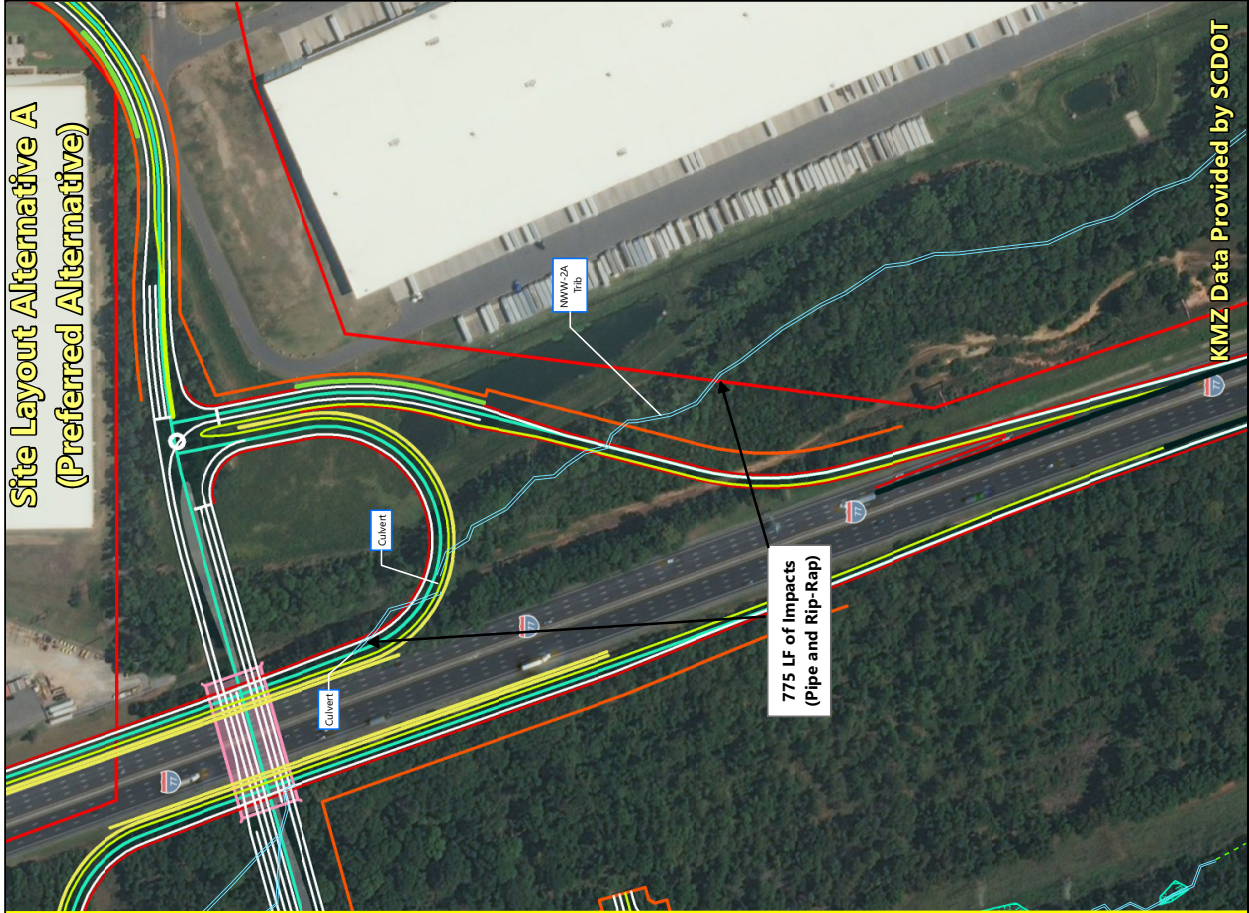
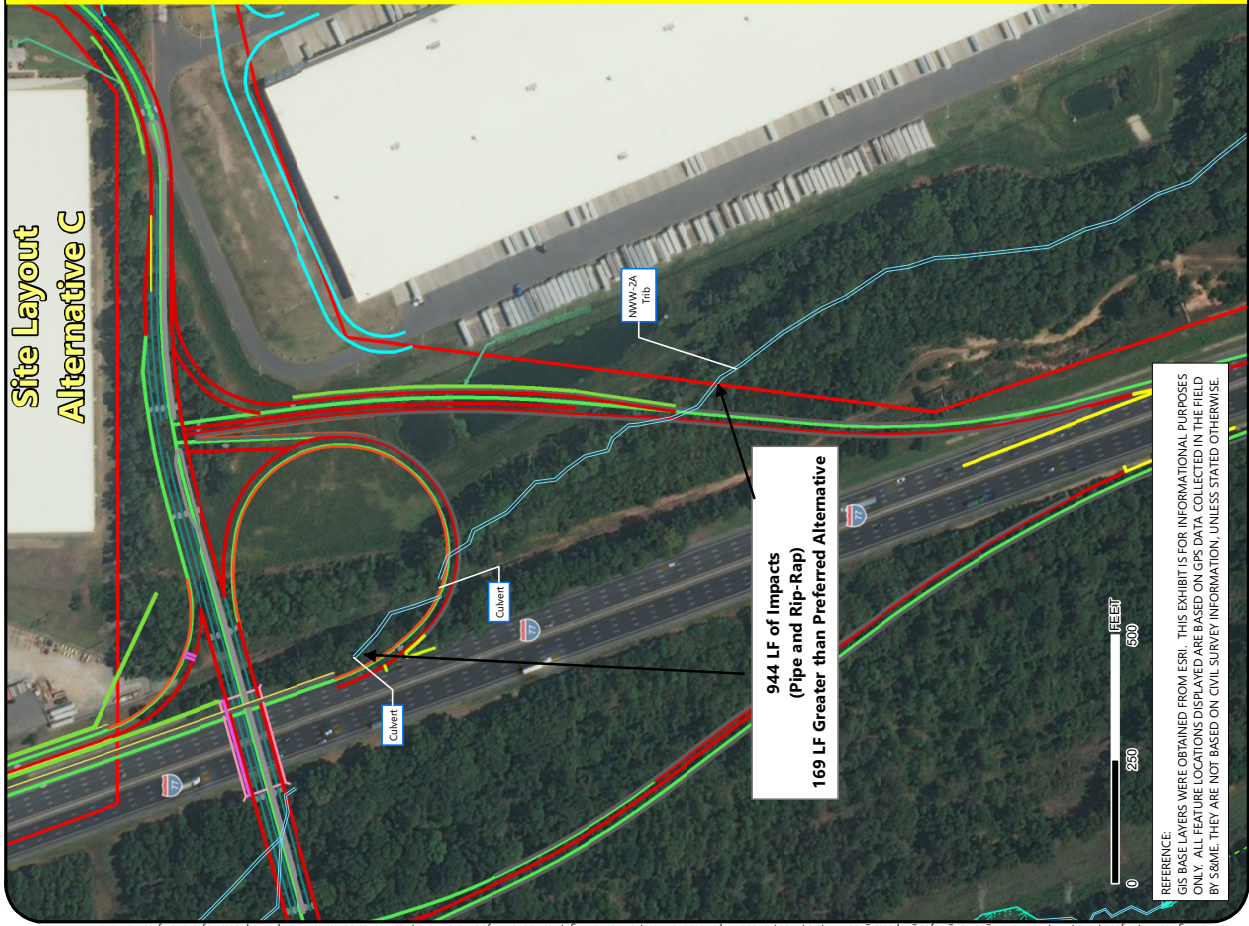
Site Layout A
Preferred Alternative

POPULOUS

LandDesign

223 N Graham Street, Charlotte, NC 28202
V: 704.333.0325 F: 704.333.3246
www.LandDesign.com





On-Site Alternatives Analysis

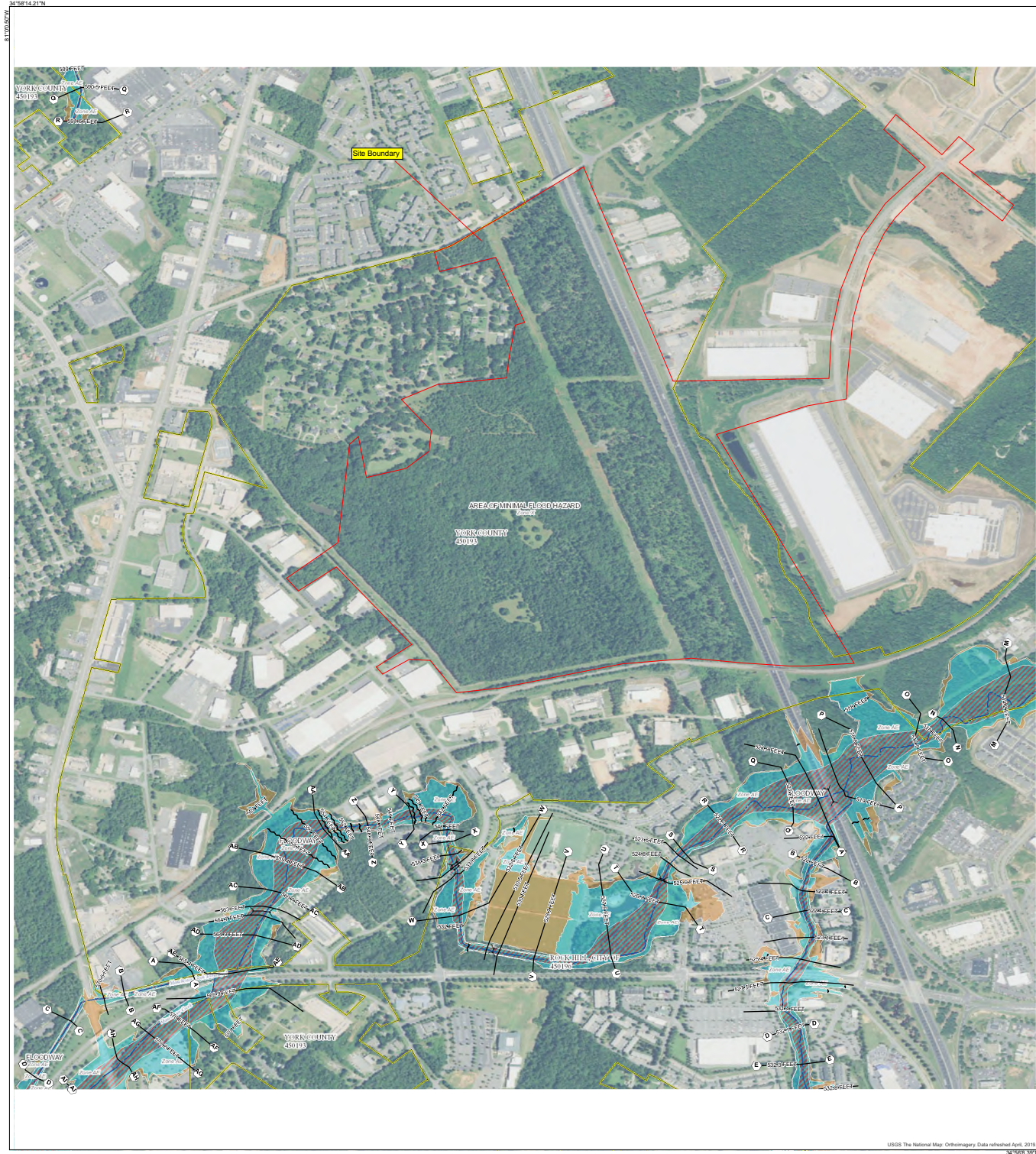
Project Inspector
Rock Hill, York County, South Carolina
World Imagery 2017

SCALE: 1" = 250'
DATE: 3-10-20
PROJECT NUMBER: 4261-19-077
EXHIBIT NO.:

D

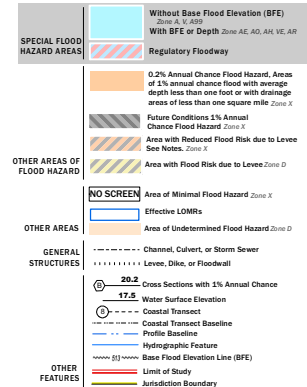
Attachment C

FEMA FIRM



FLOOD HAZARD INFORMATION

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



NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information Exchange at 1-877-FEMA-MAP (1-877-336-3627) or visit the FEMA Flood Map Service Center website at <http://mfc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communications arriving on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM issue. These may be obtained directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6820.

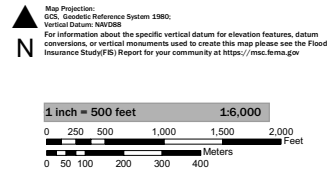
Base map information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAD83, dated April 11, 2019.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on 10/16/2019 9:40:32 AM, and does not reflect changes or amendments subsequent to this date and time. The NFHL, and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>.

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

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifier, FIRM panel number, and FIRM effective date.

SCALE



National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

YORK COUNTY, SOUTH CAROLINA AND INCORPORATED AREAS

PANEL 328 OF 505

Panel Contains:

COMMUNITY	NUMBER	PANEL
YORK COUNTY	450193	0328
SOUTH CAROLINA	450196	0328
ROCK HILL		
CITY OF SOUTH CAROLINA		

MAP NUMBER
45091C0328F
EFFECTIVE DATE
05/16/2017