



UNC Health Care Eastowne Development Agreement Discussion

November 18, 2019

Meeting Purpose

- Prepare for Wednesday's Council meeting;
- Understand UNC-HC's request to the State for draining the pond and stream crossings;
- Discuss opportunities to preserve Natural Heritage Site.

Agenda

- 1. Background + Context**
- 2. UNC-HC's Proposals**
- 3. Environmental Overview**
 - a. The Pond**
 - b. Natural Heritage Site**
- 4. Negotiation Opportunity**

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Council Committee Members:

- Mayor Hemminger
- Council member Gu
- Council member Parker
- Council member Schaevitz
- Council member Stegman (alternate)

February 2019 – Council authorized proceeding with Development Agreement:

- 13 Council Committee meetings;
- 5 community meetings;
- 13 Advisory Board meetings.

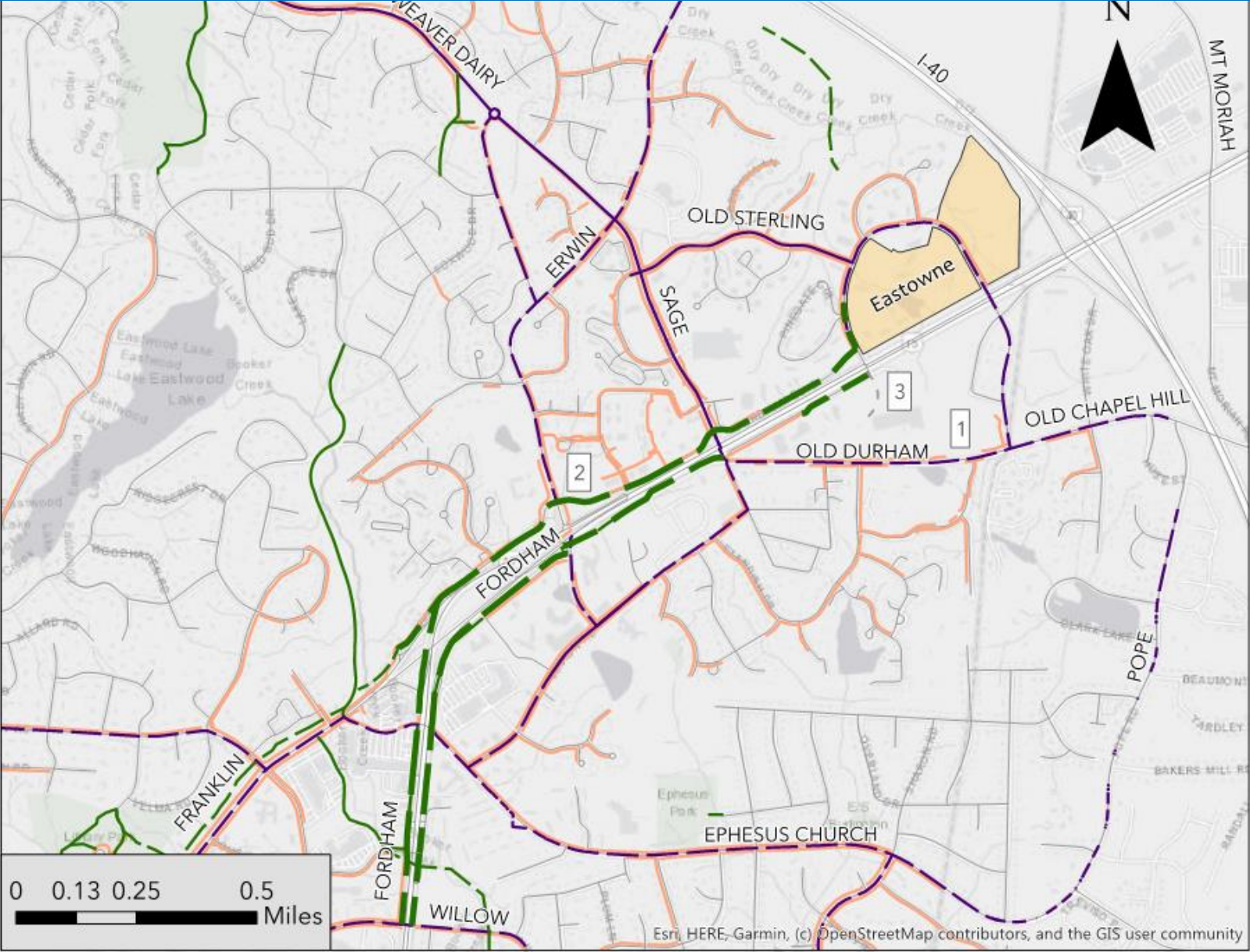
Principles

1. Attractive Design/Appearance
2. Walkable Design
3. Suitable Public Infrastructure for Development
4. Sustainable Building Design
5. Enhance the Natural Environment
6. Support Community Prosperity

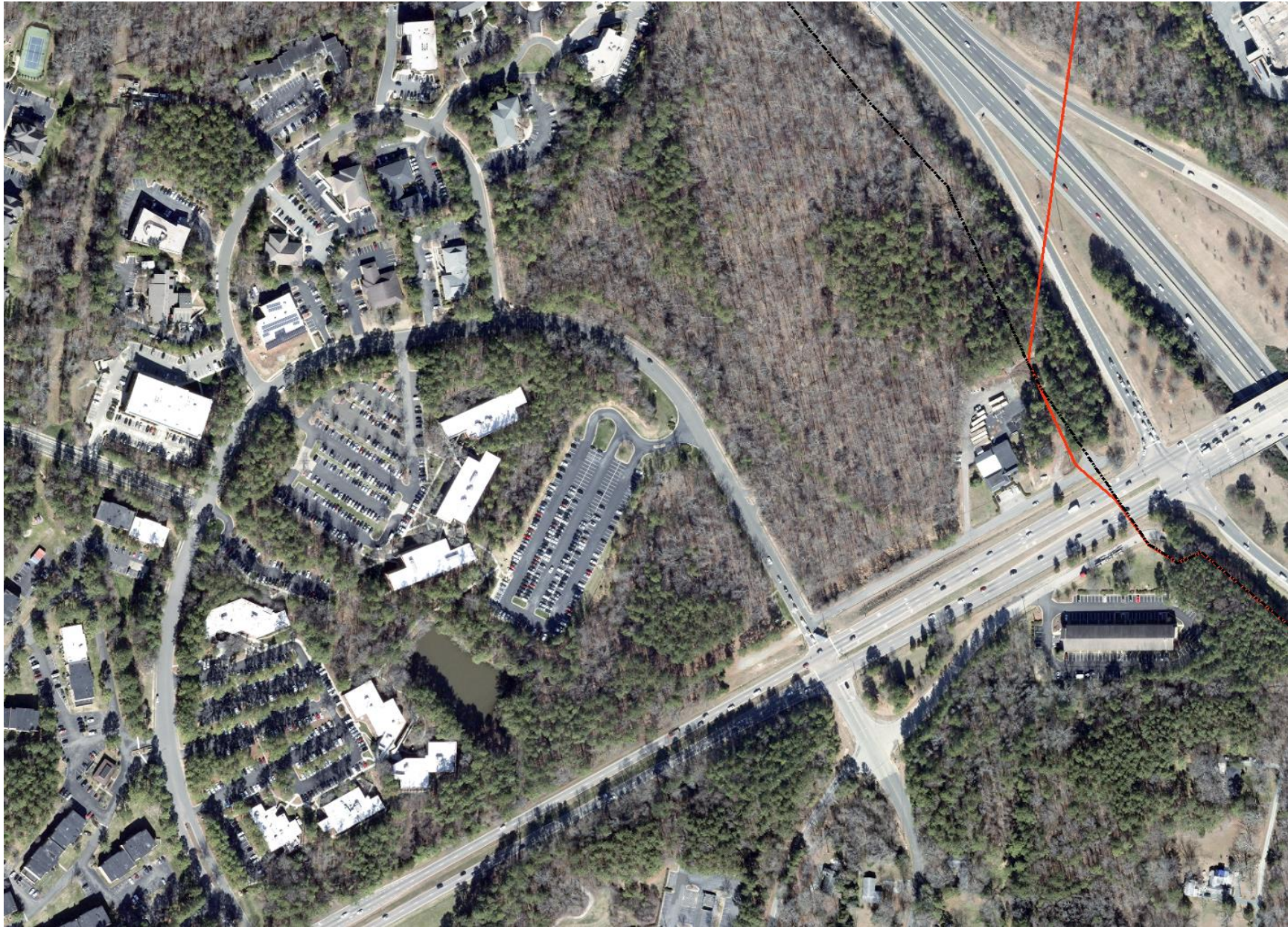
Upcoming Discussion Topics

1. Transportation Impact Analysis
2. Height of buildings?
3. Parking numbers?
4. Pond – drain?
5. Stream – water quality and crossings?

Context



Eastowne



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UNC-NC Alternates 1



UNC-NC Alternates 1



UNC-NC Alternates 2



UNC-NC Alternates 2



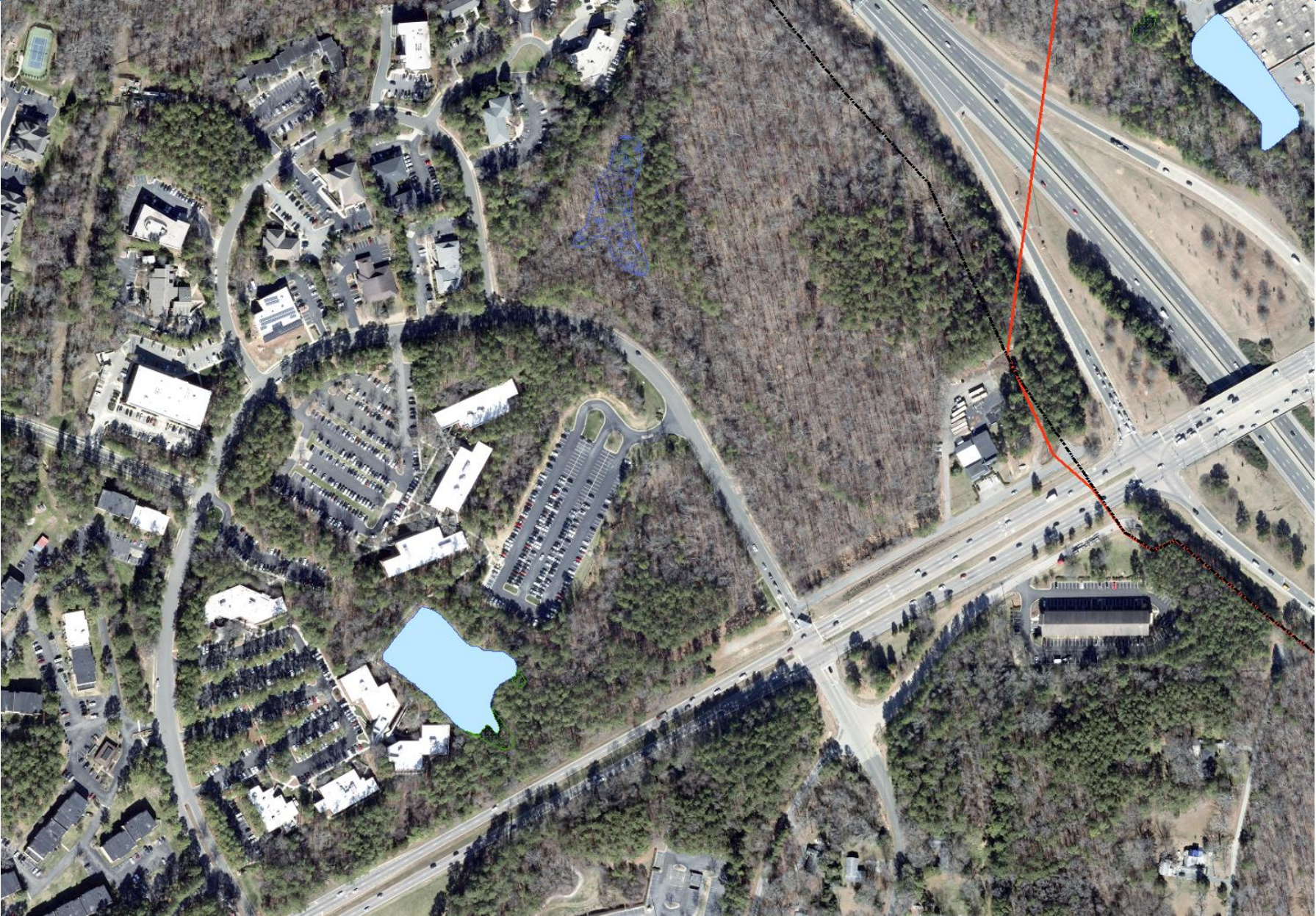
UNC-NC Alternates 2



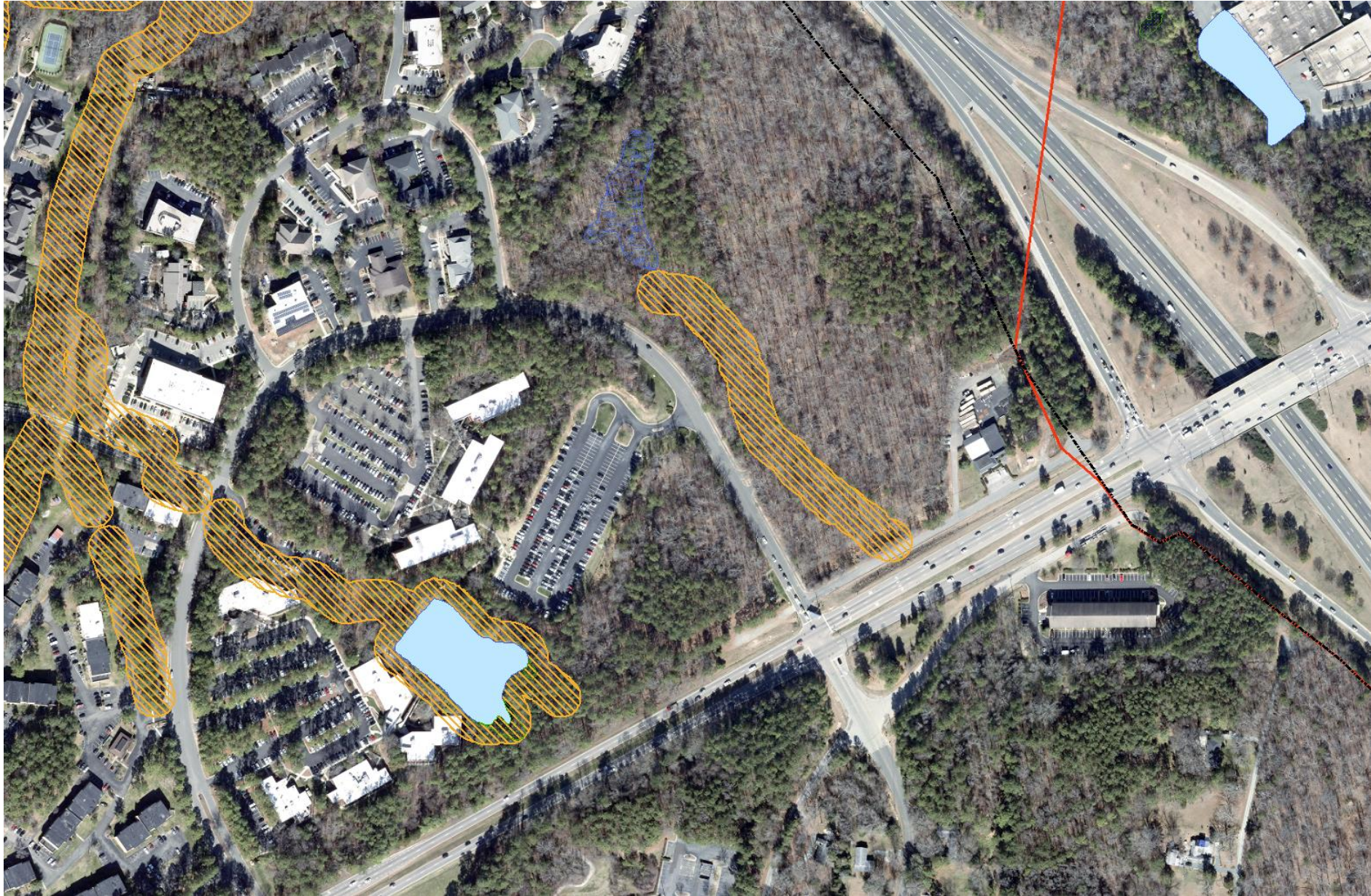
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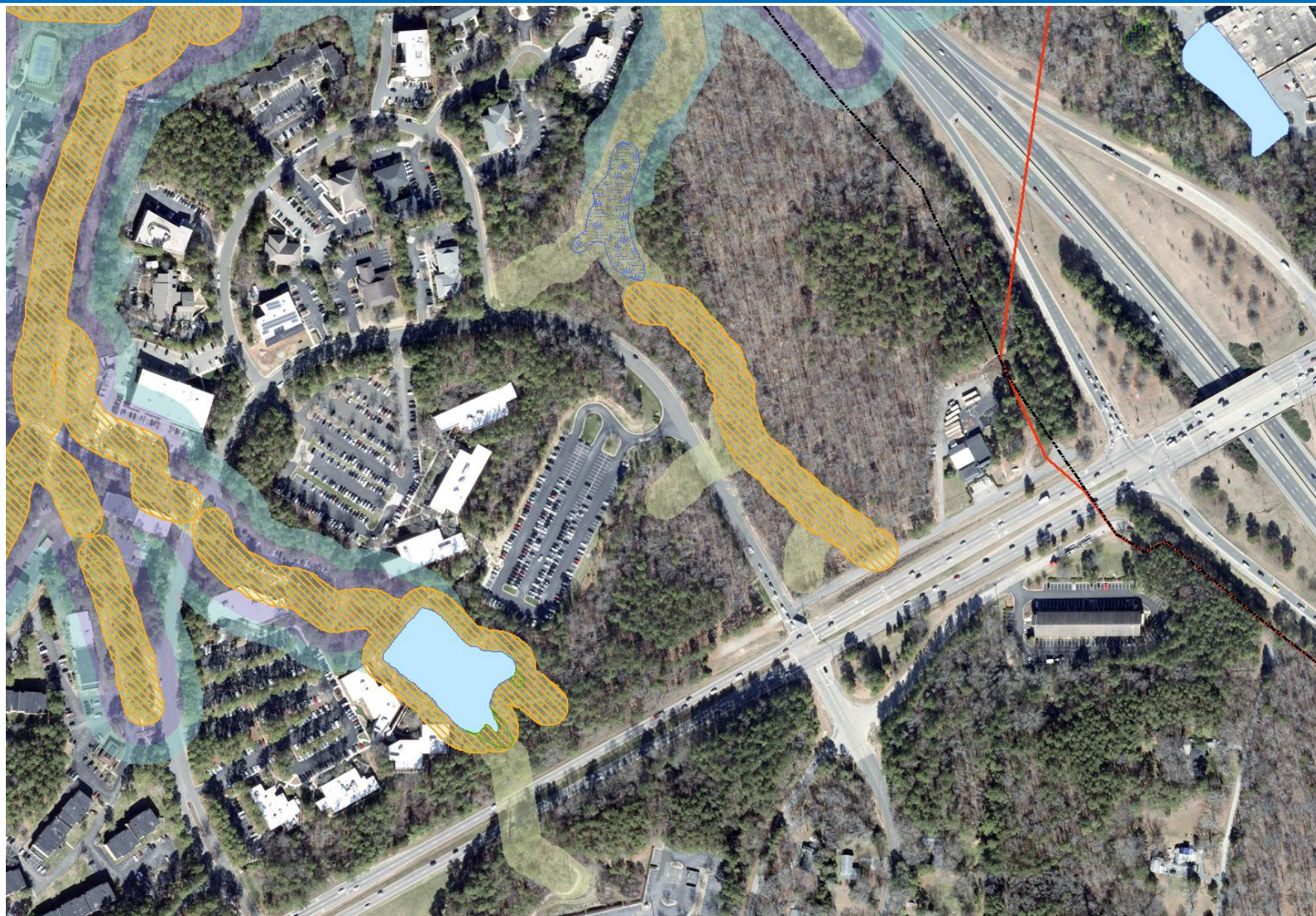
Eastowne Pond



Eastowne Jordan Buffer



Eastowne Resource Conservation District



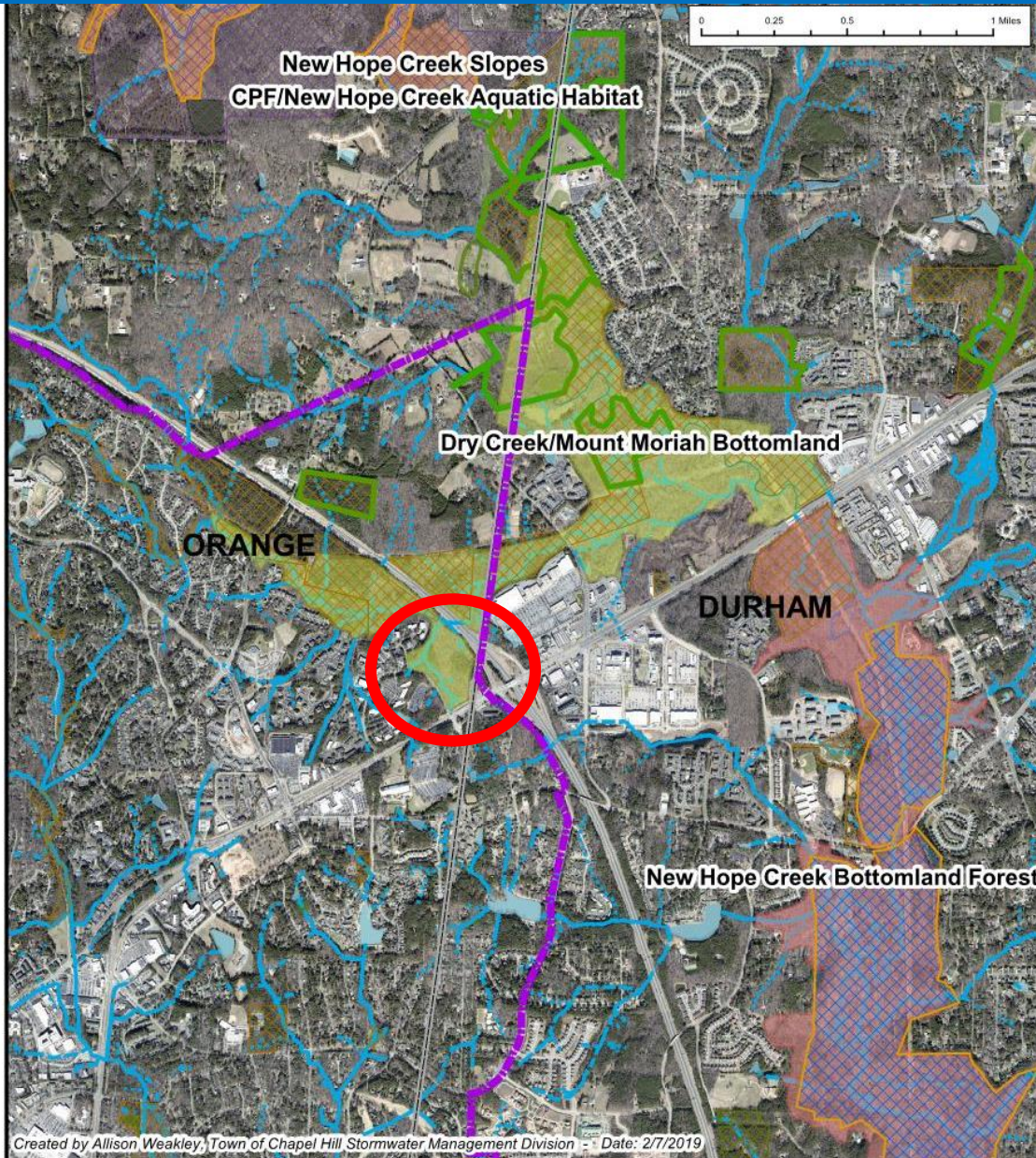
Pond



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Natural Heritage Areas



NC Natural Heritage Areas - Dry Creek/Mt. Moriah Bottomland			
Streams	Waterbodies	Managed Areas	Natural Areas
<ul style="list-style-type: none"> Unclassified Stream Ephemeral Stream Intermittent Stream Perennial Stream Chapel Hill Zoning Jurisdiction 	<ul style="list-style-type: none"> LAKE/POND STREAM/RIVER SWAMP/MARSH UNKNOWN 	<ul style="list-style-type: none"> Registered Heritage Area Conservation Easement Federal Ownership State Ownership Local Government Ownership Private 	<ul style="list-style-type: none"> Exceptional Very High High Moderate



1 inch = 2,500 feet

Created by Allison Weakley, Town of Chapel Hill Stormwater Management Division - Date: 2/7/2019

Suitability Analysis

Suitability Analysis Results

Value

- 0 | Constrained by Regulation
- 4 | Least Suitable
- 5
- 6
- 7
- 8
- 9 | Most Suitable

Suitability Criteria

Suitability Criteria	Criteria Weight (%)
Hardwood Stand	35
Pine Stand	20
RCD	15
Mixed Stand	15
Slope	14
Jordan Buffer	1

0 187.5 375 750 Feet

Tree stand classifications are represented by stand height, where taller stands are more ecologically valuable and therefore less suitable for development.

Slopes are more suitable as percent rise decreases, and steep slopes are slopes greater than 25% rise.

Jordan buffers are classified as Constrained by Regulation due to the various processes required prior to initiating allowable and/or mitigated impacts to a regulatory buffer. Resource Conservation District (RCD) buffers are progressively less restrictive as buffers distances increase. Overall, stream buffers do not affect suitability outside of the buffered area.



Revised 7/17/2019
Revised 10/12/2019
GIS and Planning Division
Town of Chapel Hill

Data sources: US Fish and Wildlife Service
Town of Chapel Hill Enterprise Geographic

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Negotiation Opportunity

**Development area
gained by draining
pond in exchange for
preservation area +
community benefits**



Negotiation Opportunity

1:1 Ratio



Negotiation Opportunity

1:1.5 Ratio



Negotiation Opportunity

1:2 Ratio

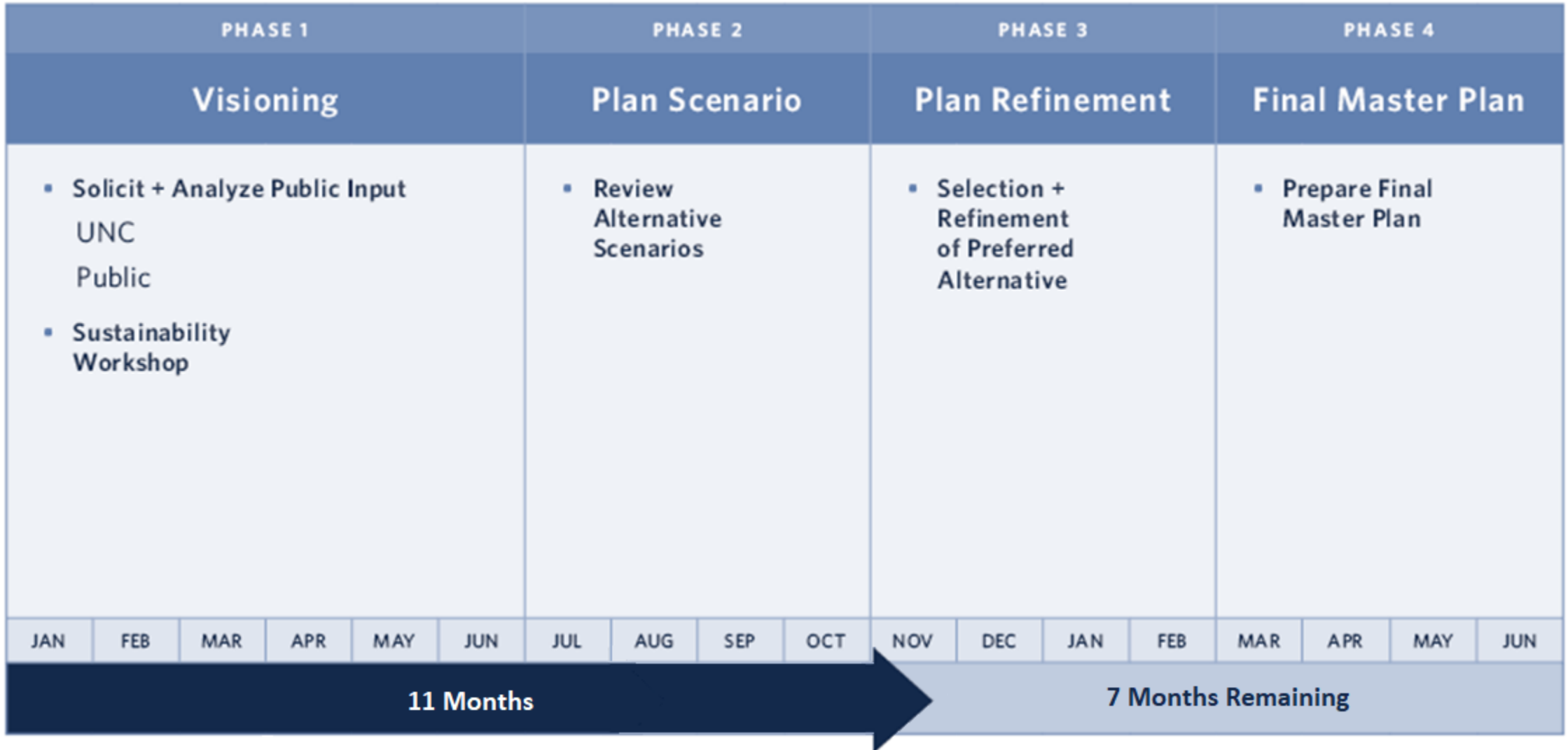


Negotiation Opportunity

1:5 Ratio



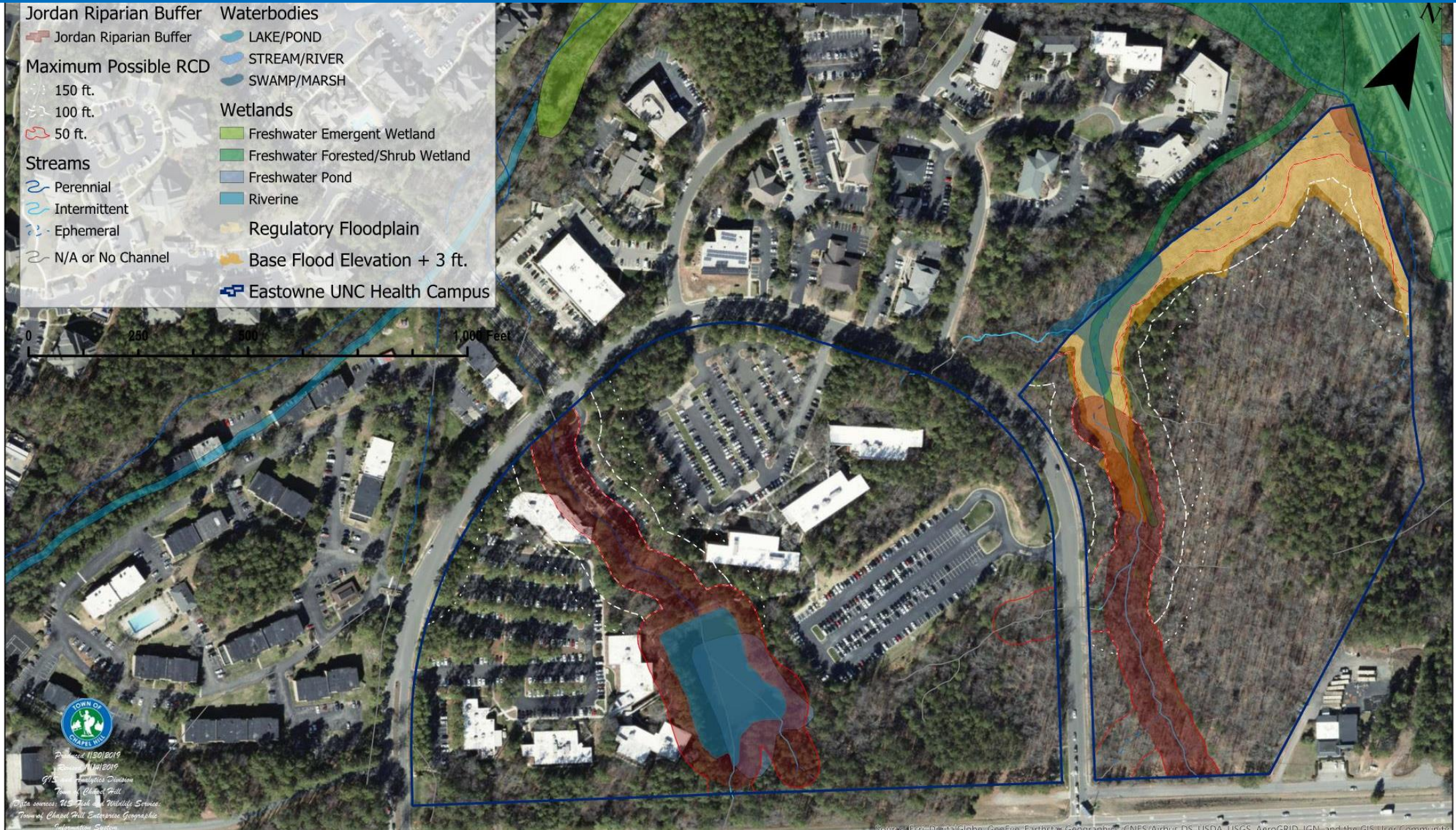
Timeline



Meeting Purpose

- Prepare for Wednesday's Council meeting;
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- Discuss opportunities to preserve Natural Heritage Site.

Hydrology







Tree Canopy Height



Steep Slopes




Streams

Jordan Flow Type

-  Perennial
-  Intermittent
-  Ephemeral
-  N/A or No Channel

Waterbodies

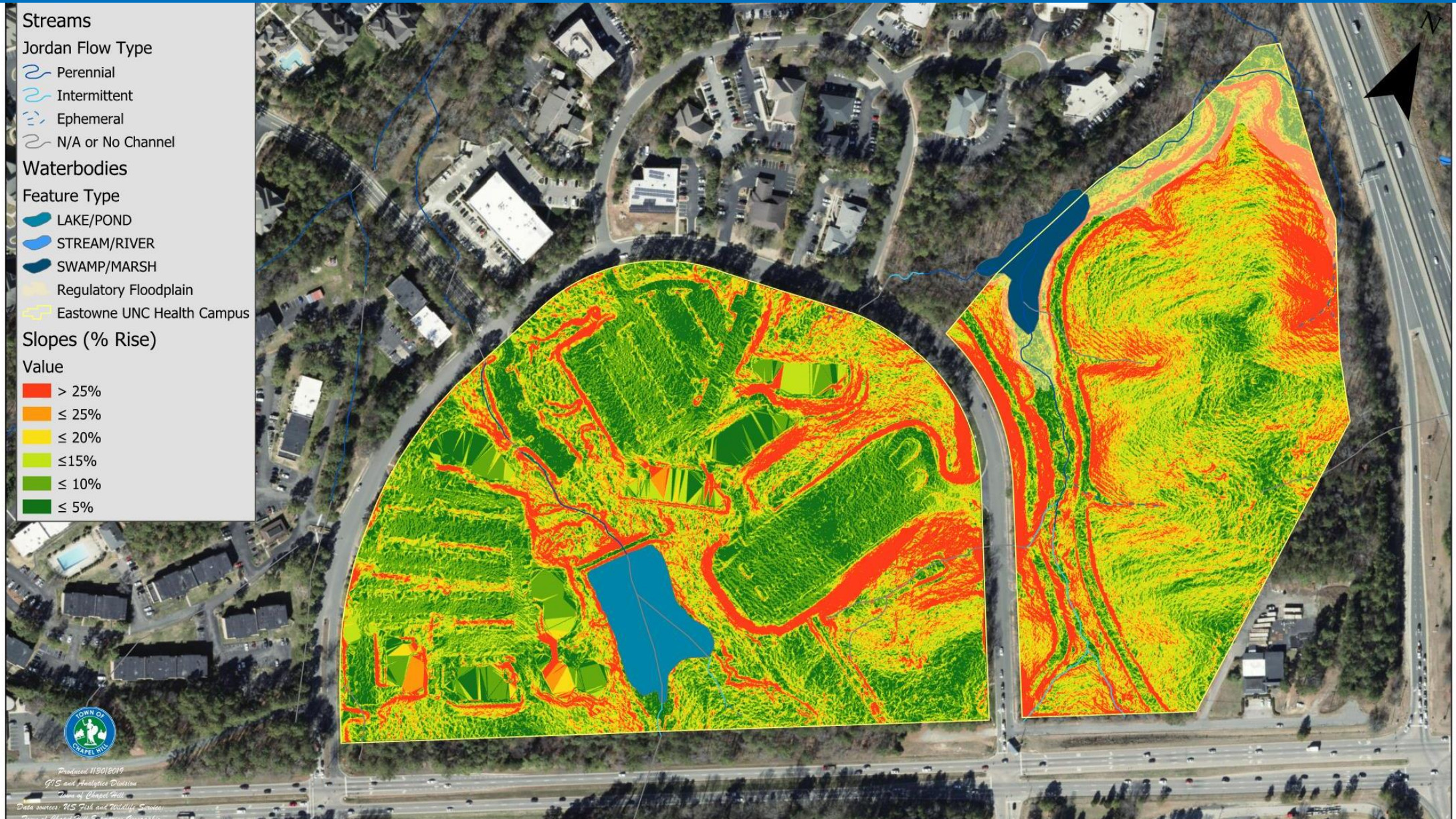
Feature Type

-  LAKE/POND
-  STREAM/RIVER
-  SWAMP/MARSH
-  Regulatory Floodplain
-  Eastowne UNC Health Campus

Slopes (% Rise)

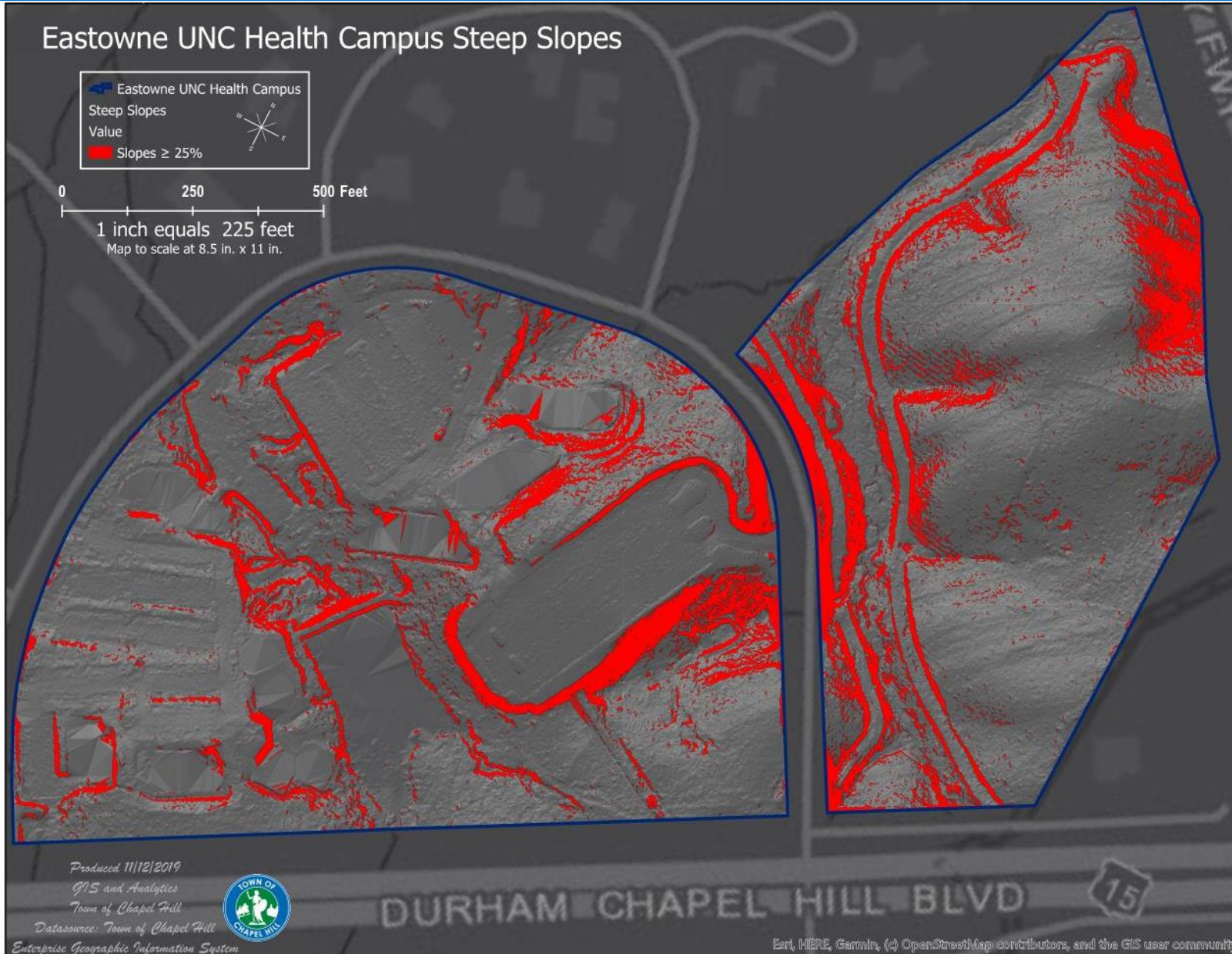
Value

-  > 25%
-  ≤ 25%
-  ≤ 20%
-  ≤ 15%
-  ≤ 10%
-  ≤ 5%



Produced 11/01/2019
GIS and Analytics Division
Town of Chapel Hill
Data sources: US Fish and Wildlife Service
Town of Chapel Hill Geographic Information System

Steep Slopes



Development Area

		NEGOTIATION OPPORTUNITY	LUMO BASE CONDITION	UNC-HC BASE CONDITION	HORSESHOE ONLY	UNC-HC ALTERNATE 1	UNC-HC ALTERNATE 2
Development Area (50.44 acres total)	Northern Parcel (20.54 acres total)						
	Horseshoe (29.90 acres total)						
	TOTAL						

Development Area

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Development Area (50.44 acres total)	Northern Parcel (20.54 acres total)		12.49 acres (8.05 preserved)	12.49 acres (8.05 preserved)			
	Horseshoe (29.90 acres total)		23.27 acres (6.67 preserved)	23.27 acres (6.67 preserved)			
	TOTAL		35.76 acres	35.76 acres			



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Development Area (50.44 acres total)	Northern Parcel (20.54 acres total)		12.49 acres (8.05 preserved)	12.49 acres (8.05 preserved)	0 acres (20.5 preserved)		
	Horseshoe (29.90 acres total)		23.27 acres (6.67 preserved)	23.27 acres (6.67 preserved)	26.83 acres (3.07 preserved)		
	TOTAL		35.76 acres	35.76 acres	26.83 acres		



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Development Area (50.44 acres total)	Northern Parcel (20.54 acres total)		12.49 acres (8.05 preserved)	12.49 acres (8.05 preserved)	0 acres (20.5 preserved)	8.89 acres (11.65 preserved)	
	Horseshoe (29.90 acres total)		23.27 acres (6.67 preserved)	23.27 acres (6.67 preserved)	26.83 acres (3.07 preserved)	26.83 acres (3.07 preserved)	
	TOTAL		35.76 acres	35.76 acres	26.83 acres	35.72 acres	



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Negotiation Framework

		NEGOTIATION OPPORTUNITY	LUMO BASE CONDITION	UNC-HC BASE CONDITION	HORSESHOE ONLY	UNC-HC ALTERNATE 1	UNC-HC ALTERNATE 2
Development Area (50.44 acres total)	Northern Parcel (20.54 acres total)	Development area gained in exchange for preservation area	12.49 acres (8.05 preserved)	12.49 acres (8.05 preserved)	0 acres (20.5 preserved)	8.89 acres (11.65 preserved)	8.89 acres (11.65 preserved)
	Horseshoe (29.90 acres total)		23.27 acres (6.67 preserved)	23.27 acres (6.67 preserved)	26.83 acres (3.07 preserved)	26.83 acres (3.07 preserved)	26.83 acres (3.07 preserved)
	TOTAL		35.76 acres	35.76 acres	26.83 acres	35.72 acres	35.72 acres

FAR	35.76 acres	26.83 acres
1.8M sf	1.15	1.54
2.3M sf	1.47	1.96
2.8M sf	1.80	2.40

NEXT STEPS

DATE	ACTION	TOPIC
November 18, 2019	Work Session	
November 20, 2019	Council Meeting	Pond drainage; Development area
December 2, 2019	Committee Meeting	Environmental Analysis
December 10, 2019	Committee Meeting	Development Density; Buffers; Preservation area
January 6, 2020	Committee Meeting	Stormwater & impervious; Tree Canopy;

Environmental Assessment

Jurisdictional Waters Map



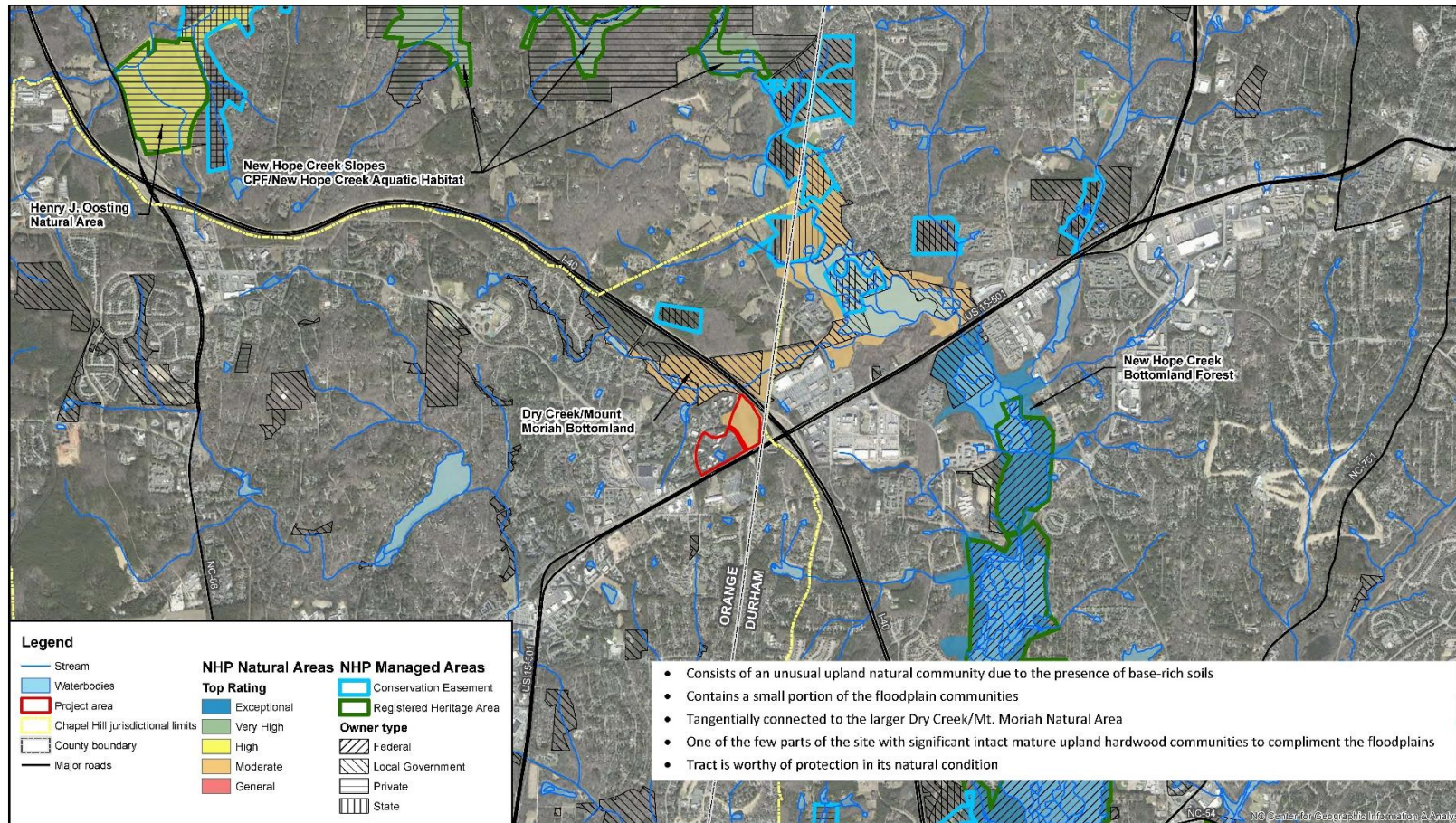
Environmental Assessment

Forest Stand Age Map



Environmental Assessment

Natural Heritage Areas Map



TIA PROCESS

UNC Health Care
Eastowne Property

Transportation Impact Analysis

Project Flow Chart

BLUE = Previous Task

GREEN = Current Task

ORANGE = Future Task



HNTB

Consultant Selection – August 2019



Council Committee Meeting – Initial Traffic
Discussion Memo – 9/16/19



Council Committee Meeting – 9/27/19



Public Input Meeting – 10/3/19



Staff Meeting – Scope Refinement 11/1/19

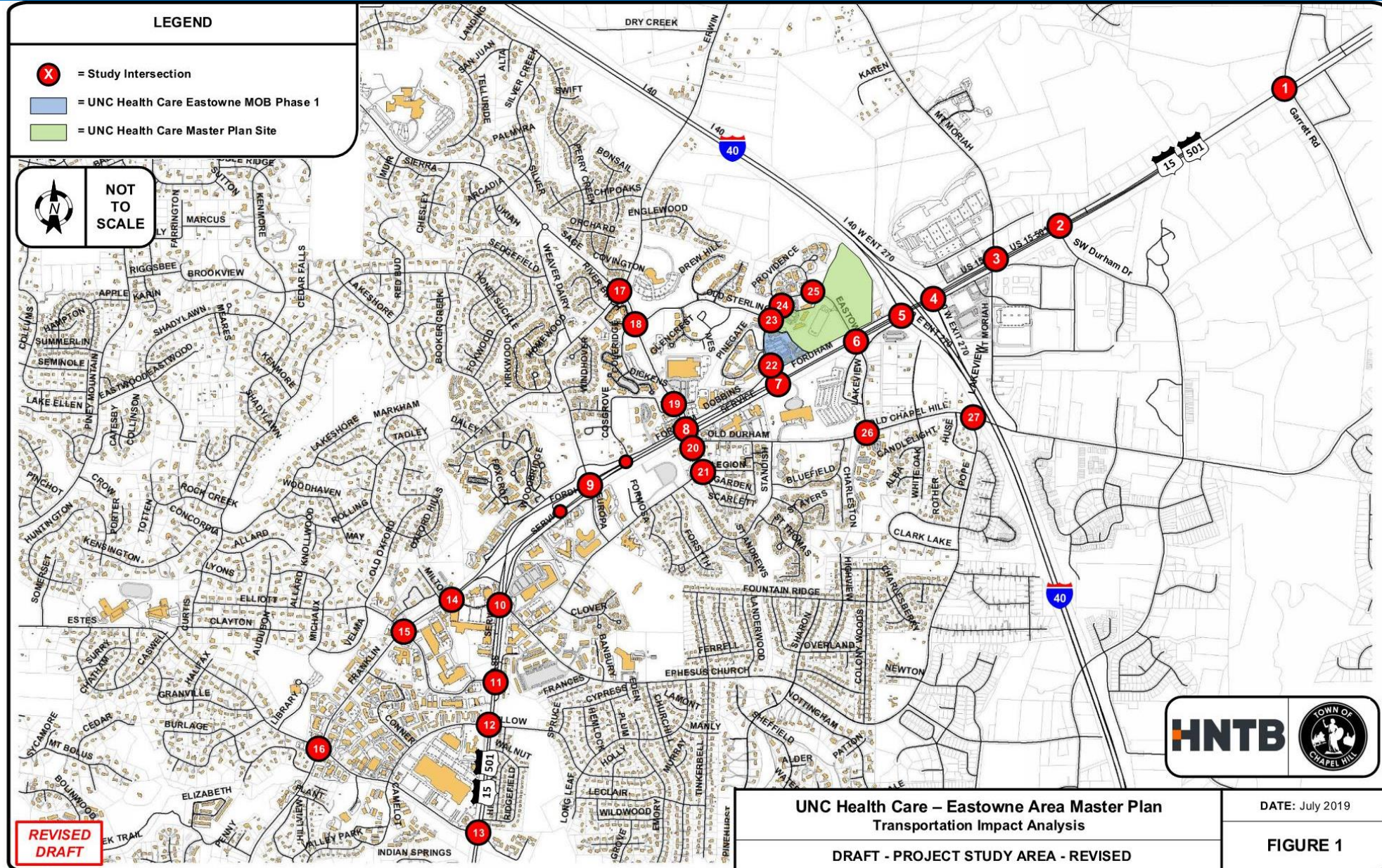


TASK 2 – DATA COLLECTION
TASK 3 – EXISTING CONDITIONS ANALYSIS
11/19 – 01/20 (Tech Memo + Public Mtg)

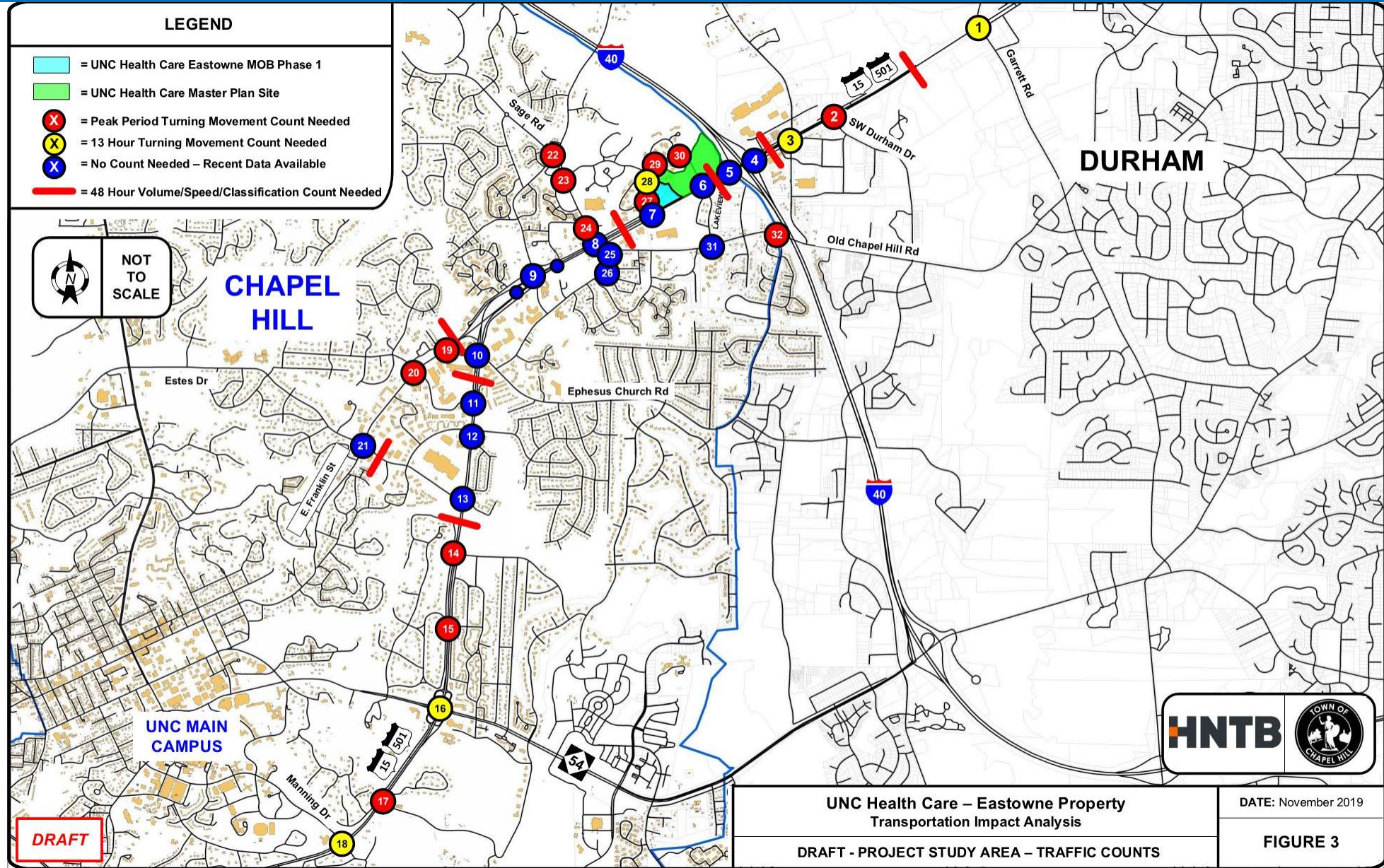


TASK 4 – FUTURE YEAR(S) NO-BUILD,
TASK 5 – FUTURE YEAR(S) BUILD
TASK 6 – FUTURE YEAR(S) BUILD + MITIGATION
TBD 2020 (Tech Memos + Public Mtgs)

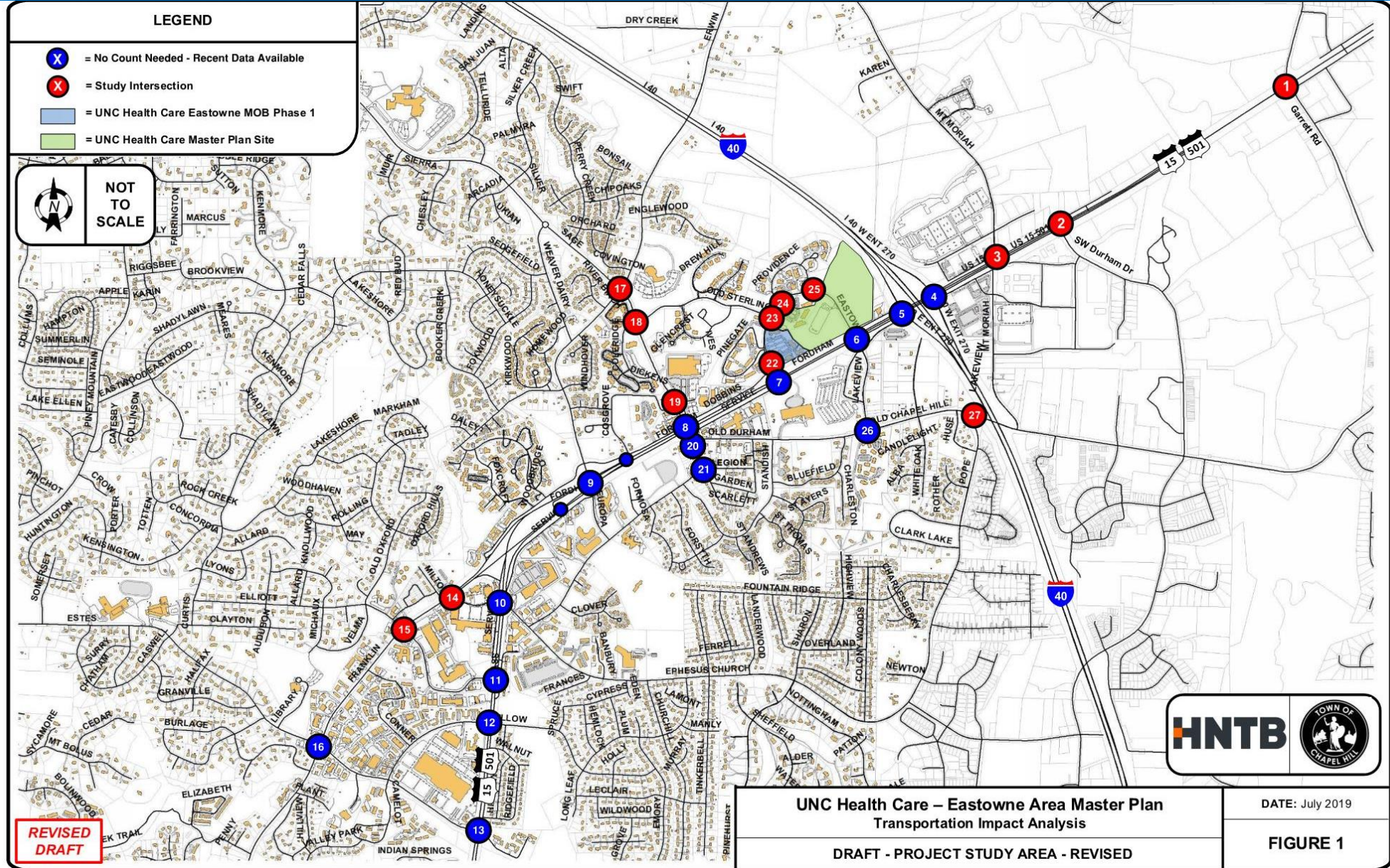
TIA ORIGINAL STUDY AREA

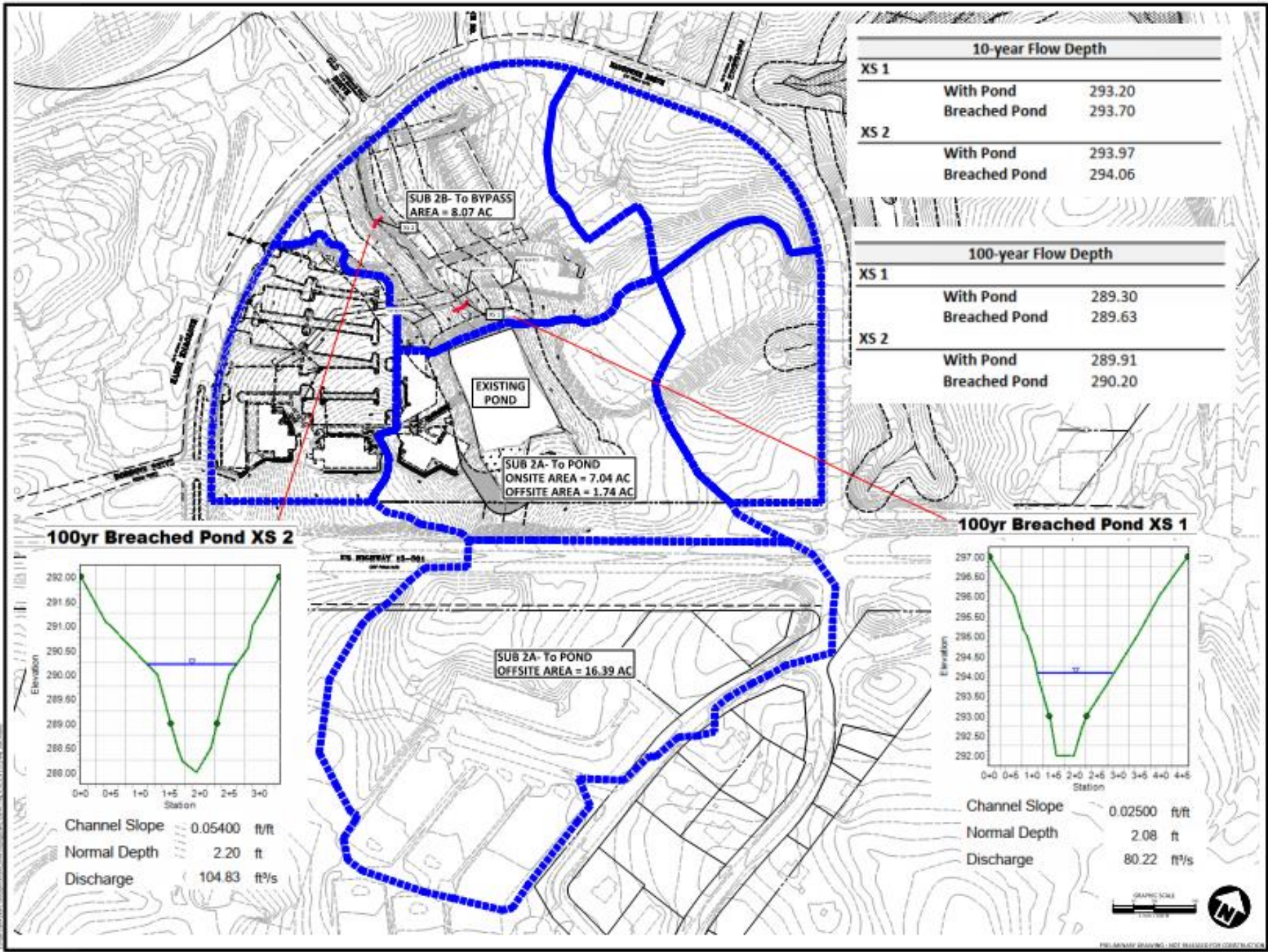


TIA REVISED STUDY AREA



TIA FINAL STUDY AREA

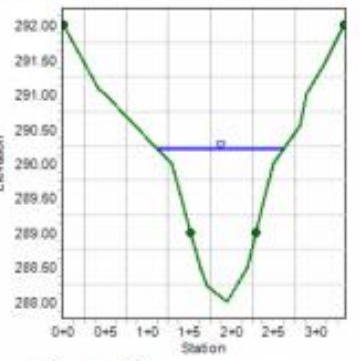




10-year Flow Depth		
XS 1	With Pond	293.20
	Breached Pond	293.70
XS 2	With Pond	293.97
	Breached Pond	294.06

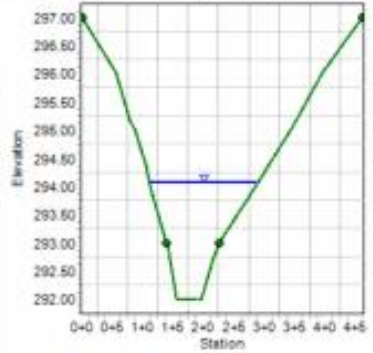
100-year Flow Depth		
XS 1	With Pond	289.30
	Breached Pond	289.63
XS 2	With Pond	289.91
	Breached Pond	290.20

100yr Breached Pond XS 2



Channel Slope 0.05400 ft/ft
 Normal Depth 2.20 ft
 Discharge 104.83 ft³/s

100yr Breached Pond XS 1



Channel Slope 0.02500 ft/ft
 Normal Depth 2.08 ft
 Discharge 80.22 ft³/s



CLIENT
 UNC SYSTEM PROJECTS, LLC
 211 FRESH CENTER DRIVE
 CHAPEL HILL, NC 27517

UNC HEALTH CARE SYSTEM
 EASTOWNE CAMPUS
 EXISTING POND DRAINAGE EXHIBIT
 CHAPEL HILL, NC

REVISIONS
 1. 0.0.001 03/20/17

PLAN INFORMATION
 PROJECT NO: 08A-1708
 DRAWING NO: 08A1708-001
 CHECKED BY: AS
 DRAWN BY: JMO
 SCALE: 1" = 20'
 DATE: 03-23-2014

EXISTING POND DRAINAGE EXHIBIT
EX-1