



TOWN OF CHAPEL HILL

Town Council Meeting Agenda

Town Hall
405 Martin Luther King Jr.
Boulevard
Chapel Hill, NC 27514

Mayor Pam Hemminger
Mayor pro tem Karen Stegman
Council Member Jessica Anderson
Council Member Camille Berry
Council Member Tai Huynh

Council Member Paris Miller-Foushee
Council Member Michael Parker
Council Member Amy Ryan
Council Member Adam Searing

Wednesday, March 15, 2023 6:30 PM

Library Meeting Room B

Language Access Statement

For interpretation or translation services, call 919-969-5105.

ဘာသာပြန်ဆိုခြင်းနှင့် စကားပြန်ခြင်းအတွက်၊ (၉၁၉) ၉၆၉-၅၁၀၅ ကိုဖုန်းခေါ်ပါ။

Para servicios de interpretación o traducción, llame al 919-969-5105.

如需口头或
书面翻译服
务，请拨打
919-969-5105.

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In-Person Meeting Notification

View the Meeting

- *Public attendance is welcome.*
- *We will not live stream the event, but will provide the Post-Meeting Video <https://www.townofchapelhill.org/councilvideo/>*
- *The Town of Chapel Hill wants to know more about who participates in its programs and processes, including Town Council meetings.*
- *Participate in a voluntary demographic survey <https://www.townofchapelhill.org/demosurvey>.*

Parking

- *Parking is available at the Library lots. The Library is served by CL Route, D Route, and GoTriangle Routes of Chapel Hill Transit*

Entry and COVID-19 Protocols

- *Meeting Room B is to the right from the main entrance.*
- *Visitors and employees will self-screen. Do not enter if you have these symptoms: Fever, chills, cough, sore throat, shortness of breath, loss of taste*

or smell, headache, muscle pain

ROLL CALL

OPENING

ANNOUNCEMENTS BY COUNCIL MEMBERS

AGENDA ITEMS

1. Discuss FY 2024 Budget and Five-Year Budget Planning. [\[23-0221\]](#)

PRESENTERS: Chris Blue, Interim Town Manager
Amy Oland, Business Management Director
Brian Litchfield, Transit Director
Dwight Bassett, Economic Development & Parking Services Director
Faith Brodie, Housing Director
Lance Norris, Public Works Director

The purpose of this item is for the Council to continue the FY 2024 budget discussion and five-year budget planning to give staff direction in order to prepare the Manager's Recommended Budget.

2. UNC Health Care Development Update. [\[23-0222\]](#)

PRESENTER: Tas Lagoo, Senior Planner

The purpose of this item is for the Council receive the presentation and provide feedback.

REQUEST FOR CLOSED SESSION TO DISCUSS ECONOMIC DEVELOPMENT, PROPERTY ACQUISITION, PERSONNEL, AND/OR LITIGATION MATTERS



TOWN OF CHAPEL HILL

Town Hall
405 Martin Luther King Jr.
Boulevard
Chapel Hill, NC 27514

Item Overview

Item #: 1., **File #:** [23-0221], **Version:** 1

Meeting Date: 3/15/2023

Discuss FY 2024 Budget and Five-Year Budget Planning.

Staff:

Chris Blue, Interim Town Manager
Amy Oland, Director

Department:

Manager's Office
Business Management

Overview: The purpose of this item is to continue the discussion on the FY 2024 budget. Staff will present information on the status of the Town's enterprise funds and we will continue discussing the funding scenarios related to the five-year budget plan.



Recommendation(s):

That the Council continue the FY 2024 budget discussion and five-year budget planning to give staff direction in order to prepare the Manager's Recommended Budget.



Attachments:

- Draft Staff Presentation

The Agenda will reflect the text below and/or the motion text will be used during the meeting.

PRESENTERS: Chris Blue, Interim Town Manager
Amy Oland, Business Management Director
Brian Litchfield, Transit Director
Dwight Bassett, Economic Development & Parking Services Director
Faith Brodie, Housing Director
Lance Norris, Public Works Director

The purpose of this item is for the Council to continue the FY 2024 budget discussion and five-year budget planning to give staff direction in order to prepare the Manager's Recommended Budget.

BUDGET WORK SESSION

March 1, 2023

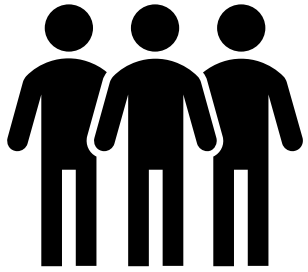
Draft

AGENDA

- General Fund Funding Scenarios
- Enterprise Funds
 - Transit Fund
 - Parking Fund
 - Public Housing Fund
 - Stormwater Fund

Draft

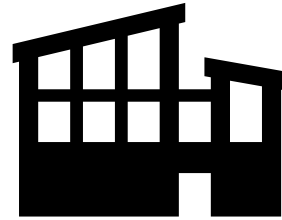
FIVE YEAR PRIORITIES



PEOPLE



SERVICES



FACILITIES



FLEET



HOUSING

draft

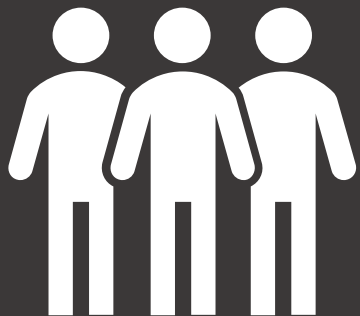
CATCHING UP SCENARIO

	FY 2024	FY 2025	FY 2026 *	FY 2027	FY 2028
Staffing	1,100,000	200,000	300,000	400,000	500,000
Operations	250,000	350,000	450,000	550,000	650,000
Facilities	250,000	250,000	250,000	250,000	250,000
Fleet	500,000	250,000	500,000	250,000	250,000
Parks Capital	971,000	18,000	18,000	18,000	18,000
Fire Capital	250,000	250,000	250,000	250,000	47,000
Affordable Housing	282,605	18,000	18,000	18,000	18,000
Council Initiatives*	500,000	0	0	0	0
TOTAL	4,103,605	1,336,000	1,786,000	1,736,000	1,733,000
Scenario Proposal	4.00 cents	1.50 cents	1.50 cents	1.50 cents	1.50 cents

ENTIRE BACKLOG SCENARIO

	FY 2024	FY 2025	FY 2026 *	FY 2027	FY 2028
Staffing	1,500,000	750,000	750,000	750,000	750,000
Operations	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Facilities	1,000,000	1,000,000	500,000	500,000	250,000
Fleet	1,000,000	1,000,000	500,000	500,000	250,000
Parks Capital	971,000	18,000	18,000	18,000	18,000
Fire Capital	971,000	18,000	18,000	18,000	18,000
Affordable Housing*	282,605	18,000	18,000	18,000	18,000
Council Initiatives	500,000	0	0	0	0
TOTAL	7,224,605	3,804,000	2,804,000	2,804,000	2,304,000
Scenario Proposal	7.50 cents	4.00 cents	2.75 cents	2.75 cents	2.25 cents

* - To meet Affordable Housing needs would take about 3 pennies financed over 20 years or 6 cents in FY 2024



RECRUITMENT
RETENTION
COMPENSATION
CAPACITY

CURRENT BACKLOG

- Recruitment/Retention \$1,000,000
- New positions \$3,200,000

FIVE YEAR GOAL

Catch Up Scenario	Entire Backlog Scenario
\$ 1,000,000	\$ 1,000,000
\$1,500,000	\$3,500,000
26% in FY 2024	35% in FY 2024
60% in 5 years	107% in 5 years



**CORE FUNCTIONS
OPERATIONS
SERVICES**

CURRENT BACKLOG

- Program increases \$2,100,000
- Program expansions \$4,700,000

FIVE YEAR GOAL

Catch Up Scenario	Entire Backlog Scenario
\$ 2,250,000	\$ 5,000,000
4% in FY 2024	15% in FY 2024
33% in 5 years	74% in 5 years



**FACILITIES
MAINTENANCE
CAPITAL PROJECTS**

CURRENT BACKLOG

- \$10,100,000

FIVE YEAR GOAL

Catch Up Scenario	Entire Backlog Scenario
\$ 1,250,000	\$ 3,250,000
2% in FY 2024	10% in FY 2024
12% in 5 years	32% in 5 years

CURRENT BACKLOG

- \$9,300,000

FIVE YEAR GOAL



REPLACEMENT
MAINTENANCE
ELECTRIFICATION

Catch Up Scenario	Entire Backlog Scenario
\$ 1,750,000	\$ 3,250,000
5% in FY 2024	11% in FY 2024
19% in 5 years	35% in 5 years



AFFORDABLE
HOUSING
INITIATIVES

CURRENT BACKLOG

- \$30,000,000

FIVE YEAR GOAL

- Get to one penny

Draft

**ENTERPRISE
FUNDS**



TRANSIT

STORMWATER

PARKING

**PUBLIC
HOUSING**

REALITY CHECK

- **Need to increase staff capacity**, in order to meet regular – and regulatory – demand.
- **We've absorbed annual increased costs**, resulting in an effective budget decrease.
- **Projects coming out of the ground soon**, but we aren't feeling their impact yet.

Draft

TRANSIT

- Compensation, recruitment, retention are critical
- Revenues not keeping pace w/operational expenses
- Inflationary increases on fuel, parts, etc
- Need to expand/improve service
- Capital investments are necessary
- Facility needs/expansion for zero emission fleet
- North/South BRT operating/capital costs

Draft

Transit Fund Update

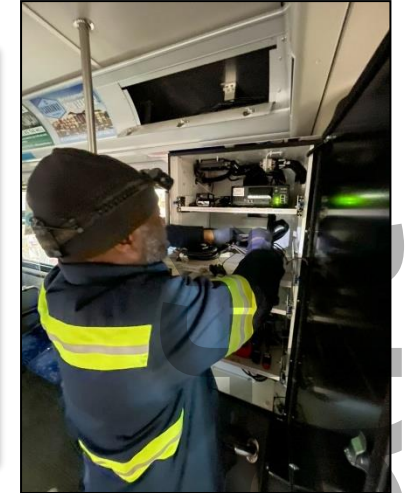


Draft

Transit Fund – FY 2024

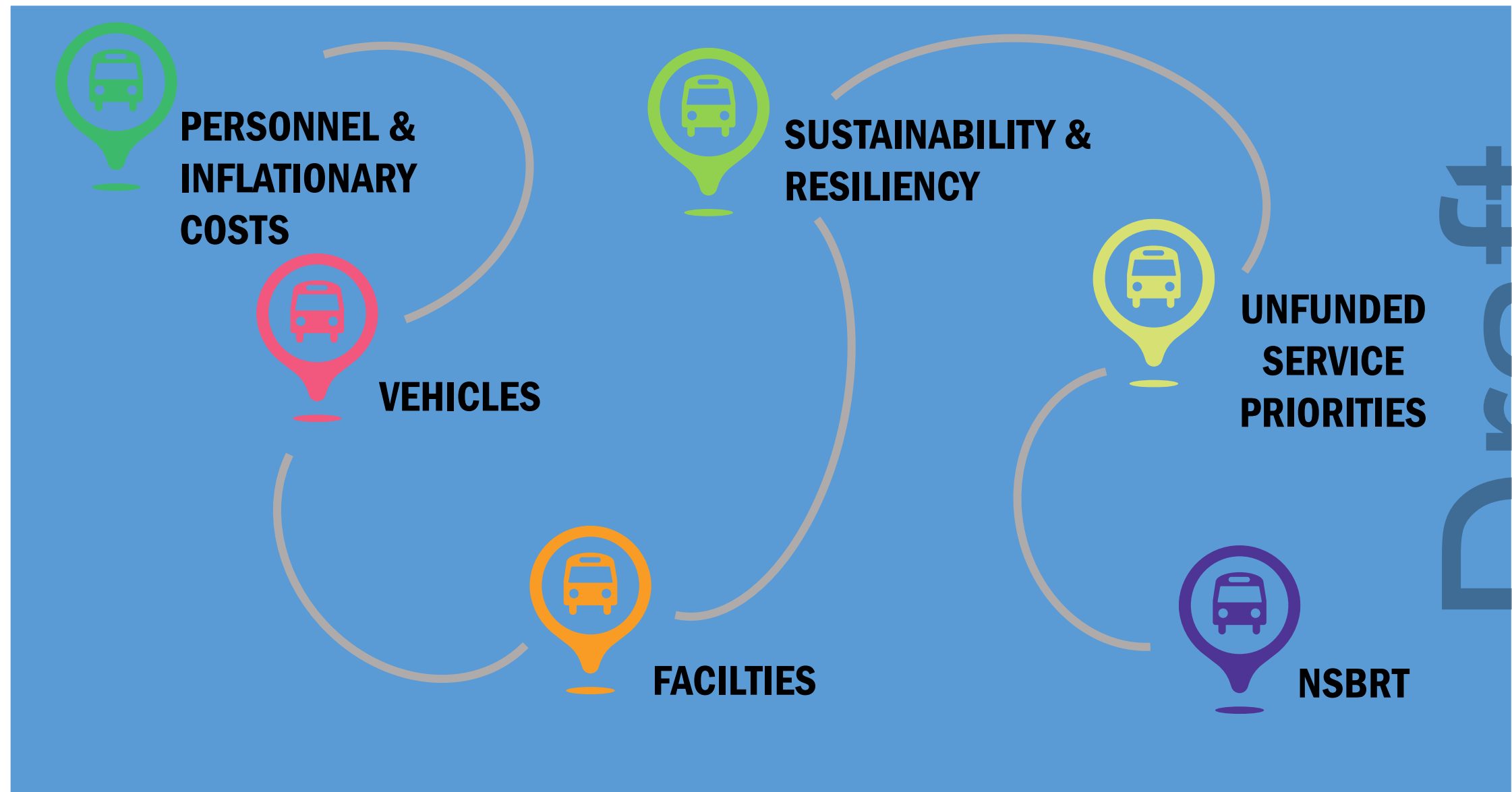
FY22-23 Adopted Budget of \$31.4M

- \$18.9 Million Local – 60% (Chapel Hill \$6.4M, Carrboro \$2.2M and University \$10.3M)
- \$2.5 Million Federal – 7.9 %
- \$3.2 Million State – 10.1%
- \$4.0 Million Orange County Transit Plan – 13% (includes BRT funding)
- \$2.7 Million Other – 8.7%



- 70% of budget = personnel, fleet/facilities and fuel
- 13% of budget = contracted services (NSBRT and Carolina Livery)
- 5.7% of budget = capital
- 5% of budget = charges by General Fund
- Remainder = utilities, technology, liability insurance, training, postage, printing, etc.

Transit Fund – Key Issues Beyond FY 2024

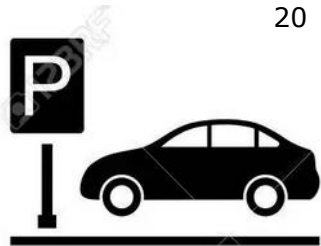


Draft

PARKING FUND

- Occupancy increasing in all parking
- Continuing to market and share information on parking downtown with residents
- New tenants that require space will occupy in the coming twelve months
- Additional developments should break ground in the coming year and will require parking spaces
- East Rosemary Parking Deck should come on line in FY24

Draft



Parking Fund



Adopted Budget 2023
\$6,130,626

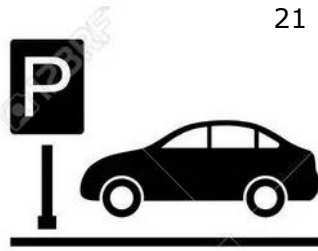


Personnel
7 existing staff positions
filled
\$1,008,328 budgeted



Transfer to Debt Service
fund
\$2,710,026

Draft



Parking Fund

Trends:

- Parking occupancy and income increasing
- Marketing West end lots to increase occupancy
- High occupancy on the east end
- Evaluating parking rates against occupancy
- Some deferred maintenance occurring in the current budget year

Future unfunded needs:

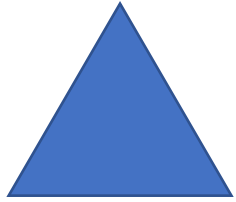
- Parking Meter repair and replacement
- Upgrading technology at 140 West Parking Deck and lots

Draft

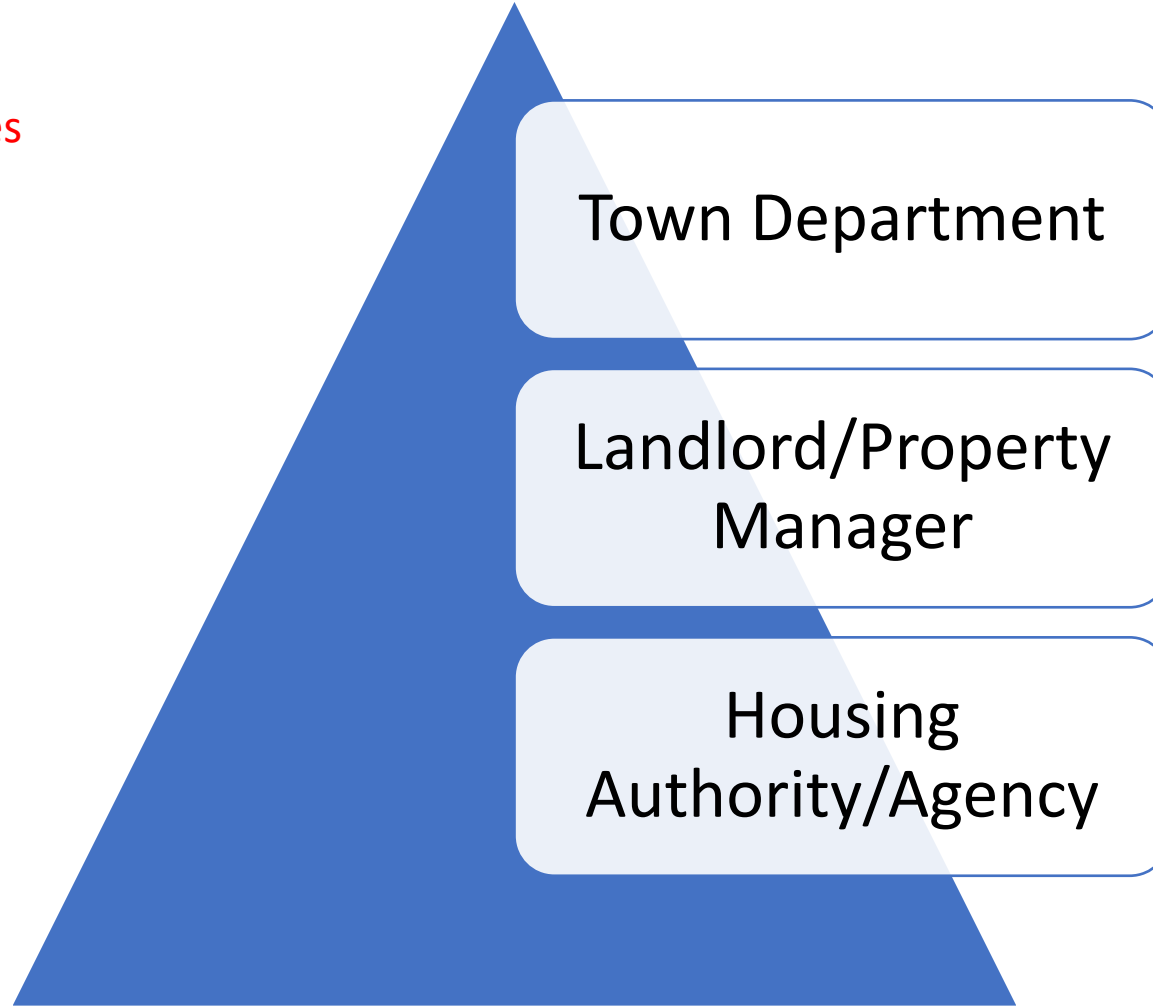
PUBLIC HOUSING FUND

- Absorbing the pay increases with a fixed amount of monies
- The increasing cost and scarcity of contractors willing and able to work on our smaller projects when there are larger more lucrative projects in the area
- The continued vacancy of Trinity Court affects the amount of operating funding provided by HUD. Until we close on the development contract, we will suffer a loss
- The need for additional personnel (assistant housing officer, mechanics, and a skilled grant writer) means that many of our staff are being pulled in many directions in order to meet the needs of public housing residents and HUD deadlines.
- Acquiring a new software system for Public Housing is a needed expense but trying to train while continuing operations increases the stress on staff.

DEPARTMENT OF PUBLIC HOUSING



From 3 Perspectives



Draft

3 Perspectives requiring specific measurable tasks that are sometimes in conflict with available funding



Town Department – attract, hire, and retain skilled staff to meet the needs of the department. Collaborate with other Departments to meet the needs of the community.



Landlord/Property Manager – legal and moral obligation to provide safe, decent housing . Properties over 45 years of age.



Housing Authority/Agency – Comply with federal mandates for property maintenance, preservation, and occupancy standards. Funding provided in accordance with annual evaluation+ size of our portfolio.

Draft

AS AN ENTERPRISE FUND OF THE TOWN:

- We must absorb the increase from OWASA (~16%), Dominion Gas (~5.1%), and Duke Energy (~9.9%) to compact an already underfunded budget line.
- Typical cost increase of contractors (~19%)
- Increased usage of expensive contractors due to aging portfolio. The most used trades were electrical and plumbing.
- **60% of Budget - Personnel**
- **20% for Operations & Programming**
- **15% internal service cost** (software, fuel, fleet, Solid Waste and Stormwater)
- **5% staff development** – young inexperienced staff requires training and development to meet the needs of the Department.

AS A LANDLORD/PROPERTY MANAGER

- Obligation to continue to provide clean, safe, decent housing with obsolete fixtures and limited capacity for relocation for major refurbishments
- **Reduced resources** to provide programming enhancements to help train tenants to collaborate in maintaining apartments
- Limited resources to help meet the needs of tenants desiring an **improved quality of life.**

AS AN AUTHORITY/AGENCY:

- Funding provided through:
 - **Tenant Rents:** down 45% since COVID
 - **Federal Grants:** limited flexibility
 - **Operating Funds:** based on annual performance and size of portfolio. Not compensated for vacant units. **40 units vacant since 2018.**

REALITY CHECK

STORM WATER FUND

- Additional funding needed to come into compliance per the National Pollutant Discharge Elimination System (NPDES) Audit, including mapping major outfalls, dry weather screening, and maintenance of stormwater control measures. The needed stormwater fee increase to cover this cost over the next five years based on preliminary analysis is \$4.45/ERU. This amount would adjust the average residential fee increase by \$17.80.
- Given the challenges in hiring and retaining program support for stormwater and engineering responsibilities, it is recommended that existing funding for program support be utilized to hire and retain a full time position. No additional funding is needed to complete this conversion from program support to a full-time position.
- There is also a need to add one additional stormwater maintenance position in FY24. There is an interest in adding maintenance support within the next five years. The cost for adding one maintenance position is \$0.61/ERU. This amount would adjust the average residential fee increase by \$2.40.



TOWN OF CHAPEL HILL

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405 Martin Luther King Jr.
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Chapel Hill, NC 27514

Item Overview

Item #: 2., File #: [23-0222], Version: 2

Meeting Date: 3/15/2023

UNC Health Care Development Update.

Staff:

Mary Jane Nirdlinger, Deputy Manager
Britany Waddell, Director
Judy Johnson, Assistant Director
Tas Lago, Senior Planner

Department:

Manager's Office
Planning

Overview: The UNC Health proposal at 100-800 Eastowne Drive includes construction of 8-10 medical office buildings and associated parking garages over 10-15 years. The application is tentatively scheduled for a Legislative Hearing in late April and tonight is an opportunity for the Council to provide additional comments. A draft matrix of conditions is attached for Council's review.



Recommendation(s):

That the Council receive the presentation and provide feedback to the applicant.

Location:



Background:

A Concept Plan was reviewed by the Town Council at the January 11, 2023, meeting.

The applicant shared their initial proposal at the November 11, 2022, Council Committee on Economic Sustainability meeting.

**Attachments:**

- Draft Applicant Presentation
- Traffic Impact Analysis and Sensitivity Analysis
- Draft UNC Health Care Eastowne Negotiation Matrix

The Agenda will reflect the text below and/or the motion text will be used during the meeting.

PRESENTER: Tas Lagoo, Senior Planner

The purpose of this item is for the Council receive the presentation and provide feedback.

Town of Chapel Hill Council Work Session

Town Council

March 15, 2023



Draft

Key Points for Today

Share an update on the Eastowne development planning work:

- Where are we now; Timeline and Milestones
- Overall campus project scope
 - Layout
 - Number of buildings
 - Probable phasing
- Reinforcing the framework of a Complete Community
- Report out on Housing
- Outstanding Points of Negotiation
- Traffic Impact Analysis
- Where are we going; Timeline and Milestones

Draft

Original Proposed Eastowne Development – Use, Size, & Timeline

Primary Use:	Health care and associated functions, research, and site specific retail
Size:	~1.6M sq. ft. - ~1.8M sq. ft.
Number of buildings:	~8 (plus structured parking)
Development Timeline:	1 building every 3-5 years Full build out 25+ years Medical Office Building 2 - ASAP

Draft

Recent Progress



Many productive meetings between Planning Staff and UNC Health team



Conducted Traffic Impact Analysis that shows if we build more than 1.1M net new sq. ft. major road improvements at 15-501 and I-40 would be required



Continue to refine campus layout options for Eastowne campus

Continued discussion regarding affordable housing

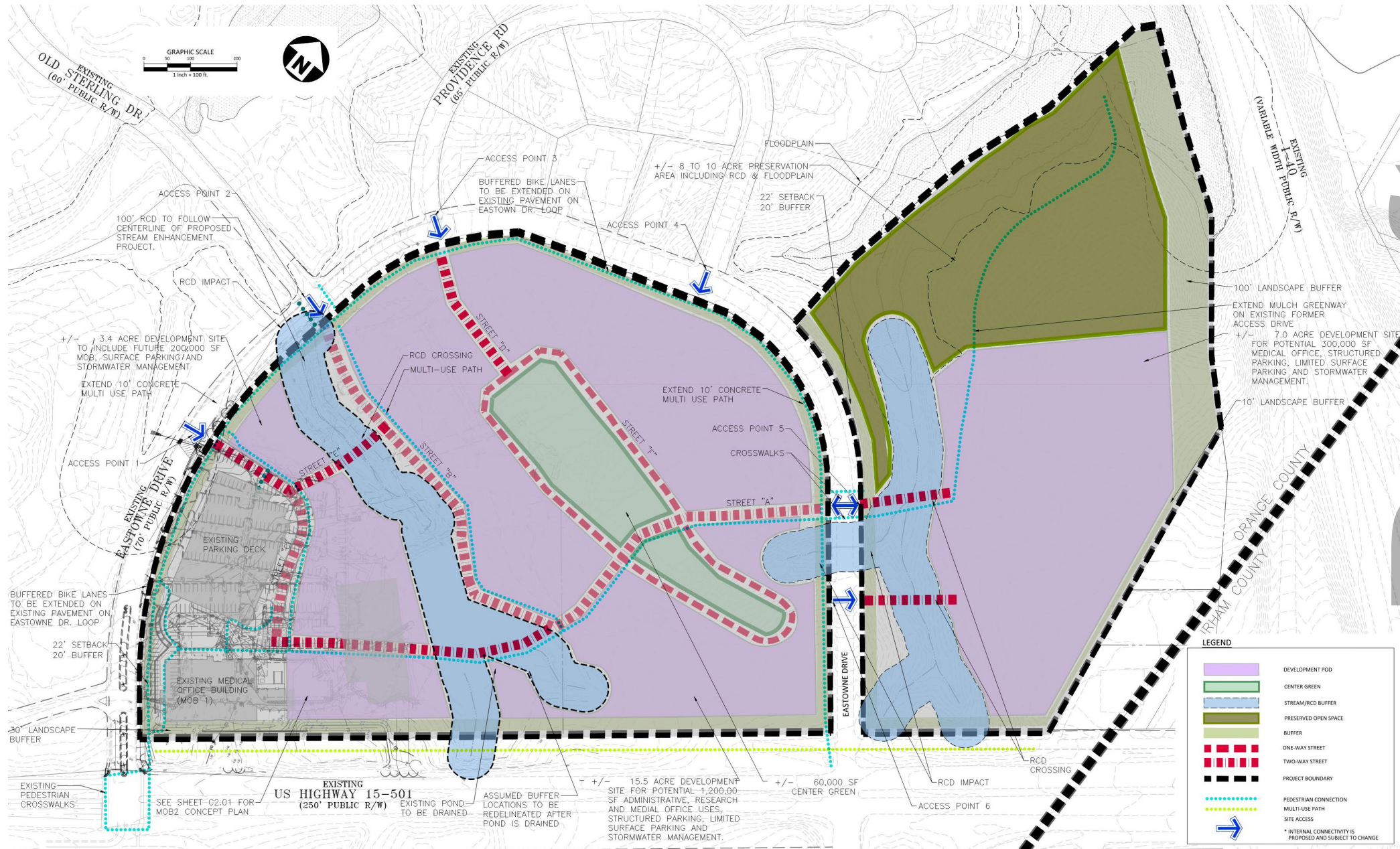
Draft

Revised Proposed Eastowne Development – Use, Size, & Timeline

Primary Use:	Health care and associated functions, research, and site-specific retail
Size:	~1.1M sq. ft. net new (excluding ET1)
Number of buildings:	6 (plus 3-4 structured parking) (excluding ET1)
Development Timeline:	1 building every 3-5 years Full build out 25+ years Medical Office Building 2 - ASAP

Draft

Submitted Concept Site Plan



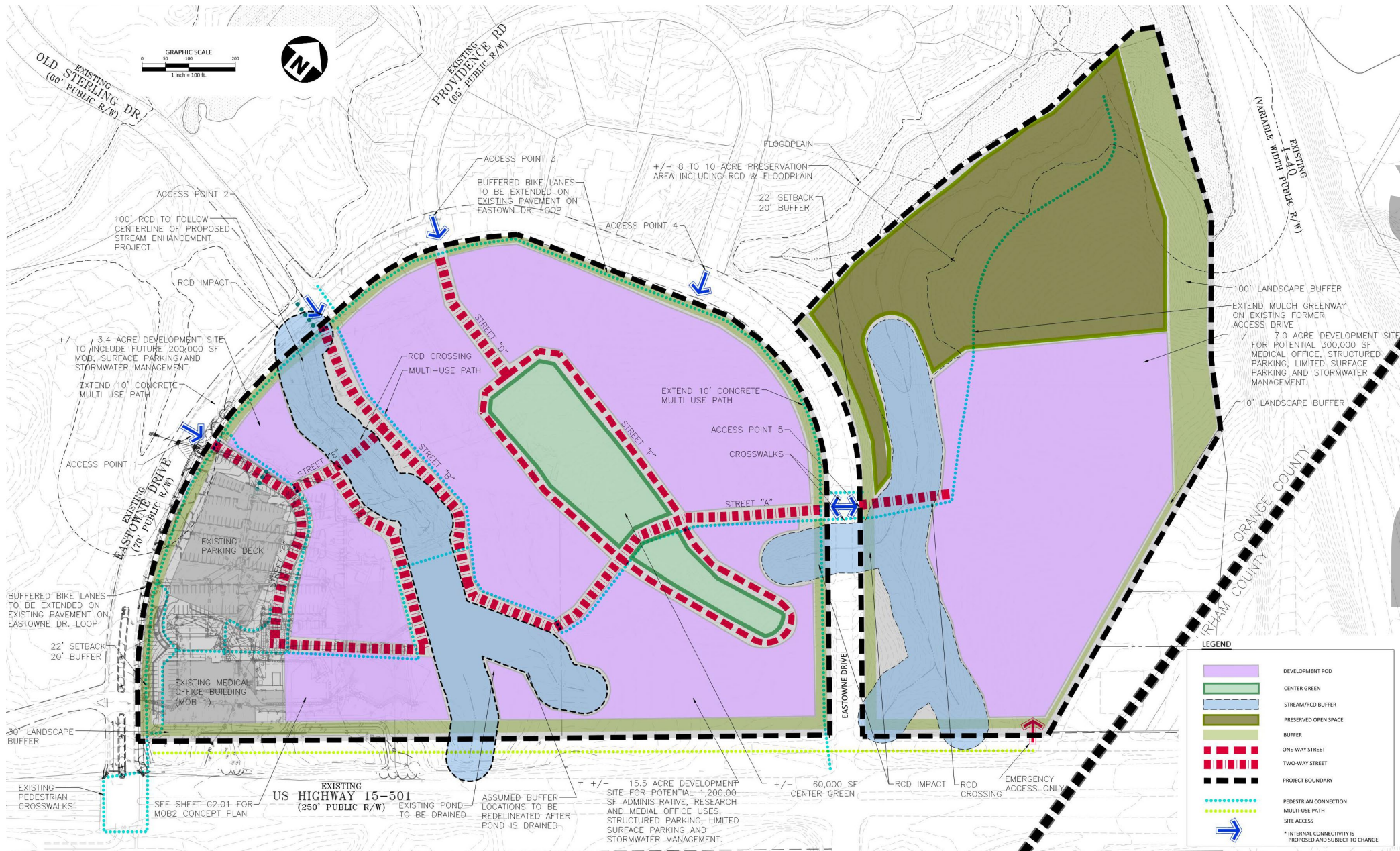
LEGEND

	DEVELOPMENT POD
	CENTER GREEN
	STREAM/RCD BUFFER
	PRESERVED OPEN SPACE
	BUFFER
	ONE-WAY STREET
	TWO-WAY STREET
	PROJECT BOUNDARY
	PEDESTRIAN CONNECTION
	MULTI-USE PATH
	SITE ACCESS
	* INTERNAL CONNECTIVITY IS PROPOSED AND SUBJECT TO CHANGE

Draft



Revised Concept Site Plan



LEGEND

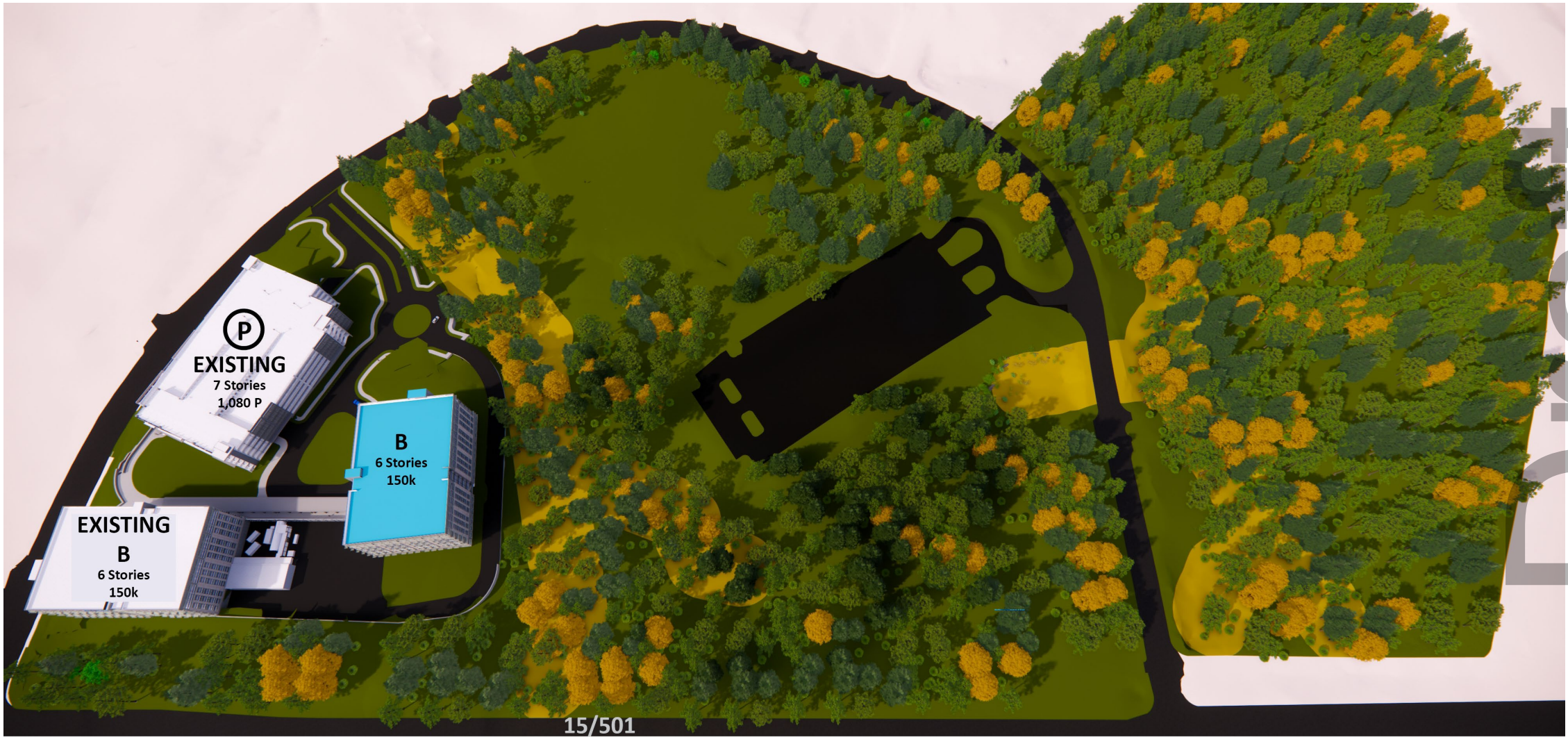
	DEVELOPMENT POD
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	BUFFER
	ONE-WAY STREET
	TWO-WAY STREET
	PROJECT BOUNDARY
	PEDESTRIAN CONNECTION
	MULTI-USE PATH
	SITE ACCESS
	EMERGENCY ACCESS ONLY

* INTERNAL CONNECTIVITY IS PROPOSED AND SUBJECT TO CHANGE

Draft



Eastowne Development at Phase 2



Eastowne Development at Full Build Out



Draft

Eastowne Development at Full Build Out with Parking on N20 (if required)



View from Parkline/ 15-501



Draft



East Entrance to center green with six story parking decks



Draft

GAD
GESTALT ARCHITECTURE + DESIGN

UNC
HEALTH

* We are using this rendering to express massing and general circulation only and DOES NOT illustrate intended building or site design. ALL existing and or negotiated standards for planting and pedestrian paths will be followed.

East Entrance to center green with six story parking decks



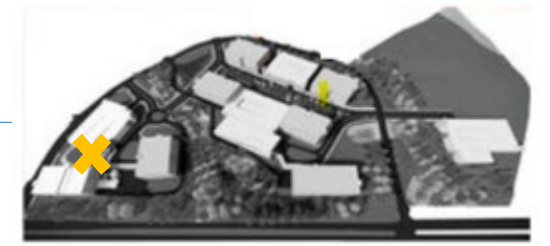
* We are using this rendering to express massing and general circulation only and DOES NOT illustrate intended building or site design. ALL existing and or negotiated standards for planting and pedestrian paths will be followed.

West Entrance to center green with six story parking decks



* We are using this rendering to express massing and general circulation only and DOES NOT illustrate intended building or site design. ALL existing and or negotiated standards for planting and pedestrian paths will be followed.

View from existing parking deck with MOB II on the right



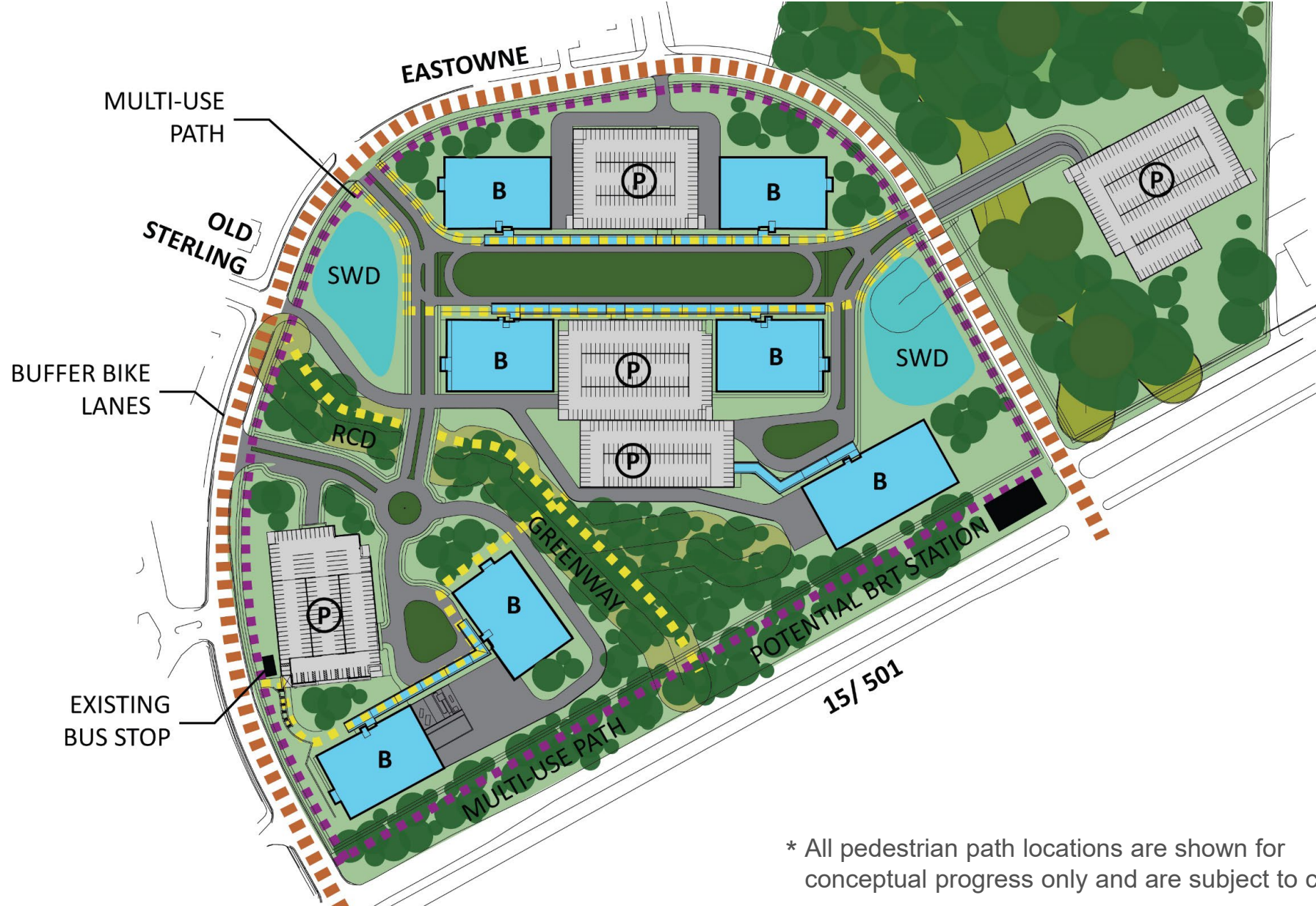
* We are using this rendering to express massing and general circulation only and DOES NOT illustrate intended building or site design. ALL existing and or negotiated standards for planting and pedestrian paths will be followed.

View from MOB I with MOB II (and walkway) on the right



* We are using this rendering to express massing and general circulation only and DOES NOT illustrate intended building or site design. ALL existing and or negotiated standards for planting and pedestrian paths will be followed.

Connectivity Through and Around the Site



Draft



* All pedestrian path locations are shown for conceptual progress only and are subject to change

Complete Community Diagram

Parkline East Village

Potential Wider Development Framework Diagram

-  Area Extent of 4 Current Development Projects
-  Pedestrian Connection-Primary
-  Pedestrian Connection-Secondary
-  Multi-use Trail
-  Courtyard, Park, Greenway, Stormwater, RCD
-  "The Hub" Community Gathering Space
-  Build-to Edge
-  Bus Stop-current



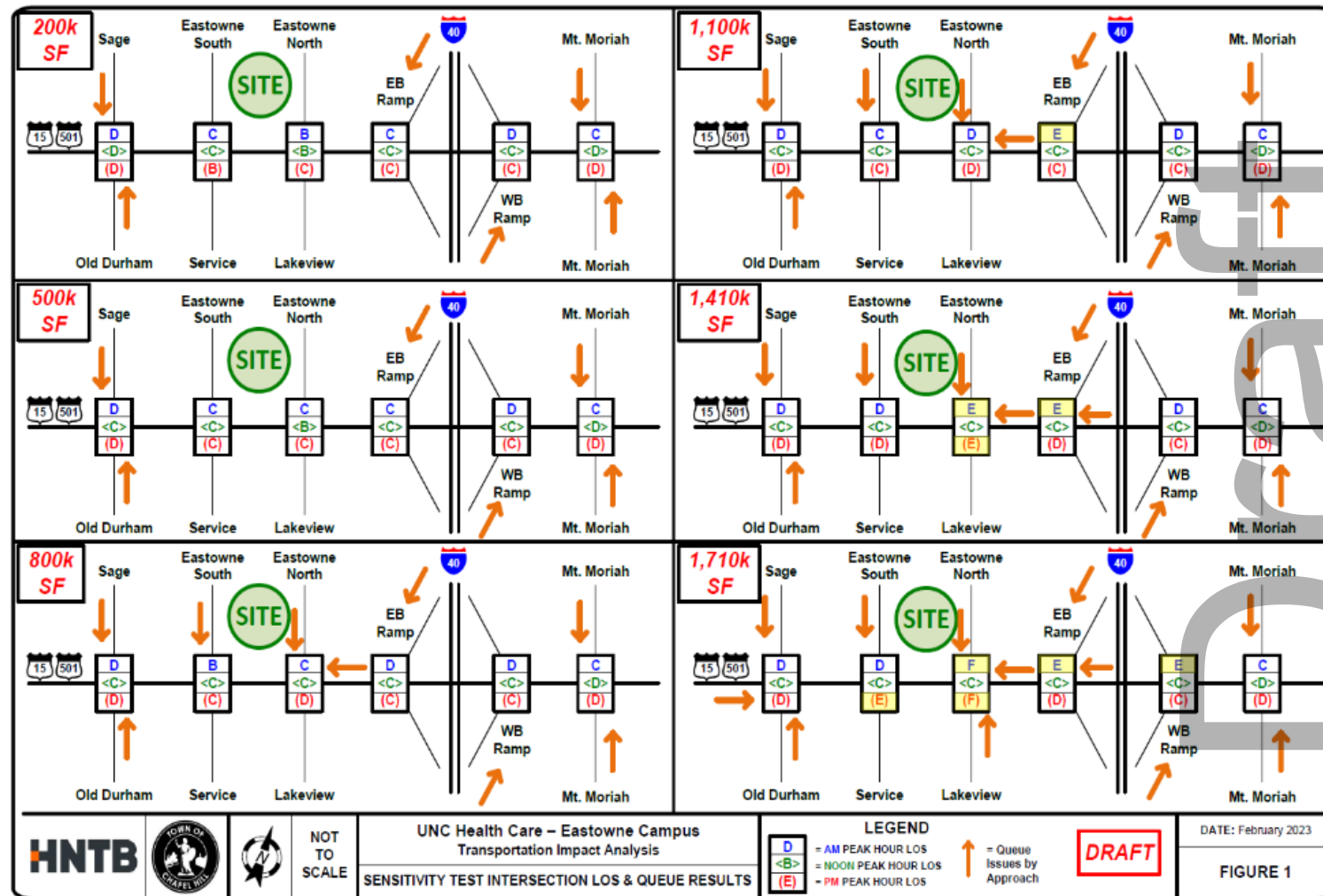
Draft



03-15-23 update

The Development Framework is envisioned as a general indicator for placement and connectivity, keeping in mind the need for a degree of flexibility in final outcomes. The exact arrangement of buildings, streets, and open spaces will be determined as projects move forward, and more detailed architectural and engineering design is accomplished

- Traffic mitigation requirements were studied for 6 development densities.
- Significant coordination with Town Staff, HNTB and UNC Health Team to determine appropriate study points and methodology
- UNC Health rightsized the Eastowne development based on practical road network improvements and patient needs.
- To avoid heavy modification to I-40/15-501 interchange, 1.1MSF was selected for max density.



Traffic Impact Analysis

Our original plan was to develop up to 1.7 million square feet of medical office, research and support services during the next 20-25 years

At the beginning of 2023, an incremental sensitivity analysis, to understand what thresholds of development on the Eastowne site would begin to stress the adjacent roadways

Based on the sensitivity analysis of the adjacent roadways, 1.7 million square feet of development would stress the system to a point of requiring roadway improvements beyond UNC Health's ability to mitigate, specifically modifications to the I-40 / 15-501 interchange

Therefore, the proposed development at Eastowne should be held to 1.1 million square feet net new (1.25M sq. ft with ET 1) to limit the traffic improvements that would be triggered by a larger development

Draft

Outstanding Points of Negotiation

- UNC Health remains committed to working with the Town of Chapel Hill to address outstanding points of negotiation including: affordable housing, pedestrian crossing across 501, and payment for public services.
- UNC Health continues to meet with housing partners across the community:
 - Ongoing discussions with Town of Chapel Hill's Affordable Housing & Community Team
 - Meeting with community partners regarding projects in the vicinity of Eastowne
 - UNC Health and UNC Chapel Hill actively conducting a housing survey to collect information about where employees live and challenges they face around housing.
- UNC Health is evaluating property tax options and payment of fees for public services.
- Ultimately, UNC Health and the Town of Chapel Hill **must work together** to determine the priorities and where to place the finite resources available to support these key issues.

Draft

Current Timeline

March 15	Town of Chapel Hill Council Work Session
March 20	Public Information Session
April 18	Planning Commission
April 26	Open Public Hearing
May 24	Town Council Vote on Conditional Zoning for Eastowne

Draft



March 9, 2023

RE: UNC Health
TIA Narrative
SPEC-22001

UNC Health, the Town of Chapel Hill, and the Town's traffic engineering consultant analyzed traffic impacts for the Eastowne Conditional Use rezoning request by using a two-pronged approach. The goal of this effort was to ensure that the needs of UNC Health, patients and the community are met in an intentional manner.

First, HNTB prepared a standard traffic impact analysis (TIA) for the second medical office building (MOB2) that is to be constructed in the next couple of years adjacent to the existing MOB (MOB1) and parking deck. The TIA for MOB2 shows that the intersection improvements completed for both the MOB1 and Wegmans projects provided the capacity needed to address the traffic from those two projects while also creating some excess capacity in the area. The addition of the MOB2 trips will require some minor extension of existing turn lanes. Once completed and prior to opening MOB2, all the study intersections will be operating in accordance with the Town's Land Use Management Ordinance requirements.

HNTB prepared a second study, an incremental sensitivity analysis, to understand what thresholds of development on the Eastowne site would begin to stress the adjacent roadways to the point of requiring significant improvements, additional lanes, or even modifications to the I-40 / 15-501 interchange. Unlike the 3.5 million square foot mixed-use development proposed in 2020, the current proposal is fully in-line with UNC Health's mission to provide modern, patient centered medical, research and associated uses that allow the organization to meet the demands for outpatient services while decompressing the medical center. Ultimately the proposed development will allow for more inpatient bed capacity at UNC Hospitals in Chapel Hill. The current thought for the Eastowne property is to develop up to 1.7 million square feet of medical office, research and support services during the next 20 to 25 years.

Based on the sensitivity analysis of the adjacent roadways, 1.7 million square feet of development would stress the system to a point of requiring roadway improvements beyond UNC Health's ability to mitigate. Therefore, the proposed development at Eastowne will be held to 1.1 million net new square feet. At this level of development, some off-site improvements (currently being proposed by the Town, CAMPO and NCDOT) would be needed. However, the build-out schedule for Eastowne should be in-line or behind the completion of those improvements. The TIA for MOB2 and associated sensitivity analysis is included herein.

Simon George

Simon George
System VP Real Estate, Development and Facilities

**UNC HEALTHCARE
EASTOWNE MEDICAL OFFICE BUILDING #2**

DRAFT TRANSPORTATION IMPACT ANALYSIS

EXECUTIVE SUMMARY



Prepared for:

The Town of Chapel Hill
Public Works Department - Engineering

Prepared by:

HNTB North Carolina, PC

*343 East Six Forks Road
Suite 200
Raleigh, NC 27609*

NCBELS License #: C-1554

February 2023



**UNC HEALTHCARE
EASTOWNE MEDICAL OFFICE BUILDING #2**

DRAFT TRANSPORTATION IMPACT ANALYSIS

EXECUTIVE SUMMARY



Prepared for:

The Town of Chapel Hill
Public Works Department – Traffic Engineering

Prepared by:

HNTB North Carolina, PC

*343 East Six Forks Road
Suite 200
Raleigh, NC 27609*

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EXECUTIVE SUMMARY

Project Overview

This study analyzes the continued redevelopment of the existing UNC Health Care property in Chapel Hill, located along US 15-501 (Durham-Chapel Hill Road) and Eastowne Drive, with a second medical-office clinic facility proposed for the site. The project proposes to demolish one existing building with a total size of 24,610 square feet and construct a new building, known as Medical-Office Building #2 (MOB #2) on the existing parcel with an approximate 200,000 square foot size. **Figure ES-1** shows the general location of the site. The project is anticipated to be fully complete by late 2025. This report analyzes the transportation impacts for the build-out scenario for the year 2026 (one year after anticipated completion), the no-build scenario for the 2026 analysis year, as well as 2022 base year traffic conditions.

The proposed site concept plans show several internal transportation network changes from existing conditions, including a relocated access point along Eastowne Drive to serve the new building which will utilize the current structured parking deck that serves MOB #1. The plan also proposes closure of an existing driveway serving existing surface parking lot facilities for the office building to be demolished. **Figure ES-2** displays the preliminary concept plan of the UNC Healthcare Eastowne MOB#2 development, transportation network changes, and nearby land uses and roadways. This report analyzes and presents the transportation impacts that the UNC Healthcare Eastowne MOB#2 redevelopment will have on the following existing and future intersections in the project study area:

- US 15-501 and Sage Road / Old Durham Road
- US 15-501 and Eastowne Drive (South) / Service Road
- US 15-501 and Eastowne Drive (North) / Lakeview Drive
- Eastowne Drive and Old Sterling Drive / UNC Health Care Building 500 Driveway
- Eastowne Drive and Existing UNC Health Care MOB Parking Deck Driveway Access
- Eastowne Drive and Pinegate Circle
- Eastowne Drive and Dobbins Drive

The impacts of the proposed site at the study area intersections were evaluated during the AM, noon, and PM peak hours of an average weekday.

Existing Conditions

Study Area

The site is located in northeast Chapel Hill along US 15-501 in the Eastowne Business Park. The study area contains three signalized intersections along US 15-501 at Sage Road, Eastowne Drive/Service Road and Eastowne Drive/Lakeview Drive. All future site traffic is expected use a proposed full access site driveway along Eastowne Drive that will be relocated from its current locations. Internal driveways shown on the preliminary site plan will circulate site traffic to structured parking and a patient drop-off/pick-up location. US 15-501 is a major arterial facility providing connectivity between Chapel Hill, Durham and the I-40 corridor. Remaining study area network roadways are either minor arterial/collector facilities or local neighborhood access streets.

Site Traffic Generation

With the addition of new peak hour trips during the weekday AM, noon, and PM peak hours, there are potential site traffic impacts to the study area intersections. **Table ES-1** shows the site trip generation details, with generation rates taken from existing traffic count data at the MOB#1 Parking Deck Access Driveway and comparative growth ratios calculated from square footage proposed for MOB #2



compared to MOB #1 building square footage. Data was also compared to information from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, Version 11*. Trips for the existing UNC Health Care Building 500 to demolished as part of the site redevelopment were also generated to estimate “full occupancy” for this entitlement and then removed from the Build Scenario traffic volumes.

Table ES-1. Weekday Vehicle Trip Generation Summary

Description	Density	Daily			AM Peak			Noon Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
MOB #2	200k SF	1,999	1,999	3,998	363	68	431	220	195	414	33	329	362
Adjustments													
Transit Reduction	5%	-100	-100	-200	-18	-3	-22	-11	-10	-21	-2	-16	-18
Ped/Bike/Internal Reduction	5%	-100	-100	-200	-18	-3	-22	-11	-10	-21	-2	-16	-18
Total Net Vehicle Trips Added to Network		1,799	1,799	3,598	327	62	387	198	175	372	29	297	326

Background Traffic

Background traffic growth for the 2026 analysis year is expected to come from two sources - ambient regional traffic growth and specific development-related traffic growth. Three developments near the project study area that are currently in the Town planning review process are expected to contribute to specific background traffic generator growth. All remaining estimated traffic volume increases are assumed to occur due to overall region-wide ambient growth (assumed 2.5 percent per year based on NCDOT/Town provided historic growth data and data related to peak hour traffic conditions rebounding from the effects of COVID-19). Additional background traffic adjustments were made for the demolition of the existing UNC Health Care Building 500 currently located on the site.

Impact Analysis

Peak Hour Intersection Level of Service

Existing traffic operations at all study area intersections are acceptable during all three peak hours analyzed, though the intersection of US 15-501 and Sage Road/Old Durham Road is congested and nearing capacity during peak travel periods. The projected ambient and background development traffic growth will increase intersection delay and queue impacts by 2026. With the addition of peak hour site-generated “net” trips to the projected 2026 background traffic volumes, no study area intersections are expected to experience deficient traffic operations in any peak hour. Proposed geometric and signal timing improvements are expected to mitigate anticipated deficient LOS conditions throughout the study area and improve queue storage and safety, as well.

A summary of the traffic operations for each intersection, related to vehicular delays (intersection average as a whole if signalized, critical movement if stop-controlled) and the corresponding traffic microsimulation Level-of-Service (LOS_s) is shown in **Table ES-2**.

Access Analysis

Vehicular site access is to be accommodated by the proposed relocated full movement access driveway connecting to Eastowne Drive for entry/exit to the existing structured parking and on-site surface drop-off areas. Design details related to driveway throat lengths shown on the site plan and driveway spacing from existing intersections and adjacent driveways adhere to NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and the Town of Chapel Hill Design Manual.



Town of Chapel Hill: *DRAFT* Transportation Impact Analysis
UNC Health Care Eastowne Medical Office Building #2 - Proposed Redevelopment

Table ES-2. Peak Hour Intersection Capacity Analysis Summary

Intersections	Peak Hour	2022 Existing		2026 No-Build		2026 Build		2026 Mitigated	
		LOS _s	Delay	LOS _s	Delay	LOS _s	Delay	LOS _s	Delay
US 15-501 and Sage Road / Scarlett Drive	AM	D	36.5	D	45.2	D	48.1	D	39.9
	NOON	C	31.7	C	32.9	D	41.1	C	33.1
	PM	C	34.0	D	40.6	D	42.5	D	40.7
US 15-501 and Eastowne Drive (South) / Service Road	AM	B	16.7	C	20.4	D	40.5	C	20.9
	NOON	B	16.5	B	17.1	C	23.3	C	22.3
	PM	B	14.9	B	14.6	C	20.5	C	21.6
US 15-501 and Eastowne Drive (North) / Lakeview Drive	AM	B	12.2	B	17.7	B	19.4	B	15.5
	NOON	B	10.3	B	13.2	B	16.6	B	14.8
	PM	B	13.2	B	16.5	B	17.3	C	23.2
Eastowne Drive and Old Sterling Drive / UNC Health Care Building #5 Driveway [#]	AM	A	5.7	A	5.9	A	6.3	A	6.2
	NOON	A	5.7	A	6.0	A	6.4	A	6.5
	PM	A	6.1	A	6.3	A	6.0	A	5.8
Eastowne Drive and Existing MOB Parking Deck Driveway Access [#]	AM	A	6.1	A	7.2	A	9.0	A	9.7
	NOON	A	6.0	A	6.3	A	8.9	A	8.9
	PM	A	5.6	A	5.8	F	100	A	8.6
Eastowne Drive and Pinegate Circle [#]	AM	A	3.8	A	3.9	A	4.8	A	4.4
	NOON	A	3.9	A	4.5	A	5.4	A	5.3
	PM	A	4.0	A	4.1	F	107	A	5.2
Eastowne Drive and Dobbins Drive [#]	AM	A	7.6	A	8.5	B	11.9	B	11.7
	NOON	B	13.0	B	13.3	C	23.4	C	22.2
	PM	C	22.6	D	32.1	F	355	D	31.8

BOLD/ITALICS – Critical Movement or Overall Intersection Requires Mitigation Per Town TIA Guidelines

- Worst-Case LOS/Delay for Unsignalized/Stop-Controlled Critical Movement

Access for pedestrians and bicyclists is subject to some limited connectivity in the project study area. Sidewalk is present on most study area facilities and connections along US 15-501 in the vicinity of Wegmans exist, along with signalized crossings of US 15-501 at Eastowne Drive adjacent to the site and at Sage Road/Old Durham Road. Connectivity is impaired due to lack of continuous sidewalk along other sections of US 15-501. Bicycle lanes exist on Sage Road, Old Sterling Drive, and a short section of Eastowne Drive immediately adjacent to the site, with the remaining cross-section width of Eastowne Drive not inhibiting bicycling, but there is no bicycling connectivity on the US 15-501 corridor.

Signal Warrant Analysis

Based on projected 2026 traffic volumes and proposed access plans, no unsignalized intersection in the project study area would warrant the installation of a traffic signal, based on the methodology found in the *2009 Manual on Uniform Traffic Control Devices (MUTCD)*.

Crash Analysis

Data from the NCDOT Traffic Safety Unit was provided for the five-year period 12/1/2017 to 11/30/2022 for the US 15-501 and Eastowne Drive segments in the vicinity of the proposed site. There were 396 crashes reported along the US 15-501 study area corridor between Sage Road and Eastowne



Drive/Lakeview Drive over the five year period, with 26 crashes on Eastowne Drive. The primary crash type was rear end crashes and crashes were primarily clustered near the three signalized intersections. Overall, the number and severity of crashes along US 15-501 in the project study area are higher than state-wide averages for similar urban US highway and secondary roadway facilities.

Other Transportation-Related Analyses

Other transportation-related analyses relevant to the 2001 Town of Chapel Hill Guidelines for the preparation of Traffic Impact Studies were completed as appropriate. The following topics listed in **Table ES-3** are germane to the scope of this study.

Table ES-3. Other Transportation-Related Analyses

Analysis	Comment
Turn Lane Storage Requirements	Storage bay lengths at study area intersections were analyzed using TransModeler maximum queue length estimates for the 2026 Build Scenario. No unsignalized intersection is expected to have excessive peak hour queues or conditions that exceed existing turn lane storage. Recommendations to improve turn lane storage were made for the US 15-501 and Eastowne Drive/Service Road intersection – as this location will have the highest degree of site traffic impact. Storage issues not due to site-related traffic impacts are not easily correctable at other upstream/downstream intersections, given the high traffic volumes along the US 15-501 corridor, but adjustments to signal timing are shown to potentially reduce side street queues at critical locations.
Appropriateness of Acceleration/Deceleration Lanes	The site concept plan shows no specifics related to acceleration/deceleration lanes. Due to the low speed limit on Eastowne Drive (25 mph) and the presence of some on-street parking in the vicinity, no acceleration/deceleration lanes are recommended for site access. Existing intersections along US 15-501 currently have left-turn and right-turn auxiliary deceleration lanes. No other specific acceleration/deceleration lane issues were analyzed in the project study area.
Pedestrian and Bicycle Analysis	Pedestrian access exists in the project study area but connectivity is limited directly along the US 15-501 corridor. Bicycle lanes extend along Sage Road, Old Sterling Drive, Old Durham Road, and a short section of Eastowne Drive that was included in the MOB #1 project. Very limited bicycle facilities exist along/parallel to the US 15-501 corridor within the project study area. The site plan shows additional sidewalk developed along site frontage. Additional pedestrian and bicycle facilities should be provided along Eastowne Drive to connect the site to the Old Sterling Drive intersection.
Public Transportation Analysis	Public transportation service to the study area, and to the proposed site is adequate, with bus stops and multiple local and regional bus routes on both Eastowne Drive and US 15-501 proximate to the site.

Mitigation Measures/Recommendations

Planned Improvements

There are no Town of Chapel Hill / North Carolina Department of Transportation improvement projects affecting study area roadway facilities within the analysis year time frame of 2022-2026. NCDOT STIP project EB-4707B has completed construction along Old Durham Road/Old Chapel Hill Road east of the project study area and included pedestrian and bicycle improvements connecting to the US 15-501 corridor at the Sage Road/Scarlett Drive intersection. The US 15-501 corridor is currently being studied for capacity improvements as part of NCDOT STIP U-5304F, but these improvements are not known at this time and were not considered to be complete by the 2026 analysis year.

Background Committed Improvements

There are currently no committed background improvements to the project study area from private development projects expected to be complete by the 2026 analysis year. Several development



projects are currently under study, but their final required transportation improvements are not known at this time.

Applicant Committed Improvements

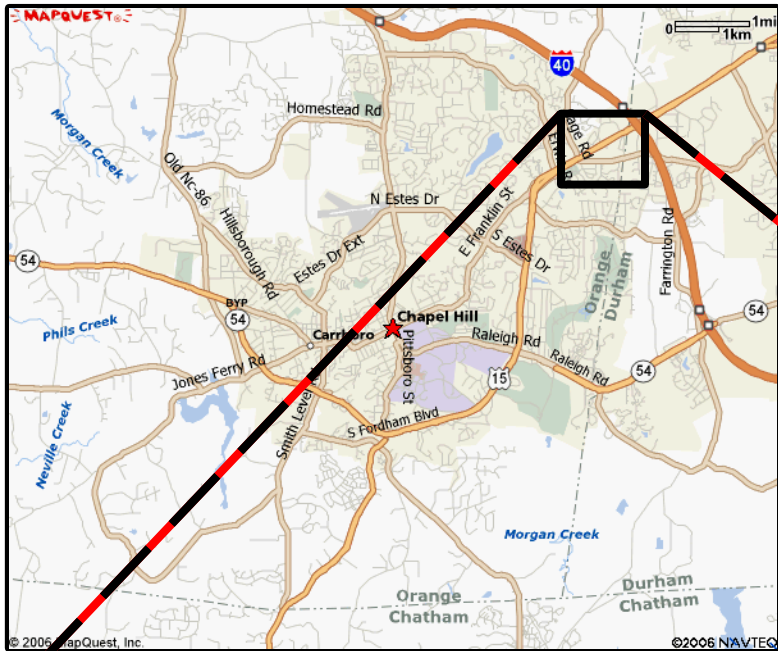
Based on the preliminary site plans and supporting development information provided, there are several minor specific transportation-related improvements proposed on or along the frontage of the UNC Health Care Eastowne MOB #2 site. These improvements include the following:

- Extension of existing sidewalk along the site frontage past the proposed relocated MOB Parking Deck Access Driveway.
- Provision of the relocated two-way access driveway with internal traffic circle connecting to future internal roadways on the UNC Health Care Eastowne Property. Driveway parking deck lower floor access connection for employee parking to include a right-turn auxiliary lane to remove this traffic from the patient traffic heading into the site.
- Demolition of the 500 Building and closure of its adjacent surface parking lot and connection to Eastowne Drive.





Necessary Improvements

Based on traffic capacity analyses for the 2026 design year, and analyses of existing study area turning bay storage lengths, site access and multi-modal mobility, the following improvements (see **Figure ES-3**) are recommended as being necessary for adequate transportation network operations:

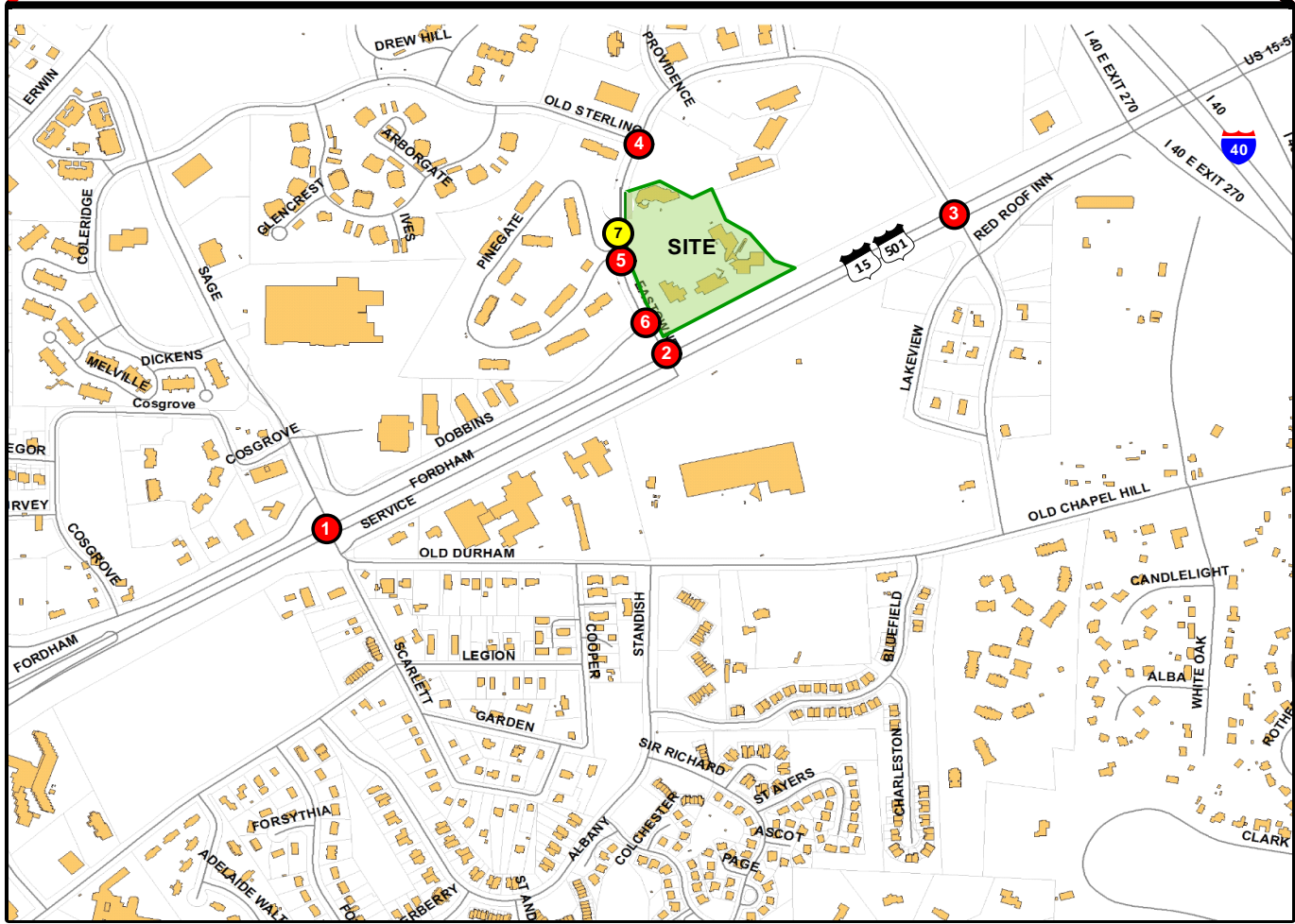
- 1) To manage projected maximum queue lengths on southbound Eastowne Drive at the US 15-501 signalized intersection, it is recommended that the existing left-turn lane be extended from 300 feet to provide 375 feet of vehicle storage. This will reduce the available left-turn storage for the Pinegate Circle intersection, but capacity analysis and queue results indicate that 75 feet of full storage for that movement should be sufficient.
- 2) To extend existing pedestrian and bicycle facilities along Eastowne Drive in the vicinity of the proposed redevelopment, the section of Eastowne Drive between the existing MOB Parking Deck Access Driveway and Old Sterling Drive should have on-street parking eliminated and buffered bicycle lanes and a three-lane vehicular cross-section should be implemented, which may require some widening along the site frontage from the existing parking deck driveway to Old Sterling Drive. Left-turn lanes with 100 feet of storage should be delineated in this vicinity for the relocated Parking Deck Access Driveway and Old Sterling Drive.
- 3) The existing pedestrian sidewalk along Eastowne Drive in front of MOB #1 and the Parking Deck should be extended to Old Sterling Drive and marked crosswalks be provided at this intersection crossing Old Sterling Drive and at the southbound approach along Eastowne Drive.
- 4) The proposed concept plan for the relocated Parking Deck Access Driveway should include the provision of a right-turn auxiliary lane with at least 75 feet of storage at the Eastowne Drive intersection. Noon and PM peak exiting traffic volumes from the parking deck are expected to be high, with a balanced proportion turning in each direction onto Eastowne Drive. Separate egress lanes would provide additional capacity and prevent the egress traffic from queuing to the vicinity of the internal traffic circle near the parking deck.
- 5) Signal timings at all three study area intersections should be reoptimized to account for the effects of site-related traffic. Signal timings for the Eastowne Drive approaches to the two US 15-501 intersections need to account for increase traffic volumes requiring more minor street green time to clear queues in one signal phase.



LEGEND

-  = Existing Building Footprint
-  = Existing Study Area Intersection
-  = Proposed Site Driveway
-  = Proposed Site Parcel

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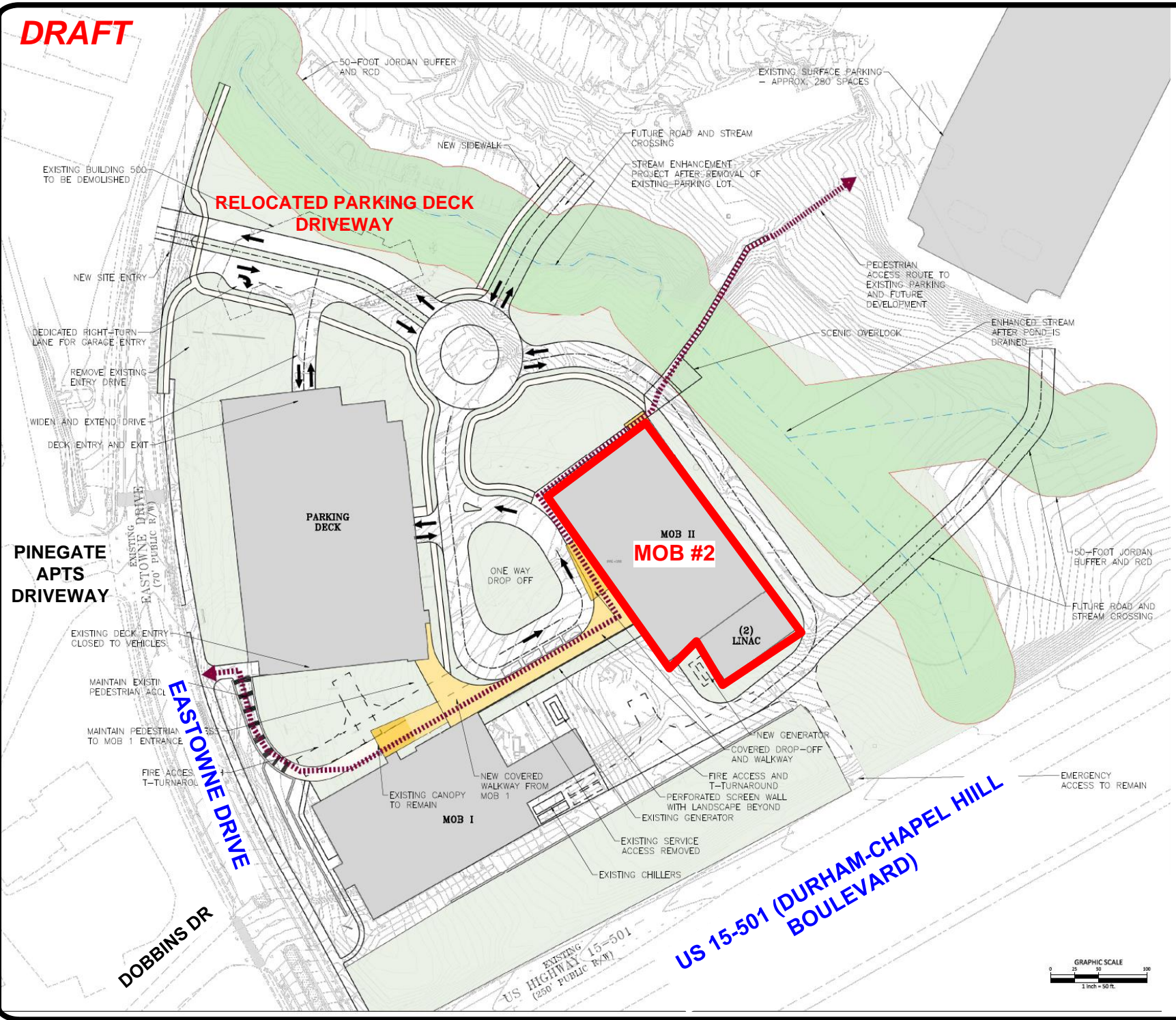
**UNC Health Care Eastowne MOB #2
Transportation Impact Analysis**

DATE: February 2023

PROJECT STUDY AREA

FIGURE ES-1

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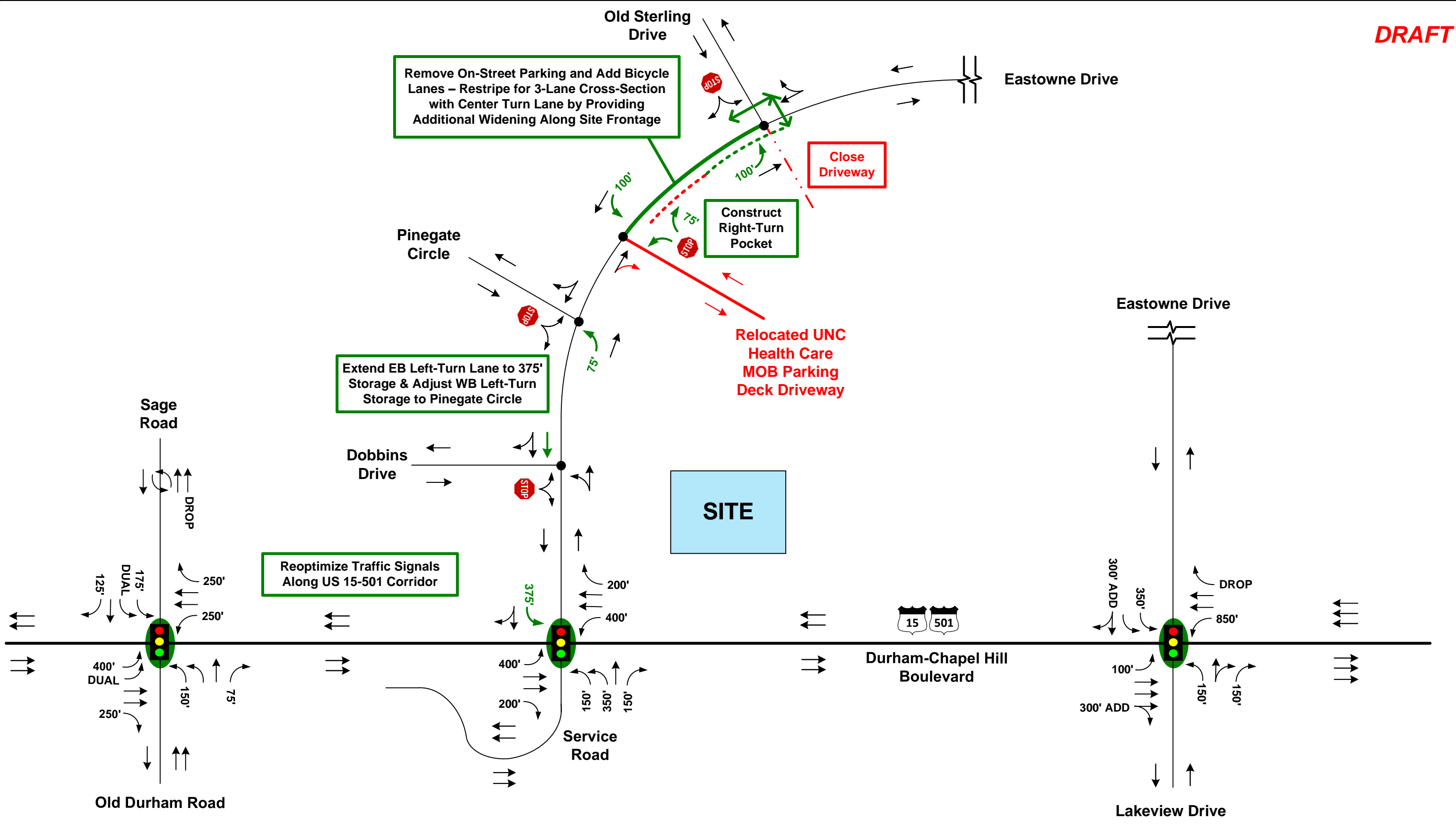
**UNC Health Care Eastowne MOB #2
Transportation Impact Analysis**

PRELIMINARY SITE PLAN

DATE: February 2023

FIGURE ES-2





	<p>NOT TO SCALE</p>	<p>LEGEND</p>		<p>UNC Health Care Eastowne MOB #2 Transportation Impact Analysis</p>	<p>DATE: February 2023</p>
		<p> = COMMITTED IMPROVEMENT</p> <p> = NECESSARY IMPROVEMENT</p>	<p> = SIDEWALK</p> <p> = UNSIGNALIZED PED CROSSING</p>		<p>COMMITTED AND RECOMMENDED IMPROVEMENTS</p>

**TECHNICAL
MEMORANDUM - DRAFT****To**

Roger Henderson
Traffic Engineering Manager
Town of Chapel Hill

From

Craig Scheffler, P.E., PTOE
HNTB North Carolina, P.C.

Cc

HNTB Project File: 85279

Subject

UNC Health Care Eastowne Campus
Sensitivity Test Evaluation

Date

02/24/23

HNTB North Carolina, PC (HNTB), per direction from Town of Chapel Hill staff and the Applicant for the UNC Health Care Eastowne Campus redevelopment and as part of the scope of services for the UNC Health Care Eastowne Medical-Office Building #2 (MOB #2) Transportation Impact Analysis (TIA), has completed sensitivity tests related to intersection-level traffic operations along the US 15-501 corridor near the Eastowne site. The sensitivity tests focus on a gradation of increasing development densities on the Eastowne Campus site and their corresponding traffic impact to the US 15-501 corridor. The purpose of the analysis is to generally, and broadly, determine at what points of development density will individual intersections fall below acceptable operational standards and require additional capacity (more turn lanes, through travel lanes) to mitigate the impacts.

Methodology and Assumptions

Per a project scoping meeting on December 15, 2022 with Town of Chapel Hill staff, the Applicant, and HNTB, the decision was made to utilize a traffic model in the Synchro 11 software package to evaluate increasing development density impacts on 2022 base year traffic volumes and omit the typical analysis methodology that would also include background traffic growth impacts for future year conditions. This decision was made to attempt to isolate the specific impact of Eastowne Campus development-related traffic on nearby intersections and assess at what level of development density would those intersections require substantial improvements to mitigate the impact. Intersections were analyzed for typical weekday AM, noon, and PM peak hour periods for the following scenarios:

- 2022 Existing Year – 200,000 SF of redevelopment (corresponding to MOB #2)
- 2022 Existing Year – 500,000 SF of redevelopment
- 2022 Existing Year – 800,000 SF of redevelopment
- 2022 Existing Year – 1,100,000 SF of redevelopment
- 2022 Existing Year – 1,410,000 SF of redevelopment (corresponding to the maximum development potential inside the Eastowne Drive loop portion of the property, as provided by the Applicant and studied previously)
- 2022 Existing Year – 1,710,000 SF of redevelopment (corresponding to the 2032 Full Build-Out Scenario previously studied)

The following intersecting streets along US 15-501 were the primary focus of the operational analysis:

- Sage Road/Old Durham Road
- Eastowne Drive/Service Road
- Eastowne Drive/Lakeview Drive
- I-40 Eastbound Ramps
- I-40 Westbound Ramps
- Mt. Moriah Road

Operational analysis output from the model included Level-of-Service (LOS), vehicular delay, and 95th percentile queuing results by approach for each study area intersection.

Traffic Volume Development

Traffic volumes used in the models were taken from balanced 2022 base year counts completed for the *UNC Health Care Eastowne Campus Phase 1 - 2032 Full Build-Out Future Scenario Transportation Impact Analysis* (HNTB, December 2022). All build-out development scenario site traffic distribution and assignment estimates were taken from the full 2032 Build-Out traffic assignments completed in the previously submitted documentation and then assigned a ratio of the proposed scenario development yield in square feet divided by the full build-out estimate of 1,710,000 square feet. Each proportioned traffic assignment scenario was added to the 2022 base year volumes for all peak hours and the results were input into the Synchro capacity analysis software for evaluation. All traffic volume calculation spreadsheets are found in *Appendix A*.

Scenario Testing Methodology and Assumptions

Synchro traffic capacity analysis models were taken from previous studies completed for the Town and updated with existing coordinated signal timings and the 2022 peak hour balanced traffic volumes. Models were then modified for the following:

- Applied successive traffic volume changes for each development density scenario
- Updated coordinated traffic signal timings (holding cycle lengths constant and adjusting splits, offsets and phase order changes)

Model data (overall intersection LOS and vehicular delays) and 95th percentile queue estimates by movement and approach were extracted from the model. No geometric modifications were made for any model scenario.

Model Results and Comment

Table 1 shows the sensitivity testing results for study area intersections for all six development density scenarios. The table shows AM, noon, and PM peak hour overall intersection LOS and corresponding overall per-vehicle delays. Each intersection may have one or several individual movements or approaches (particularly on the minor side streets) that may operate at worse LOS/delays than the overall values reported. In some cases delays and LOS may actually improve with additional Eastowne development density, due to the assigned traffic volumes benefiting from coordinated traffic movements along US 15-501 or because signal reoptimization calculations for a given set of traffic volumes may progress traffic flows along the entire corridor slightly different for each given intersection.

Table 1. Scenario Sensitivity Testing - Traffic Operations Results

US 15-501 Intersection	AM Peak Hour		Noon Peak Hour		PM Peak Hour	
	LOS	Delay Sec/Veh	LOS	Delay Sec/Veh	LOS	Delay Sec/Veh
Sage Road / Old Durham Road						
2022 MOB #2 (200k SF)	D	41.3	D	35.3	D	43.9
2022 500k SF	D	41.3	C	34.8	D	41.3
2022 800k SF	D	39.3	C	34.3	D	40.6
2022 1,100,000 SF	D	38.3	C	34.0	D	40.2
2022 1,410,000 SF	D	40.1	C	34.1	D	39.9
2022 1,710,000 SF	D	40.3	C	34.1	D	39.5
Eastowne Drive South / Service Road						
2022 MOB #2 (200k SF)	C	25.2	C	20.5	B	19.7
2022 500k SF	C	28.6	C	21.8	C	23.9
2022 800k SF	B	19.4	C	24.7	C	27.2
2022 1,100,000 SF	C	25.4	C	28.3	C	31.5
2022 1,410,000 SF	D	38.3	C	29.6	D	42.2
2022 1,710,000 SF	D	48.4	C	31.1	E	62.0
Eastowne Drive North / Lakeview Drive						
2022 MOB #2 (200k SF)	B	18.8	B	14.9	C	22.8
2022 500k SF	C	22.2	B	17.7	C	29.0
2022 800k SF	C	32.2	C	20.9	D	38.6
2022 1,100,000 SF	D	50.9	C	23.7	D	49.0
2022 1,410,000 SF	E	73.5	C	27.2	E	66.6
2022 1,710,000 SF	F	105.1	C	31.4	F	80.3
I-40 Eastbound Ramps						
2022 MOB #2 (200k SF)	C	31.2	C	21.3	C	30.1
2022 500k SF	C	32.6	C	21.7	C	30.6
2022 800k SF	D	42.3	C	21.9	C	31.0
2022 1,100,000 SF	E	55.8	C	23.4	C	33.2
2022 1,410,000 SF	E	66.2	C	25.2	D	35.9
2022 1,710,000 SF	E	68.8	C	28.5	D	46.2
I-40 Westbound Ramps						
2022 MOB #2 (200k SF)	D	42.4	C	26.2	C	26.4
2022 500k SF	D	44.1	C	26.9	C	26.2
2022 800k SF	D	45.8	C	29.6	C	27.8
2022 1,100,000 SF	D	48.2	C	30.1	C	28.7
2022 1,410,000 SF	D	50.7	C	31.5	C	29.5
2022 1,710,000 SF	E	59.7	C	27.6	C	30.7
Mt. Moriah Road						
2022 MOB #2 (200k SF)	C	33.5	D	50.5	D	46.0
2022 500k SF	C	32.9	D	50.5	D	48.0
2022 800k SF	C	34.1	D	49.4	D	48.3
2022 1,100,000 SF	C	32.5	D	49.7	D	48.8
2022 1,410,000 SF	C	32.9	D	49.4	D	49.0
2022 1,710,000 SF	C	33.6	D	51.1	D	49.4

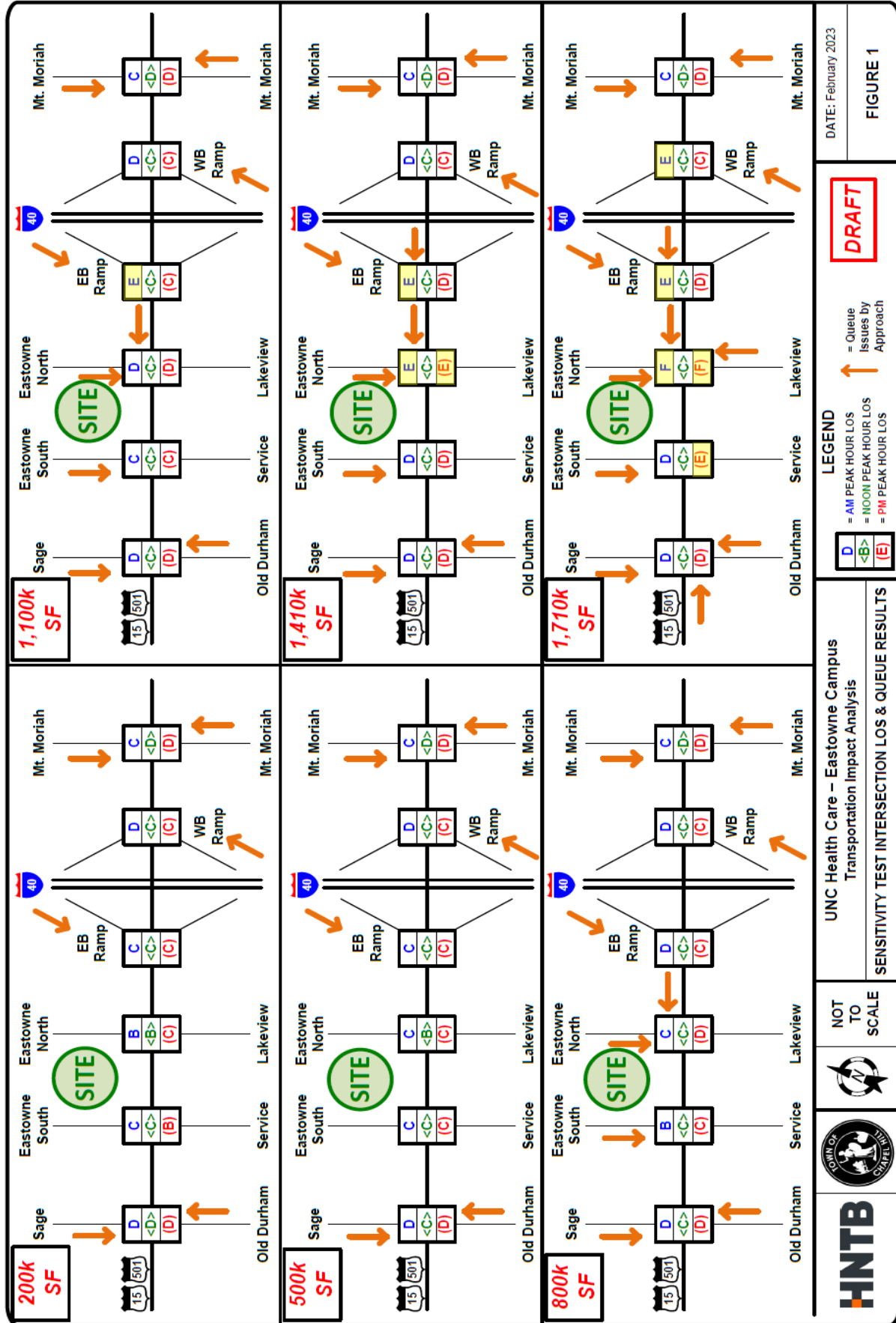
The tabular results indicate that the intersections furthest from the site along US 15-501 – Sage Road/Old Durham Road and Mt. Moriah Road have little variance in delay or LOS results with additional increases in development density. They both are busy intersections with conditions near capacity (LOS D) in at least one peak hour and queue issues at minor street approaches.

The two Eastowne Drive intersections with US 15-501 have the greatest range of impacts, as the majority of all site-related traffic for the Eastowne Campus will use these two intersections for access to the site. Both intersections initially operate well under capacity, with LOS B or LOS C results, but with increasing development densities, they fall to LOS E or F once development densities are in excess of 1,000,000 square feet. To mitigate traffic operations in the vicinity, additional through travel lane capacity and turn lanes may be needed on US 15-501 and side streets serving these intersections.

The I-40 signalized ramp terminal intersections with US 15-501 are likely to facilitate substantial amount of site-related traffic, whether it be regional trips using I-40 or trips using US 15-501 to/from areas in Durham. Below 1,000,000 square feet of development, overall intersection LOS in all peak periods is at least LOS D or better but falls to LOS E in the AM peak hour when 1,100,000 square feet was tested at the I-40 eastbound ramps intersection closest to the site. Additional queue results indicate that there are peak hour queue issues at lower development densities on the off-ramps in each direction approaching US 15-501 – some of which may include queuing back onto the I-40 mainline travel lanes - and at 800,000 square feet of development, queue issues occur for at least one peak hour on US 15-501 southbound between the ramps and Eastowne Drive/Lakeview Drive. Additional development density worsens queues, which start to back up through the interchange.

Overall intersection LOS comparisons and individual intersection approaches with queue issues in at least one peak hour are shown in **Figure 1**. As described above, queue issues are expected to occur at several intersections that feature current queue issues for minor streets in at least one peak hour in 2022. As shown in the figure, though overall intersection LOS does not fall to below LOS D thresholds, queue issues begin to occur at the 800,000 square foot development level for both Eastowne Drive connections to US 15-501 and for US 15-501 southbound just north of the site. Mitigation for queue issues may also be tied to capacity improvements or, at the very least, turn bay storage lengthening.

A final note on this sensitivity analysis study results – since the analysis was limited to increasing traffic volumes from different development densities for the UNC Health Care Eastowne Campus on 2022 base year volumes, no valid comparison can be made from these results to the results presented in the previous TIA of the 2032 Full Eastowne Campus Build-Out Scenario, or any 2026 design year results for the current UNC Health Care Eastowne MOB #2 TIA – as these studies include the effects of projected area-wide and specific local background traffic growth. All future formal TIA analyses for actual redevelopment plans that include the location of buildings and parking facilities will produce different results than what is shown in this sensitivity analysis and will need to include the updated base year traffic volumes at the time the studies are undertaken, as well as inclusion of projected background traffic growth for those studies for each development plan's anticipated build-out year.



DATE: February 2023

FIGURE 1

DRAFT

LEGEND

- AM PEAK HOUR LOS
- NOON PEAK HOUR LOS
- PM PEAK HOUR LOS
- Queue Issues by Approach

UNC Health Care – Eastowne Campus
 Transportation Impact Analysis
 SENSITIVITY TEST INTERSECTION LOS & QUEUE RESULTS

NOT TO SCALE



UNC Health Care Eastowne Negotiation Matrix

Topic	Town of Chapel Hill Position	UNC-HC Position
Zoning District	<ul style="list-style-type: none"> Office/Institutional-3 	<ul style="list-style-type: none"> Office/Institutional-3
Medical/Office Use	<ul style="list-style-type: none"> Up to 1,100,000 sf of net new total medical office/office space - including medical, general office, administrative and research space. Business, office-type Business, convenience Hospital Research activities 	<ul style="list-style-type: none"> Up to 1,100,000 sf of net new total medical office/office space/ambulatory medical/ institutional medical Business, office-type Business, convenience Hospital Research activities
Retail Use	Primarily supportive service	Retail space to support functions on Eastowne development. i.e. commissary for visitors and staff
Expand Tax Base	Needs further discussion	To Be discussed.
Street Design and Ownership	<ul style="list-style-type: none"> Town to maintain Eastowne Drive; "Complete Streets" design on Eastowne Drive Design Guidelines for different street classifications UNC-HC to own, construct, and maintain internal streets. Establish and identify ADA accessibility corridors. 	<ul style="list-style-type: none"> Town to maintain Eastowne Drive; "Complete Streets" design on Eastowne Drive Design Guidelines for different street classifications UNC-HC to own, construct, and maintain internal streets. Establish and identify ADA accessibility corridors.
Landscape & Buffers	<ul style="list-style-type: none"> Buffer along 15-501 similar to MOB 1 Tree-lined buffer 15-501 at 30 feet and I-40 at 100 feet (note: ramp portion of I-40 only requires a 30-foot setback) 40 percent tree canopy include any conservation easement areas and buffers. 30' on-center canopy tree plantings for all major streets 	<ul style="list-style-type: none"> 15-501 at 30' modified buffer similar to MOB 1 and I-40 at 100' Tree-Lined Buffer 40 percent tree canopy include any conservation easement areas and buffers. 30' on-center canopy tree plantings for all major streets
Parking	<ul style="list-style-type: none"> All decks to have horizontal deck design Parking rates changing over time – needs further discussion Available for game day park-and-ride – needs further discussion At least 80 percent of spaces shall be structured at full build-out - Early phases may include a higher percentage of surface spaces UNC-HC minimize the total number of on-site parking spaces – needs further discussion Will screen decks & lighting (similar to MOB1) from right-of-way Proposed parking deck on North Parcel shall only be constructed after full build-out of Eastowne horseshoe 	<ul style="list-style-type: none"> All decks to have horizontal deck design All parking decks screened on all sides visible from ROW - Will screen decks & lighting (similar to MOB1) At least 80% of spaces shall be structured at full build-out Early phases may include a higher percentage of surface spaces UNCH minimize the total number of on-site parking spaces. Agree to evaluate needs with ToCH and UNC-CH on an annual basis per current agreement. Proposed parking deck on North Parcel shall only be constructed after full build-out of Eastowne horseshoe
Pond Draining	<ul style="list-style-type: none"> In exchange for draining the pond and reducing the RCD setback to 50 feet within the Eastowne Drive loop, UNC-HC will: <ul style="list-style-type: none"> When feasible, remove existing buildings and parking lots from RCD 	<ul style="list-style-type: none"> In exchange for draining the pond and reducing the RCD setback to 50', UNCH will: <ul style="list-style-type: none"> When feasible, remove an existing building and parking lot from RCD

	<ul style="list-style-type: none"> ○ Provide a stream enhancement with water quality improvements • Provide a fully ADA accessible trail along the enhanced stream corridor 	<ul style="list-style-type: none"> • Provide stream enhancement with water quality improvements • Provide a walkable trail along and elevated walkable path across the enhanced stream corridor
Bike-Ped Connectivity	<ul style="list-style-type: none"> • Greenway/multiuse path along US 15-501 • Extend multiuse path along Eastowne Dr. • Complete Streets • Meet/exceed bike parking standards • Showers for all buildings • E-bike and scooter charging capacity • Preserve ROW for future I-40 crossing • Minimum of 5-foot width sidewalks with 50 percent of sidewalks minimum 8-foot width 	<ul style="list-style-type: none"> • Greenway/multiuse path along 15-501 • Extend path along Eastowne Dr • Minimum of 5' width sidewalks with 50% of sidewalks minimum 8' width • Meet bike parking standards. Covered lockers to be provided in structured parking when new parking structures are built. Four (4) showers to be provided in each new building. • E-bike and scooter charging stations – Provide three 110V receptacles at entrances to parking structures. • Preserve a bike/ped easement for future connection to New Hope Rd over Interstate 40 on Northern 20 • Greenway in RCD connecting Old Sterling to 15/501 Multimodal path. Connection between Old Sterling and 15-501.
Transit	<ul style="list-style-type: none"> • Investigate increasing bus service to Eastowne and cost share for provision of transit services – discussion with Chapel Hill Transit is ongoing. • Connect to a future BRT or light rail station along the US 15-501 corridor. • Provide additional improved transit stops within the Eastowne site including shuttle and expanded bus service – Needs further discussion 	<ul style="list-style-type: none"> • Provide a second bus stop on Eastern Eastowne loop. • Open to Bus Stop provisions along 15-501. Exact scope TBD
Traffic	<ul style="list-style-type: none"> • Mitigation measures – needs further discussion • LOS standards for individual movements • LOS D threshold • TIA updates with each development phase (typically including two MOB's) • Multi-modal analysis 	<ul style="list-style-type: none"> • LOS standards for individual movements • LOS D threshold • TIA updates with each development phase (typically including two MOB's) • Multi-modal analysis
Stormwater	<ul style="list-style-type: none"> • Exceed LUMO 5.4 standards (or standards in place at time of construction): <ul style="list-style-type: none"> ○ Exceed detention above LUMO and feasibility of 50-year storm. ○ Treat 50 percent of the existing impervious area where none is required. • Jordan new development standards 	<ul style="list-style-type: none"> • Meet LUMO standards with some minor exceptions for pond area and portion of North Parcel that are associated with land trade-off • Provide detention inside the horseshoe above LUMO-> 50-year storm vs. 25-year storm. • Treat 50% of the existing impervious area where none is required. • Impervious surface limitation of 70% • Drought tolerant plantings versus capture
Resource Conservation District	<ul style="list-style-type: none"> • Meet LUMO standards; • Remove structures from RCD, • No disturbance unless no practical alternative with exceptions for Greenways and pedestrian/bicycle crossings • Meet LUMO standards with some minor exceptions for pond area and portion of North Parcel associated with land trade-off with Town • With typically allowed encroachments for crossings by utilities and roads and stormwater management in the outer zones of the RCD 	<ul style="list-style-type: none"> • Remove structures from RCD, • Reduce RCD to 50' buffers and provide stream enhancement. • Allow encroachments for crossings by utilities, roads, pedestrian crossings and greenway trails. • Request removal of intermittent stream RCD along Eastern Eastowne loop to facilitate campus entrance
Steep Slopes	<ul style="list-style-type: none"> • Meet LUMO 5.3 Standards (disturb no more than 25 percent of the slopes greater than 25 percent slope) 	<ul style="list-style-type: none"> • UNCH in discussions with Town Staff.

North Parcel	<ul style="list-style-type: none"> • Designate a minimum of 10 acres of undisturbed land within the North Parcel as a permanent conservation easement (with exception to trail creation) • Meet LUMO standards with exceptions along US 15-501 frontage • Provide trail connection to Dry Creek trail system • Last phase of development. Other than bike/pedestrian connections, no development to be permitted until full build-out of horseshoe. 	<ul style="list-style-type: none"> • Preserve a bike/ped easement for future connection to New Hope Rd over Interstate 40 • One crossing for public accessibility and emergency vehicle access. A second crossing may be required if access for fire cannot be provided via the southern service road. • Second access point from Southern service road. • Create an easement for future connection to the Dry Creek Trail if it is extended to Eastowne site in conservation easement • Permanent conservation of 10 acres.
Stream Crossings	<ul style="list-style-type: none"> • One vehicular crossing and one pedestrian crossing. • One on North Parcel • Bridges or bottomless culvert 	<ul style="list-style-type: none"> • 2 inside horseshoe (pedestrian and vehicular) & at 2 in North parcel for emergency access. If Southern service road access is granted, one stream crossing to be eliminated on North parcel • Stream crossing design TBD
Public Amenity Spaces	<ul style="list-style-type: none"> • LUMO standard (0.218 ratio) • Open space standard • Design guidelines • Fixtures/furniture 	<ul style="list-style-type: none"> • Stream enhancement and greenway access along stream. • Internal green to be provided with areas for sitting, eating, relaxing.
Housing	Needs further discussion	Discussions ongoing with ToCH
Green Building	<ul style="list-style-type: none"> • Needs further discussion 	<ul style="list-style-type: none"> • Energy Efficiency to be 20% better than ASHRAE 90.1 (current North Carolina adopted version) • Photovoltaics to be utilized on Medical Office buildings to offset energy consumption. Targets dependent on technology and available office roof space. • LEED building standard shall be reviewed for approach to energy conservation.
Sustainable Infrastructure	<ul style="list-style-type: none"> • 3 percent parking spaces EV installed; 20 percent ready • 50 percent Medical Office Buildings to have solar panels, green roofs, or combination • Green infrastructure (may include stream restoration, roadside and amenity bioretention, permeable paving, and green roofs) • Drought resistant planting and no irrigation systems. 	<ul style="list-style-type: none"> • 20% spaces ready for EV charging stations – Electrical infrastructure provided. • 3% parking spaces EV • Revisit parking standards, EV requirements at intervals? • PV cells provided for MOB
Height	<ul style="list-style-type: none"> • 90 feet with higher heights internal to the site • Height to be measured from grade at main building entrance to primary roof structure (I.e., excluding mechanical penthouses and other mechanical equipment). 	<ul style="list-style-type: none"> • Prefer to stay within 6 stories + penthouse + screened mechanical but would also like to retain ability to exceed 6 stories for some buildings • Building max height is calculated from entrance elevation to top of roof deck. Equipment, screening, penthouses are excluded from the calculation. • Max of 120' on sites internal to development.
Complete Community Framework/ US 15-501 Pedestrian Crossing	<ul style="list-style-type: none"> • Payment-in-lieu with building phases • Provide a portion of the funding required for design and/or construction of a grade separated crossing 	<ul style="list-style-type: none"> • To be discussed.

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