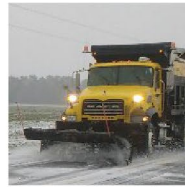




NORTH CAROLINA
Department of Transportation



PIEDMONT TRIAD
RURAL PLANNING ORGANIZATION



Randolph County CTP Steering Committee Meeting # 10

August 25, 2025

AGENDA

1. Welcome & Previous Meeting Summary

2. Update on the CTP Progress

- Recap: FY Highways Deficiencies-No Build Scenario Analysis Discussion

3. Alternatives Analysis: Future Year Highways Deficiencies and Discussion

- Presentation: Alternative Analysis (Adding Lanes) and Anticipated Changes in FY Volume Capacities with Typical Section Designs
- Discussion: Exploring Other Alternative Options for Future Congested Roadways

4. Upcoming Schedule:

- Next: Continuing Discussions on Alternative Analyses (Highways, Bike, and Pedestrian Projects))

4. Other Items

5. Next Meeting: _____

Previous Meeting Summary

Randolph County CTP Steering Committee Summary July 28, 2025 – 2:00 pm (hybrid meeting)
via Zoom.com &

Asheboro Recreation Center, Asheboro NC

Attendance:

John Evans	Community Development Director – Asheboro
Janie Konyek	Assistant Town Manager – Liberty
Kim Heinzer	Planning Systems Coordinator – Randolph County
Tawana Williams	RCATS Director
Michael Abuya	NCDOT Project Engineer- Transportation Planning Division
Dr. Marty Sung	NCDOT PTRPO Coordinator- Transportation Planning Division
Devin Jones	NCDOT Intern
Jesse Day	Planning Director – PTRC
Tamira Weeks	Planning Intern – PTRC
Kayla Brown	Addressing Coordinator – Randolph County
Zeb Holden	County Manager – Randolph County
Tari Johnson	Lead Transportation Supervisor – Asheville City Schools
Bryan Kluchar	NCDOT Division 8
Richard Weldon	Randolph Community College
Dale Brinkley	Randolph County School System

Summary of Agenda Items:

Welcome

Jesse Day welcomed everyone.

CTP Progress Update

Sangwoo "Marty" Sung, PhD (NCDOT TPD)

Mr. Sung presented progress updates on the public transit and highway plans, noting that comments from previous meetings are being compiled for future discussion. He highlighted the importance of analyzing SPOT information to assess the effectiveness of past submissions and how they will inform future planning.

Review Future Highways Deficiencies

Michael Abuya, Sangwoo "Marty" Sung, PhD (NCDOT TPD)

Mr. Abuya and Mr. Sung presented an analysis of Randolph County traffic volume across the county with projected traffic counts for the year 2050. They provided a visual comparison of traffic counts and projections from the base year to 2050, noting significant increases in congestion in areas in and around Asheboro and US-64. The discussion included the need for further analysis and feedback from committee members on certain corridors and locations. The group made mention of two areas to observe in the future for changing traffic volume:

Rockingham County CTP
Steering Committee Summary
July 28, 2025

1. U.S. 64 Bypass
2. Roads with access to the Toyota Megasite

CTP Next Steps

Sangwoo "Marty" Sung, PhD (NCDOT TPD)

Mr. Sung stated the next phase of the CTP will focus on traffic analysis to assess traffic volume changes based on project recommendations and encouraged participants to provide feedback via email. He also noted that the process to provide a draft report on project recommendations is on track for November 2025.

Next Meeting Tentative Date

Monday, August 25 at 2:00pm

Asheboro Rec Center – 148 North St., Asheboro

Remote attendance is available via zoom. A link and calendar item will be sent out once the date is confirmed by NCDOT and RPO staff.

Quick Recap:

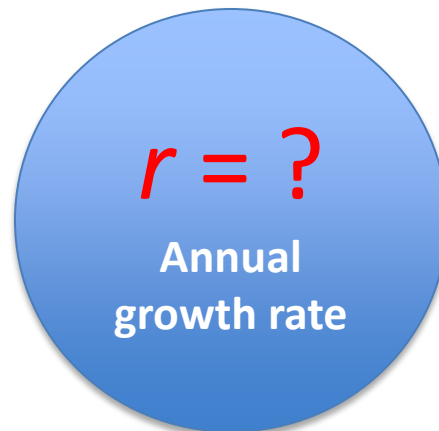
Future Year Highways Deficiencies with No Build Scenario

Forecasting Future Year Volume

Future Year Volume

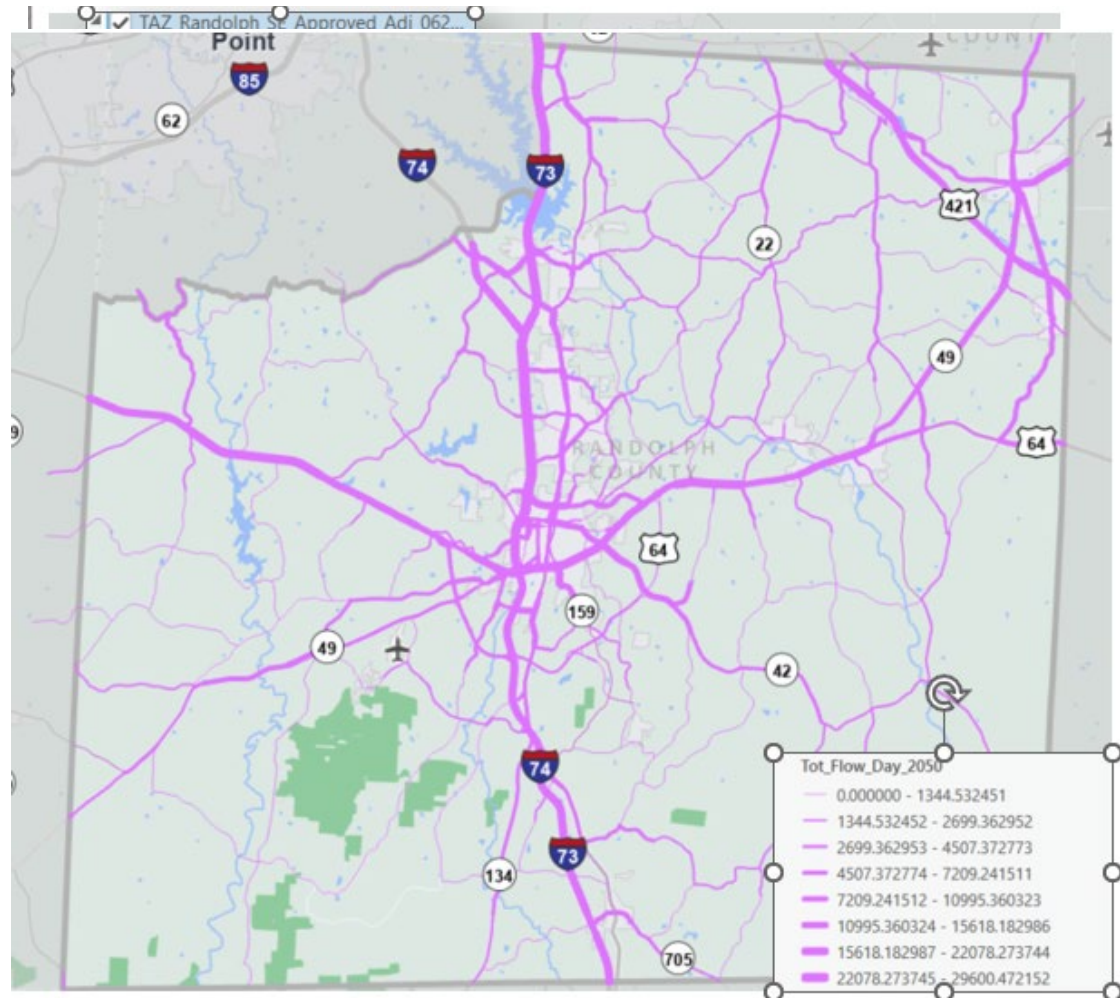
$$= \text{Base Year Volume} \times (1 + r)^{\text{year}}$$

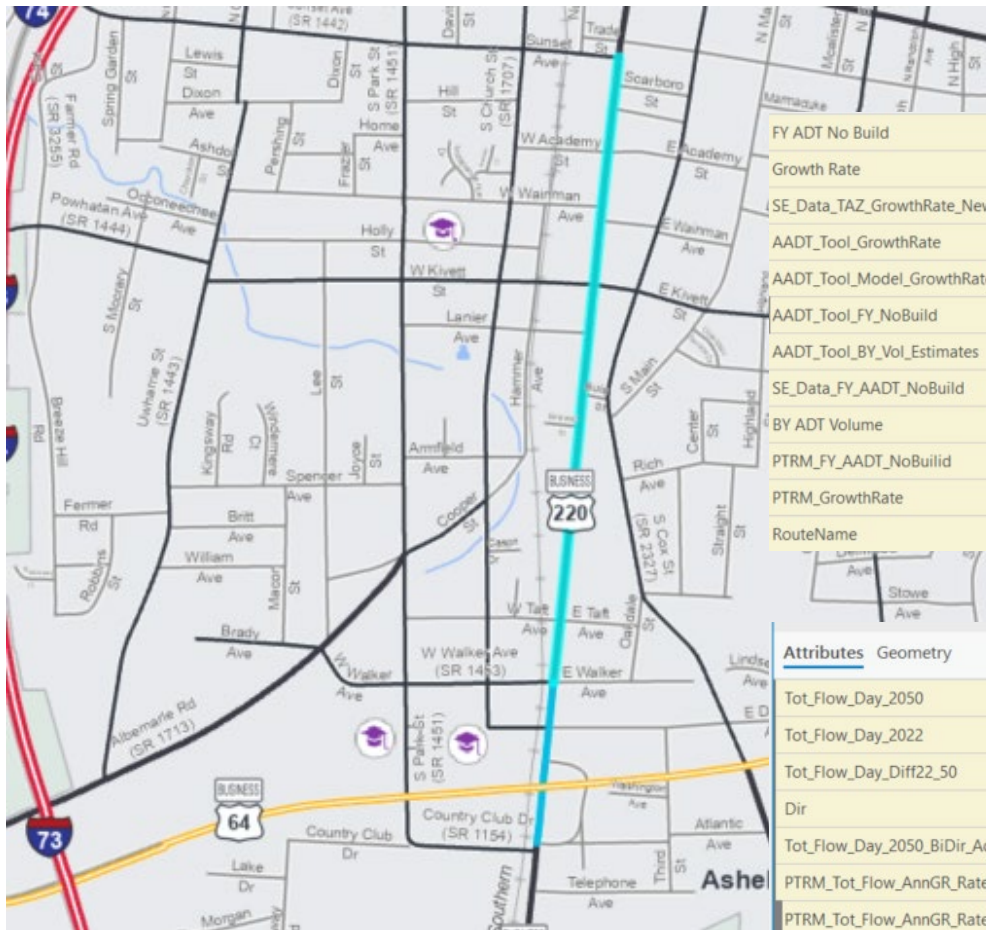
; where *year* = 2050-2022 = 28



3 Different Primary Forecasting Data Sources

1. Endorsed Socio-Economic Projection Data
2. Historic AADT Stations Data and Python Forecasting Tool
3. PTRM v.6 Model Outputs (Volumes and Annual Growth rates)





SE Data:
0.9%

AADT
Forecast
Tool: 0.1%

**Annual
Growth rate
 $r = 0.5\%$**

PTRM:
1.18%

Annual Growth Rate “ r ” is decided by comparing three input sources.

Future Year (2050) Volume & Capacity –No Build Maps (Draft)

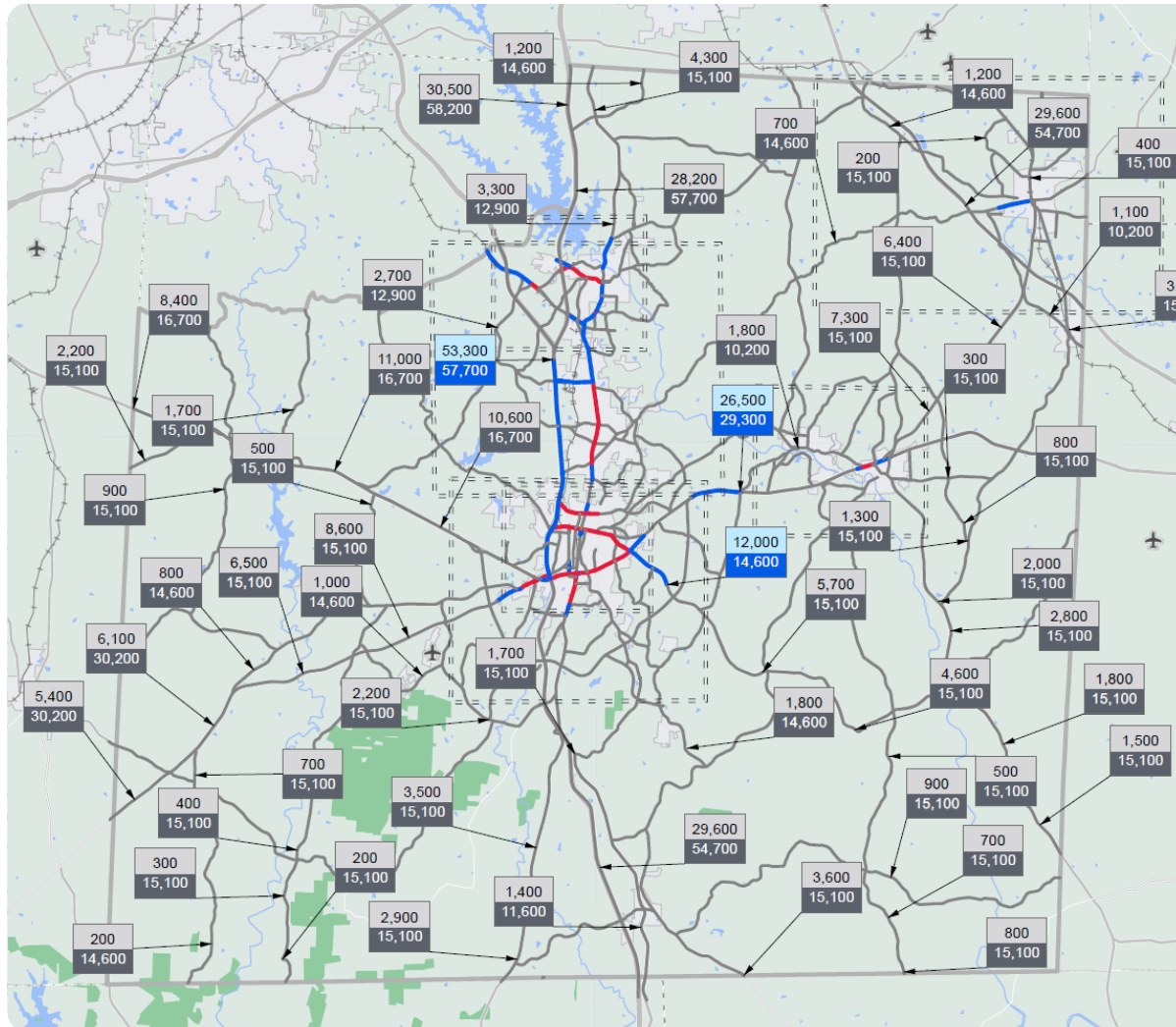


Figure 2
2050 VOLUME AND
CAPACITY DEFICIENCIES



RANDOLPH COUNTY CTP Analysis and Information

Volume and Capacity Ratio Features
(Future Year 2050)

2050 Volume Capacity	Under Capacity (0-0.79)
2050 Volume Capacity	Near Capacity (0.80-0.99)
2050 Volume Capacity	Over Capacity (1.00+)

Other Features

	Studied Roads
	High Point MPO
	Piedmont Triad RPO



Full report at:
<https://tinyurl.com/4k2xucan>

0 0.75 1.5 3 4.5 6 Miles

Sheet 1 of 7

Base map date: April 04, 2024

Legal Disclaimer

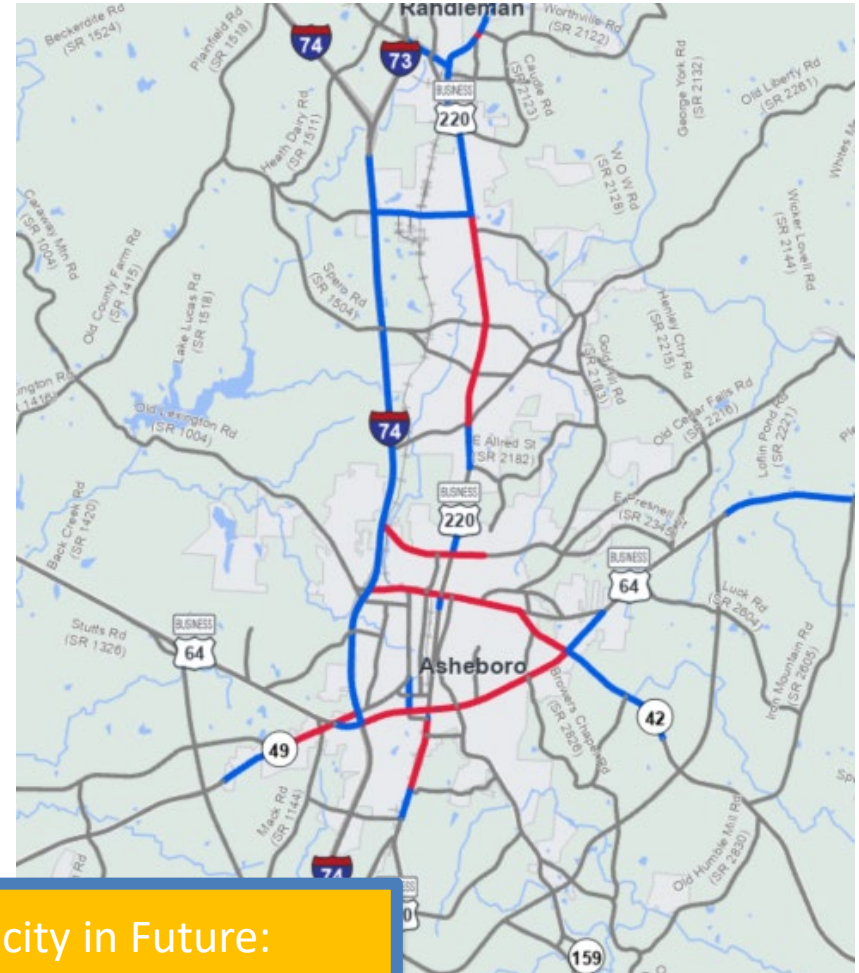
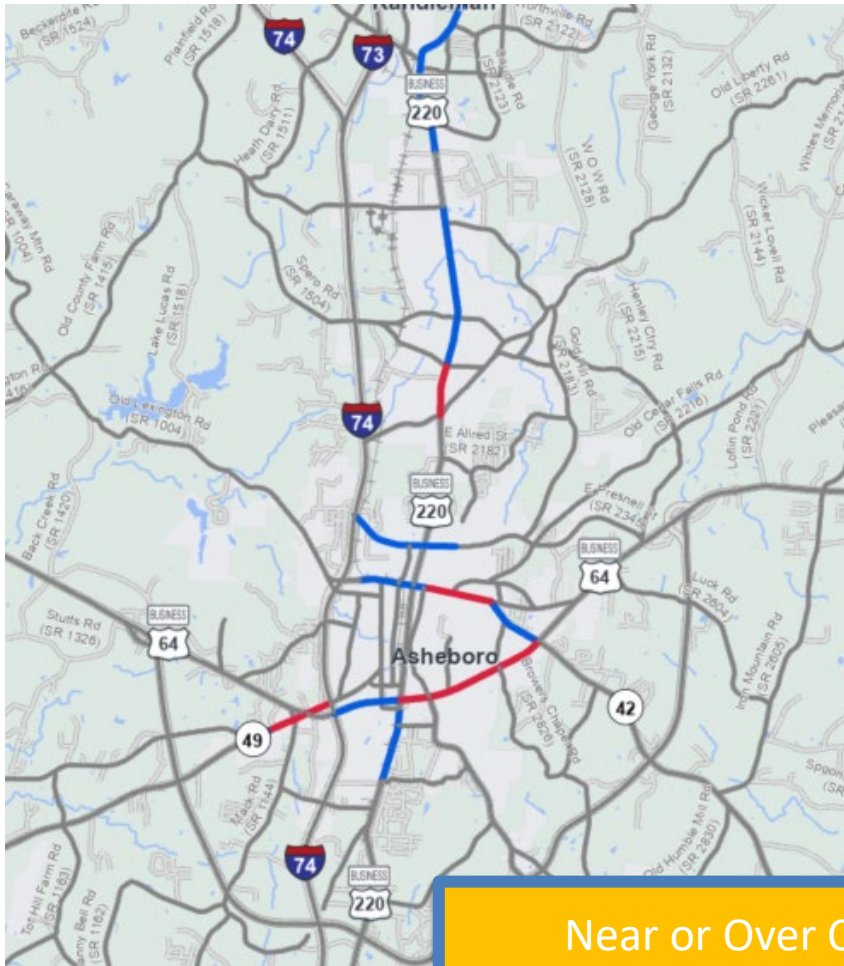
This product contains mapping data for informational and planning purposes only, and is subject to change. Users should review or consult the primary data sources to ascertain the usability of the information.

WORKING COPY
Plan Date: July 23, 2025

Changes in Volume Capacity Deficiencies

BY 2022

FY 2050



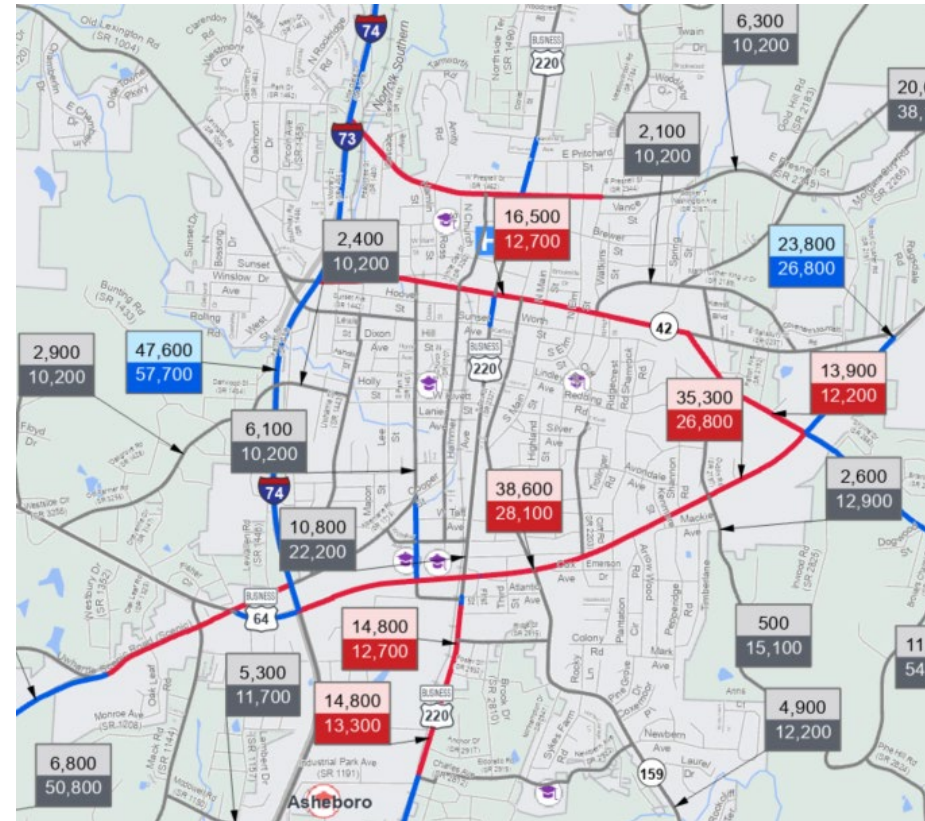
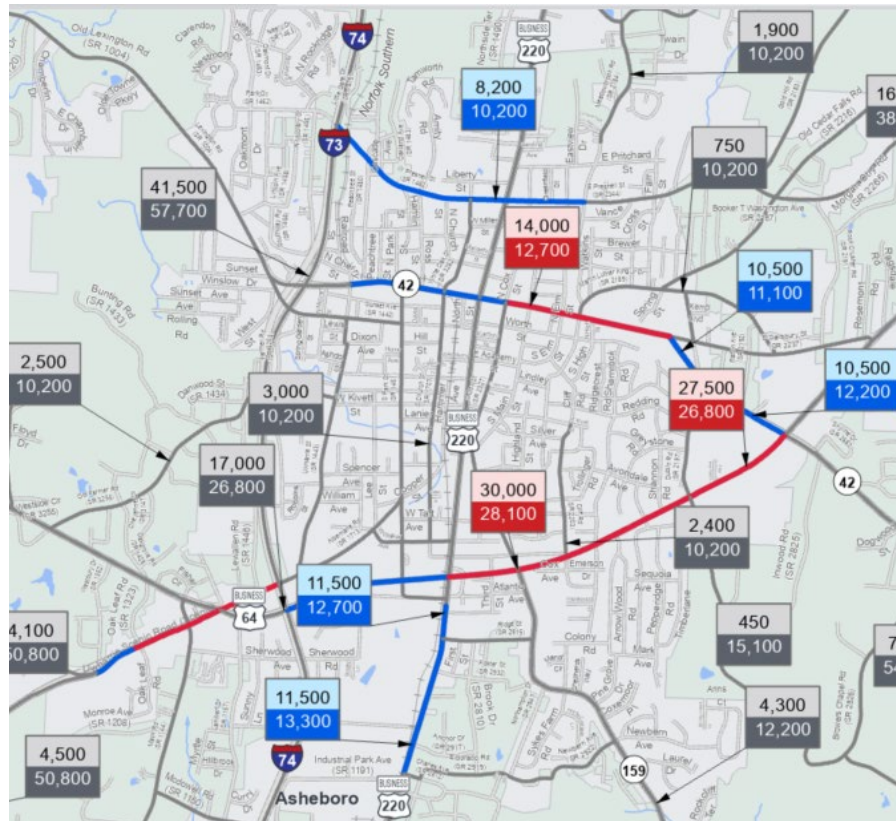
Near or Over Capacity in Future:
US 220 Bus ; I-73/74 ; NC42 ; US 64

Comparing BY VC to FY VC

Asheboro Downtown

BY 2022

FY 2050



Alternatives Analysis:

**Future Year Highways Deficiencies with
(an) Alternative(s)**

Alternatives Analysis

- Explore various planning alternatives to meet the future transportation needs while improving mobility, safety, and accessibility
- Identify Issues in Transportation Systems
 - Traffic Congestions (mobility)
 - Safety for drivers, pedestrians/bicycle users (safety)
 - Limited multi-modal (bus/transit/rail) travel options (accessibility)
 - Environmental impact, resiliency, and equity issues, etc.

Developing Alternatives

- Alternatives needs to be developed and evaluated; (1) so that they are well-aligned with Vision/Goals/Objectives; (2) to meet the future transportation needs.
- Future land use changes and environmental impact are also important factors in the development/evaluation process.
- Widely Adopted Options in System Design Approaches
 - Widening (Adding) Lanes
 - Median (divided facility), TWLTL (two-way left-turn lane), Dedicated turn lane
 - Change in speed limit
 - Cross-section design (e.g., Roundabout and traffic signals)
 - Dedicated bike lane(s), sidewalks
 - And many others... ..

Roadway Congestion and Solutions

- Volume Capacity Ratio = Traffic Volume / Road Capacity
Under Capacity = 0.0 ~ 0.79 Near Capacity = 0.8 ~ 0.99 Over Capacity = 1.0 +
- Near Capacity or Over Capacity are typically considered as 'Congestion'

Solution: Maintain Volume Capacity Ratio being 'under capacity', which is below 0.8 (i.e., Reduce traffic volume or increase road capacity: widening)

Example of Roadway Capacity Table by LOS and Facility Type (Major thoroughfare-multilane)

Level of Service D



Driver Comfort: Poor

Maximum Density:

42 passenger cars per mile per lane

Level of Service D Standards for Major Undivided Multilane Thoroughfares

PIEDMONT	2 Lane Per Direction			3 Lane Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural
55 MPH MAX AADT LOS D	25800	29100	30200	38700	43650	45300
45 MPH MAX AADT LOS D	26700	27600	29300	40050	41400	43950
35 MPH MAX AADT LOS D	22200	23500		33300	35250	
25 MPH MAX AADT LOS D	22100			33150		
	2 Lane Per Direction WCLTL			3 Lane Per Direction WCLTL		
55 MPH MAX AADT LOS D	28400	31800	33000	42600	47700	49500
45 MPH MAX AADT LOS D	26800	27600	32000	40200	41400	48000
35 MPH MAX AADT LOS D	24300	26000		36450	39000	
25 MPH MAX AADT LOS D	24200			36300		

Source: Level of Service D Standards for Systems Level Planning

https://connect.ncdot.gov/projects/planning/TransPlanManuals/Standard_Tables.pdf

Near Capacity or Over Capacity Roads in FY 2050 No Build Scenario (working draft)

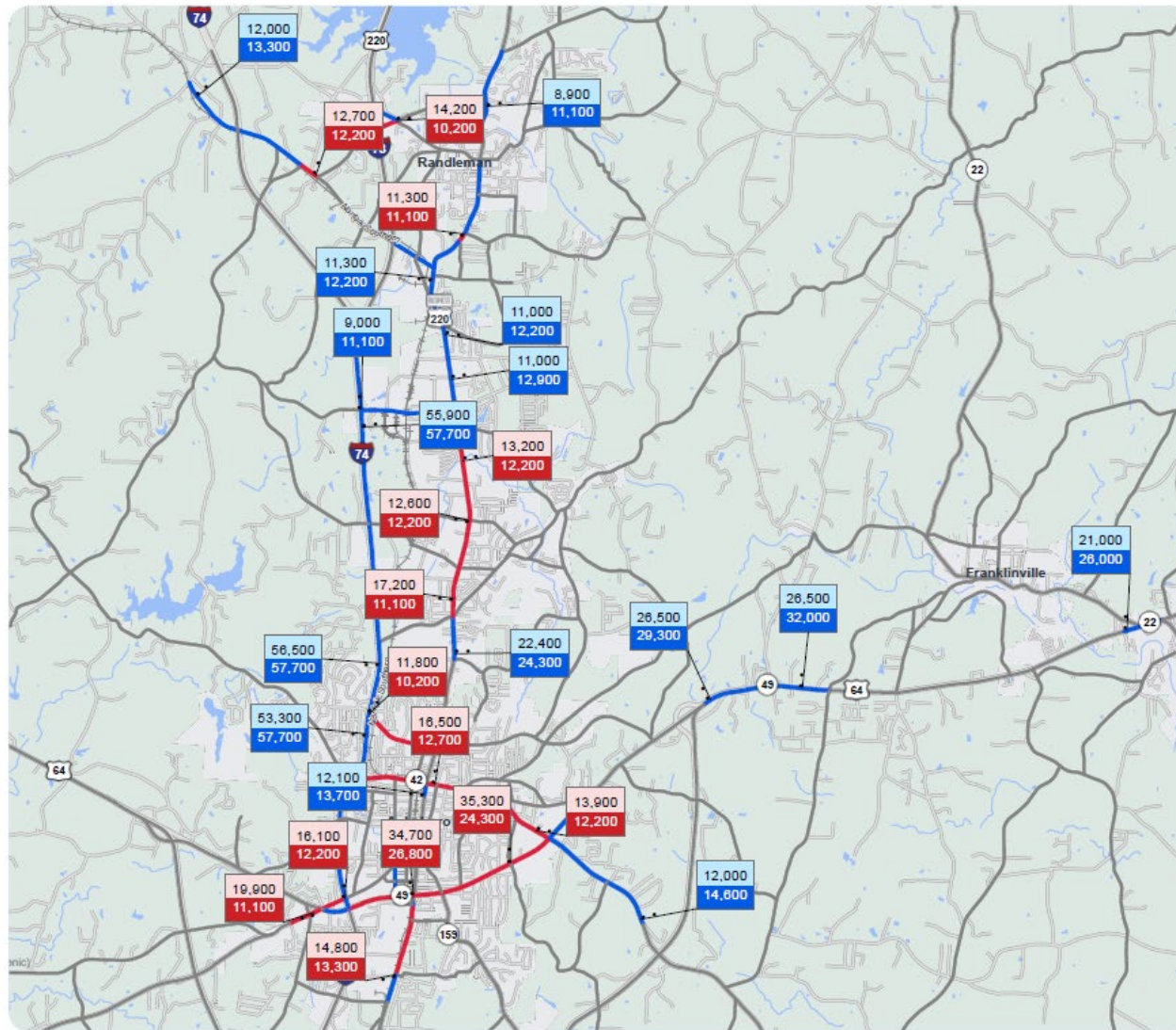


Figure 2
2050 VOLUME AND
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Other Features

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	Piedmont Triad RPO



Full report at:
<https://tinyurl.com/4k2xucan>

0 0.35 0.7 1.4 2.1 2.8
Miles

Sheet 1 of 7

Base map date: April 04, 2024

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WORKING COPY
Plan Date: August 19, 2025

Alternative Analysis: “Widening (Adding) Lanes” Applied to Near-Over Capacities Roadways (working draft)

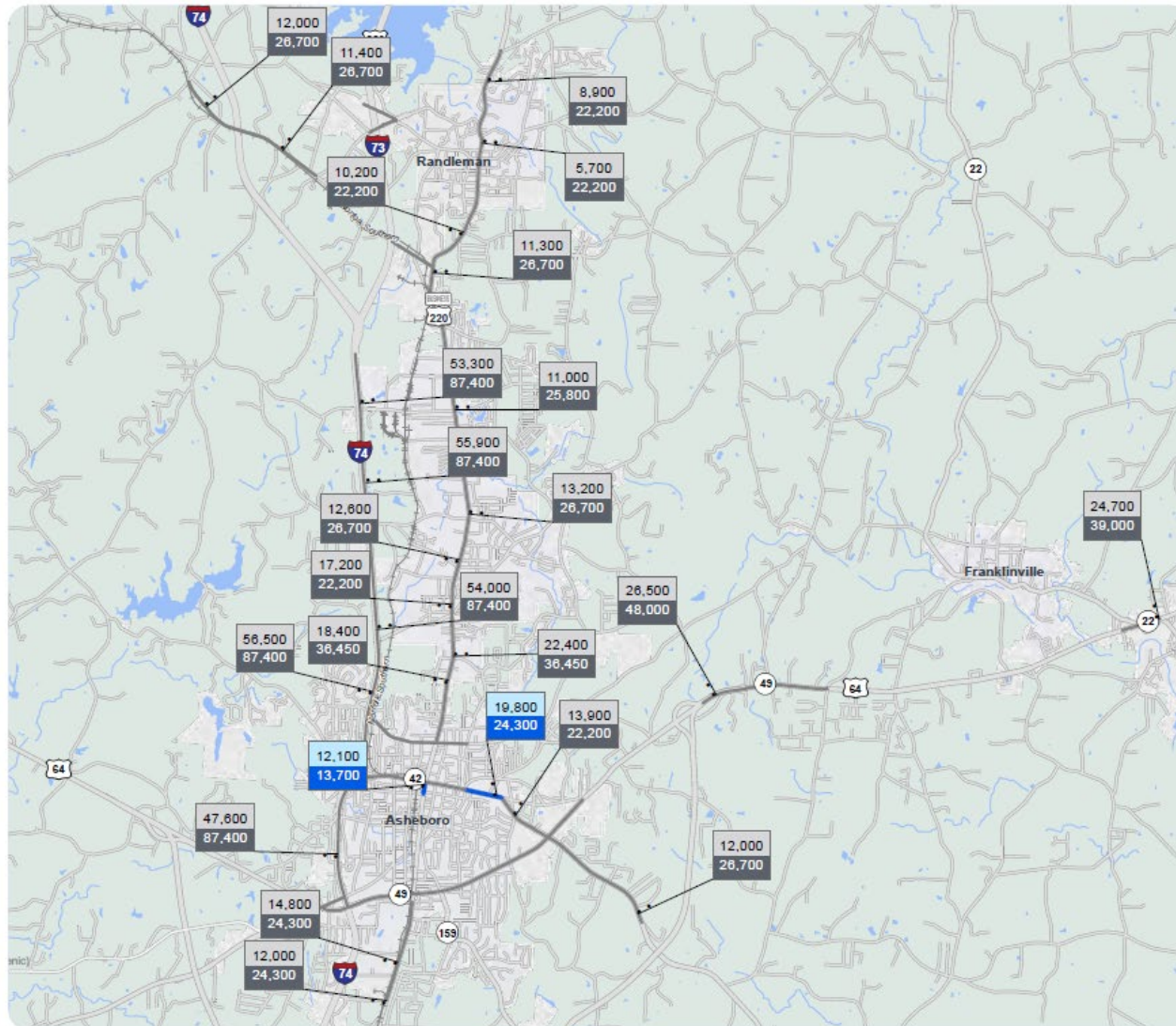


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Volume and Capacity Ratio Features
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2050 Volume Capacity	Under Capacity (0-0.79)
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Other Features

	Studied Roads
	High Point MPO
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Sheet 1 of 7

Base map date: April 04, 2024

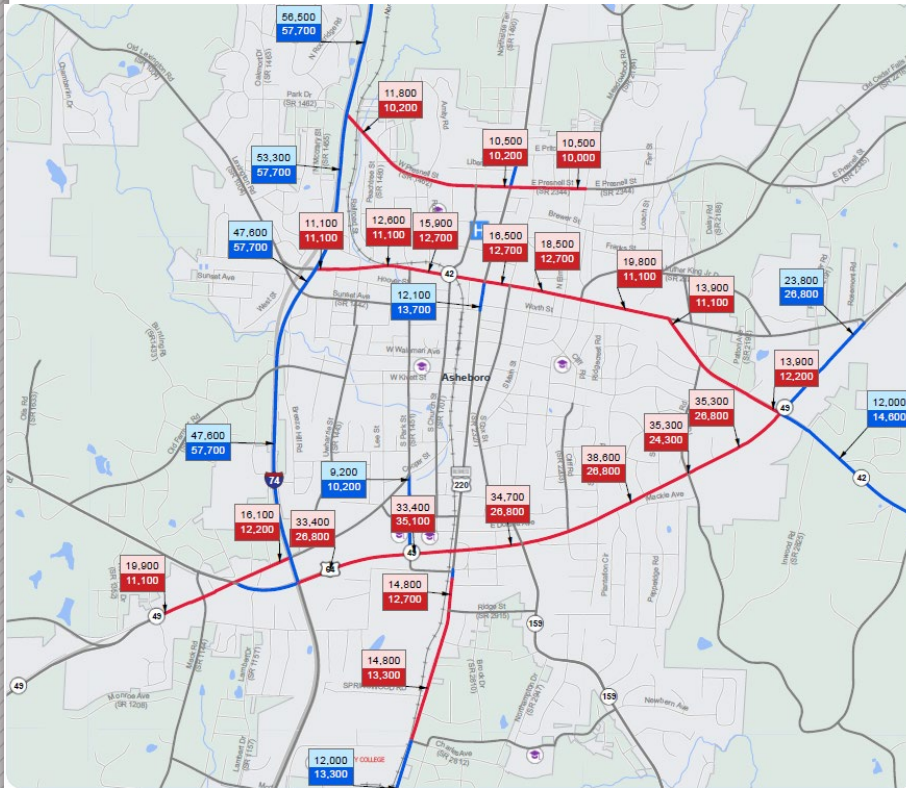
Legal Disclaimer

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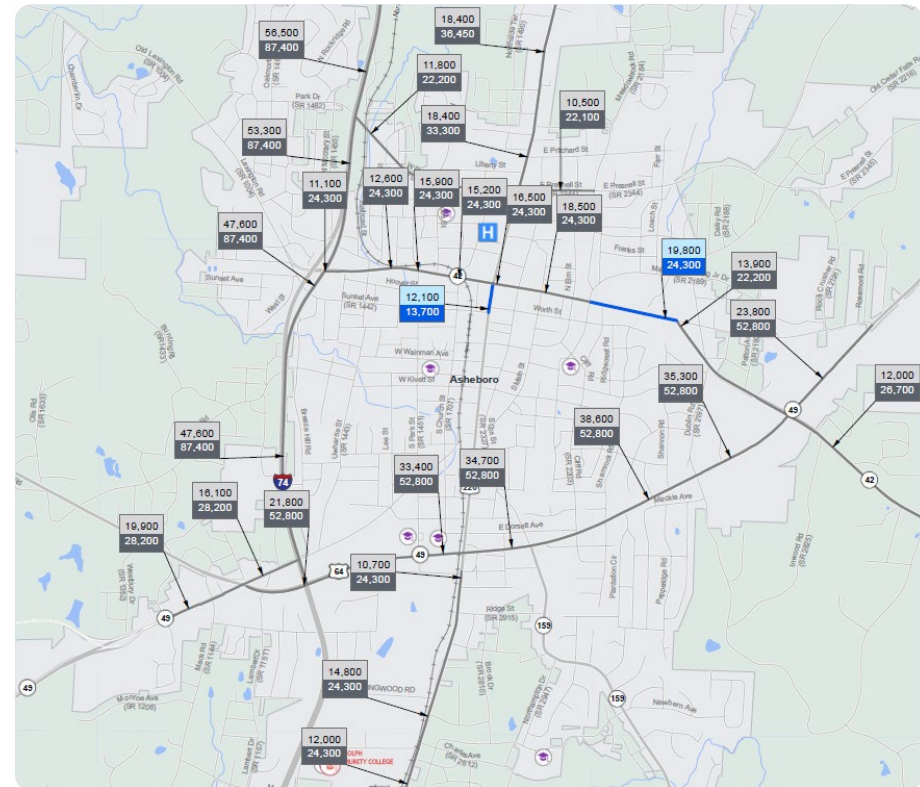
WORKING COPY
Plan Date: August 19, 2025

Alternative Analysis: “Widening (Adding) Lanes” Applied (Asheboro Downtown)

FY 2050 No Build



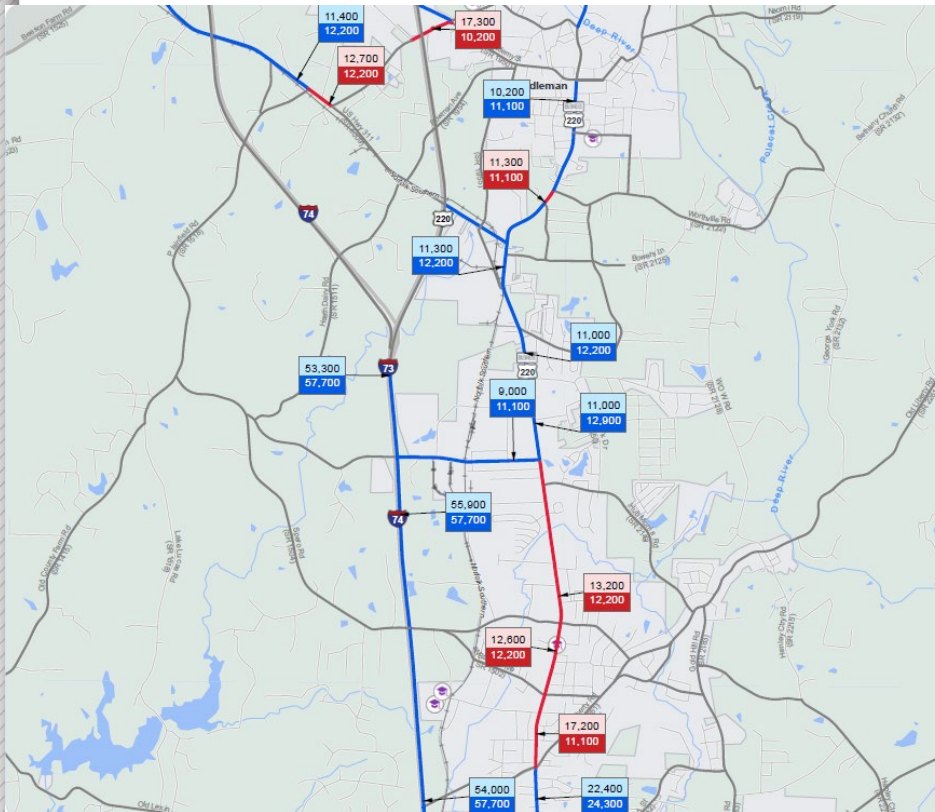
FY2050 Adding Lanes



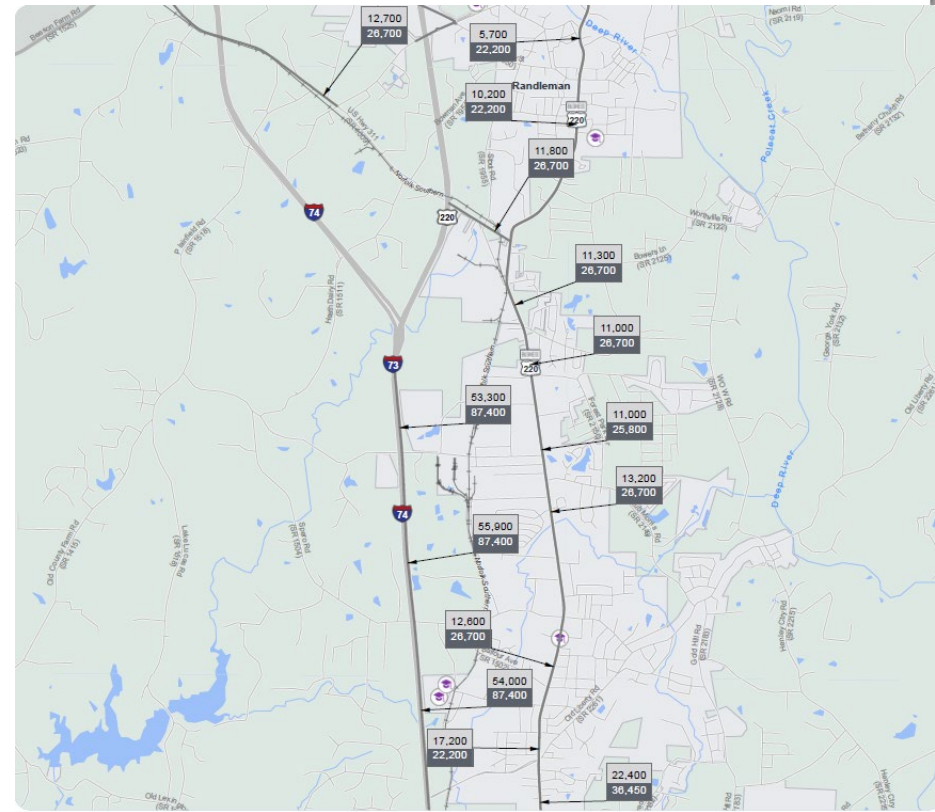
(working draft)

Alternative Analysis: “Widening (Adding) Lanes” Applied (Asheboro North)

FY 2050 No Build



FY2050 Adding Lanes

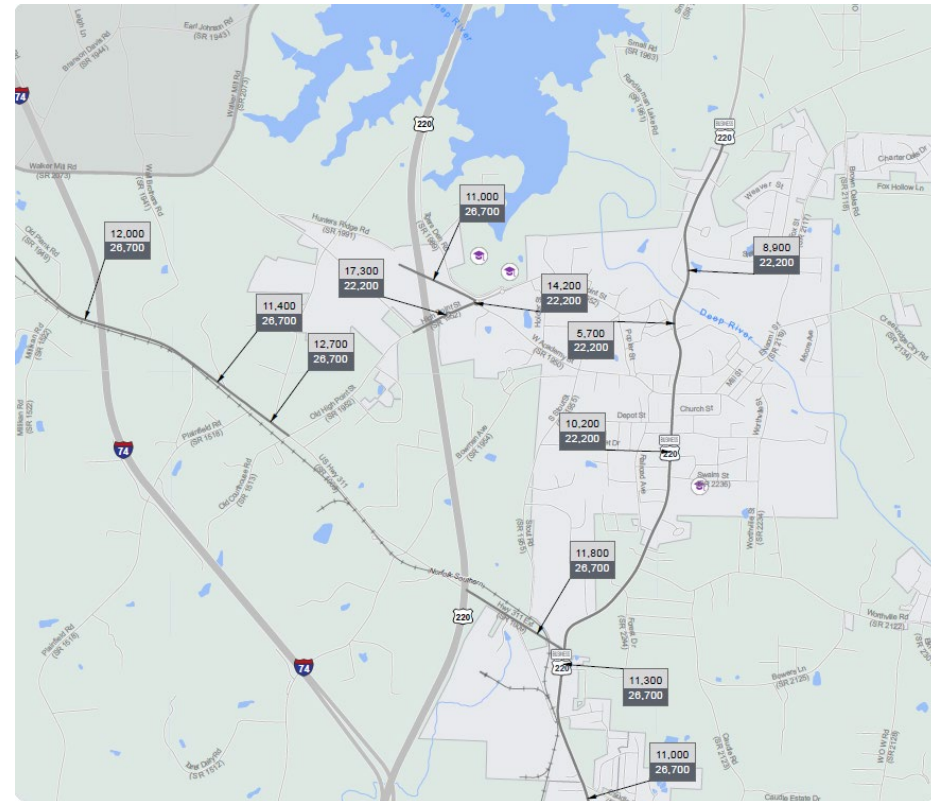
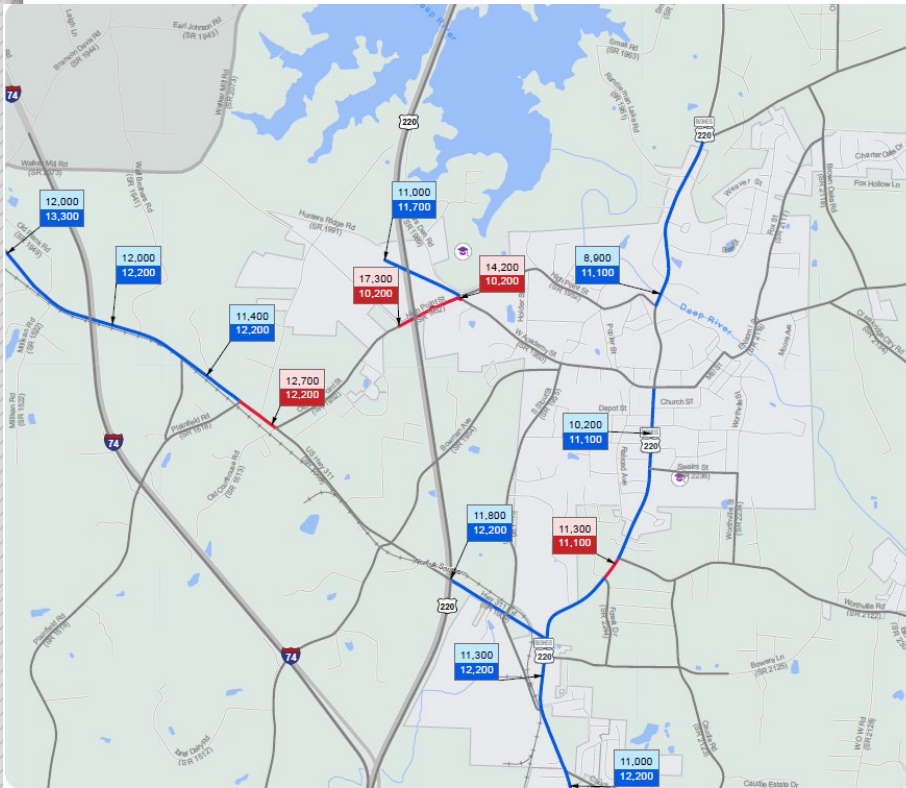


(working draft)

Alternative Analysis: “Widening (Adding) Lanes” Applied (Randleman)

FY 2050 No Build

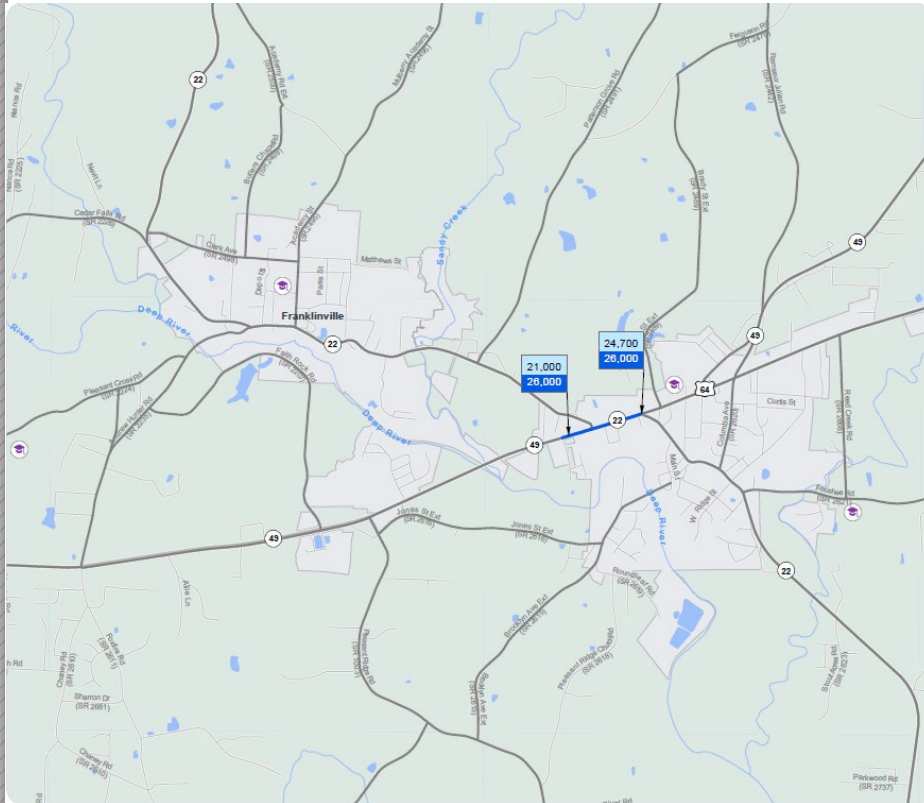
FY2050 Adding Lanes



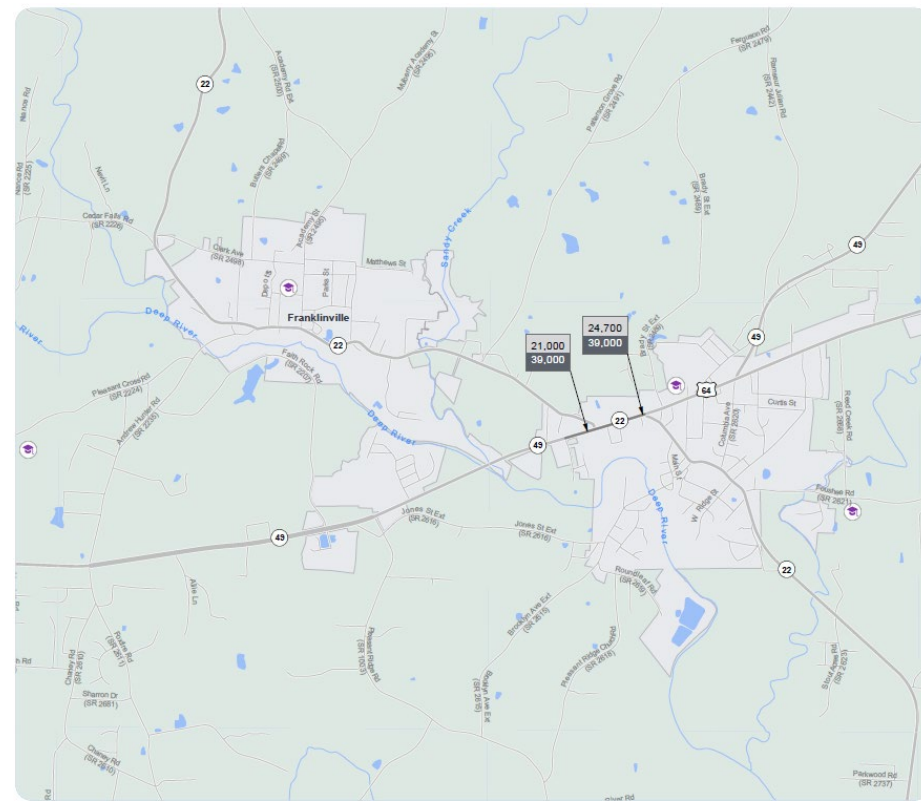
(working draft)

Alternative Analysis: “Widening (Adding) Lanes” Applied (Franklinville and Ramseur)

FY 2050 No Build



FY2050 Adding Lanes



(working draft)

HIGHWAY TYPICAL SECTIONS FOR USE (Roadway Design)

HIGHWAY TYPICAL SECTIONS FOR USE IN SPOT ON!NE

Updated February 15, 2019



This document contains 57 different highway typical cross sections for use in SPOT Online, NCDOT's GIS-based Web Application for providing automated, near real-time prioritization scores and project costs.

The typical sections listed provide a variety of options for users to choose from when entering the desired cross section for a new project in the application. Each typical section includes several data elements, such as the number of lanes, median type, and amount of right-of-way needed. These data elements are used to calculate quantitative scores for the Prioritization process, as well as calculate a planning-level cost estimate for the project.

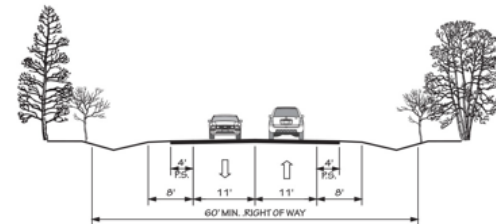
The typical sections were developed by a team from the Strategic Prioritization Office (SPOT), Roadway Design Unit, Preliminary Estimates Section, Transportation Planning Branch, Program Development Branch, and the Enterprise Visualization Section. Please contact the Strategic Prioritization Office with any questions.

Note: The typical sections shown here are examples, not final recommendation

Document Link:

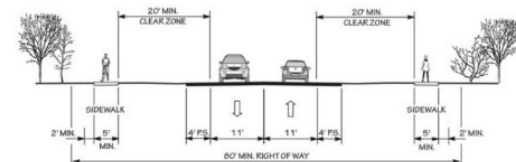
<https://connect.ncdot.gov/projects/Roadway/RoadwayDesignAdministrativeDocuments/Highway%20Typical%20Sections%20for%20SPOT%20Online.pdf>

TYPICAL SECTION No. 2B 2 LANES UNDIVIDED WITH PAVED SHOULDERS



POSTED SPEED 25-45 MPH

TYPICAL SECTION No. 2F 2 LANE UNDIVIDED WITH PAVED SHOULDERS AND SIDEWALKS IN CAMA COUNTIES

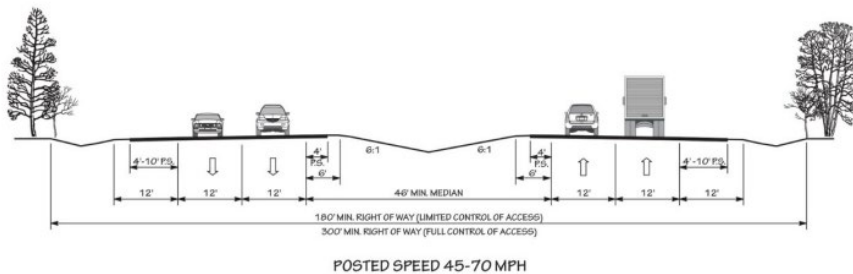


POSTED SPEED 25-45 MPH

HIGHWAY TYPICAL SECTIONS FOR USE (Roadway Design)

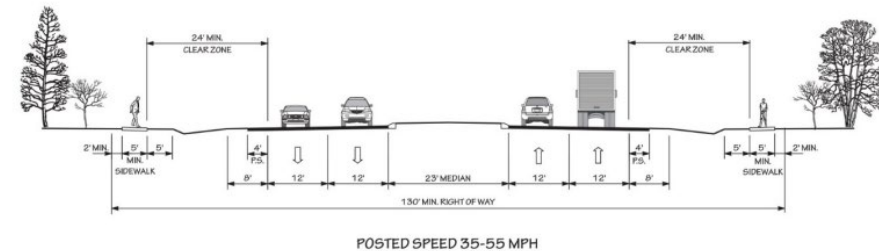
TYPICAL SECTION No. 4A

4 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS



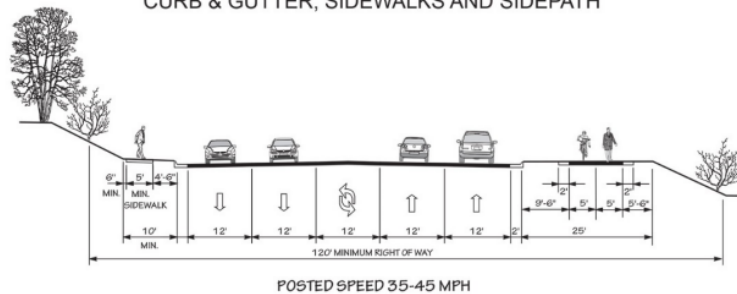
TYPICAL SECTION No. 4B

4 LANE DIVIDED (23' RAISED MEDIAN) WITH PAVED SHOULDERS AND SIDEWALKS



TYPICAL SECTION No. 5B

4 LANE WITH TWO WAY LEFT TURN LANE,
CURB & GUTTER, SIDEWALKS AND SIDEPATH

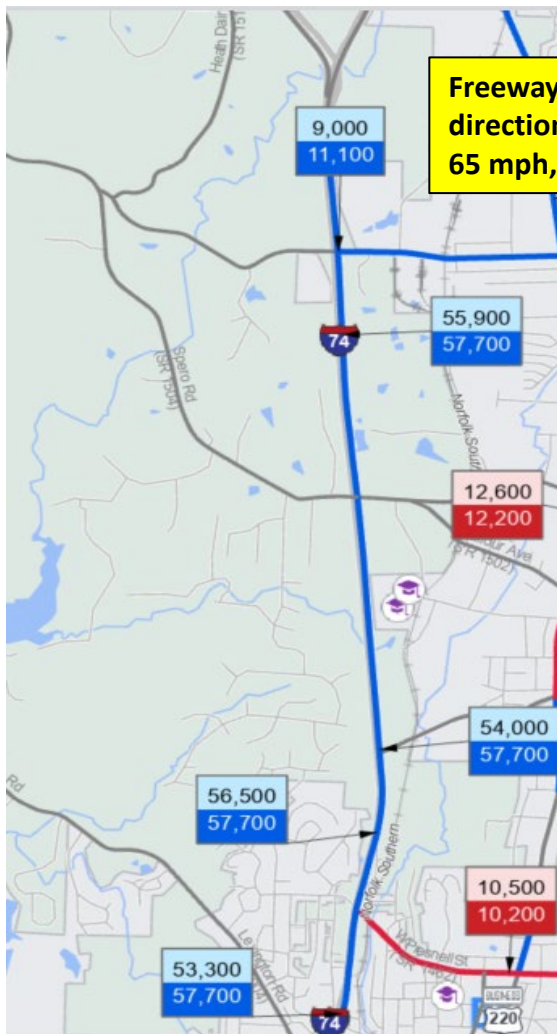


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Document Link:

<https://connect.ncdot.gov/projects/Roadway/RoadwayDesignAdministrativeDocuments/Highway%20Typical%20Sections%20for%20SPOT%20On!ine.pdf>

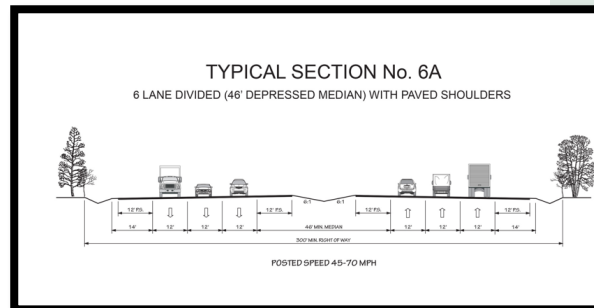
I-73/74 Freeway



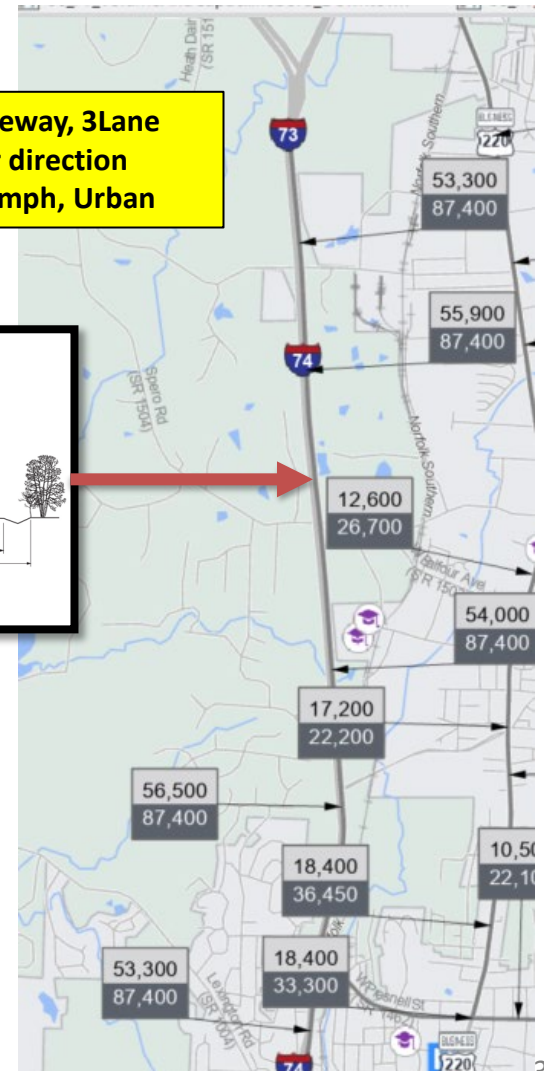
**Freeway, 2 Lane per direction
65 mph, Urban**



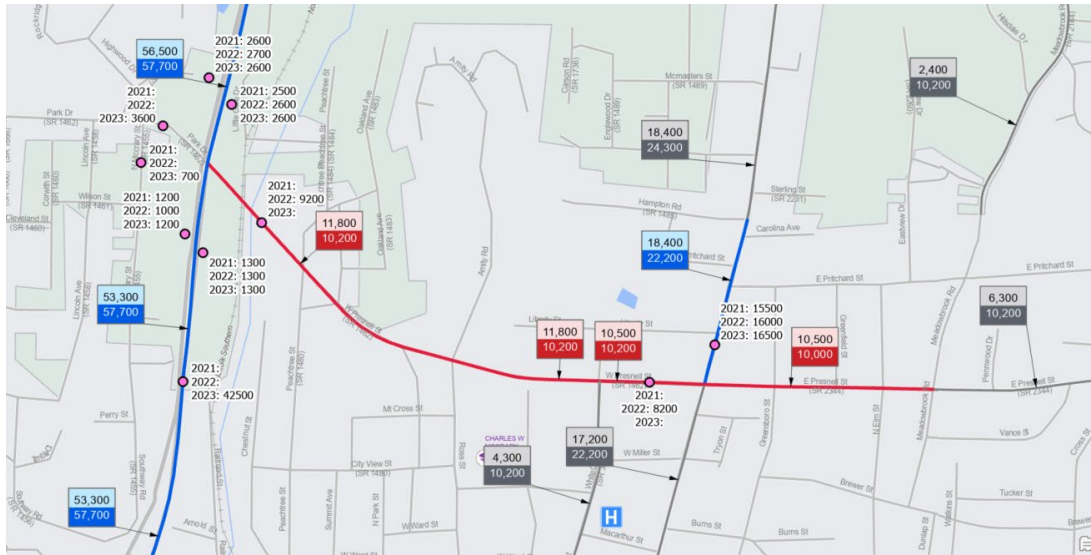
**Freeway, 3 Lane per direction
65 mph, Urban**



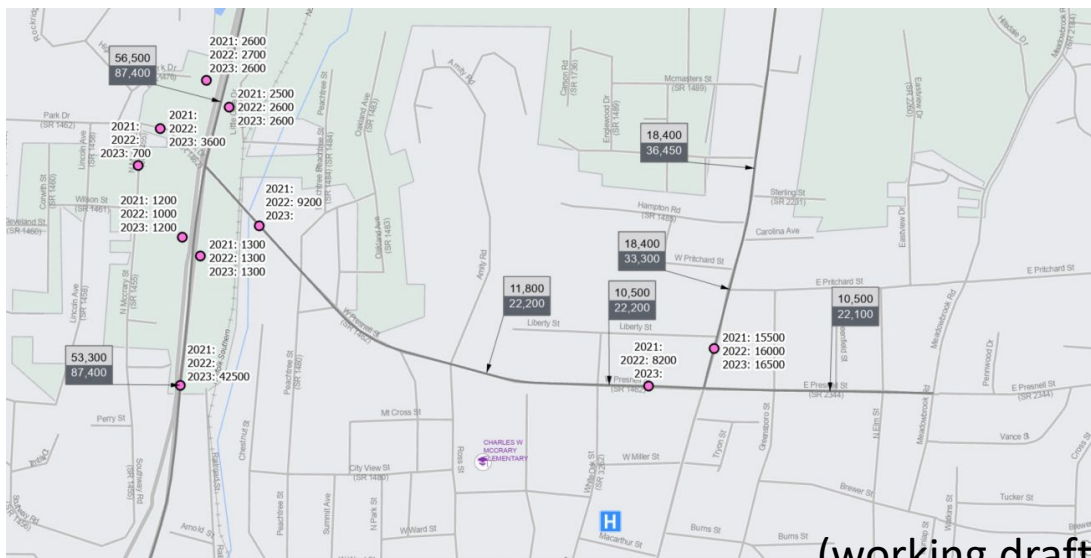
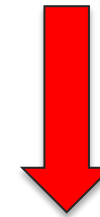
Note: The typical sections shown here are examples, not final recommendation



West and East Presnell St



Minor 2 Lane Thoroughfare
35 mph, urban



Major Thoroughfare Multilane
4 lanes
35 or higher mph, urban
No Median

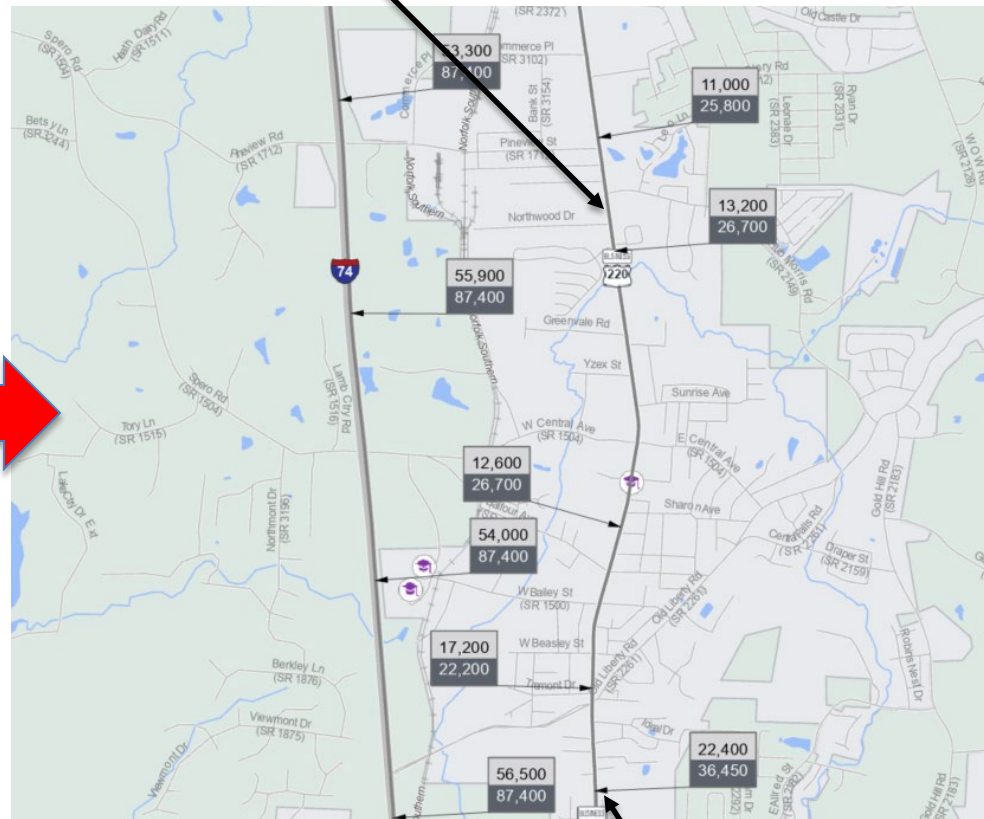
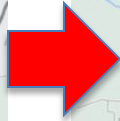
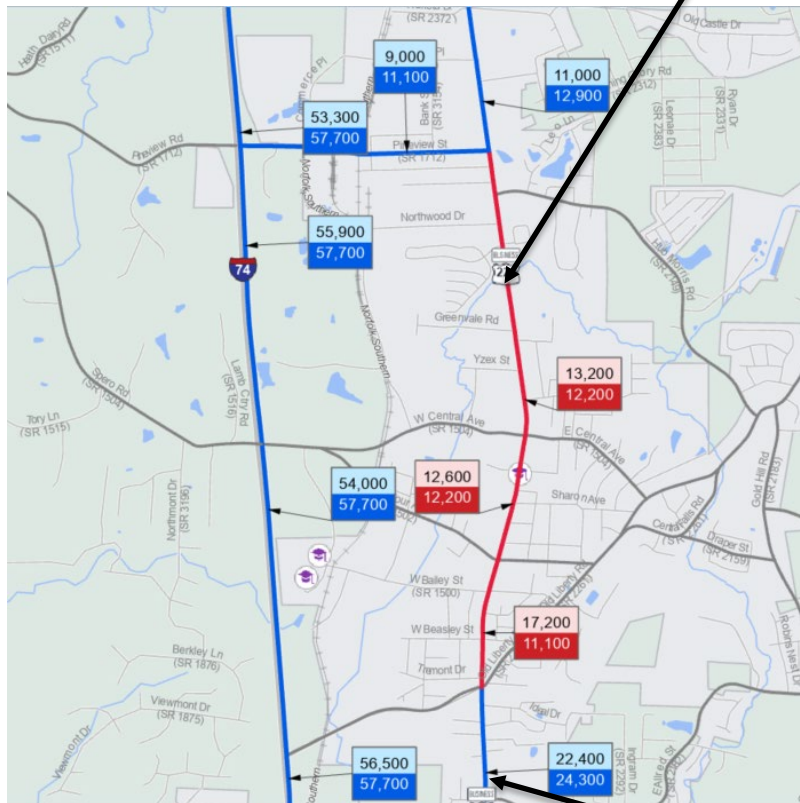
Note: The typical sections shown here are examples, not final recommendation

(working draft)

US220 Bus (working draft)

Major 2 Lane Thoroughfare
35 mph, urban

Major 4 Lane Thoroughfare
35 mph, urban



Note: The typical sections shown here are examples, not final recommendation

Major 4 Lane Thoroughfare with TWLTL
35 mph, urban

Major 6 Lane Thoroughfare 35 mph or higher, urban

US220 Bus (working draft)

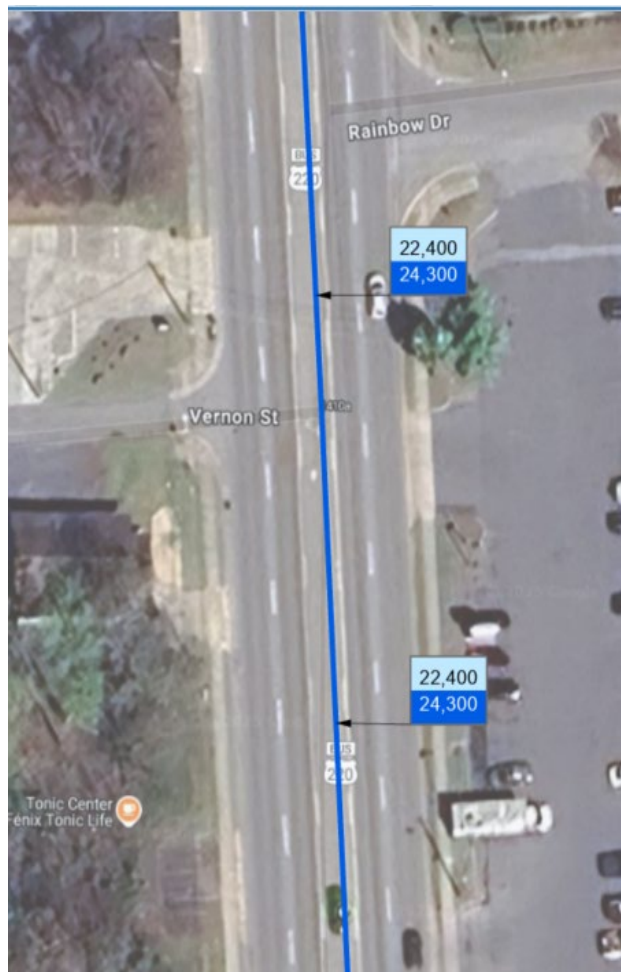


Note: The typical sections shown here are examples, not final recommendation

Major 2 Lane Thoroughfare
35 mph, urban

Major Thoroughfare Multilane 4 lanes
35 or higher mph, urban

US220 Bus (working draft)



Major 4 Lane Thoroughfare
w/ TWLTL 35 mph, urban

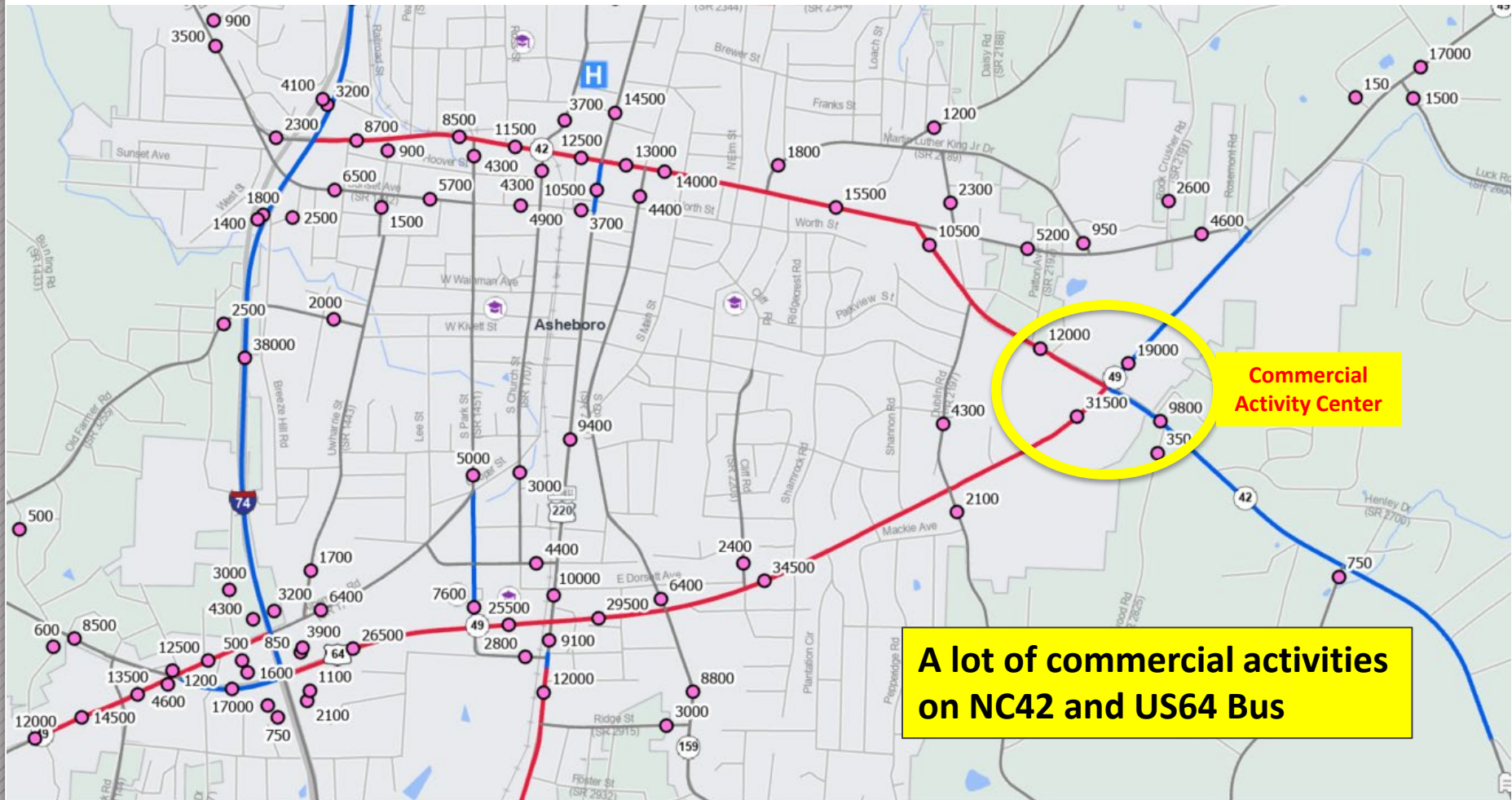


Major Thoroughfare Multilane 6 lanes
35 or higher mph, urban

Note: The typical sections shown here are examples, not final recommendation

NC 42 and US64-Bus Traffic Volumes

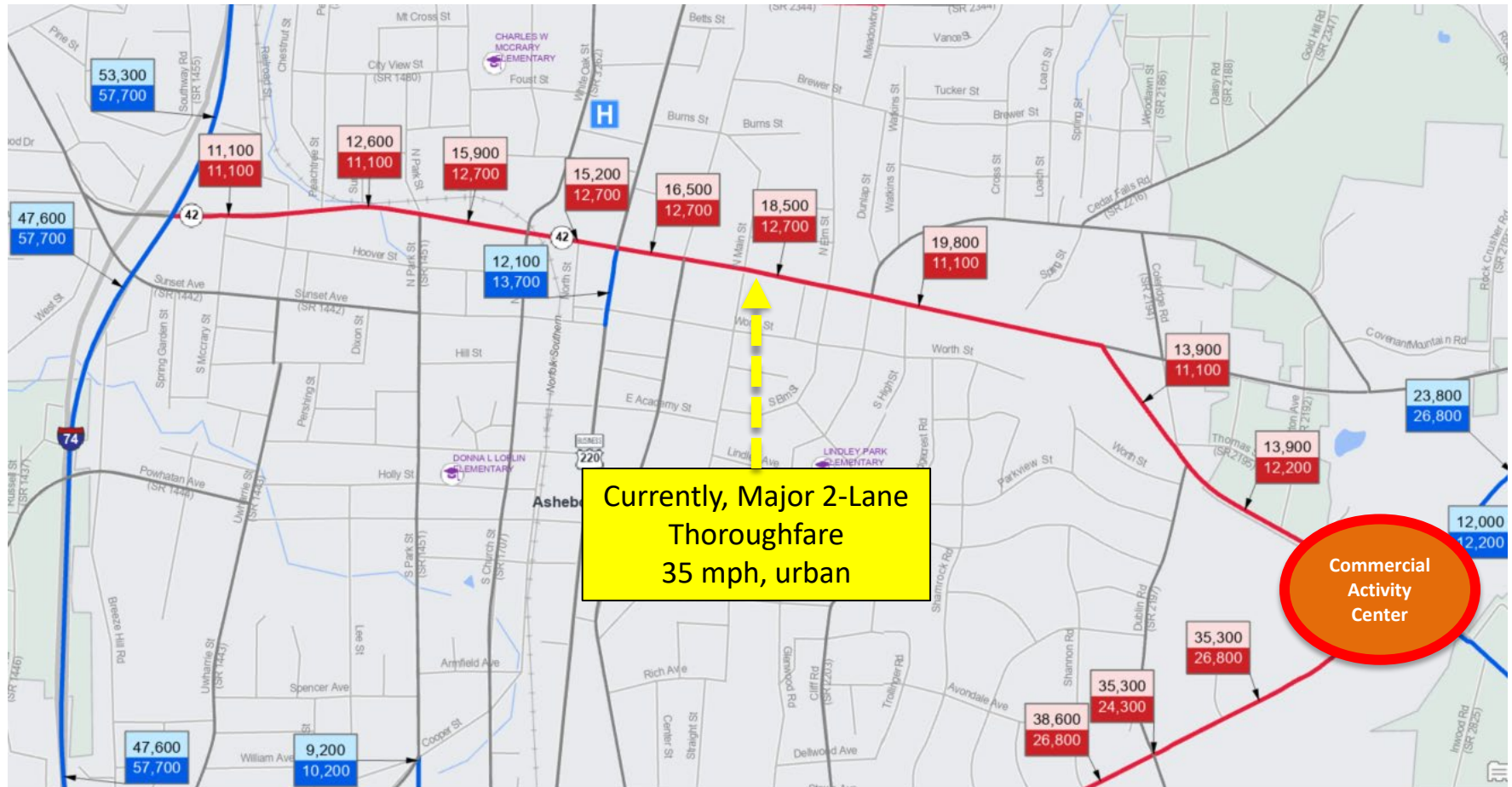
(working draft)



Source: NCDOT Statewide Geodatabase - AADT Stations Layer (2023)

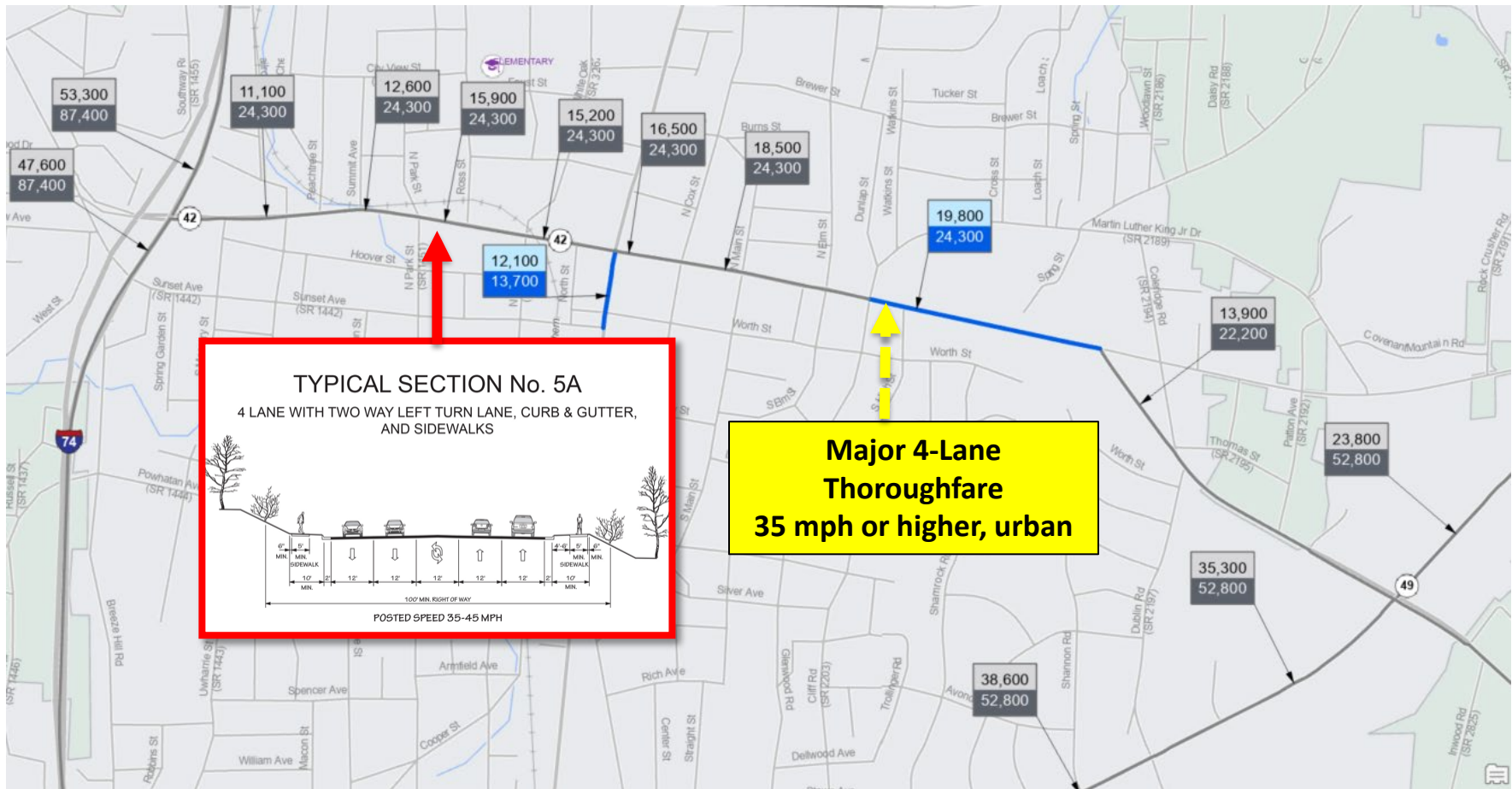
NC 42 – E Salisbury (FY-NB)

(working draft)



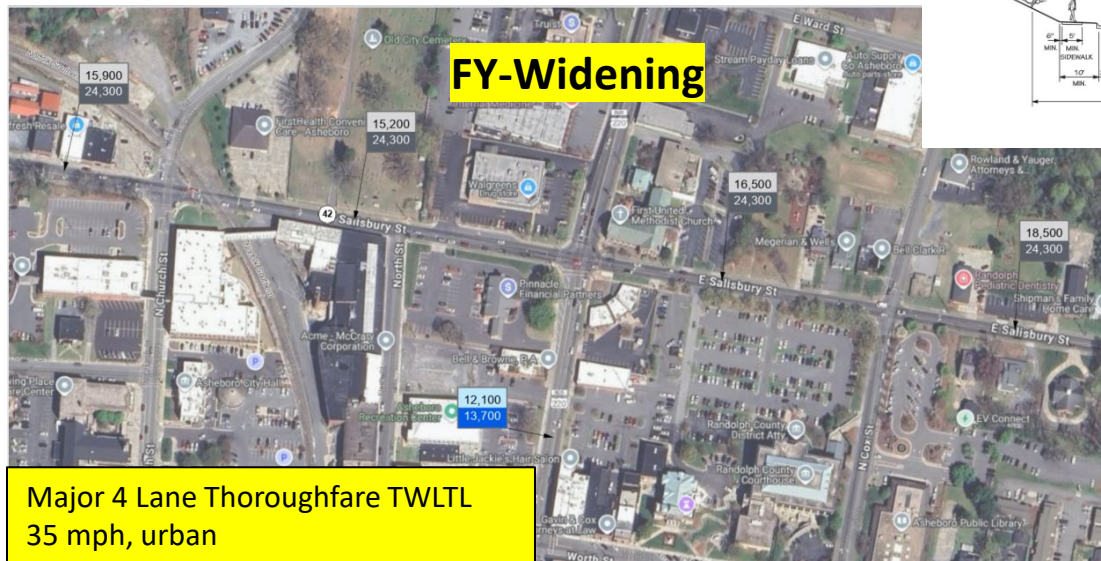
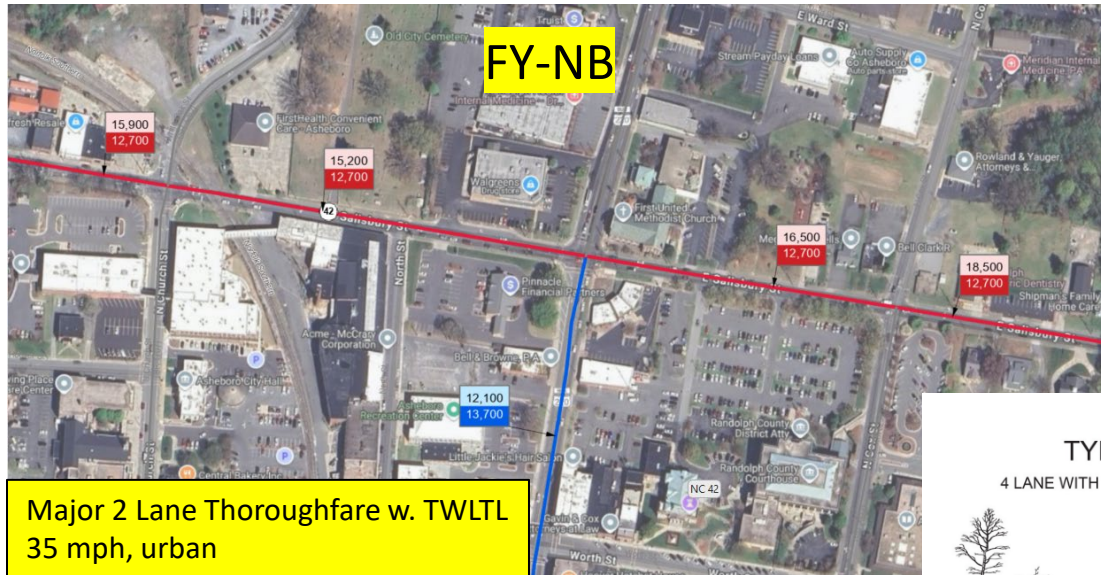
NC 42 – E Salisbury (FY-Widening)

(working draft)



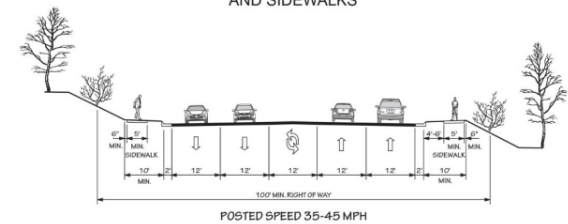
Note: The typical sections shown here are examples, not final recommendation

NC 42 – E Salisbury St and US220 Bus (working draft)



TYPICAL SECTION No. 5A

4 LANE WITH TWO WAY LEFT TURN LANE, CURB & GUTTER,
AND SIDEWALKS



Note: The typical sections shown here are examples, not final recommendation

US 64 BUS – E/W Dixie Dr

(working draft)

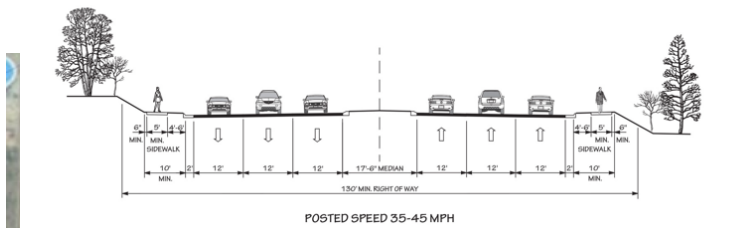


US 64 BUS – E/W Dixie Dr (working draft)

Note: The typical sections shown here are examples, not final recommendation

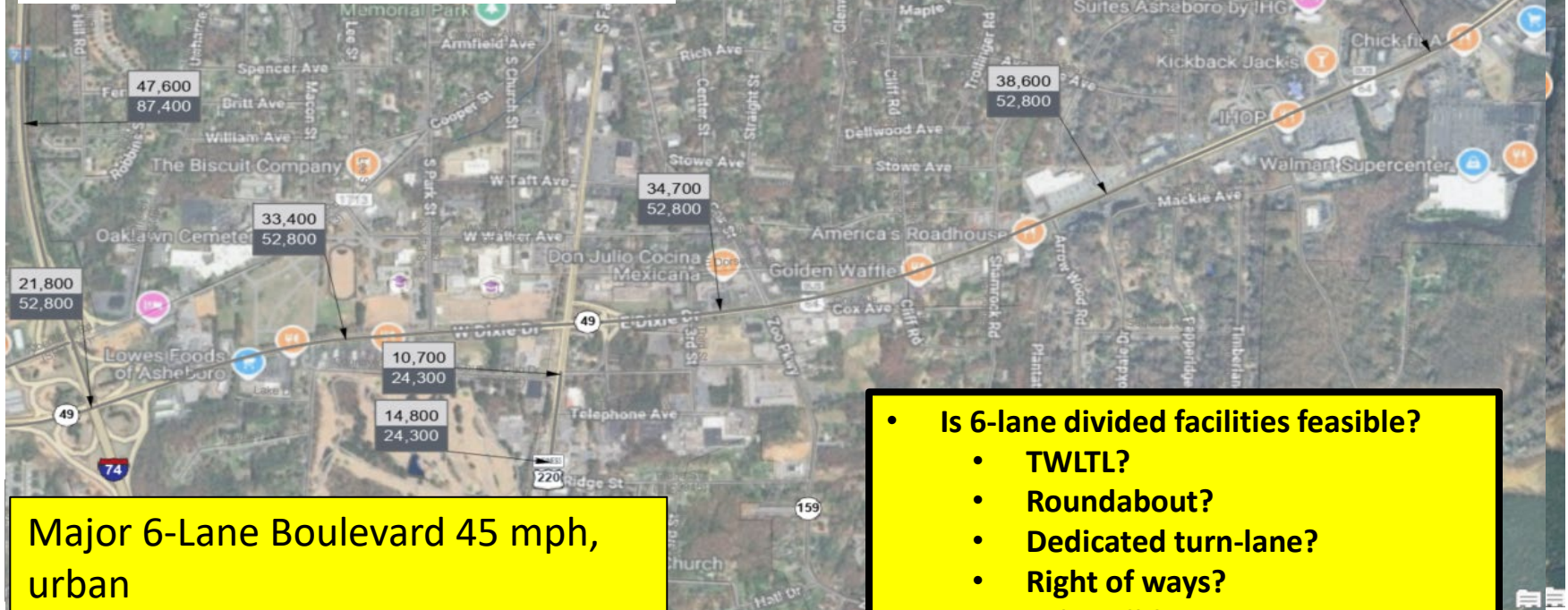
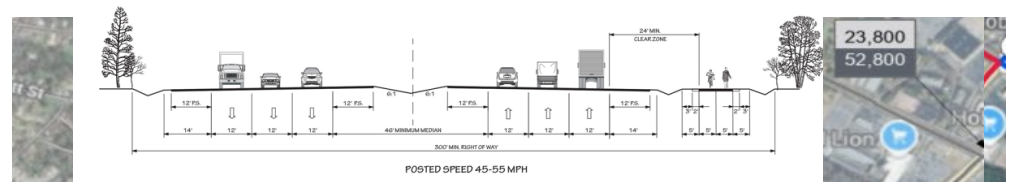
TYPICAL SECTION No. 6F

6 LANE DIVIDED (17'-6" RAISED MEDIAN) WITH CURB & GUTTER, AND SIDEWALKS



TYPICAL SECTION No. 6G

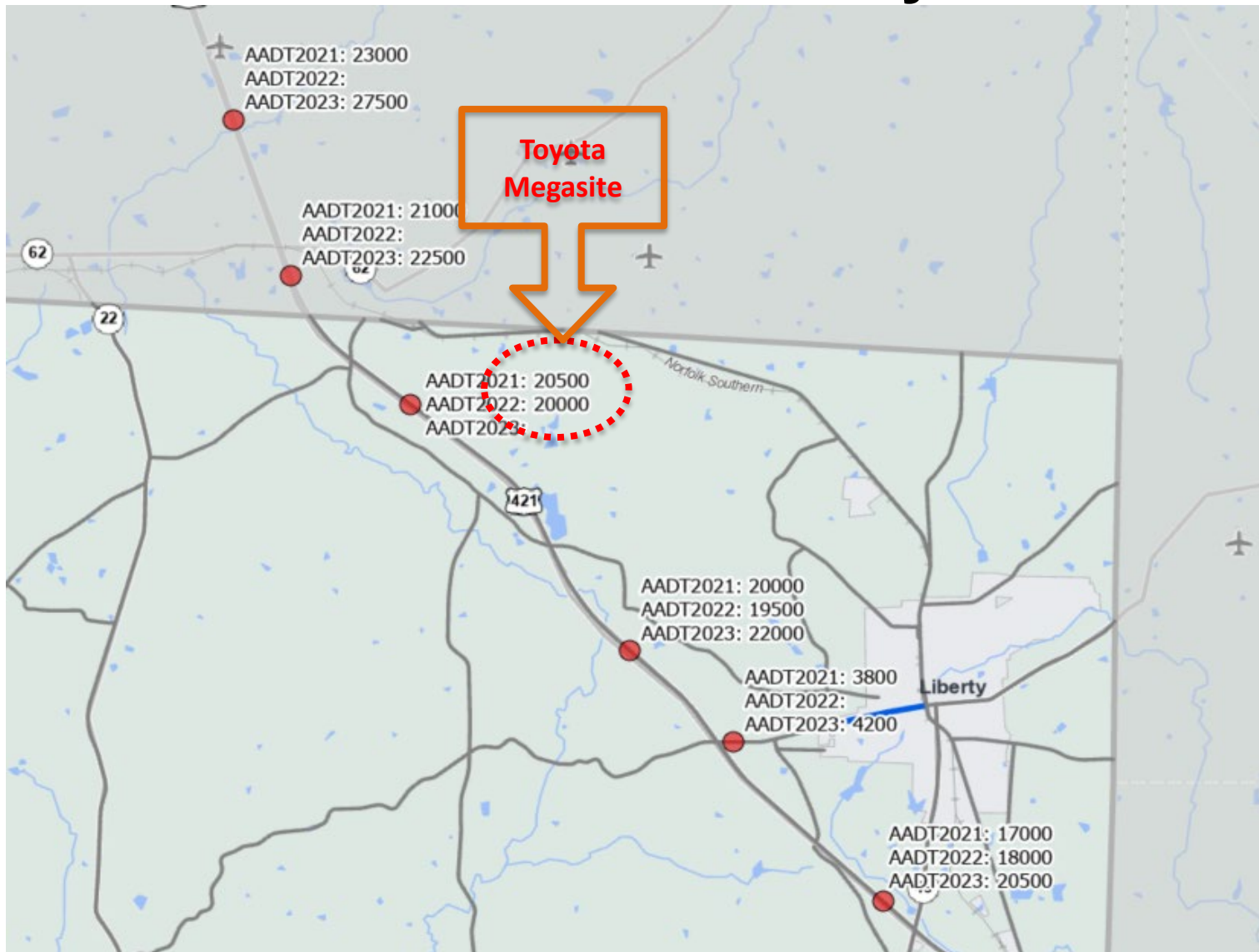
6 LANE DIVIDED (46' DEPRESSED MEDIAN) WITH PAVED SHOULDERS AND SIDEPATH



Major 6-Lane Boulevard 45 mph,
urban

- Is 6-lane divided facilities feasible?
 - TWLTL?
 - Roundabout?
 - Dedicated turn-lane?
 - Right of ways?
 - Sidewalk?
- What other options we can consider?

Toyota Mega-site and Accessible Roadways



Alternative Analysis for US421 (Liberty) (working draft)



FY 2050 No Build

Brainstorming and Discussion

- Is Widening/Adding Lane(s) feasible? If not, which roadways are not feasible for widening?
- What other factors we should consider?
 - Widening (Adding) Lanes
 - Median (divided facility), TWLTL (two-way left-turn lane), Dedicated turn lane
 - Change in speed limit
 - Cross-section design (e.g., Roundabout and traffic signals)
 - Sidewalks, bike lane etc.
- Are there any other roadways we should investigate?
- Any conflict with future land-use plan or any environmental impact issue?

What Next?

Start of Study Letter July 2024
First CTP Meeting August 2024

Develop CTP Vision

Draft Goals/Objectives and Survey September 2024 – January 2025

Needs Assessment and System Analysis

Collect/Forecast SE Data February 2025
 Develop Analysis Tool March 2025
 Deficiency Analysis March - July 2025



We Are Here

Alternative Analysis

Develop, evaluate and analyze alternatives August – October 2025

Develop Draft CTP November 2025– March 2026

Adopt Plan

Draft CTP to Locals March - April 2026
 Local Adoption(s) June- October 2026
 NCDOT Adoption December 2026

Closeout

CTP Maps Distributed December 2026
 Final Documentation and Study Close out..... January 2027

Other Items & Next Meeting

Next Meeting Date/Time: _____

Vision Statement, Goals/Objectives and CUR Update

- Randolph County CTP Website Address:
 - <https://tinyurl.com/Randolph-County-CTP>
- Community Understanding Report MS-Word Link:
 - <https://tinyurl.com/Randolph-County-CUR>



Randolph County
CTP Website QR Code

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Advancing NC's Mobility Future

**Transportation
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