

Technical Coordinating Committee Meeting

October 5, 2023 10:00 AM

1. Welcome and Introductions



2. Adjustments to the Agenda

Item 5.3 - Amendment #1 to FY2024-2033 Transportation Improvement Program (TIP)



3. Public Comments

This is an opportunity for comments by those in attendance. Please limit comments to three (3) minutes for each speaker.



4. Minutes

4.1 TCC Meeting Minutes: September 7, 2023

Requested Action:

Approve the September 7, 2023 Meeting Minutes.



5. Regular Business

- 5.1 2055 MTP Update CommunityViz
- 5.2 NC 540 Bonus Allocation Projects Update
- 5.3 Amendment #1 to FY2024-2033 Transportation Improvement Program (TIP)



5.1 2055 MTP Update - CommunityViz



2055 Metropolitan Transportation Planning Process

- 1. Build the Planning Tools
 - a. CommunityViz Growth Allocation (CPRC)
 - b. Triangle Region Transportation Model (ITRE-NCSU)
- 2. Determine Vision, Goals, Objectives, Performance Measures, Targets
- 3. Establish the Scenario Framework
- 4. Create the Development & Mobility Investment Foundations for Each Scenario
- 5. Adopt Population and Job Guide Targets to 2055
- 6. Analyze a "Learning Scenario" based on *Connect2050* and updated population and job data and forecasts



2055 Metropolitan Transportation Planning Process (cont'd)

- 7. Conduct a "Deficiency and Needs" Analysis
- 8. Refine and Use Tools to Create Detailed Scenarios
- 9. Conduct Alternatives Analysis of Scenarios
- 10. Select a Preferred Scenario
- 11. Complete 2055 MTP Report
- 12. Adopt the 2055 MTP and Demonstrate Air Quality Conformity (late 2025/early 2026)



Why? Scenarios Can Inform Decisions

- * Land Use ...
 - influences
- Travel ...
 - which is served by
- Mobility Investments

A robust analysis looks at each of these elements: land use, travel markets, and investments







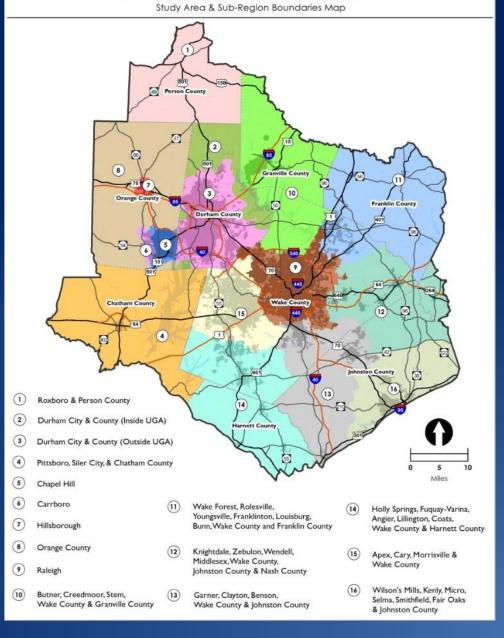
CommunityViz growth forecast

transportatio.

2055 transportation



- CommunityViz is a tool to understand growth capacities and allocate future growth
- It can be used to create future development scenarios and help understand their relative impacts
- It needs 5 basic inputs





What CommunityViz Needs To Create a Scenario



The location of <u>features that constrain development</u>, such as water bodies, wetlands and stream buffers



The type of place each parcel will become (and the intensity of each place type for each jurisdiction)



The current <u>development status</u> of each parcel relative to its future use



The factors that will influence how attractive each parcel is for development, termed <u>land suitability</u>



The types and amounts of growth that will be allocated, termed "growth targets"



Development Status

Development Status	What it means	How CommunityViz will actually treat it	What other information is needed?
Developed	Development on the parcel will be the same today and in the future	As fully developed – no additional growth	
Undeveloped	The parcel will develop based on the CommunityViz scenario	As able to add 100% of the place type capacity	
Under-developed	The parcel will develop based on the CommunityViz scenario	As able to add only the % of the place type capacity that is not already on the site	The % of the site capacity already taken up by existing development that will stay (pull down menu)
Redevelopable	The parcel will develop based on the CommunityViz scenario	As able to add 100% of the place type capacity, but the existing development will be subtracted	Dwellings & non-residential square footage that exist and will be removed
Committed or Asserted	Development of the parcel will be asserted prior to the CV model run	As fully developed – no additional growth. The committed development is manually added.	Dwellings & non-residential square footage that will be on the site
Water	Development on the parcel will be the same today and in the future	As fully developed – no additional growth	
Open Space	Development on the parcel will be the same today and in the future	As fully developed – no additional growth	
Agriculture	The parcel will develop based on the CommunityViz scenario	As able to accommodate 100% of the place type capacity	Any easements or other protections that would preclude development



PlaceType

Pattern	Natural	Rural	Suburban	City & Town	Cross-Cutting	
	Protected Green Space	Farms & Forestland	Larger Lot Residential	Urban Neighborhood	Light Industrial	
Place Types		Rural Living	Midsized Lot Residential	Mid-Rise Residential	Heavy Industrial	
		Rural Crossroads	Smaller Lot Residential	Urban Residential	Airport	
		Conservation Neighborhood	Mixed Density Residentail	High Rise Residential	Civic & Institutional	
		Mobile Home Neighborhood	Multi-family Residential	Mixed Use Neighborhood	K12 Education Campus	
			Office Center	Mixed Use Center I	Health Care Campus	
			Lodging	Mixed Use Center II	University Campus	
			Neighborhood Scale	Transit-Oriented Development	University Campus -	
			Commercial Center	Туре I	Residential	
			Community Scale	Transit-Oriented Development	University Campus -	
			Commercial Center	Type II	Neighborhood	
			Regional Employment Center	Transit-Oriented Development	Special Type	
				Type III		
				Transit-Oriented Development		
				Neighborhood		
				Urban Commercial/Office		
				Town Center		
				Metropolitan Center		



Jurisdiction Lookup Tables

							Percent of Residential			Percent of Non-Residential				
Place Type	Full Name	Jurisdiction	Site	Floor-Area	Density ³	Percent	Percent of Residential		Percent Non-	Service - Hig			Service - High	Service - Low
Code	ode		Efficiency ¹	Ratio (FAR) ²	Density	Residential	Single Family	Multi-Family	Residential	Office	Retail	Industrial	Rate	Rate
POS	Protected Green Space	Raleigh	0.00	0.00	0.00	0%	100%	0%	0%	0%	0%	0%	0%	0%
FF	Farms and Forest	Raleigh	0.99	0.10	0.10	50%	100%	0%	50%	0%	10%	80%	0%	10%
RL	Rural Living	Raleigh	0.99	0.00	0.72	100%	100%	0%	0%	0%	0%	0%	0%	0%
RCR	Rural Crossroads	Raleigh	0.95	0.20	0.00	0%	100%	0%	100%	0%	100%	0%	0%	0%
	Conservation Subdivision	Raleigh	0.99	0.00	0.72	100%	100%	0%	0%	0%	0%	0%	0%	0%
MHP	Mobile Home Neighborhood	Raleigh	0.64	0.00	2.36	100%	100%	0%	0%	0%	0%	0%	0%	0%
LLRN	Larger Lot Residential Neighborhood	Raleigh	0.93	0.00	0.55	100%	100%	0%	0%	0%	0%	0%	0%	0%
MLRN	Midsized Lot Residential Neighborhood	Raleigh	0.95	0.00	3.50	100%	100%	0%	0%	0%	0%	0%	0%	0%
SLRN	Smaller Lot Residential Neighborhood	Raleigh	0.95	0.00	4.50	100%	100%	0%	0%	0%	0%	0%	0%	0%
	Mixed-Density Residential Neighborhood	Raleigh	0.95	0.25	9.27	100%	70%	30%	0%	0%	0%	0%	0%	0%
MFRN	Multifamily Residential Neighborhood	Raleigh	0.90	0.00	24.00	100%	0%	100%	0%	0%	0%	0%	0%	0%
UN	Urban Neighborhood	Raleigh	0.84	0.00	7.45	100%	80%	20%	0%	0%	0%	0%	0%	0%
MRR	Mid-Rise Residential	Raleigh	0.85	0.00	25.00	100%	15%	85%	0%	0%	0%	0%	0%	0%
UR	Urban Residential	Raleigh	0.90	0.00	70.00	100%	0%	100%	0%	0%	0%	0%	0%	0%
HRR	High Rise Residential	Raleigh	0.65	0.00	100.00	100%	0%	100%	0%	0%	0%	0%	0%	0%
NCC	Neighborhood Commercial Center	Raleigh	0.85	0.13	15.00	0%	0%	100%	100%	0%	50%	0%	40%	10%
ccc	Community Commercial Center	Raleigh	0.85	0.23	0.00	0%	100%	0%	100%	10%	50%	0%	25%	15%
oc	Office Center	Raleigh	0.85	0.23	0.00	0%	100%	0%	100%	25%	0%	0%	0%	75%
L	Lodging	Raleigh	0.85	0.45	0.00	0%	100%	0%	100%	0%	25%	0%	75%	0%
REC	Regional Employment Center	Raleigh	0.80	0.17	0.00	0%	100%	0%	100%	60%	10%	0%	0%	30%
MUN	Mixed-Use Neighborhood	Raleigh	0.88	1.25	8.00	40%	70%	30%	60%	25%	40%	0%	10%	25%
MUC	Mixed-Use Center	Raleigh	0.85	1.50	45.00	35%	0%	100%	65%	25%	50%	0%	15%	10%
MUC-II	Mixed-Use Center, Type II	Raleigh	0.85	1.50	45.00	35%	0%	100%	65%	25%	50%	0%	15%	10%
TOD-I	Transit-Oriented Development, Type I	Raleigh	0.98	4.00	120.00	75%	0%	100%	25%	25%	40%	0%	20%	15%
TOD-II	Transit-Oriented Development, Type II	Raleigh	0.90	2.00	50.00	50%	0%	100%	50%	25%	35%	0%	20%	20%
TOD-III	Transit-Oriented Development, Type III	Raleigh	0.85	1.50	15.00	50%	80%	20%	50%	30%	30%	0%	15%	25%
TOD-N	Transit-Oriented Development, Neighborhood Type	Raleigh	0.85	2.00	35.00	80%	20%	80%	20%	60%	10%	0%	10%	20%
uco	Urban Commercial/Office	Raleigh	0.90	2.00	0.00	0%	0%	0%	100%	80%	10%	0%	0%	10%
TC	Town Center	Raleigh	1.00	1.00	10.00	50%	20%	80%	50%	25%	35%	0%	20%	20%
MC	Metropolitan Center	Raleigh	0.90	6.00	145.00	25%	10%	90%	75%	20%	40%	0%	25%	15%
LIC	Light Industrial Center	Raleigh	0.85	0.18	0.00	0%	100%	0%	100%	0%	0%	100%	0%	0%
HIC	Heavy Industrial Center	Raleigh	0.85	0.08	0.00	0%	100%	0%	100%	0%	0%	100%	0%	0%
AIR	Airport	Raleigh	0.35	0.15	0.00	0%	0%	100%	100%	25%	0%	60%	0%	15%
CIV	Civic and Institutional	Raleigh	0.85	0.17	0.00	0%	100%	0%	100%	80%	0%	0%	10%	10%
K-12	K-12 Education	Raleigh	Asserted	Asserted	Asserted	0%	0%	0%	0%	0%	0%	0%	0%	0%
HCC	Health Care Campus	Raleigh	0.85	0.27	0.00	0%	100%	0%	100%	20%	0%	0%	10%	70%
uc	University Campus	Raleigh	0.25	0.17	50.00	25%	0%	100%	75%	40%	5%	0%	10%	45%
UC-R	University Campus - Residential	Raleigh	0.85	0.00	150.00	100%	0%	100%	0%	0%	0%	0%		0%
UC-CN	University Campus - Neighborhood	Raleigh	0.85	0.35	18.00	0%	0%	100%	100%	40%	5%	0%	10%	45%
SPEC	Special Type	Raleigh												



Community Viz Local Guide Books & Look-Up Tables



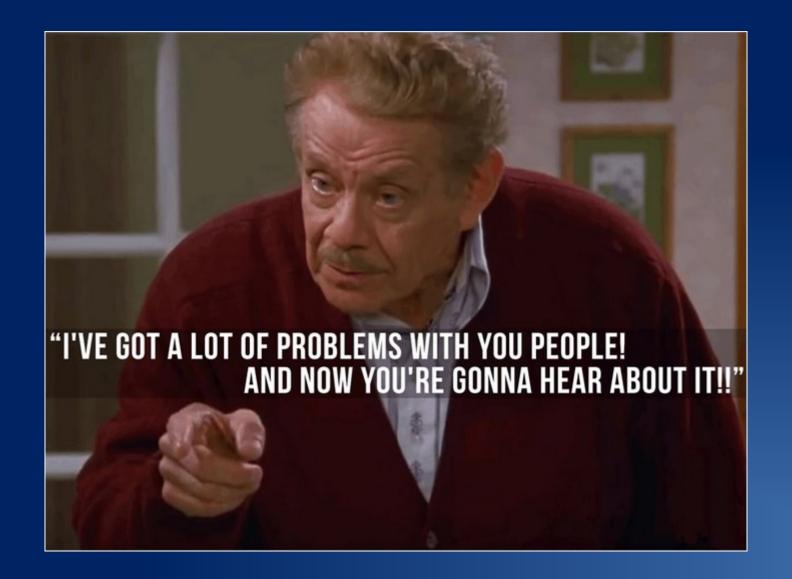


"There is no guessing in Travel Demand Modeling"

- 1. What's the future volume?
- 2. Do we need more lanes?
- 3. How much ridership can we expect?
- 4. Do we need more parking?
- 5. Do we need more density?
- 6. How long will it take to get from home to work?







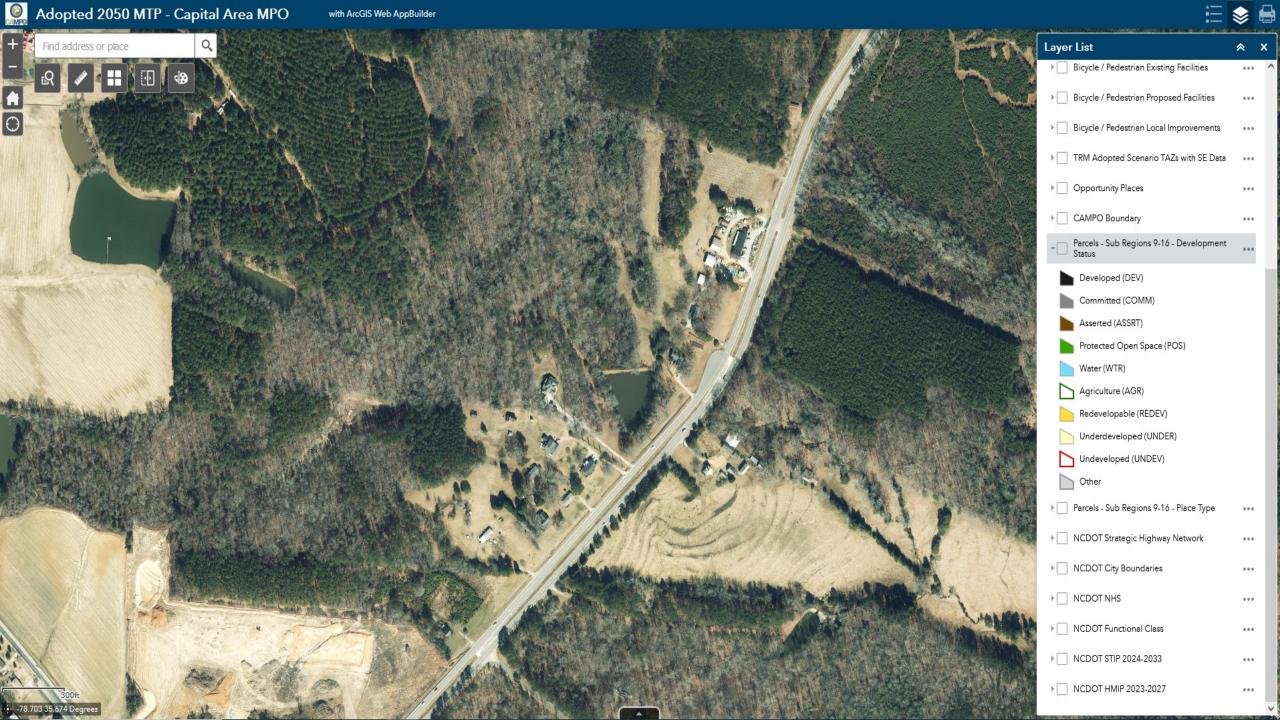


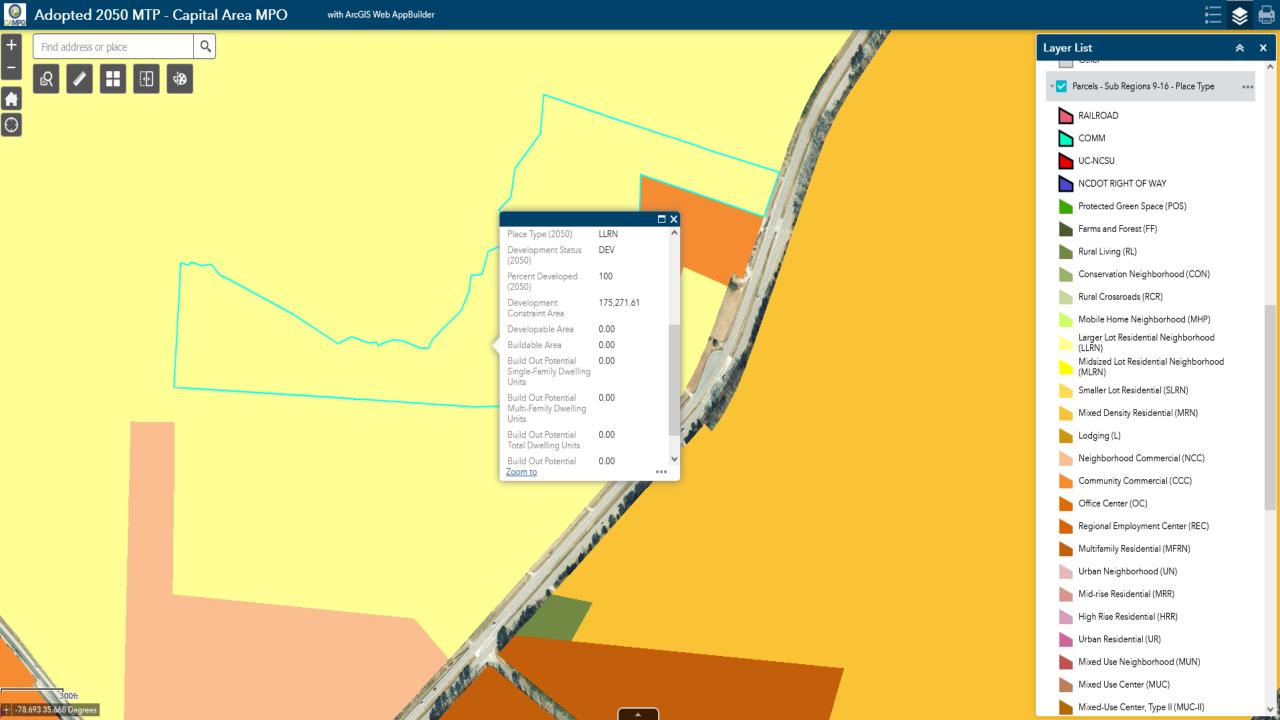
The Airing of Grievances

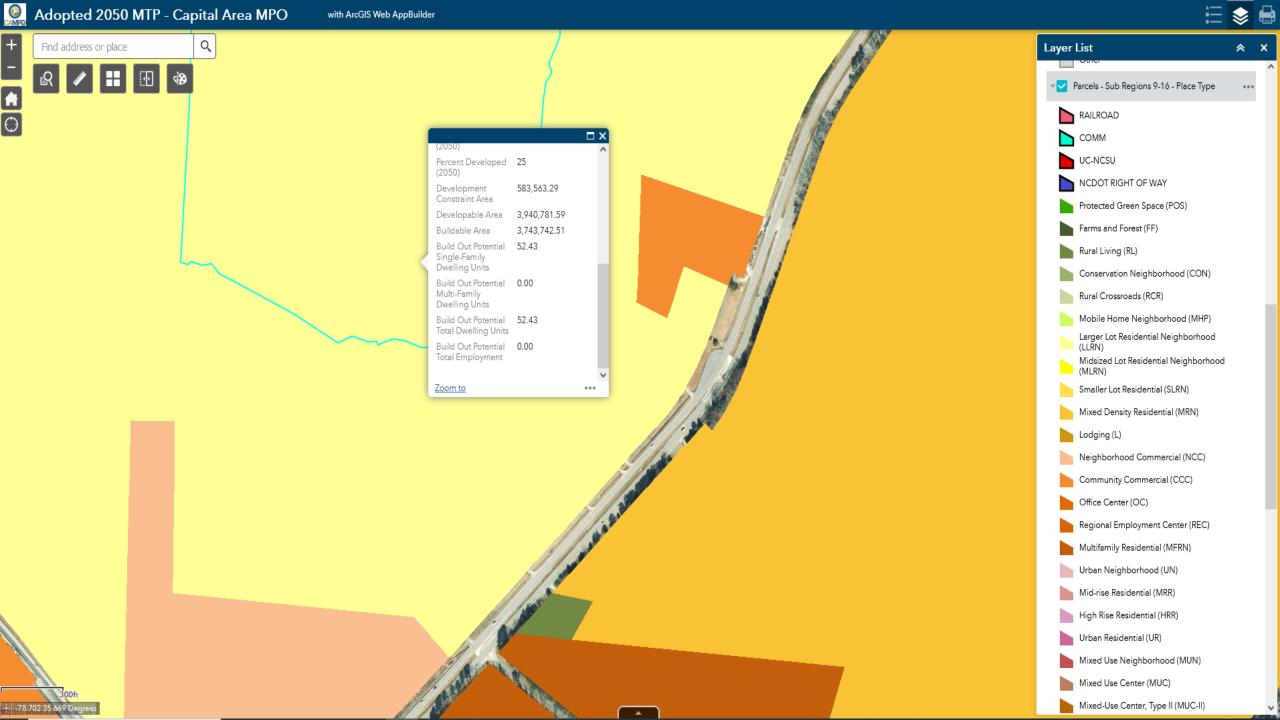
- 1. Development Status not reviewed/updated
- 2. Percent Developed (25% means 75% available for growth)
- 3. Underdeveloped or redevelopable but 100% developed
- Lookup Table Values for Density & Floor Area Ration (FAR)
- Committed Development not providing households or nonresidential sq ft
- 6. Agricultural Placetype is not Preservation
- 7. Placetypes are for FUTURE not existing
- 8. Large 10-20+ acre parcels w/ single house = undeveloped

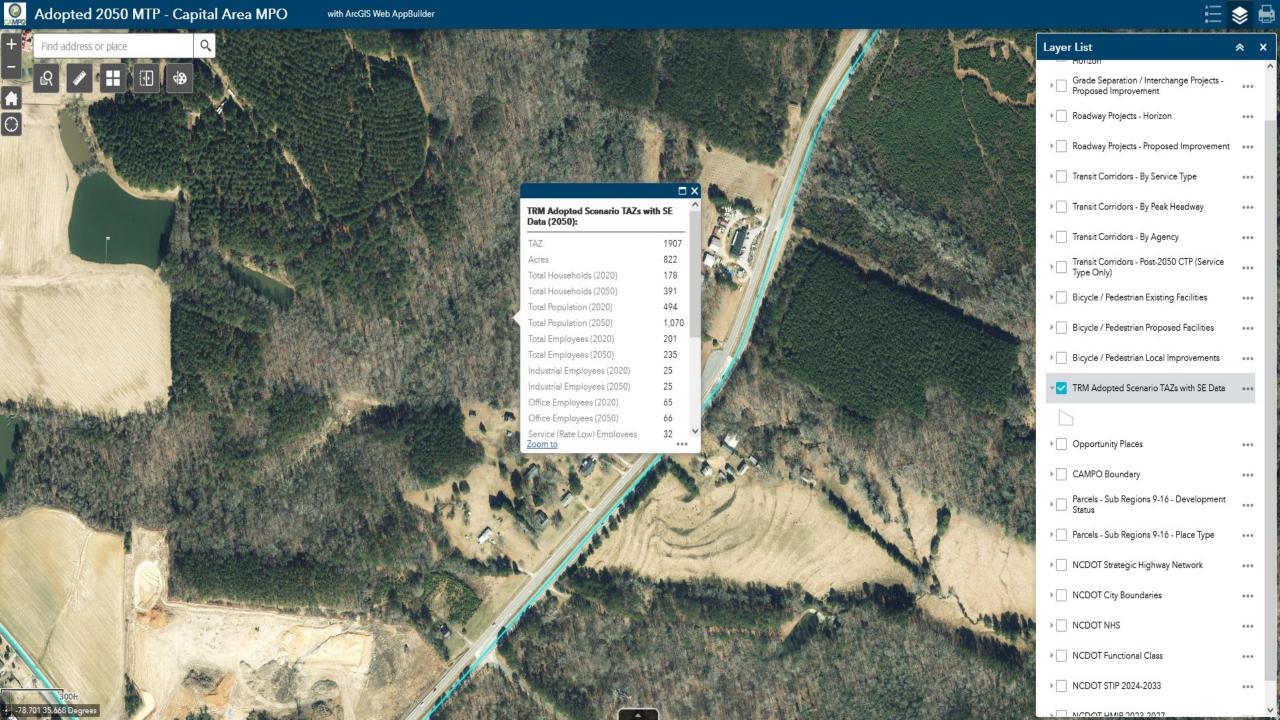


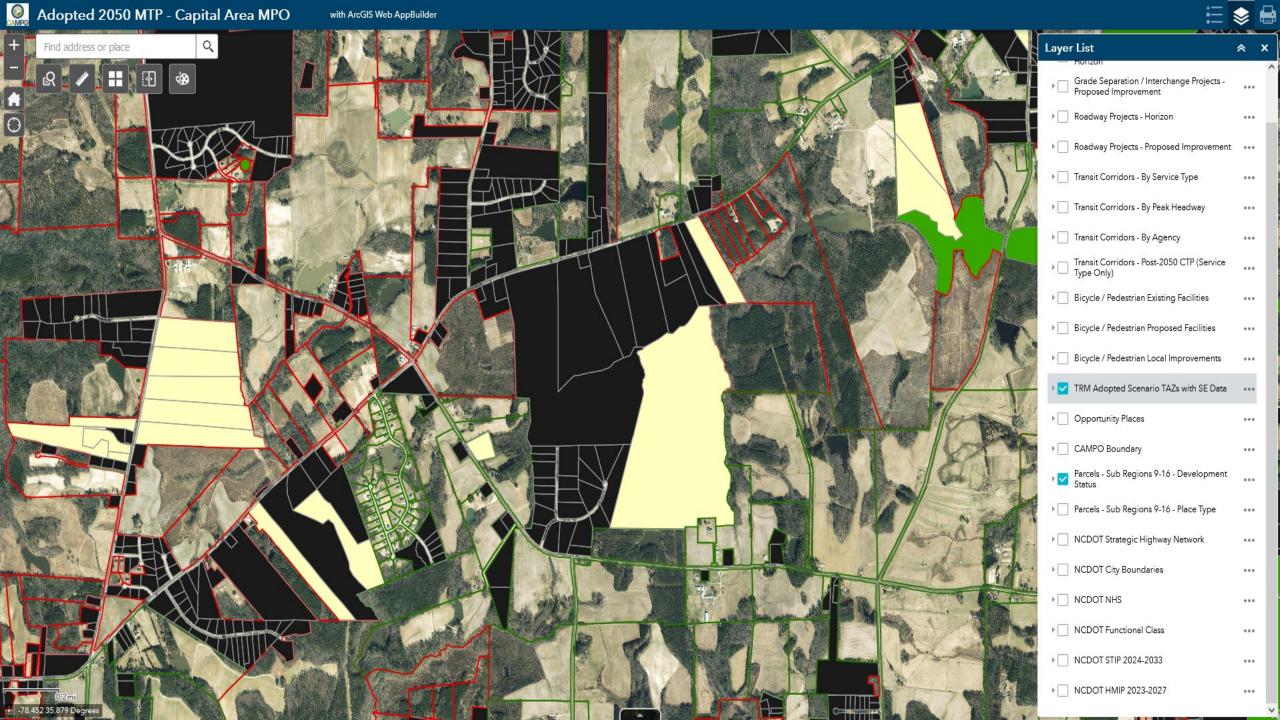


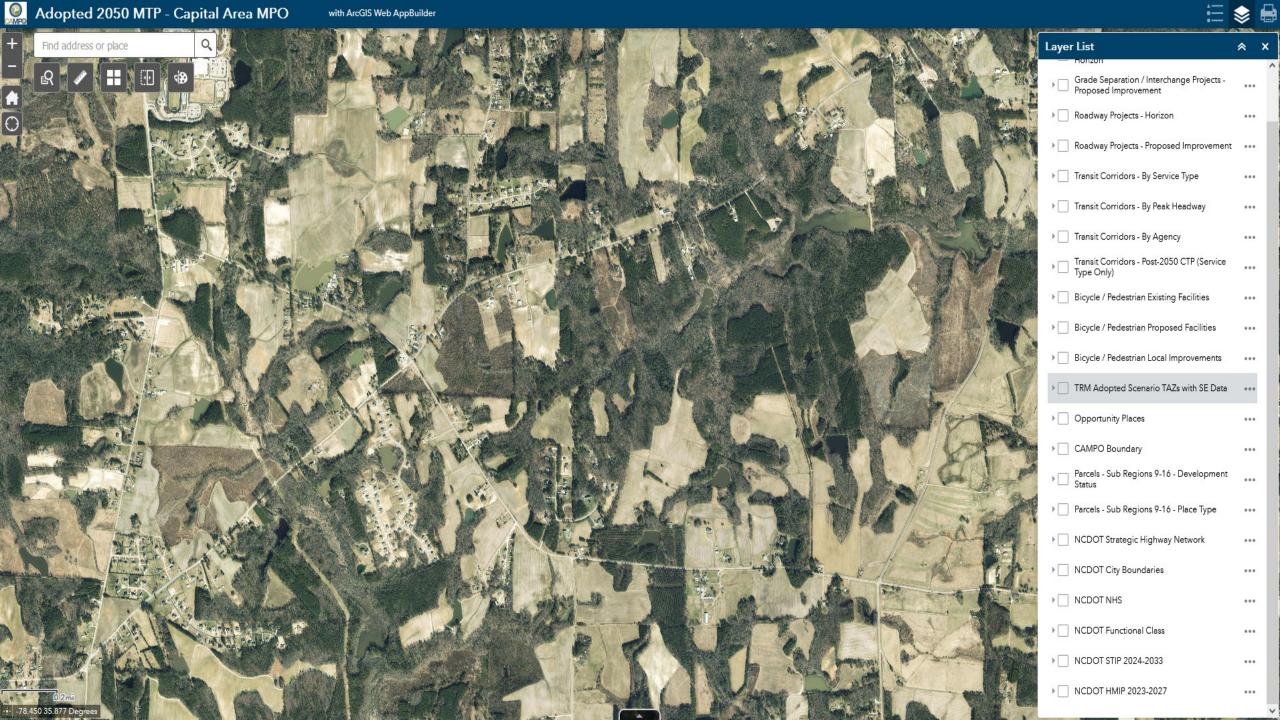














5.1 2055 MTP Update - CommunityViz

Next Steps & Homework

- 1. Training October 13th at Central Pines Regional Council
- 2. Update Development Status
- 3. Update Placetype
- 4. Review/update Look-up Tables
- 5. Start committed development spreadsheets

Due Dec 1st

Requested Action:
Receive as information.



5.2 NC 540 Bonus Allocation Projects Update



CAMPO Bonus Allocation

Strategic Transportation Investment (STI) law provides Bonus Allocation funding for:

- Local funding participation
 - ½ of local contribution
- Highway Tolling
 - ½ value of toll revenue bonds
 - ½ forecasted revenue for 1st 10 years –operation costs
 - \$100 million maximum
 - Must be programmed within toll county
- Programming Limitations
 - 10 percent Regional/Division Needs
 - Must be obligated within 5 years
 - Use on highway or highway-related projects only



CAMPO Bonus Allocation

Guiding Principles

- Inclusion in the Metropolitan Transportation Plan (MTP)
- Logical Nexus to Generating Source of Bonus Allocation Funds
- Recognition of Funding Challenges with STI law
- Recognition of Funding Opportunities with STI law



BA Methodology – local contribution

- MPO works with contributing local government to determine existing MTP projects suitable for programming with Bonus Allocation funds.
- MPO Executive Board approves all bonus allocation funding

*Must go through SPOT Process



BA Methodology – Tolling Generated

Four Phases of Analysis for Candidate Project Prioritization

Phase I – determine study area for candidate selection

Phase II – analyze MTP projects using Triangle Regional Model (TRM)

Phase III – analyze intersection and operational improvements (non-modeled projects)

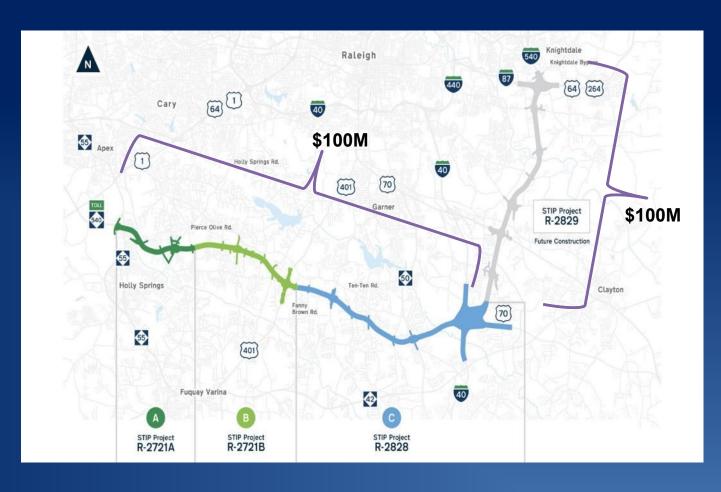
Phase IV – compare benefits between candidate projects in a common platform along with safety information

MPO Executive Board programs projects



NC 540 Bonus Allocation

- Two Bonus Allocation awards from Complete 540 Project
- R-2721 & R-2828 NC 55 to I-40
 - Must be obligated from FY2021-2025
- R-2829- I-40 to US 64/US 264
 - Upcoming







Bonus Allocation Projects Status Update

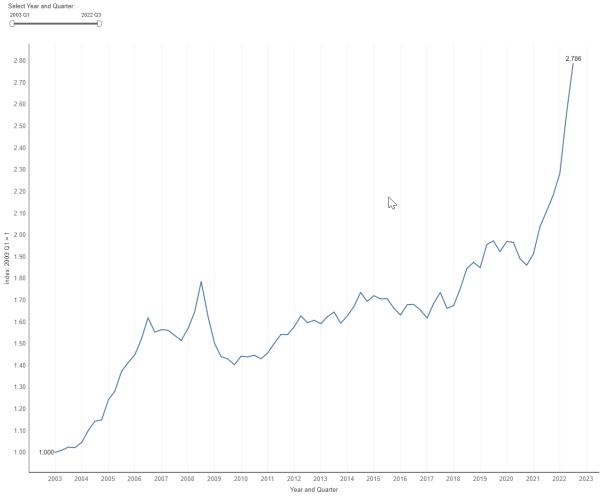
Beth Quinn – Division 5 Team Lead Ben Upshaw - Division 5 Project Development Engineer

October 5, 2023

Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina



National Highway Construction Cost Index (NHCCI)



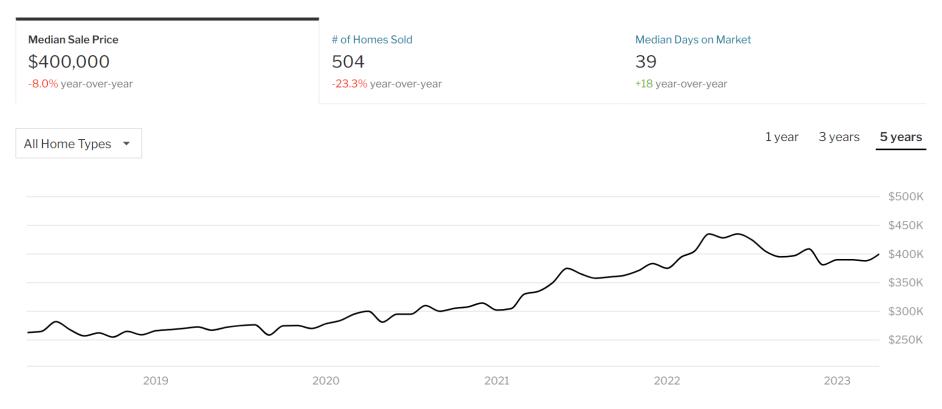
2022 Q3 index is preliminary. 2022 Q1 and 2022 Q2 indexes are revised.

ncdot.gov

Raleigh Housing Market Trends

What is the housing market like in Raleigh today?

In April 20 \$\frac{1}{2}\$3, Raleigh home prices were down 8.0% compared to last year, selling for a median price of \$400 K. On average, homes in Raleigh sell after 39 days on the market compared to 21 days last year. There were 504 homes sold in April this year, down from 657 last year.

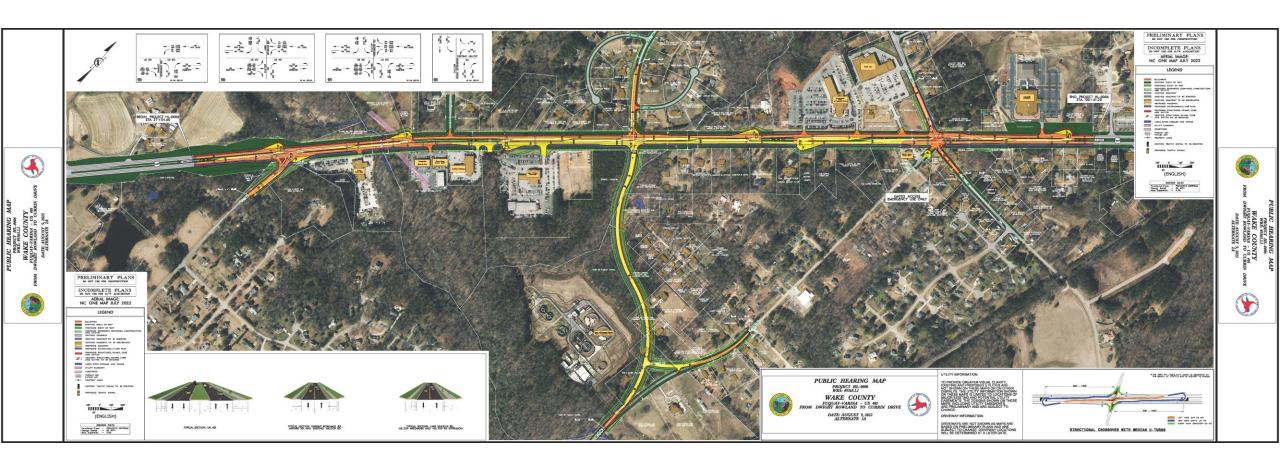


Based on Redfin calculations of home data from MLS and/or public records.

ncdot.gov HL-0006

US 401 at Hilltop-Needmore Road/Hilltop Road/Airpark Road intersection and Lake Wheeler Road intersection in Fuquay-Varina.

Convert to reduced conflict intersections and realign Hilltop Road to intersect opposite of Lake Wheeler Road.



ncdot.gov HL-0007

NC 55 at Technology Drive/E. Williams Street in Apex

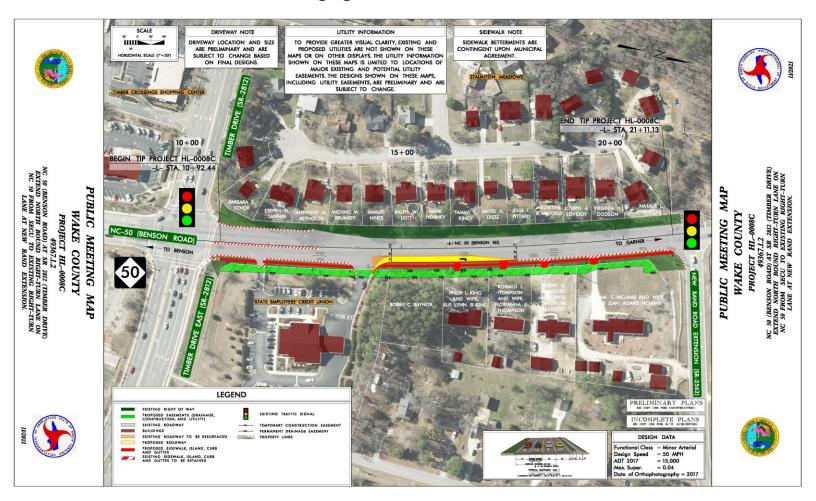
Convert intersection of NC 55 at Technology Drive/E. Williams Street to reduced conflict intersection. Widen NC 55 to 6-lane median divided. Williams Street to 4-lane median divided. Construction of a westbound right turn lane on Sunset Lake Road/Old Smithfield Road at Williams Street.



ncdot.gov HL-0008C

NC 50 (Benson Rd.) at Timber Drive and Timber Drive East

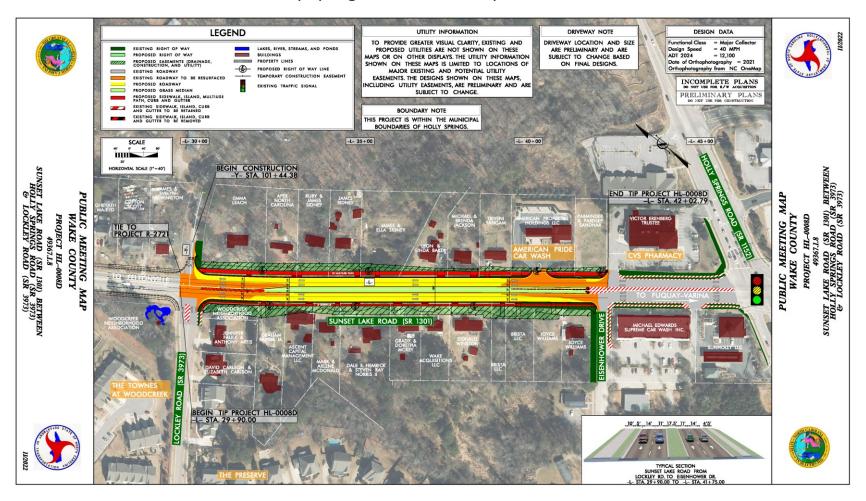
Extend north bound right turn lane on NC 50 from SECU to existing right turn lane at New Rand Road.



ncdot.gov HL-0008D

Sunset Lake Road Improvements

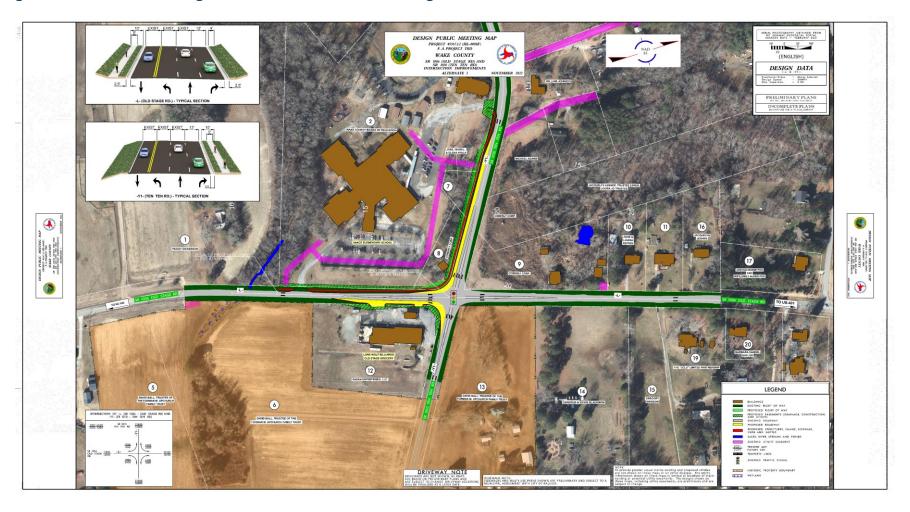
Roadway improvements on Sunset Lake Road between Holly Springs Road and Lockley Road.



ncdot.gov HL-0008F

Improvements to Old Stage Road at Ten Ten Road intersection.

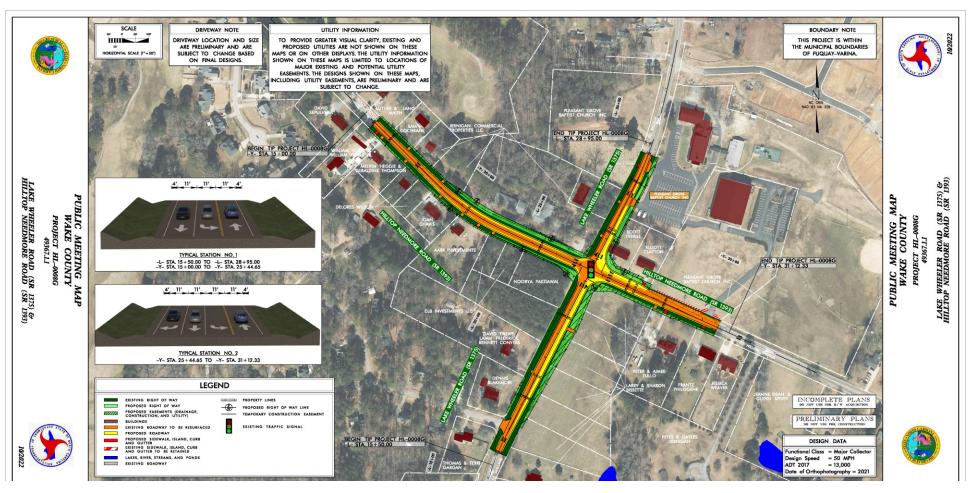
Add north bound right turn lane on Old Stage Road and add east bound right turn lane on Ten Road.



ncdot.gov HL-0008G

Improvement to Lake Wheeler Road and Hilltop Needmore Road intersection

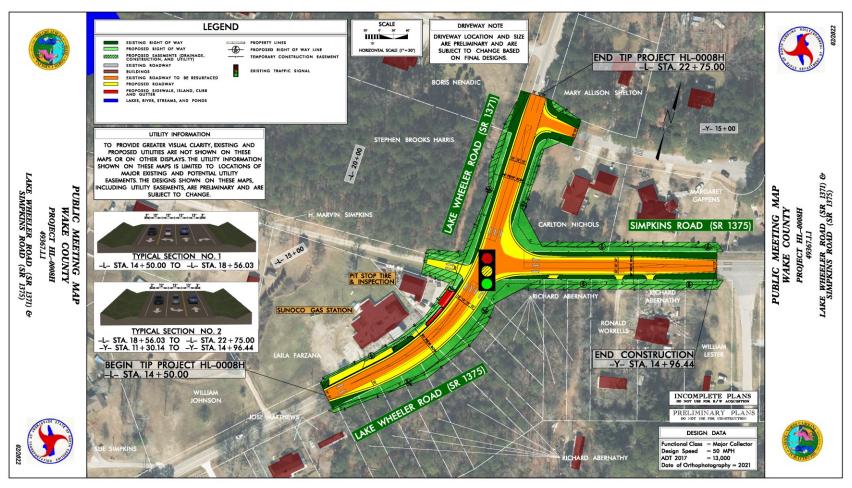
Construction of left turn lanes on each approach at intersection of Lake Wheeler Road at Hilltop Needmore Road. Construction of right turn lane for westbound approach of Hilltop Needmore Road. Improve intersection radii to accommodate truck turns.



ncdot.gov HL-0008H

Improvement to Lake Wheeler Road at Simpkins Farm Road

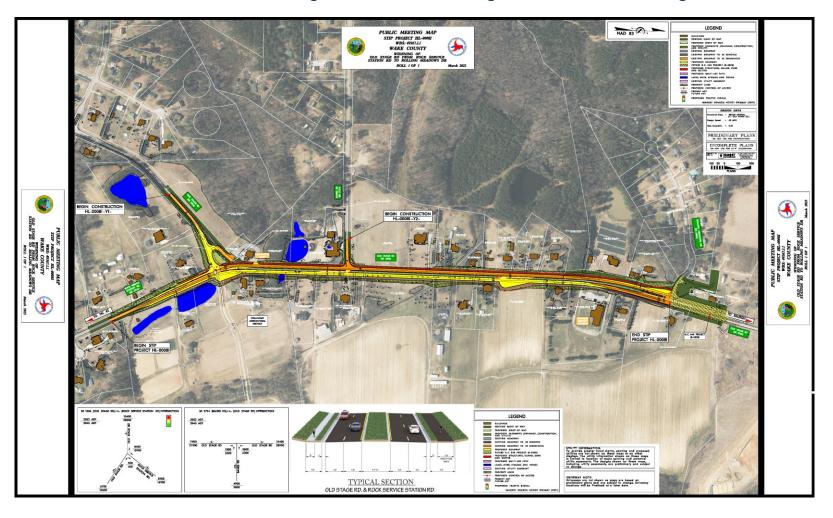
Construction of left turn lanes in both directions on Lake Wheeler Road at intersection with Simpkins Farm Lane and Simpkins Road. Northbound right turn lane on Lake Wheeler Road and westbound left turn lane on Simpkins Road.



ncdot.gov HL-0008I

Improvements on Old Stage Road at Rock Service Station Road

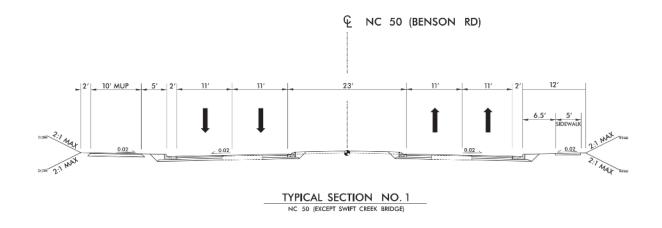
Widen Old Stage Road from Rock Service Station Road to Rolling Meadows Drive. Realign intersection of Old Stage Road and Rock Service Station Road.

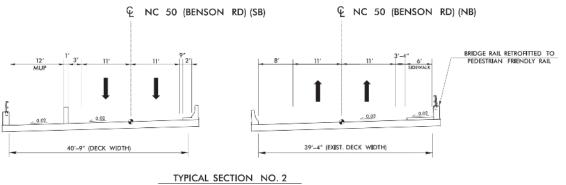


ncdot.gov HL-0008J

NC 50 (Benson Road) to Buffaloe Road

Widen NC 50 to median divided four lanes from 750' south of Rand Road to 1000' north of Buffaloe Road.

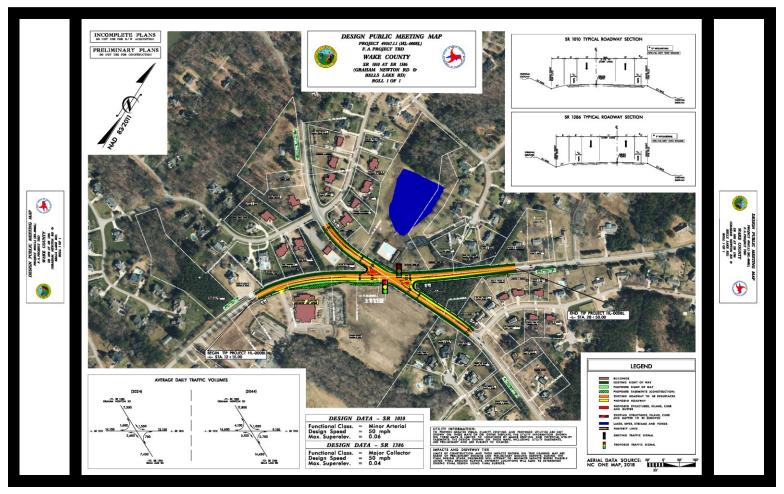




ncdot.gov HL-0008L

Ten Ten Road at Bells Lake Road/Graham Newton Road.

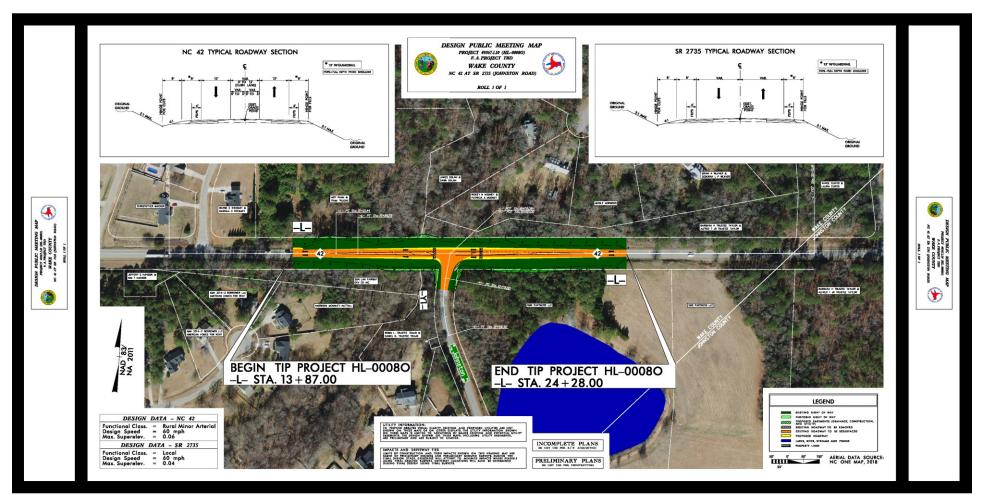
Construction of left turn lanes on each approach at intersection of Ten Ten Road and Bells Lake Road/Graham Newton Road.



ncdot.gov HL-00080

NC42 and Johnston Rd

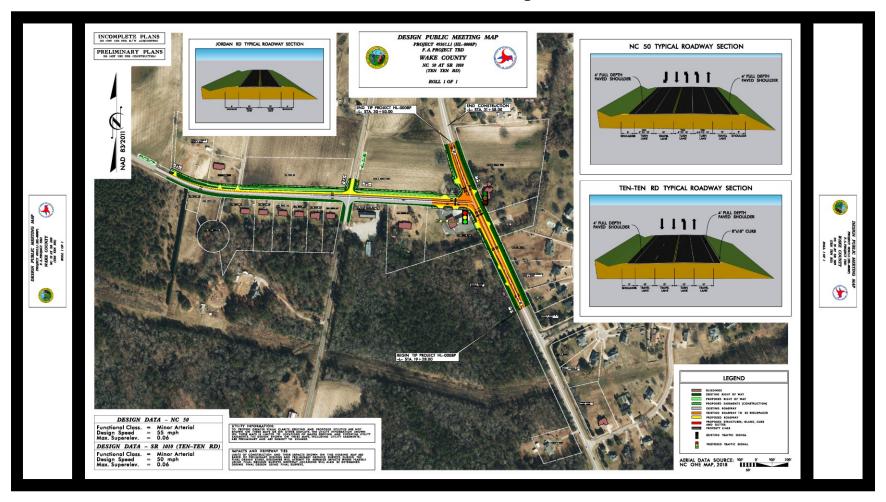
Construct left turn lane on NC 42 at Johnston Road.



ncdot.gov HL-0008P

Ten Ten Road and NC 50

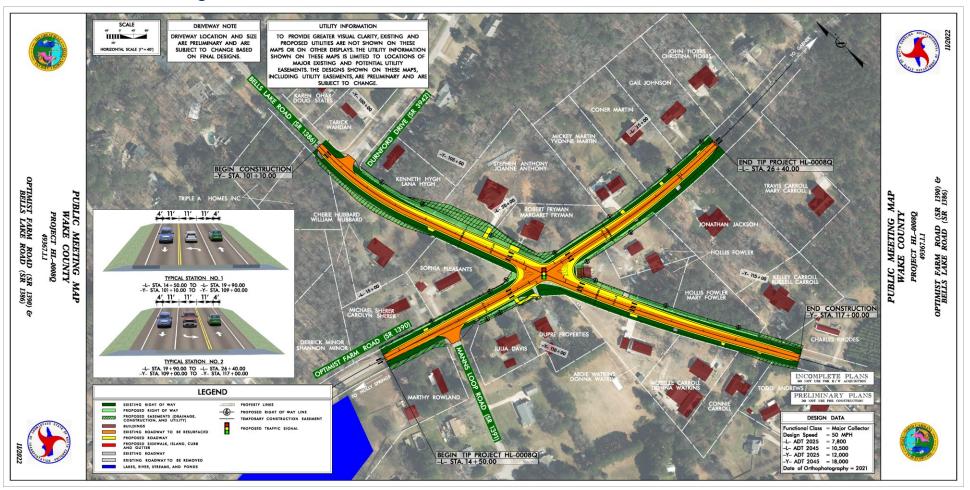
Construct dual left turn lanes on northbound NC 50 and widen Ten Ted Rd for a receiving lane.



ncdot.gov HL-0008Q

Optimist Farm Road at Bells Lake Road

Construction of left turn lanes on all legs of intersection.



Contact Us

Ben Upshaw, PE

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919-317-4730

Beth Quinn, Ph.D., PE

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919-707-6509









► NCDOTcommunications







ncdot_comm

Thank you!

2nd Round Bonus Allocation R-2829

Four Phases of Analysis for Candidate Project Prioritization

Phase I – determine study area for candidate selection *Completed*

Phase II – analyze MTP projects using Triangle Regional Model (TRM) Completed

Phase III – analyze intersection and operational improvements (non-modeled projects) *In-Progress*

Phase IV – compare benefits between candidate projects in a common platform along with safety information

MPO Executive Board programs projects - Spring 2024



5.2 NC 540 Bonus Allocation Projects Update

Requested Action:
Receive as information.



5.3 Amendment #1 to FY2024-2033 Transportation Improvement Program (TIP)

- CAMPO has received notification from NCDOT of changes to regional projects that require amending the FY 2024-2033 TIP.
- Add CAMPO-eligible statewide projects to the FY 2024-2033 TIP.



5.3 Amendment #1 to FY2024-2033 Transportation Improvement Program (TIP)

Next Steps:

- Public Review & Comment Period Sept 17 Oct 18, 2023
- TCC recommendation at October 5th meeting
- Executive Board considers adoption at October 18th meeting

Requested Action:

Recommend adoption of Amendment #1 to the FY 2024-2033 Transportation Improvement Program.



6. Informational Items: Budget

6.1 Operating Budget – FY 2023

6.2 Member Shares - FY 2023

Requested Action:
Receive as information.



7.1 Informational Item: Project Updates

Studies:

- Southeast Area Study Update
- U.S. 401 Corridor Study
- Project Prioritization Methodology Update FY 2023
- MTP Bicycle & Pedestrian Element Update
- Mobility Managmt Program Implementation Study
- MTP Bicycle & Pedestrian Element Update
- NW Harnett Co. Transit Connections Feasibility Study

Other Updates:

- Wake Transit/TPAC Updates
- FY 2024 Wake Plan, Period of Performance Extension
- FY 2024 Wake Plan Development Update
- FY 2024 Community Funding Area Program Update
- Mobility Coordination Committee
- Triangle Transportation Choices (TDM Program)
- NCDOT Highway Project U-2719 Updates

7.2 Informational Item: Public Engagement Updates

Requested Action:
Receive as information.



8. Informational Item: Staff Reports

- MPO Executive Director
- NCDOT Transportation Planning Division
- NCDOT Division 4
- NCDOT Division 5
- NCDOT Division 6
- NCDOT Rail Division
- NC Turnpike Authority
- NCDOT Integrated Mobility Division
- TCC Members



ADJOURN

Upcoming Events

Date	Event
October 18 4:00 p.m.	Executive Board Meeting
November 2 4:00 p.m.	Technical Coordinating Committee Meeting
November 15 4:00 p.m.	Executive Board Meeting
December 7 10:00 a.m.	Technical Coordinating Committee Meeting



In-Person and Online Public Meetings Oct. 17, 23, 26

Help shape transportation along U.S. 401!

Review and Provide Input on the Draft Recommendations

www.US401CorridorStudy.com

In-Person Open Houses

October 17th, 5:30-7:30 p.m. Harnett Resource Center & Library 455 McKinney Pkwy., Lillington

October 23rd, 5:00-7:00 p.m. Fuquay-Varina Board Room 134 N. Main Street

Online "Ask a Planner" Event

October 26th, 4:00 p.m. Webex Link on Website

CAMPO staff will also be in the area at various events to present materials and answer questions. View study materials & take the survey on the website, or text "401Recs" to 73224

Improvements are necessary along the U.S. 401 Corridor to accommodate current and future travel needs. Your input is needed help refine the final study recommendations for:

- Short- and long-term transportation solutions
- Roadway, Bike/Ped, Transit, and Railroad

2055 MTP CommunityViz Parcel Review TrainingOctober 13, 12PM - 2PM

Central Pines Regional Council Long Leaf Conf. Rm 4307 Emperor Blvd., Durham

