

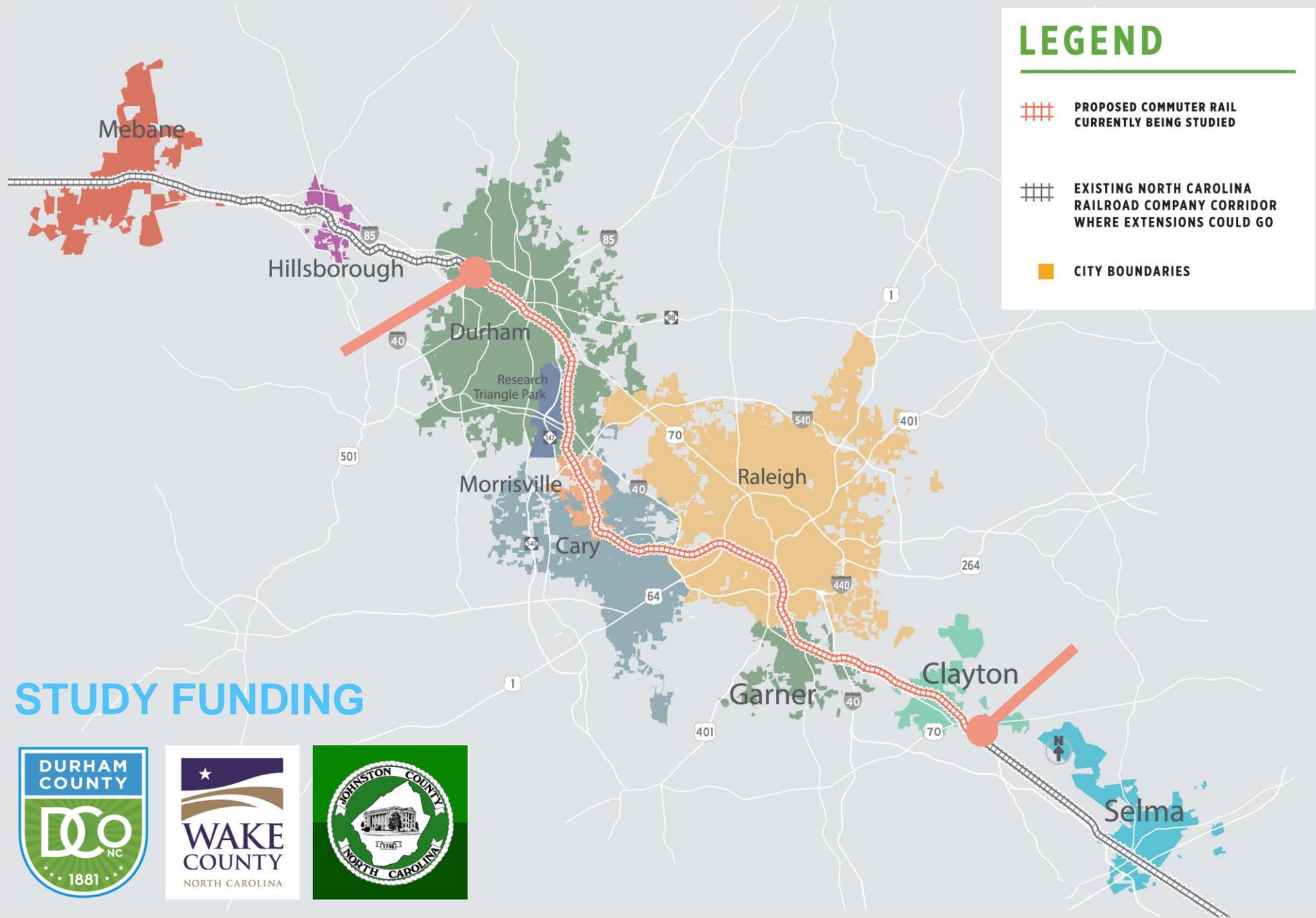
# **GREATER TRIANGLE COMMUTER RAIL STUDY UPDATE**

**GO FORWARD**

A COMMUNITY INVESTMENT IN TRANSIT

**March 2022**

**Durham City Council**



# Study Partners

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Study funding partners

Oversee the Triangle's transportation planning and funding activities

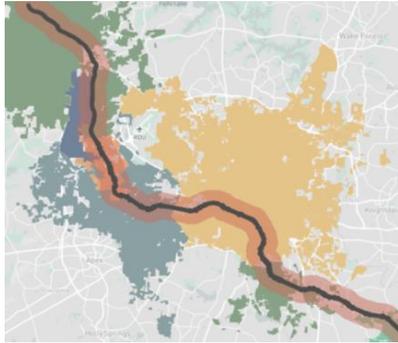
Project sponsor

Sponsors intercity passenger rail on the corridor and has other rail-highway safety mandates

Owns and leases the rail corridor

# What is in the current study?

## Rail Analysis



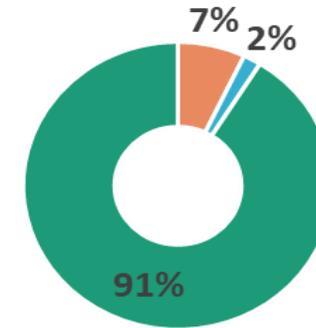
- Stop locations and schedules
- Rail infrastructure: track, bridges, vehicles
- Ridership and rail capacity modeling

## Opportunity Analysis



- Affordable housing
- Access to Jobs
- Land Use

## Engagement

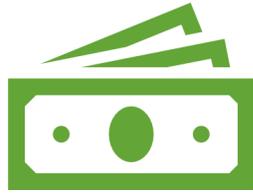


- Three rounds of public engagement
- Business + colleges
- Focus groups
- Local governments
- Railroads

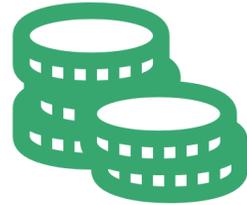


# Putting It All Together

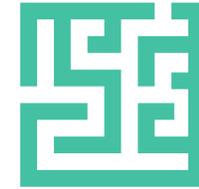
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NS modeling →  
infrastructure  
requirements →  
capital costs



Capital cost and  
ridership →  
Potential for FTA  
funding



Opportunity analysis  
(TJCOG) will round  
out the information

# Downtown Durham Design Concepts

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MORIAH ELLINGTON, PE, ENGINEERING LEAD, STV

ERIN CONVERY, PE, SENIOR TRANSPORTATION PLANNER, GOTRIANGLE

# Existing Shared Rail Corridor

North Carolina Railroad Company Owns the Corridor

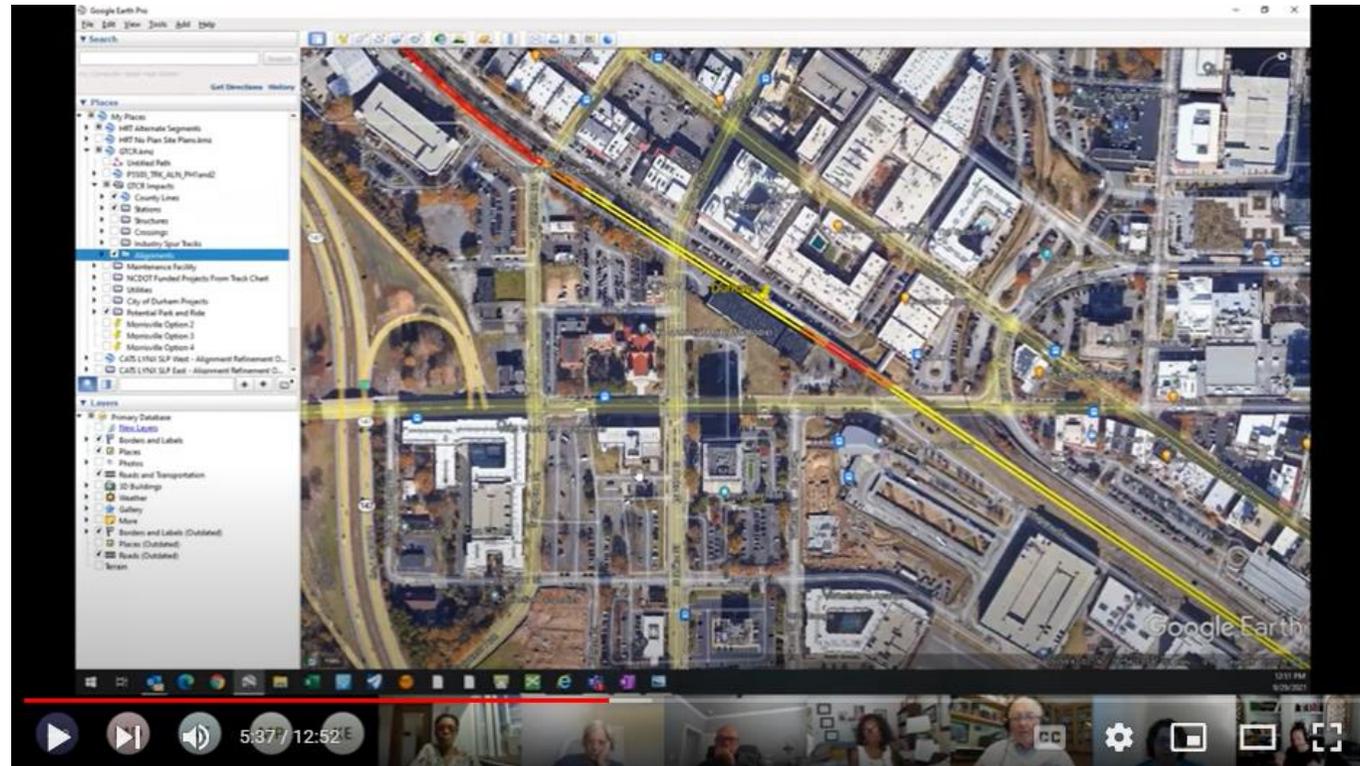
- § Freight Rail
  - § Moves cargo
  - § Norfolk Southern operates and maintains the railroad
- § Intercity Rail
  - § Amtrak operates passenger rail
  - § Four intercity trains on NCRR corridor (Carolinian and Piedmont)

Adding capacity, such as commuter rail, requires additional infrastructure



# Existing Conditions

<https://www.youtube.com/watch?v=G01PNVEu5Tk>



# Technical Goals for Downtown Durham Design Task

- § Add required track capacity
- § Improve clearance under rail bridges to address historical issues
- § Improve pedestrian/cyclist mobility
- § Limit impacts to bus service
- § Enhance connection between Durham Station and train station
- § Minimize impacts to roadway, traffic, historic structures
- § Comply with Norfolk Southern, CSX, NCR, and NCDOT requirements



# High and Low-Level Platforms

- Developed several concepts, categorized as either low-level platforms or high-level platforms (level-entry boarding)

**High Level Platform with Level Boarding**



**Low Level Platform Boarding Options**



# Downtown Durham Concept Development

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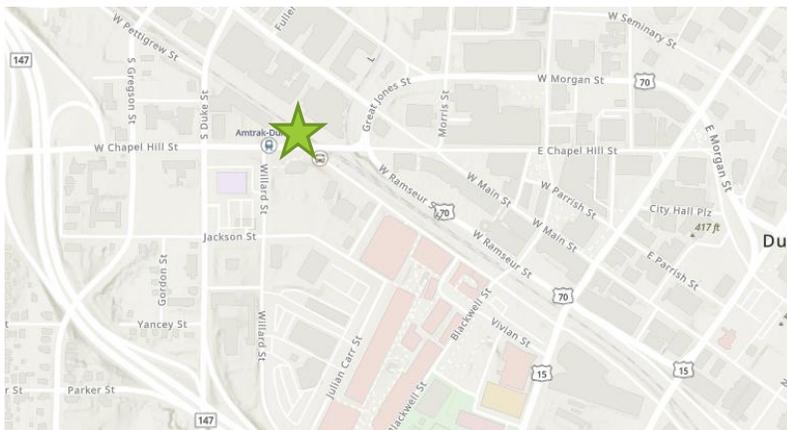
- Identified six initial concepts to begin discussions around strengths and weaknesses
- Partner/stakeholder engagement with City of Durham, County of Durham, Downtown Durham Inc., NCDOT, and NCRR
- Discussions led to refinements and new concepts
- **Two concepts have best ability to meet goals with fewest impacts**
  - Concept 2 – Low Level Platform (LLP)
  - Concept D – High Level Platform (HLP)

# Downtown Durham Station: Chapel Hill Overview Birdseye

Existing Condition

Concept 2 (LLP)

Concept D (HLP)



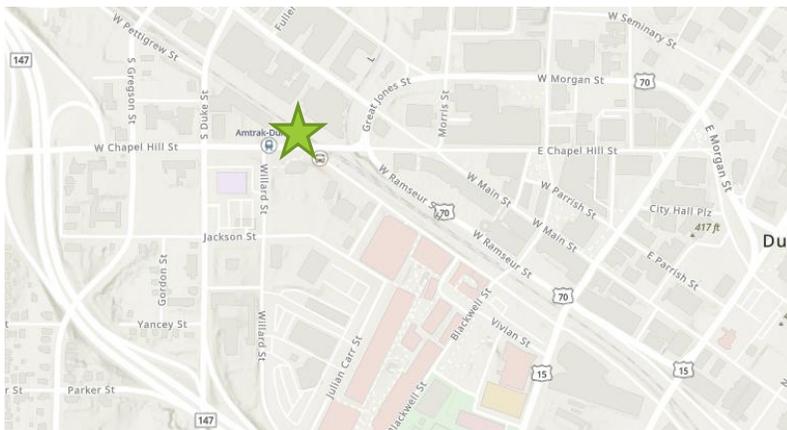


# Downtown Durham Station: Chapel Hill Overview Birdseye

Existing Condition

Concept 2 (LLP)

Concept D (HLP)

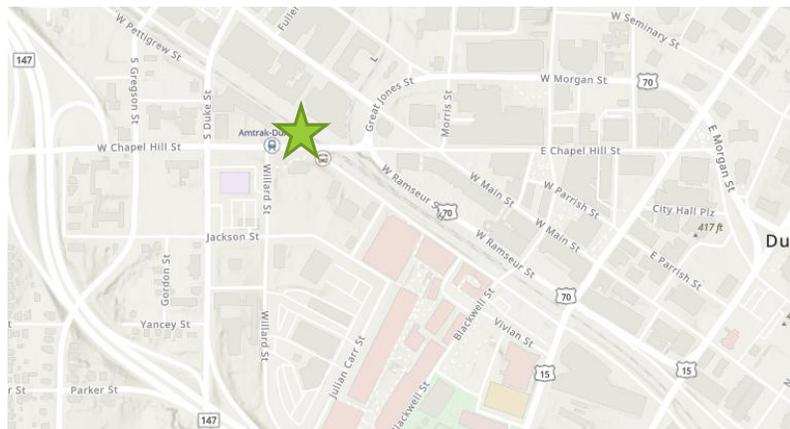


# Downtown Durham Station: Chapel Hill Street-level

Existing Condition

Concept 2 (LLP)

Concept D (HLP)

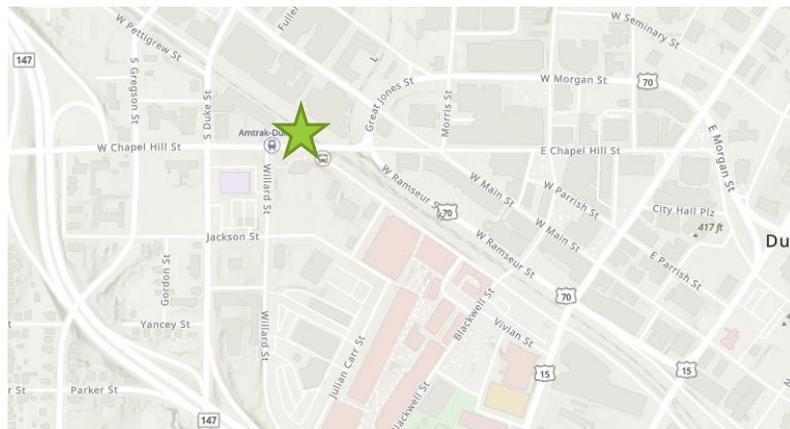


# Downtown Durham Station: Chapel Hill Street-level

Existing Condition

Concept 2 (LLP)

Concept D (HLP)

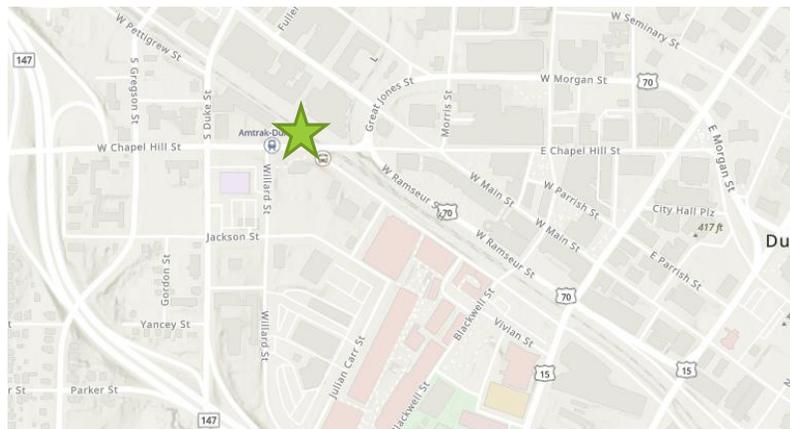


# Downtown Durham Station: Chapel Hill Street-level

Existing Condition

Concept 2 (LLP)

Concept D (HLP)





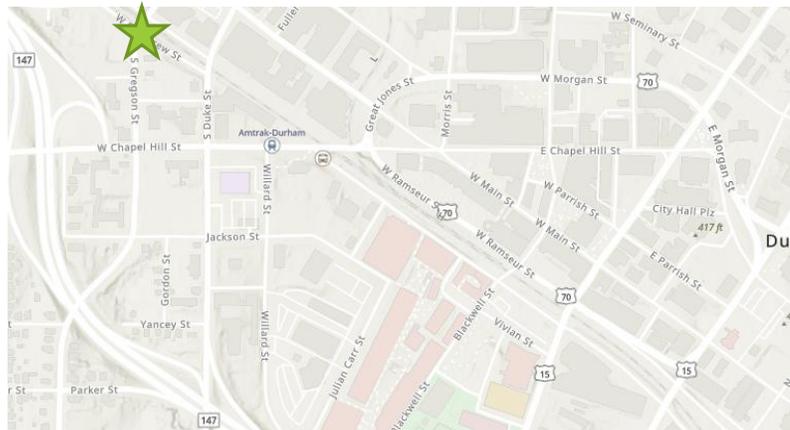


# Gregson Street-level

Existing Condition

Concept 2 (LLP)

Concept D (HLP)

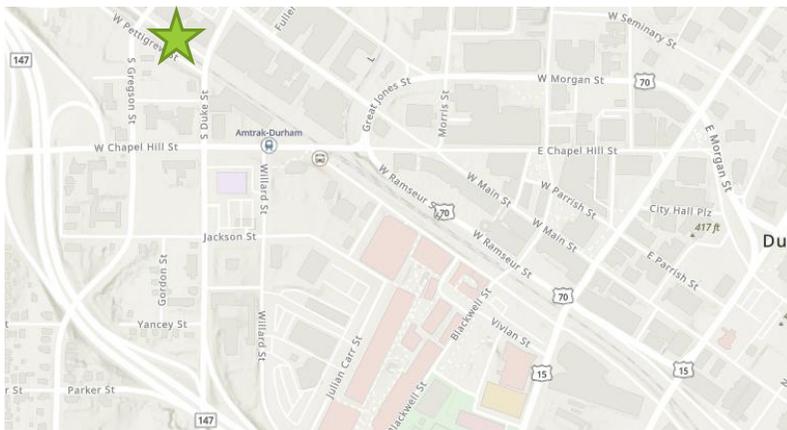


# Gregson/Duke Overview Birdseye

Existing Condition

Concept 2 (LLP)

Concept D (HLP)

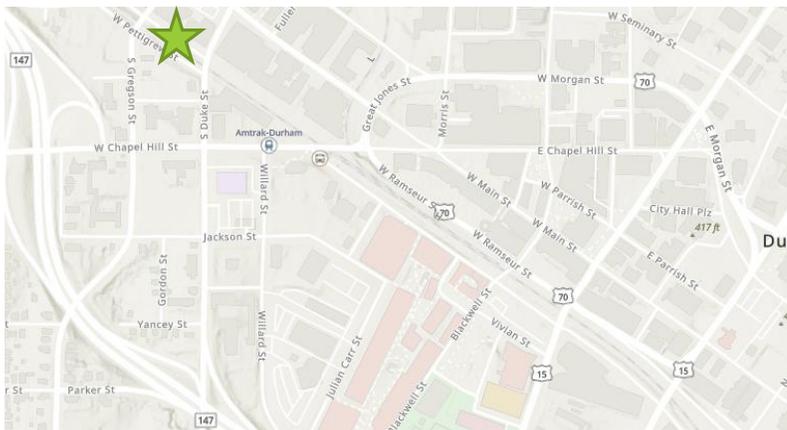


# Gregson/Duke Overview Birdseye

Existing Condition

Concept 2 (LLP)

Concept D (HLP)

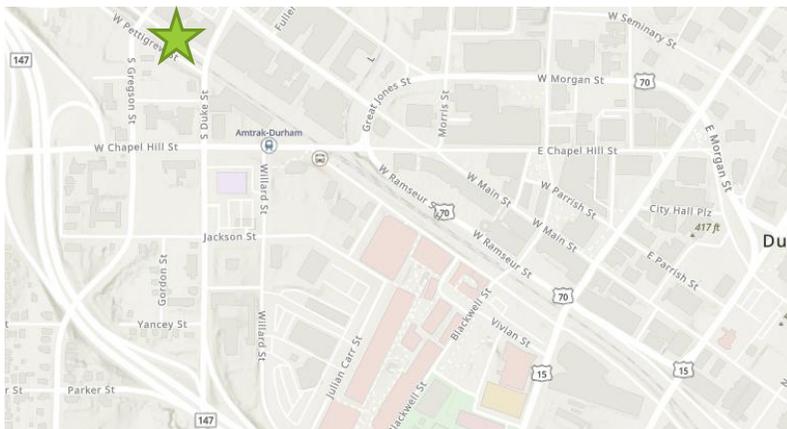


# Gregson/Duke Overview Birdseye

Existing Condition

Concept 2 (LLP)

Concept D (HLP)



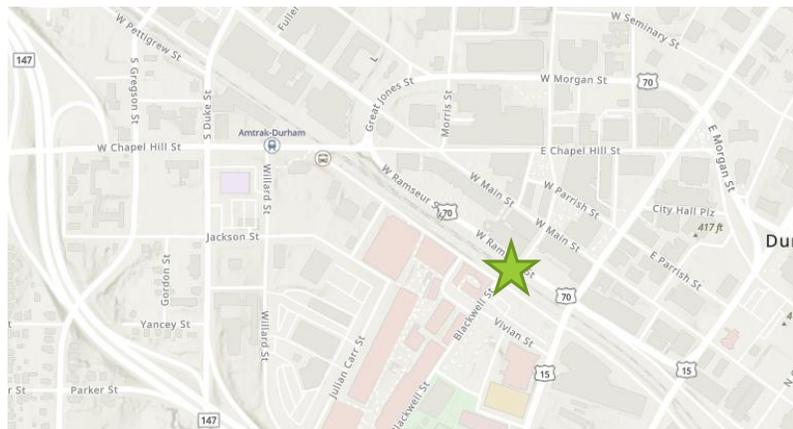


# Blackwell Street-level

Existing Condition

Concept 2 (LLP)

Concept D (HLP)





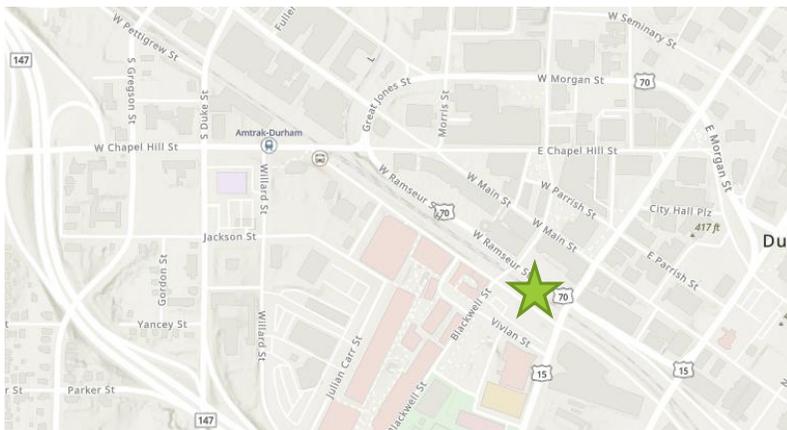


# Corcoran/Mangum Overview Birdseye

Existing Condition

Concept 2 (LLP)

Concept D (HLP)

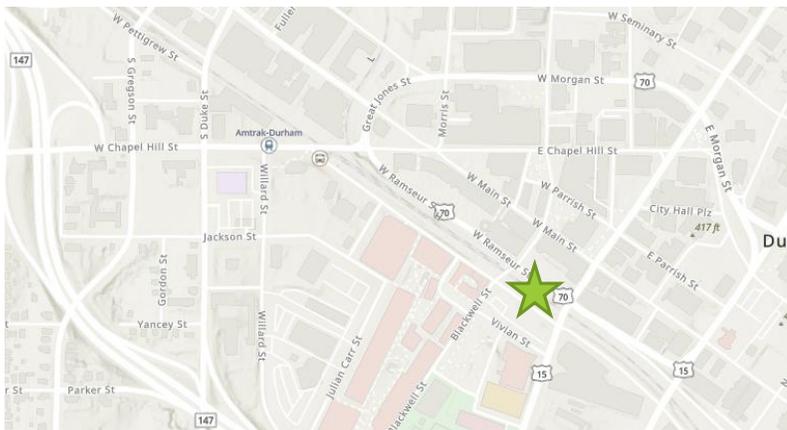


# Corcoran/Mangum Overview Birdseye

Existing Condition

Concept 2 (LLP)

Concept D (HLP)



# Next Steps: Evaluating Options

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## Physical Feasibility

- Potential property acquisitions
- Impacts to adjacent roadways
- Reconstruction of railroad bridges

## Scope

- Both concepts include more elements than were assumed in Phase 1. Existing and proposed tracks would be raised for additional vertical clearance under rail bridges. Additional structural work follows
- Concept D (HLP) requires additional tracks at station area for high level platforms

## Cost

- Concept 2 (LLP): approximately \$15M more than Phase 1 estimate
- Concept D (HLP): approximately \$35M more than Phase 1 estimate

# Next Steps: Engagement

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- Focus on Downtown Durham design concepts
- Future additional corridor-wide engagement is planned for late spring/early summer
  - This will include items that are the subject of ongoing study, including the East Durham Station area



# Who do we need to hear from?

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- Current transit riders (Durham Station)
- East Durham community organizations, residents, and business owners
- Organizations serving Spanish speakers
- Durham Committee on the Affairs of Black People
- Mayor's Committee for Persons with Disabilities
- Durham Housing Authority
- GoTriangle Accessible Services Advisory Committee
- Partners Against Crime (PACs)
- Coalition for Affordable Housing and Transit
- Commuter Rail Insider Mailing List
- Durham Area Designers
- Downtown Durham Inc.
- Durham VA
- American Tobacco Campus
- Businesses and property owners adjacent to the corridor
- **Who else?**

# Discussion

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