



I-20 East Transit Initiative

3rd Technical Advisory Committee Meeting

May 11th, 2011

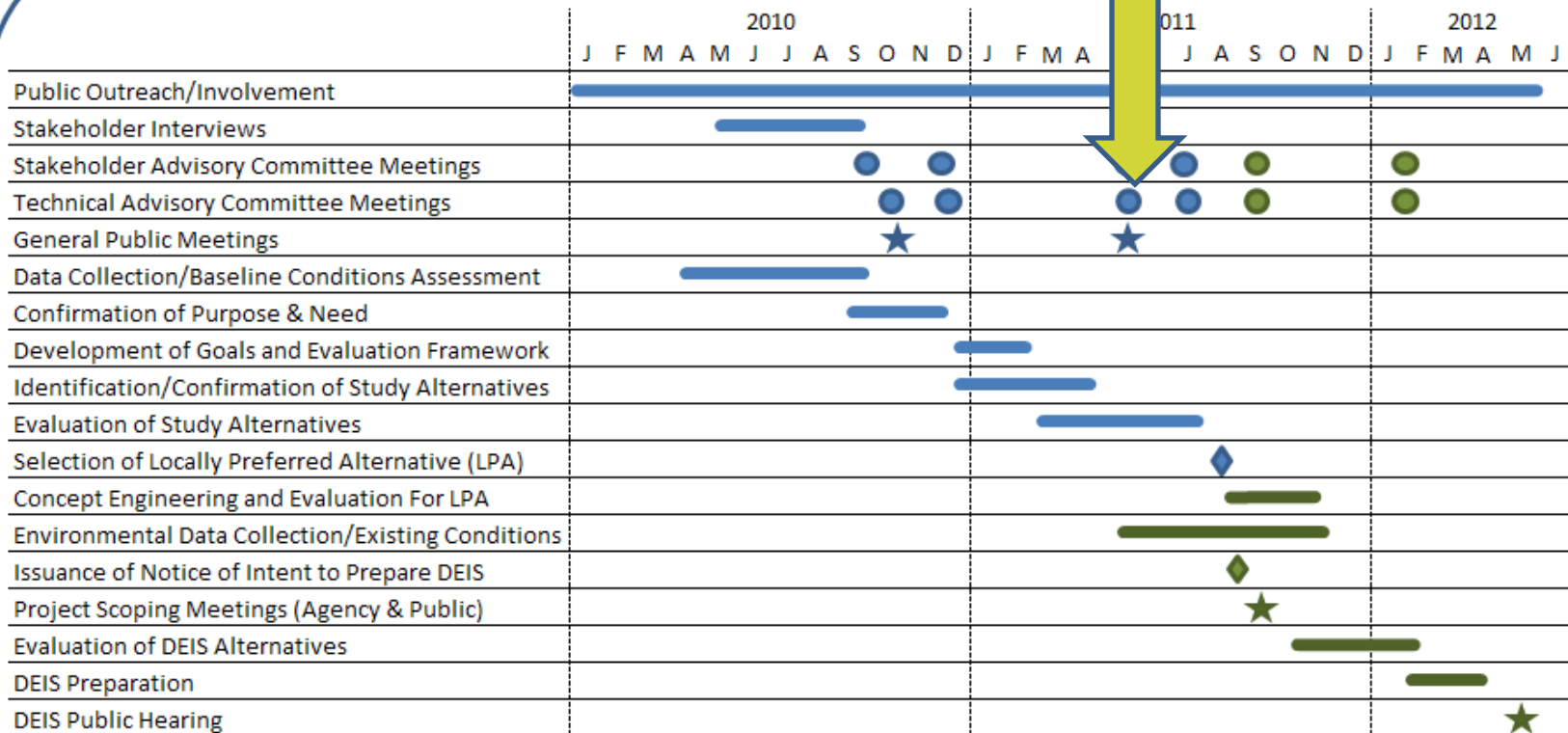
2:00 PM – 4:00 PM





Study Schedule

We Are Here

I-20 East Transit Initiative Schedule

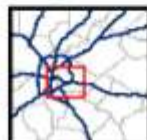
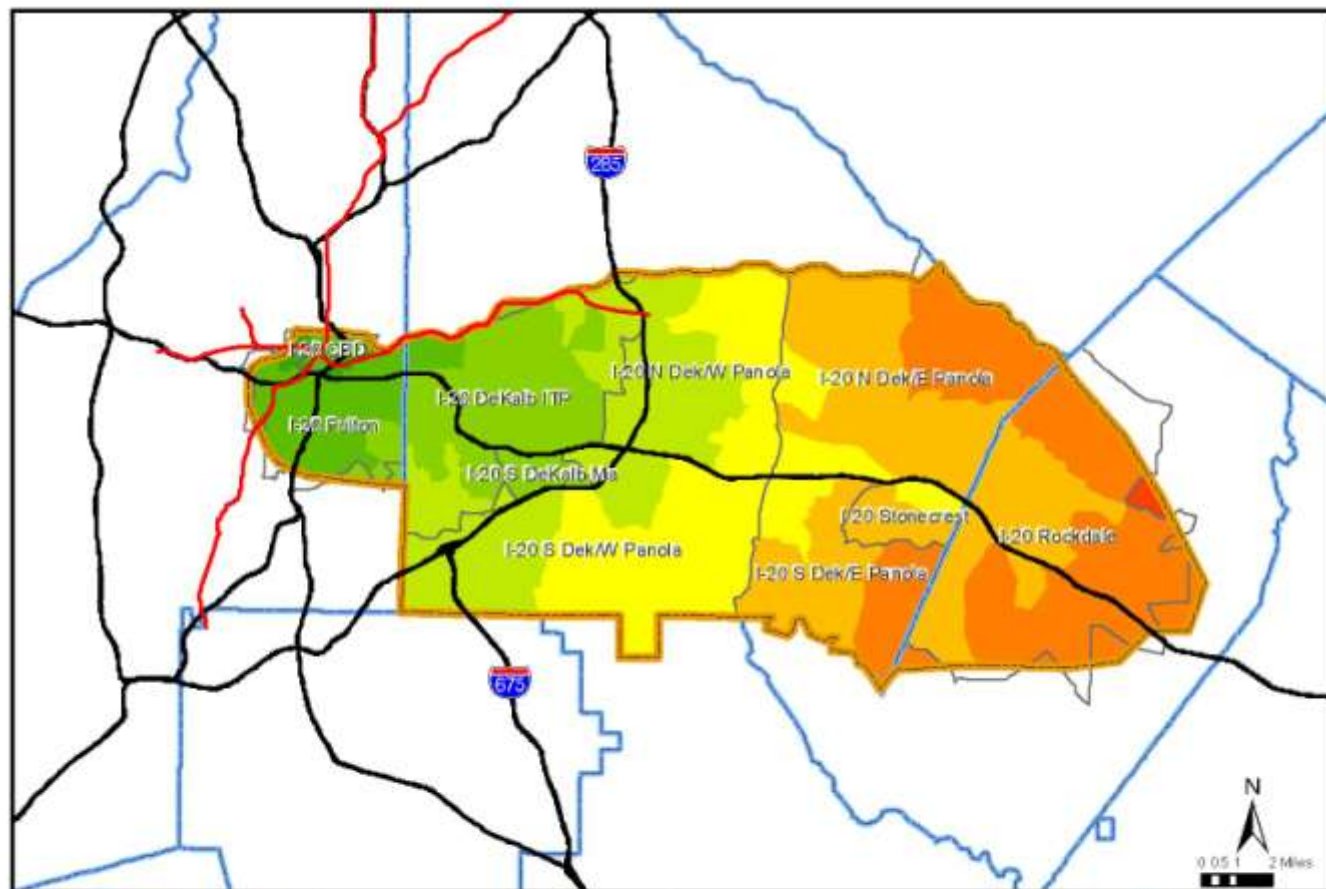


 Detailed Corridor Analysis
 Draft Environmental Impact Statement



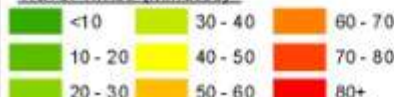
Study Findings: Mobility

2005 Travel Times Travel Times to and from Downtown Atlanta



2005 PM Peak Period
Highway Travel Times
From Downtown Atlanta
marta

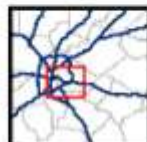
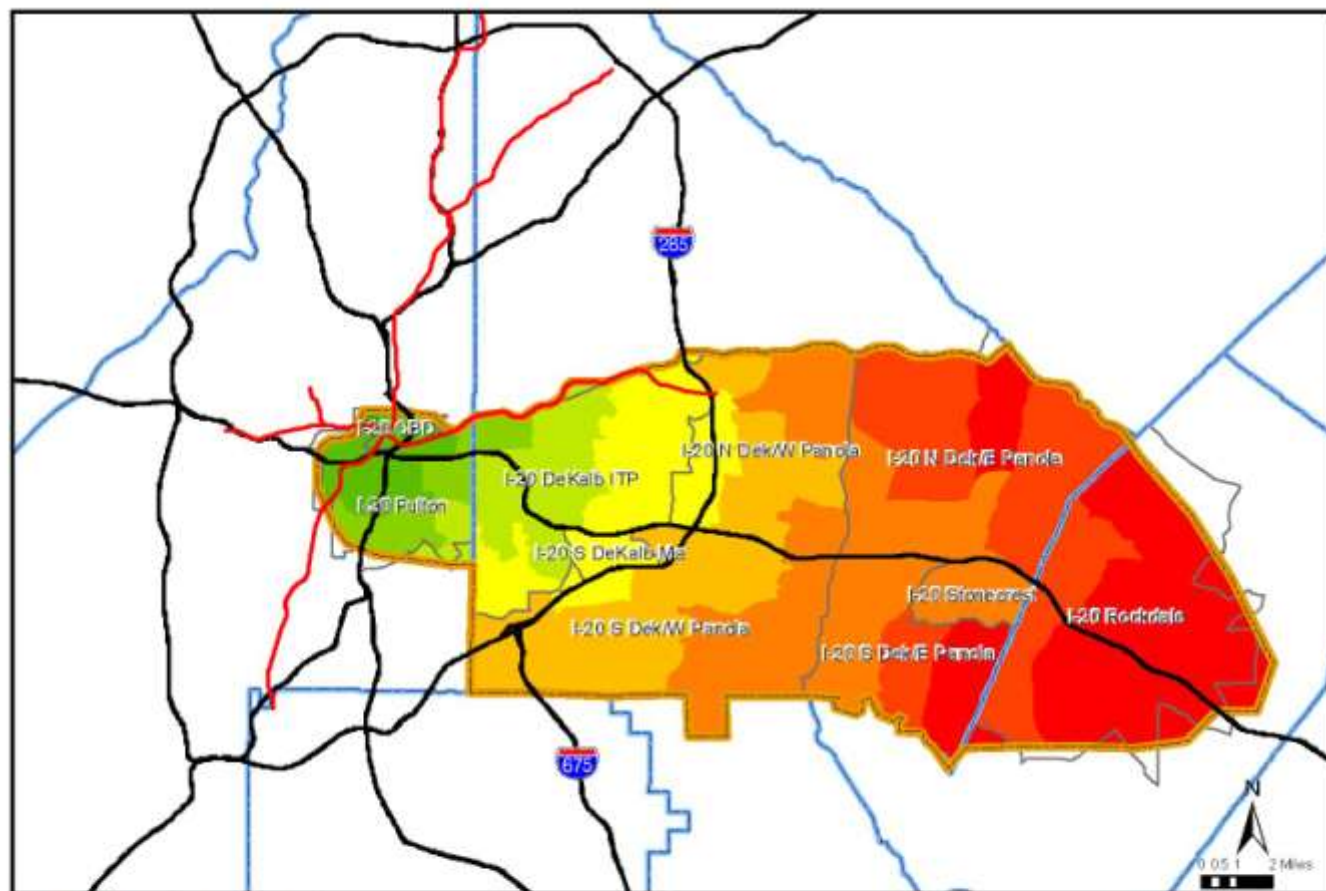
Travel Times (Minutes)





Study Findings: Mobility

2030 Travel Times Travel Times to and from Downtown Atlanta



2030 PM Peak Period
Highway Travel Times
From Downtown Atlanta
marta

Travel Times (Minutes)

<10	30 - 40	60 - 70
10 - 20	40 - 50	70 - 80
20 - 30	50 - 60	80+

- I-20 East Corridor
- MARTA Rail
- Expressways
- County Boundary
- Travel Districts



Evaluation of Transit Alternatives

Tier 1 Screening

- Evaluation of all stakeholder identified alignment alternatives including
 - Downtown Connectivity Alternatives
 - Panola Road Area Alternatives
 - Mainline Alignment Alternatives
- Transit technology not evaluated in Tier 1 screening



Evaluation of Tier I Alternatives

- Ridership – How many people will ride each alternative
- Travel times – How long does it take to ride from Mall at Stonecrest to downtown Atlanta
- Cost – What is the total cost of each alternative
- Community Input – Does the community support the alternative



Evaluation of Transit Alternatives

Tier 2 Screening

- Evaluation of best performing alignment alternatives from Tier 1 screening
- Includes evaluation of transit technologies
 - Bus Rapid Transit (BRT)
 - Light Rail Transit (LRT)
 - Heavy Rail Transit (HRT)
- Evaluation of all potential station locations
- The result of the Tier 2 evaluation will be the Locally Preferred Alternative (LPA)



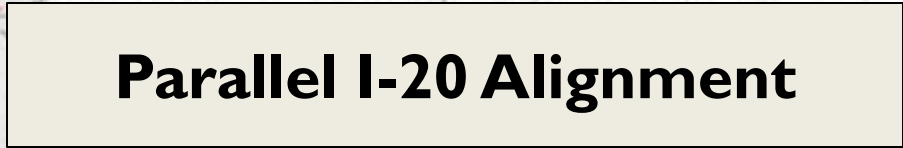
Tier I Screening

- **Mainline Alignment Alternatives**
- **Downtown Connectivity Alternatives**
- **Panola Road Area Alternatives**



Mainline Alignment Alternatives

- **Three mainline alignment alternatives were identified to provide rapid transit service between Mall at Stonecrest and downtown Atlanta:**
 - 1. Parallel I-20 alignment from Mall at Stonecrest to downtown Atlanta**
 - 2. Connection to MARTA Edgewood Station**
 - 3. Extension of heavy rail from Indian Creek Station to Mall at Stonecrest**





Mainline Alignment Alternative I

Parallel I-20 Alignment

Potential Advantages

- Serves areas along I-20 inside I-285 including South DeKalb Mall/Candler Road, Gresham Road/Flat Shoals Road, East Atlanta Village, and Glenwood Park

Potential Disadvantages

- Initial construction phase would likely extend from downtown Atlanta to South DeKalb Mall, not serving areas outside I-285
- Significant engineering and environmental constraints associated with connection into downtown Atlanta
- Higher total costs associated with implementation of 18+ miles of new transit line
- Potential for significant impacts to historic districts inside I-285
- Potential for higher number of commercial and residential displacements
- Associated capital costs resulting from a potential new transit technology, such as Light Rail Transit (LRT) or Bus Rapid Transit (BRT)



Mainline Alignment Alternative 2

Connection to MARTA Edgewood – Candler Park Station

See Downtown Connectivity Alternatives Map

Legend

- Proposed**
 - 4000-foot Rail Corridor
 - 4000-foot Transit Station
 - 4000-foot Transit Station
 - 4000-foot Transit Station
 - 4000-foot Transit Station
- Other Features**
 - Other Features
 - Other Features
 - Other Features
 - Other Features

Mainline Alignment Alternatives

- On Street Operation
- Exclusive Right of Way
- Edgewood Station Alignment
- East-West Station



Mainline Alignment Alternative 2

Connection to Edgewood MARTA Station

Potential Advantages

- Serves areas along I-20 inside I-285 including the Kirkwood neighborhood, South DeKalb Mall/Candler Road and Gresham Road/Flat Shoals Road
- Avoids engineering and cost issues associated with connecting directly into downtown

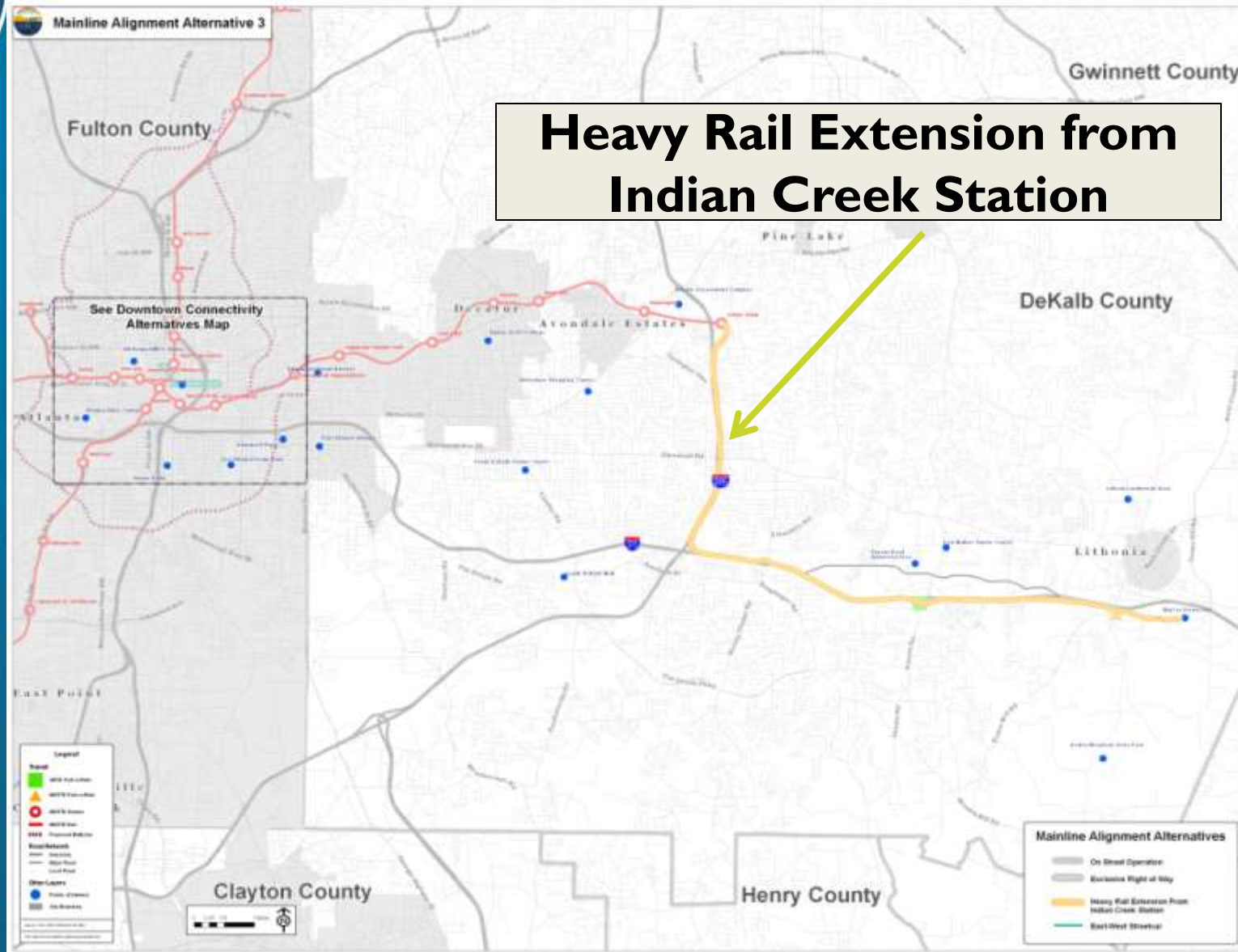
Potential Disadvantages

- Significant community and environmental impacts associated with connection through Edgewood and Kirkwood neighborhoods
- Potential for significant impacts to historic districts
- May require tunneling to avoid impacts to communities and historic resources
- Associated capital costs resulting from a potential new transit technology, such as Light Rail Transit (LRT) or Bus Rapid Transit (BRT)



Mainline Alignment Alternative 3

Heavy Rail Extension from Indian Creek Station





Mainline Alignment Alternative 3

Heavy Rail Extension from Indian Creek Station

Potential Advantages

- Initial construction phase would extend MARTA rail from Indian Creek Station to Wesley Chapel Road, thus providing rapid transit service to areas outside I-285
- Lower total costs associated with implementation of 12+ miles of new transit line
- Cost savings associated with the use of existing heavy rail vehicles and maintenance facilities

Potential Disadvantages

- Would not serve areas along I-20 inside I-285 including South DeKalb Mall/Candler Road, Gresham Road/Flat Shoals Road, East Atlanta Village, and Glenwood Park
- Potential for longer travel times to downtown Atlanta due to numerous stations along East-West line



Mainline Alignment Alternatives

Preliminary Evaluation Results

Ridership

- **Total Boardings**

- Alternative 1 (Connection to Downtown): 26,976 Boardings
- Alternative 2 (Connection to Edgewood Station): 11,541 Boardings
- Alternative 3 (Extension of E-W Line): 11,684 Boardings

- **New Transit Riders**

- Alternative 1 (Connection to Downtown): 6,553
- Alternative 2 (Connection to Edgewood Station): 2,795
- Alternative 3 (Extension of E-W Line): 5,782



Mainline Alignment Alternatives

Preliminary Evaluation Results

Travel Times (2030)

- **Mall at Stonecrest to MARTA Five Points Station**
 - Existing Transit Service: 74.4 minutes
 - Alternative 1 (Connection to Downtown): 37.2 minutes
 - Alternative 2 (Connection to Edgewood Station): 42.1 minutes
 - Alternative 3 (Extension of E-W Line): 42.7 minutes
- **Mall at Stonecrest to MARTA Arts Center Station**
 - Existing Transit Service: 82.9 minutes
 - Alternative 1 (Connection to Downtown): 45.9 minutes
 - Alternative 2 (Connection to Edgewood Station): 50.6 minutes
 - Alternative 3 (Extension of E-W Line): 51.2 minutes



Mainline Alignment Alternatives

Preliminary Evaluation Results

Costs (Planning Level: do not include ROW, Maintenance Facilities, or Vehicles)

- Alternative 1 (Connection to Downtown) – Min: \$2.57 Billion
- Alternative 1 (Connection to Downtown) – Max: \$2.98 Billion
- Alternative 2 (Connection to Edgewood Station) – Min: \$2.28 Billion
- Alternative 2 (Connection to Edgewood Station) – Max: \$2.86 Billion
- Alternative 3 (Extension of E-W Line): \$2.51 Billion

Community Support

- Alternative 1 (Connection to Downtown): 28.6% of 35 public votes
- Alternative 2 (Connection to Edgewood Station): 57.1% of 35 public votes
- Alternative 3 (Extension of E-W Line): 14.3% of 35 public votes



Keypad Voting Exercise

- You will use this keypad to select your response
- The last number you press will be recorded
- You cannot vote multiple times
- These are not magic remotes they will not work on anything else... Please leave here – Thank you!!





Mainline Alignment Alternatives – Keypad Voting

Which alternative do you feel is the most appropriate?

- 1. Parallel I-20 Alignment**
- 2. Connection to Edgewood MARTA Station**
- 3. Heavy Rail Extension from Indian Creek Station**



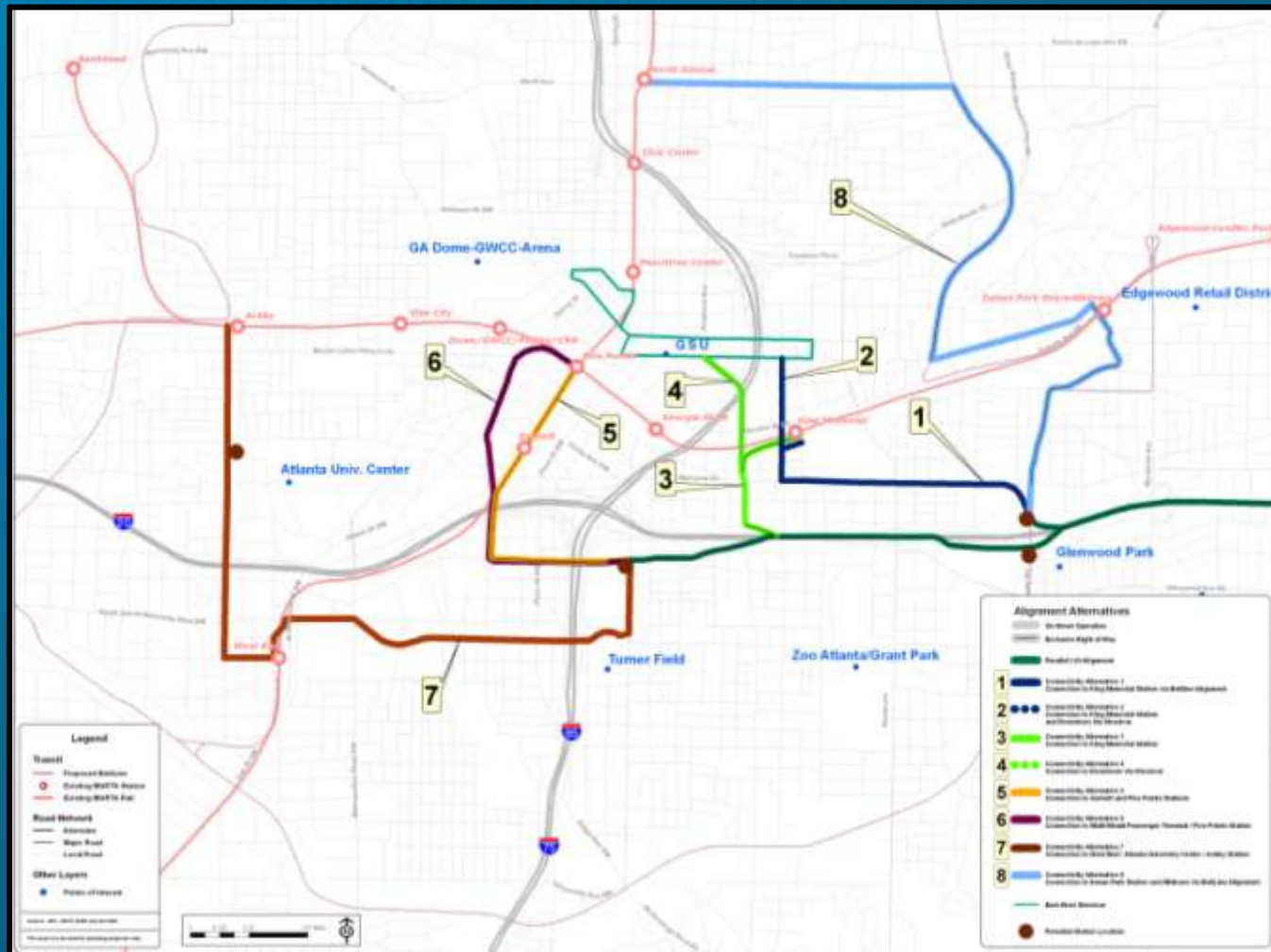
Downtown Connectivity Alternatives

- What is the most effective way to connect into downtown Atlanta and the MARTA rail system?
- Project Stakeholders have identified 8 Downtown Connectivity Alternatives



Downtown Connectivity Alternatives

All Eight Alternatives





Downtown Connectivity Alternative I

Connection to King Memorial Station via BeltLine Alignment





Downtown Connectivity Alternative I

Connection to King Memorial Station via BeltLine Alignment

Potential Advantages

- Lower costs due to on-street operation
- Lower costs due to limited elevated structures
- Shorter travel distance to MARTA East-West rail line

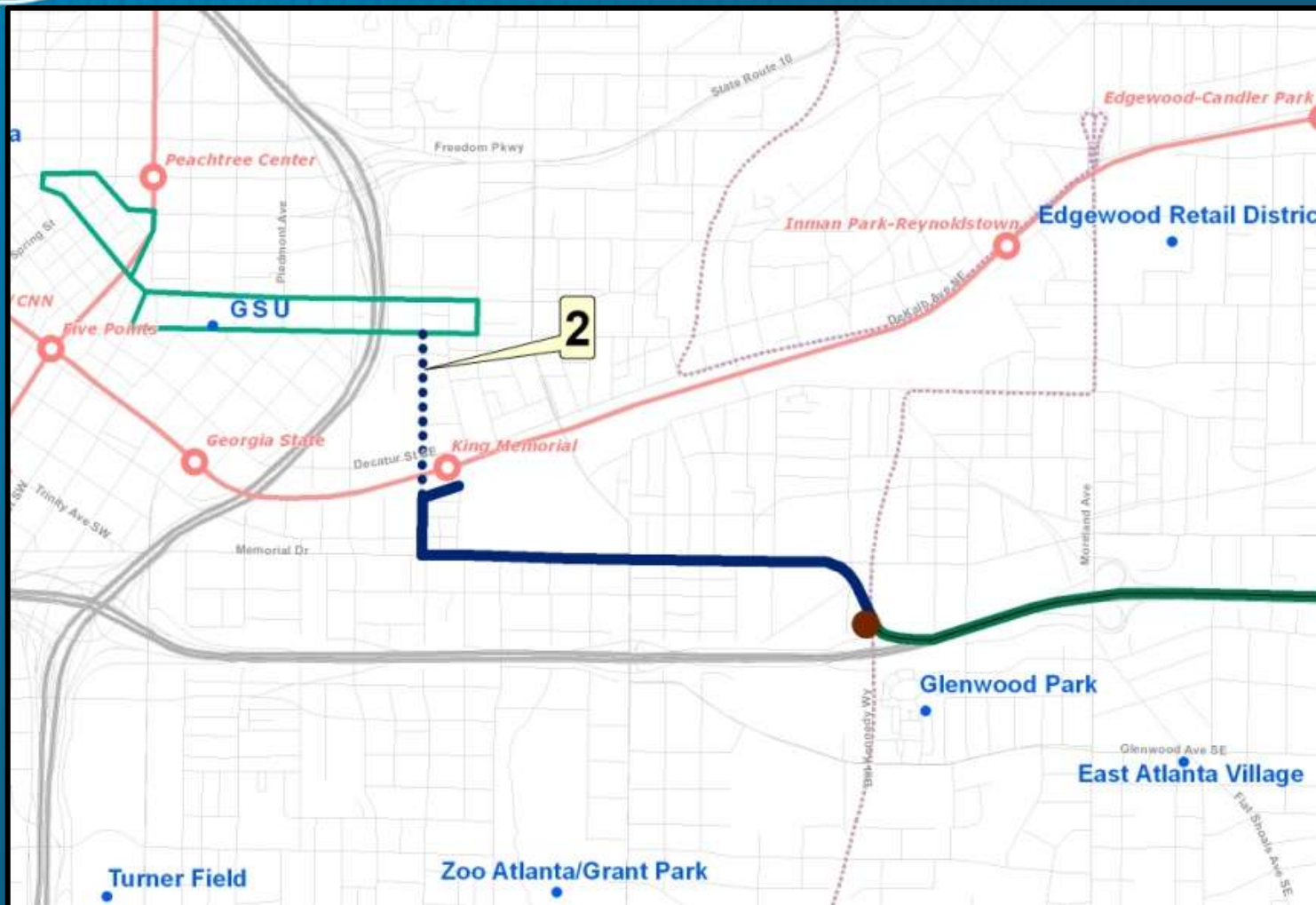
Potential Disadvantages

- Potential for delay due to congestion on surface streets
- No direct access to MARTA North-South rail line



Downtown Connectivity Alternative 2

Connection to King Memorial Station and Downtown via Streetcar





Downtown Connectivity Alternative 2

Connection to King Memorial Station and Downtown via Streetcar

Potential Advantages

- Lower costs due to on-street operation
- Lower costs due to limited elevated structures
- Serves major points of interest along the Streetcar alignment
- Shorter travel distance to MARTA East-West rail line
- Connection to MARTA North-South and East-West rail lines

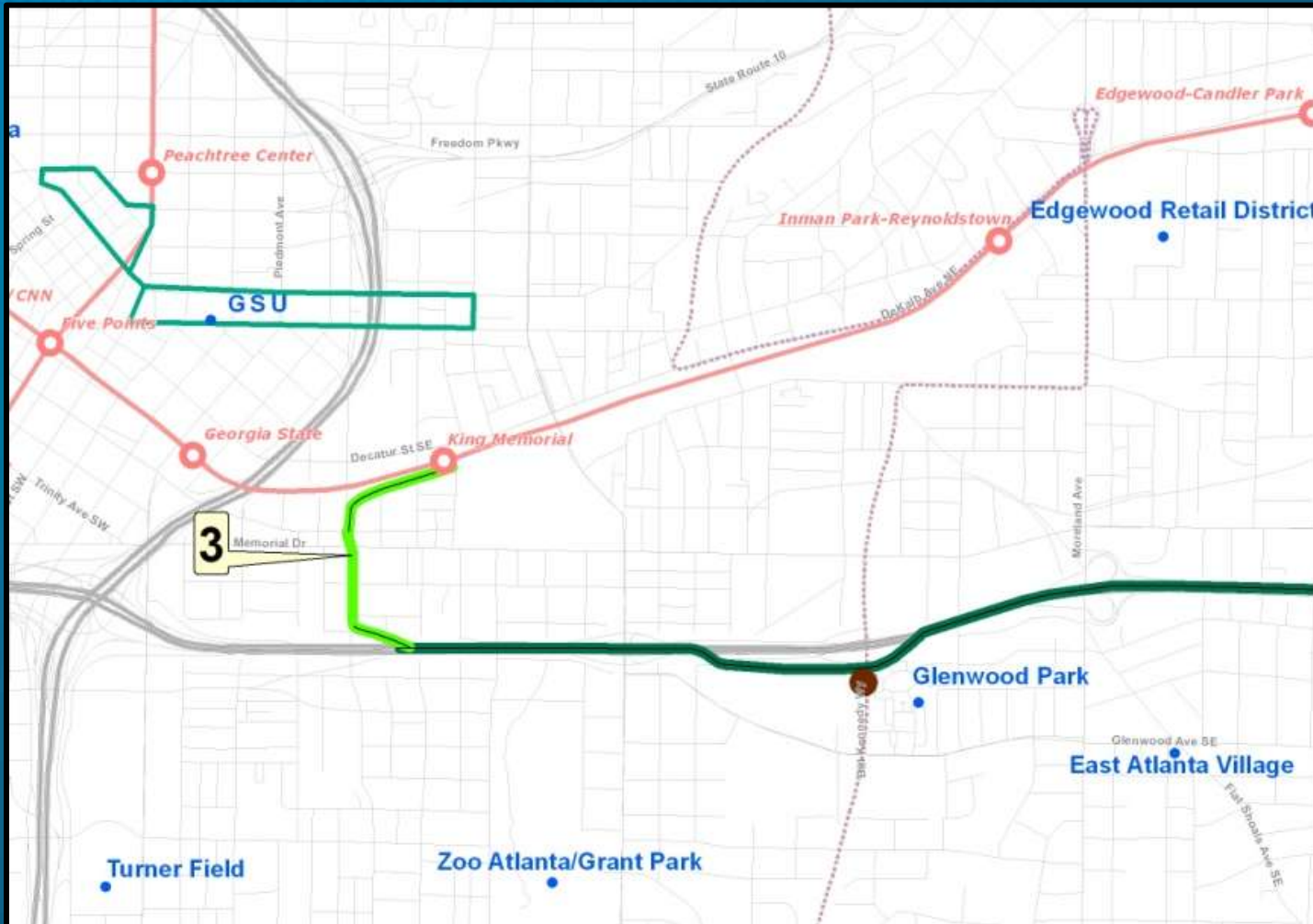
Potential Disadvantages

- Potential for delay due to congestion on surface streets
- Longer travel times to MARTA North-South rail line via Streetcar alignment



Downtown Connectivity Alternative 3

Connection to King Memorial Station





Downtown Connectivity Alternative 3

Connection to King Memorial Station

Potential Advantages

- Moderate costs due to elevated structures along I-20
- Shorter travel distance to MARTA East-West rail line
- Faster access to existing MARTA rail system

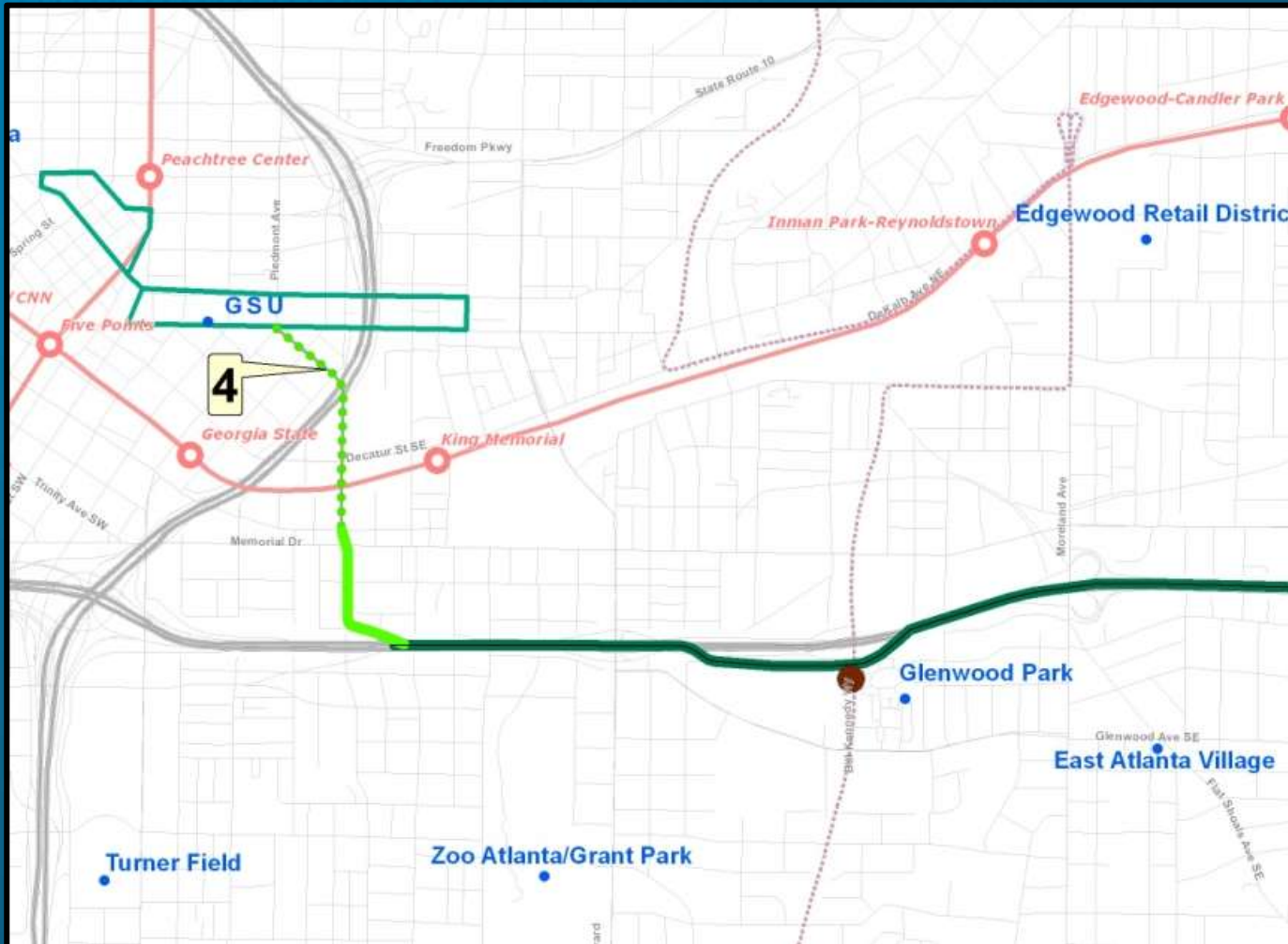
Potential Disadvantages

- Potential for delay due to congestion on surface streets
- No direct access to MARTA North-South rail line



Downtown Connectivity Alternative 4

Connection to Downtown via Streetcar





Downtown Connectivity Alternative 4

Connection to Downtown via Streetcar

Potential Advantages

- Moderate costs due to elevated structures along I-20
- Serves major points of interest along the Streetcar alignment

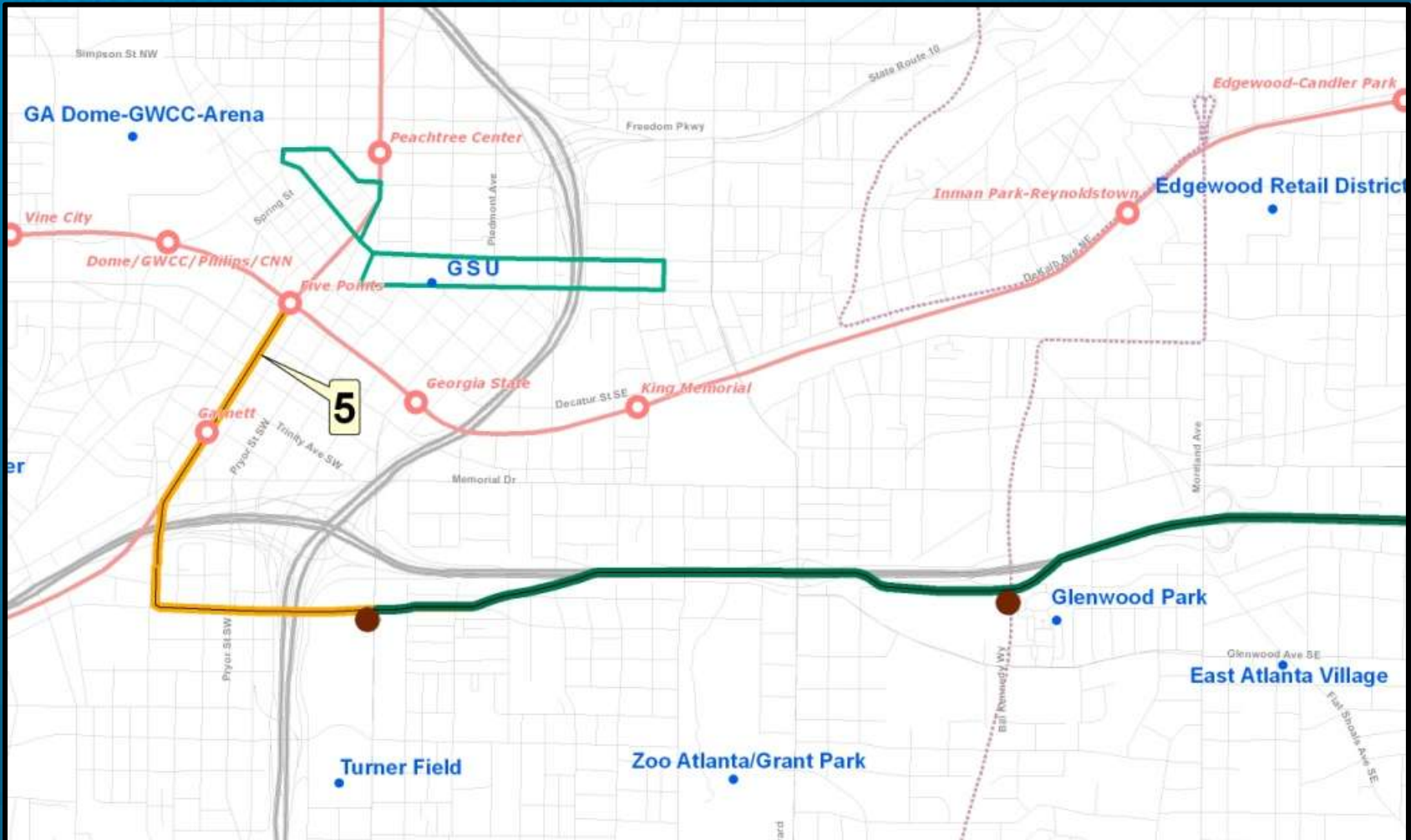
Potential Disadvantages

- No direct access to MARTA East-West rail line
- Potential for delay due to congestion on surface streets
- Longer travel times to access MARTA North-South rail line via Streetcar alignment



Downtown Connectivity Alternative 5

Connection to Garnett and Five Points Stations





Downtown Connectivity Alternative 5

Connection to Garnett and Five Points Stations

Potential Advantages

- Direct connection to MARTA North-South and East-West rail lines
- Reliable travel times due to no on-street operation
- Potential Station at Turner Field

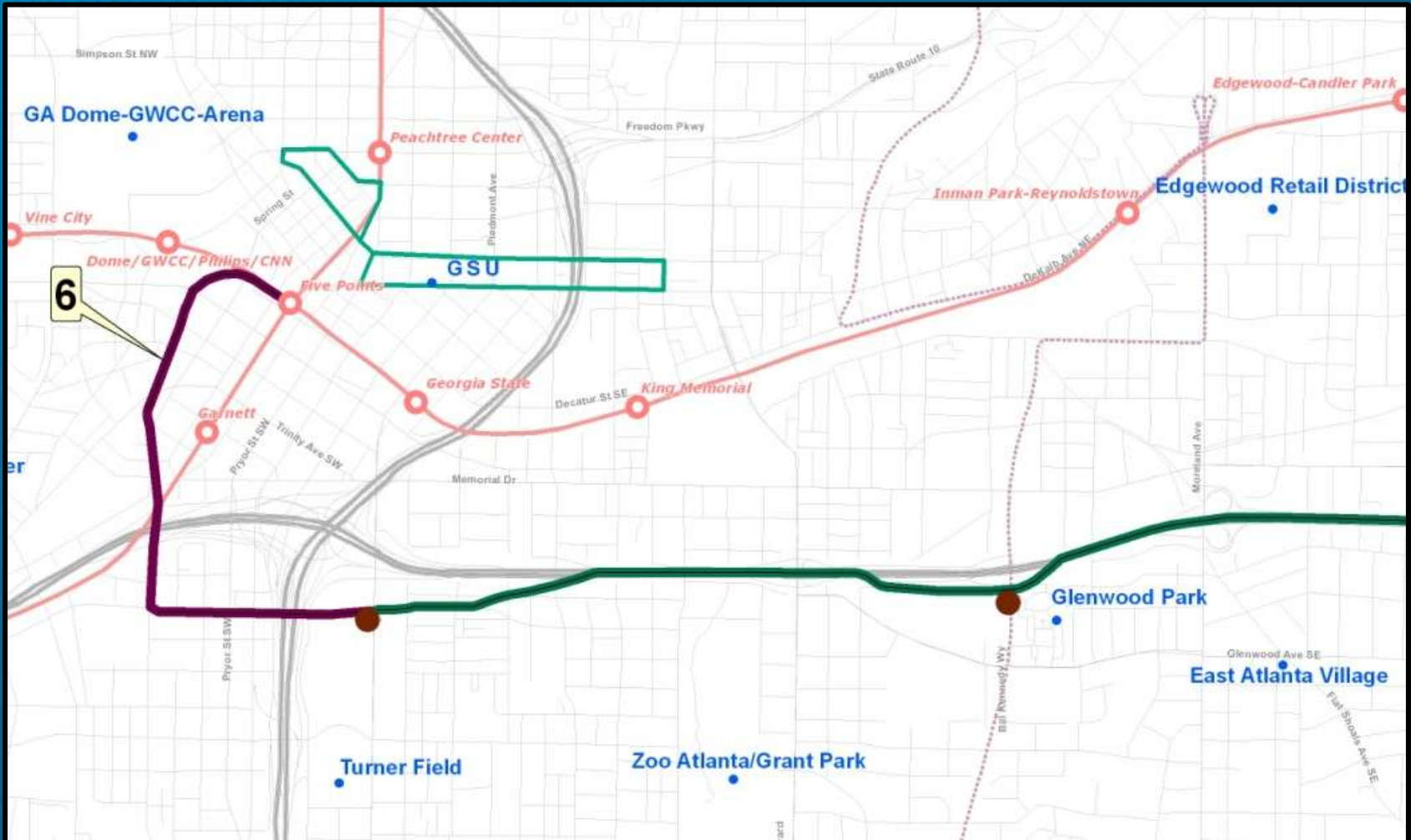
Potential Disadvantages

- Higher costs associated with significant elevated structure through downtown



Downtown Connectivity Alternative 6

Connection to Multi-Modal Passenger Terminal/Five Points Station





Downtown Connectivity Alternative 6

Connection to Multi-Modal Passenger Terminal/Five Points Station

Potential Advantages

- Direct connection to potential Multi-Modal Passenger Terminal
- Direct connection to MARTA North-South and East-West rail lines
- Potential Station at Turner Field

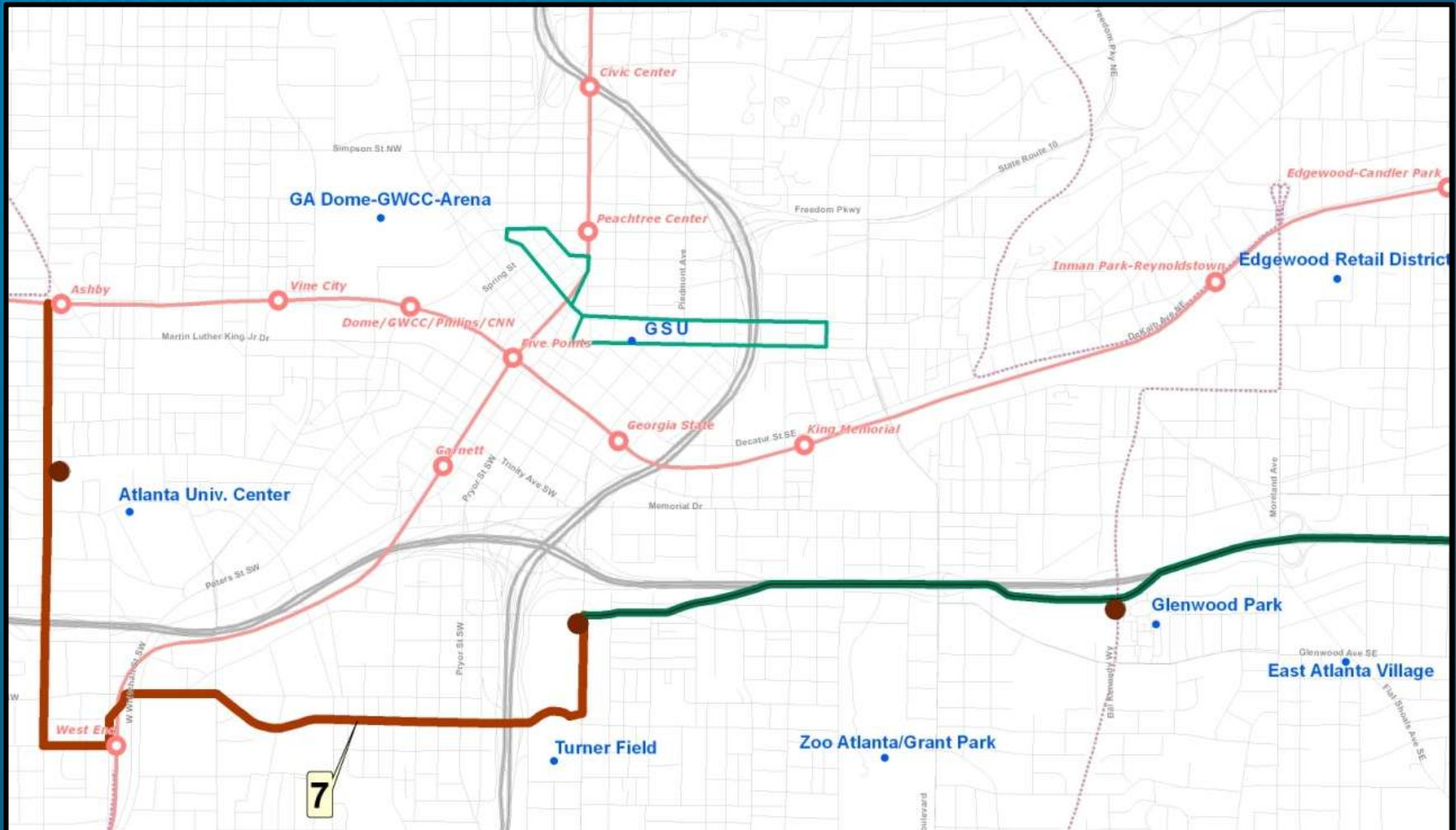
Potential Disadvantages

- Higher costs associated with extensive elevated structure through downtown
- Potential for delay due to congestion on surface streets



Downtown Connectivity Alternative 7

Connection to West End Station/Atlanta University Center/Ashby Station





Downtown Connectivity Alternative 7

Connection to West End Station/Atlanta University Center/Ashby Station

Potential Advantages

- Connection to Atlanta University Center
- Connection to MARTA North-South and East-West rail lines
- Potential Station at Turner Field

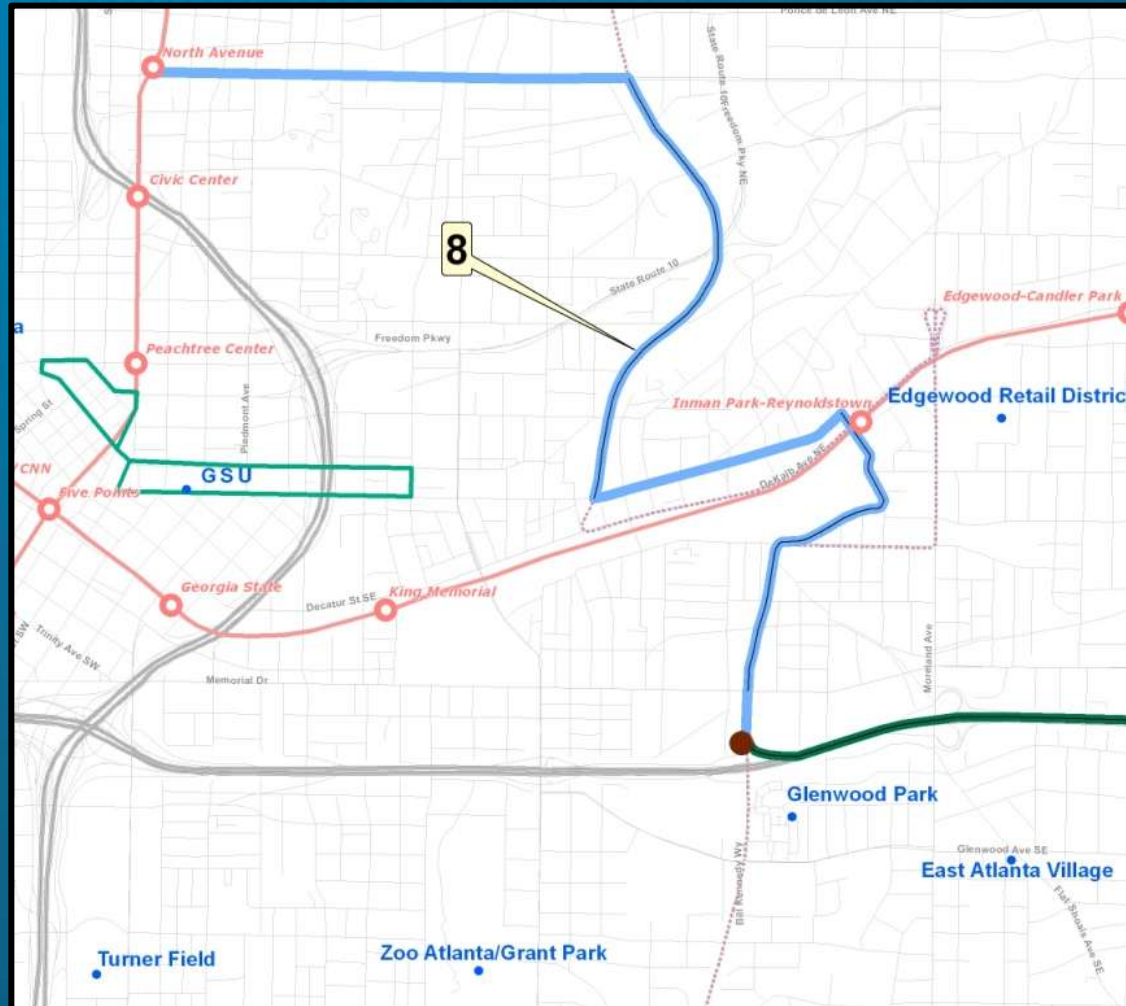
Potential Disadvantages

- Potential for delay due to congestion on surface streets
- Longer travel times to access MARTA North-South and East-West rail lines



Downtown Connectivity Alternative 8

Connection to Inman Park Station and Midtown via BeltLine Alignment





Downtown Connectivity Alternative 8

Connection to Inman Park Station and Midtown via BeltLine Alignment

Potential Advantages

- Lower costs due to on-street operation and use of Beltline right-of-way
- Connection to points of interest along the Beltline alignment
- Shorter travel distance to MARTA East-West rail line

Potential Disadvantages

- Potential for delay due to congestion on surface streets
- Longer travel times to access the MARTA North-South rail line



Downtown Connectivity Alternatives

Preliminary Evaluation Results

Ridership

- **Total Boardings**

- Alternative 1: 11,425 Boardings
- Alternative 2: 15,119 Boardings
- Alternative 3: 13,821 Boardings
- Alternative 4: 12,592 Boardings
- **Alternative 5: 26,976 Boardings**
- Alternative 6: 23,169 Boardings
- Alternative 7: 17,034 Boardings
- Alternative 8: 16,249 Boardings



Downtown Connectivity Alternatives

Preliminary Evaluation Results

Ridership

- **New Transit Riders**

- Alternative 1 : 2,820
- Alternative 2: 3,251
- Alternative 3: 3,279
- Alternative 4: 2,775
- **Alternative 5: 6,553**
- Alternative 6: 5,330
- Alternative 7: 3,823
- Alternative 8: 3,565



Downtown Connectivity Alternatives

Preliminary Evaluation Results

Travel Times (2030)

- **Mall at Stonecrest to MARTA Five Points Station**

- Existing Transit Service: 74.4 minutes
- Alternative 1: 47.1 minutes
- Alternative 2: 47.1 minutes
- Alternative 3: 41.8 minutes
- Alternative 4: 52.0 minutes
- **Alternative 5: 37.2 minutes**
- Alternative 6: 40.4 minutes
- Alternative 7: 48.1 minutes
- Alternative 8: 45.0 minutes



Downtown Connectivity Alternatives

Preliminary Evaluation Results

Travel Times (2030)

- **Mall at Stonecrest to MARTA Arts Center Station**

- Existing Transit Service: 82.9 minutes
- Alternative 1: 55.6 minutes
- Alternative 2: 62.4 minutes
- Alternative 3: 50.3 minutes
- Alternative 4: 62.3 minutes
- **Alternative 5: 45.9 minutes**
- Alternative 6: 49.1 minutes
- Alternative 7: 54.1 minutes
- Alternative 8: 58.1 minutes



Downtown Connectivity Alternatives

Preliminary Evaluation Results

Costs (Planning Level for LRT: do not include ROW, Maintenance Facilities, or Vehicles)

- | | |
|-------------------------|---------------|
| ▪ Alternative 1: | \$120M |
| ▪ Alternative 2: | \$135M |
| ▪ Alternative 3: | \$254M |
| ▪ Alternative 4: | \$262M |
| ▪ Alternative 5: | \$533M |
| ▪ Alternative 6: | \$415M |
| ▪ Alternative 7: | \$428M |
| ▪ Alternative 8: | \$257M |



Downtown Connectivity Alternatives

Preliminary Evaluation Results

Comparative Costs

- **Voting Results from Public Meetings – 37 Respondents**

- Alternative 1: 0%
- Alternative 2: 2.7%
- Alternative 3: 16.2%
- Alternative 4: 2.7%
- **Alternative 5: 37.8%**
- Alternative 6: 8.1%
- Alternative 7: 27.0%
- Alternative 8: 5.4%



Keypad Voting Exercise

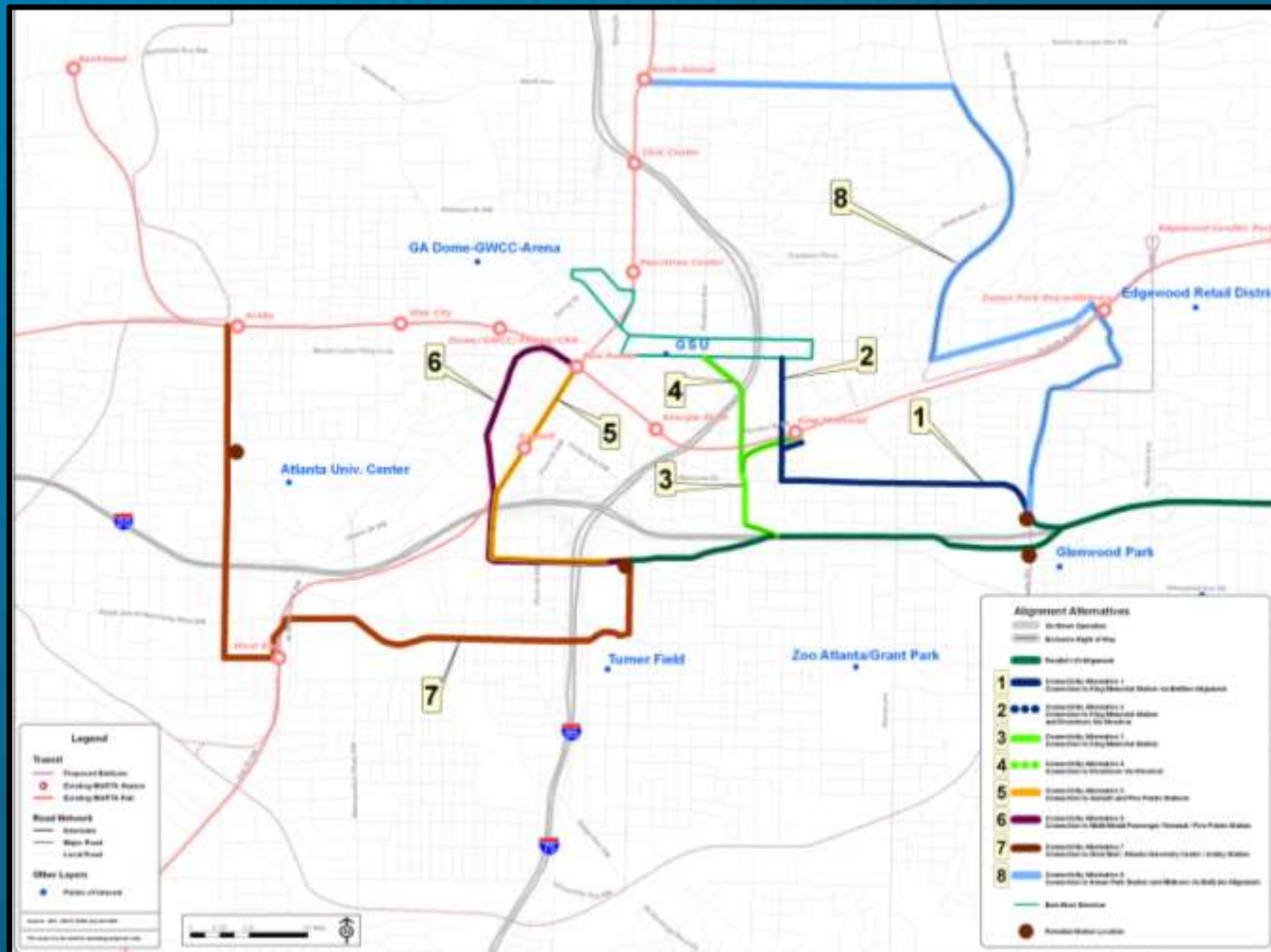
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Downtown Connectivity Alternatives

All Eight Alternatives





Downtown Connectivity Alternatives – Keypad Voting

Which alternative do you feel is the most appropriate?

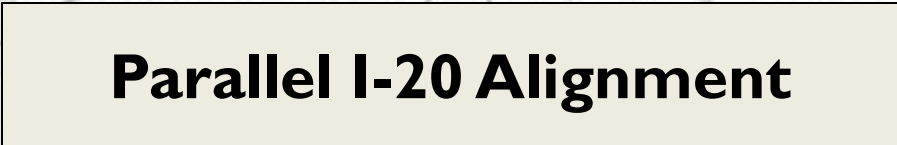
1. Connection to King Memorial Station via BeltLine Alignment
2. Connection to King Memorial Station and Downtown via Streetcar
3. Connection to King Memorial Station
4. Connection to Downtown via Streetcar
5. Connection to Garnett and Five Points Stations
6. Connection to Multi-Modal Passenger Terminal/Five Points Station
7. Connection to West End Station/Atlanta University Center/Ashby Station
8. Connection to Inman Park Station and Midtown via BeltLine Alignment



Panola Road Area Alternatives

Two main alignment alternatives were identified for the Panola Road area:

- 1. Alignment parallel to I-20**
- 2. Alignment on Snapfinger Woods Dr.**





Panola Road Area Alternative I

Parallel I-20 Alignment

Potential Advantages

- Reduced and more reliable travel times due to dedicated transitway
- Convenient park and ride access for commuters on I-20

Potential Disadvantages

- Lack of direct access to DeKalb Medical Hillandale campus and the Panola Road Industrial Area
- Higher costs associated with dedicated transitway





Panola Road Area Alternative 2

Snapfinger Woods Rd. Alignment

Potential Advantages

- Better serves the DeKalb Medical Hillandale campus
- Better access to the Panola Road Industrial Area
- Lower costs due to on-street operation

Potential Disadvantages

- Longer and unreliable travel times resulting from on-street operation on Snapfinger Woods Dr



Panola Road Area Alternatives

Preliminary Evaluation Results

Ridership

- **Total Boardings**

- Alternative 1 (Parallel with I-20): 26,976 Boardings
- Alternative 2 (Snapfinger Woods Rd Alignment): 22,511 Boardings

- **New Transit Riders**

- Alternative 1 (Parallel with I-20): 6,553
- Alternative 2 (Snapfinger Woods Rd Alignment): 4,334



Panola Road Area Alternatives

Preliminary Evaluation Results

Travel Times (2030)

- **Mall at Stonecrest to MARTA Five Points Station**
 - Existing Transit Service: 74.4 minutes
 - Alternative 1 (Parallel with I-20): 37.2 minutes
 - Alternative 2 (Snapfinger Woods Rd Alignment): 48.2 minutes
- **Mall at Stonecrest to MARTA Arts Center Station**
 - Existing Transit Service: 82.9 minutes
 - Alternative 1 (Parallel with I-20): 45.9 minutes
 - Alternative 2 (Snapfinger Woods Rd Alignment): 56.9 minutes



Mainline Alignment Alternatives

Preliminary Evaluation Results

Costs (Planning Level: do not include ROW, Maintenance Facilities, or Vehicles)

- Alternative 1 (Parallel with I-20) – Min: \$2.57 Billion
- Alternative 1 (Parallel with I-20) – Max: \$2.98 Billion
- Alternative 2 (Snapfinger Woods Rd Alignment) – Min: \$2.12 Billion
- Alternative 2 (Snapfinger Woods Rd Alignment) – Max: \$2.53 Billion

Community Support

- Alternative 1 (Parallel with I-20): 81.6% of 38 public votes
- Alternative 2 (Snapfinger Woods Rd Alignment): 18.4% of 35 public votes



Keypad Voting Exercise

- You will use this keypad to select your response
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Panola Road Area Alignment Alternatives – Keypad Voting

Which alternative do you feel is the most appropriate?

1. Parallel to I-20 Alignment
2. Snapfinger Woods Drive Alignment



Transit Technologies

**Transit Technologies to be
Evaluated in Tier 2 Screening**



Transit Technologies - BRT



Bus Rapid Transit (BRT)

- Limited stop service
- Rivals rail speeds
- Operates in exclusive or shared Rights-of-Way
- Less expensive to construct and operate than rail, but lower capacity
- Usually features dedicated stations



Transit Technologies - LRT



Light Rail Transit (LRT)

- Powered by overhead catenary wires
- Usually in exclusive Rights-of-Way, but can operate in mixed traffic
- Lower capacity than HRT, but less expensive to construct
- Higher capacity than BRT, but more expensive to construct and operate



Transit Technologies - HRT



Heavy Rail Transit (HRT)

- High speed, very high capacity
- Grade-separated Rights -of -Way
- Electric railway and/or overhead catenary wires
- High-platform loading
- More expensive to construct than LRT, BRT
- Potential to be obtrusive in neighborhoods and limit connectivity



Questions/Comments



Contacts

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