



# NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT (NHHIP): SEGMENT 3

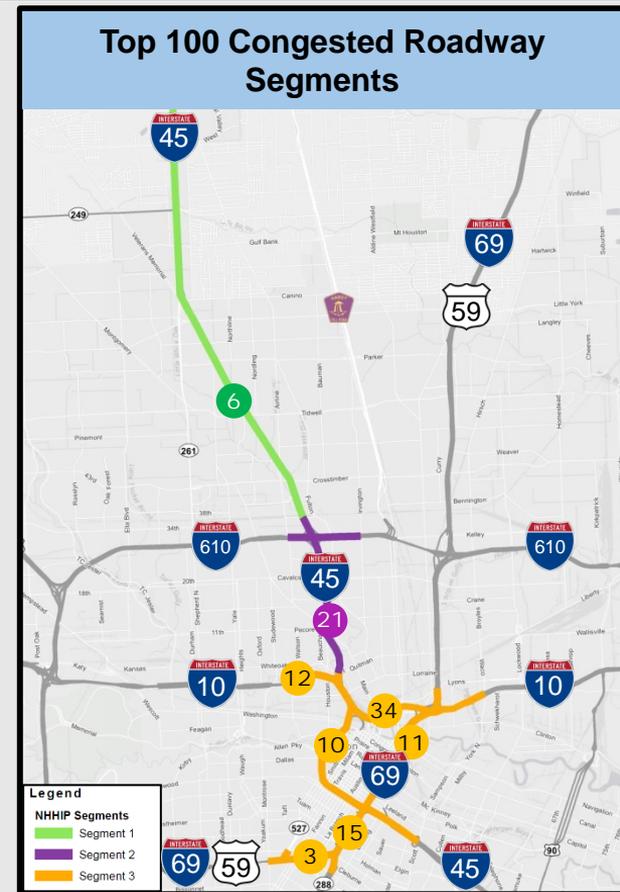
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# NEED AND PURPOSE FOR PROPOSED NHHIP

- Need for Proposed Project
  - Projected population and employment growth
  - Manage projected traffic growth
  - Bring to current design and safety standards
  - Move traffic efficiently, including evacuation events
- Purpose of Proposed Project
  - Enhance safety
  - Manage congestion
  - Provide expanded transit and carpool opportunities with 2-way, 24/7 operations
  - Improve mobility and operational efficiency
- NHHIP has 8 of the Top 35 Most Congested Roadways in Texas



# “UNTANGLING THE DOWNTOWN FREEWAY SYSTEM”

## TRANSFORMATIONAL BENEFITS

# BENEFITS OF THE PROPOSED PROJECT

Segment 1

Segment 2

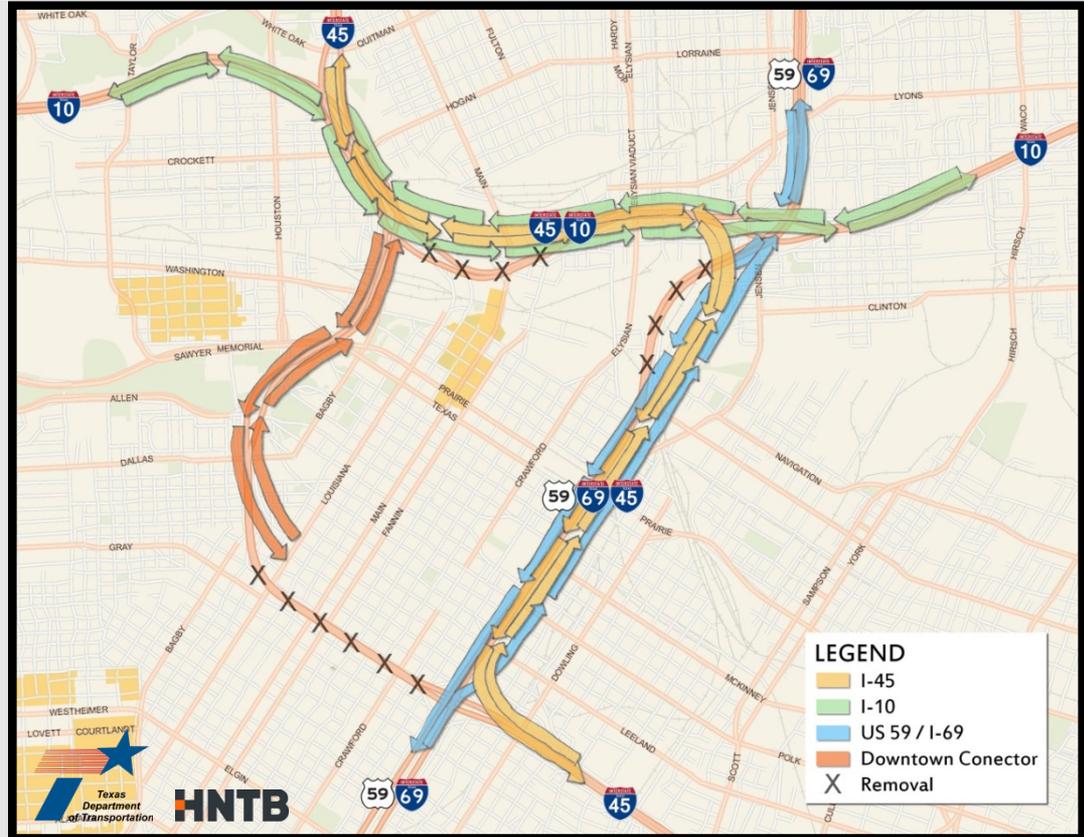
Segment 3

- **+24 mph = 55 mph free flow speed\***  
(Year 2040 AM Peak)

- 50% reduction in delay during peak hour around downtown\*

- Region-wide reduction in delay and increase to average speeds\*

\* Potential major air quality improvement for the region – positive overall impacts



# BENEFITS OF THE PROPOSED PROJECT

Segment 1

Segment 2

Segment 3

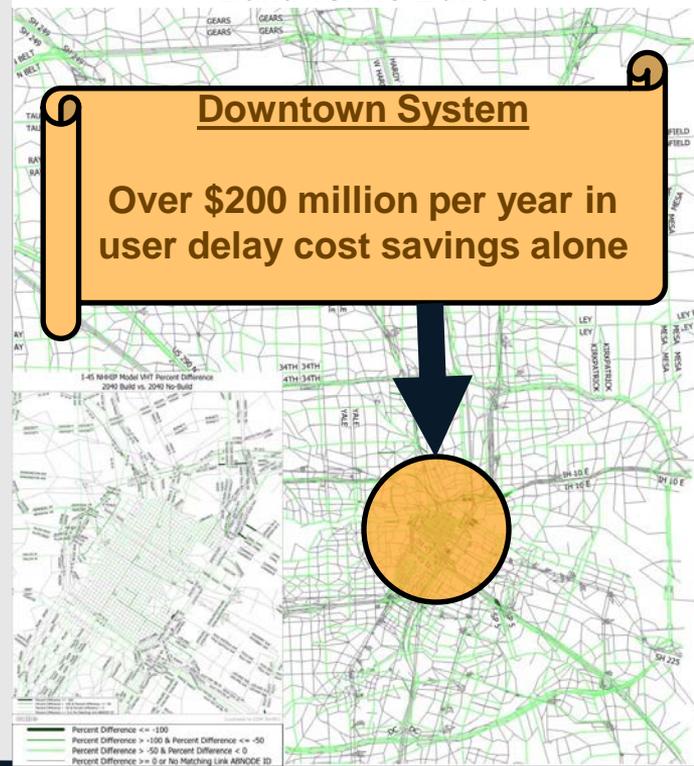
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## 2040 Model Speed VHT Difference Build vs. No-Build

### Downtown System

Over \$200 million per year in user delay cost savings alone



# BENEFITS OF THE PROPOSED PROJECT

Segment 1

Segment 2

Segment 3

- +24 mph = 55 mph free flow speed\*  
(Year 2040 AM Peak)
- 50% reduction in delay during peak hour around downtown
- **Region-wide reduction in delay and increase to average speeds\***

\* Potential major air quality improvement for the region – positive overall impacts

Green = positive increase in average speed

## 2040 Model Speed Percent Difference Build vs. No-Build



# SEGMENT 3: PROPOSED RECOMMENDED ALTERNATIVE

Segment 1

Segment 2

Segment 3

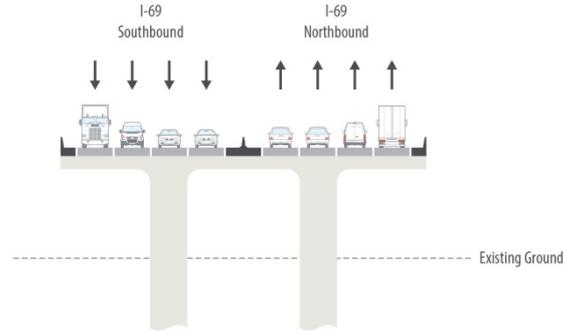
- Total length: 12.3 miles
- Construction cost estimate: approx \$3 billion
- Project scope:
  - Realign I-45 to be parallel with I-69 and I-10
  - Decommission I-45 Pierce Elevated & construct Downtown Connectors
  - Depress & widen I-69 from Spur 527 to Commerce St.
  - Reconstruct I-10 to add non-tolled express lanes
  - Reconstruct SH 288 from I-69 to I-45
  - Reconstruct four major interchanges:
    - I-45 & I-10 in the NW area of downtown
    - I-10, I-69 & “new” I-45 in NE area of downtown
    - I-45 & I-69 in south area of downtown
    - I-69 & SH 288 in SW area of downtown



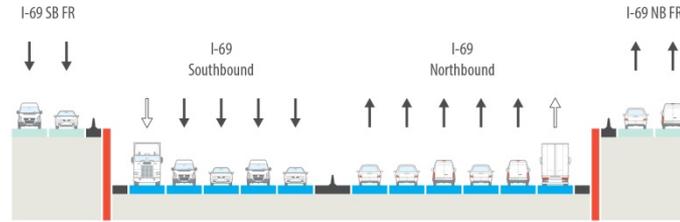
# Section A: I-69 (from Spur 527 to SH 288) design-bid-build



## EXISTING



## PROPOSED

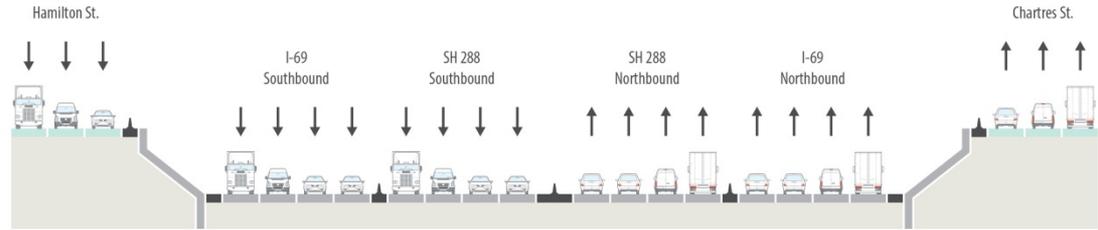


↓ = mainlane  
⇓ = auxillary lane

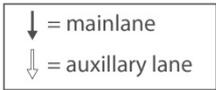
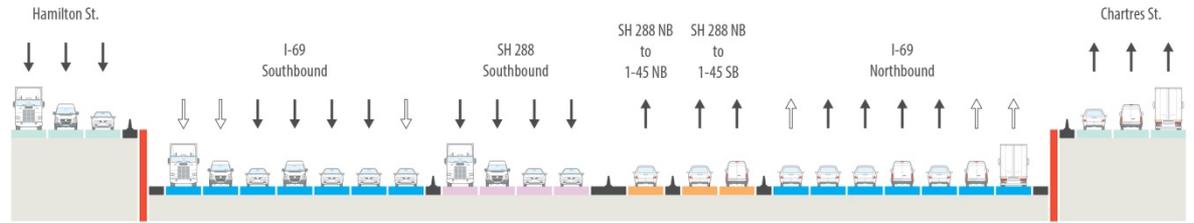
# Section B: SH 288/I-69 (from Blodgett & SH 288 to I-45)



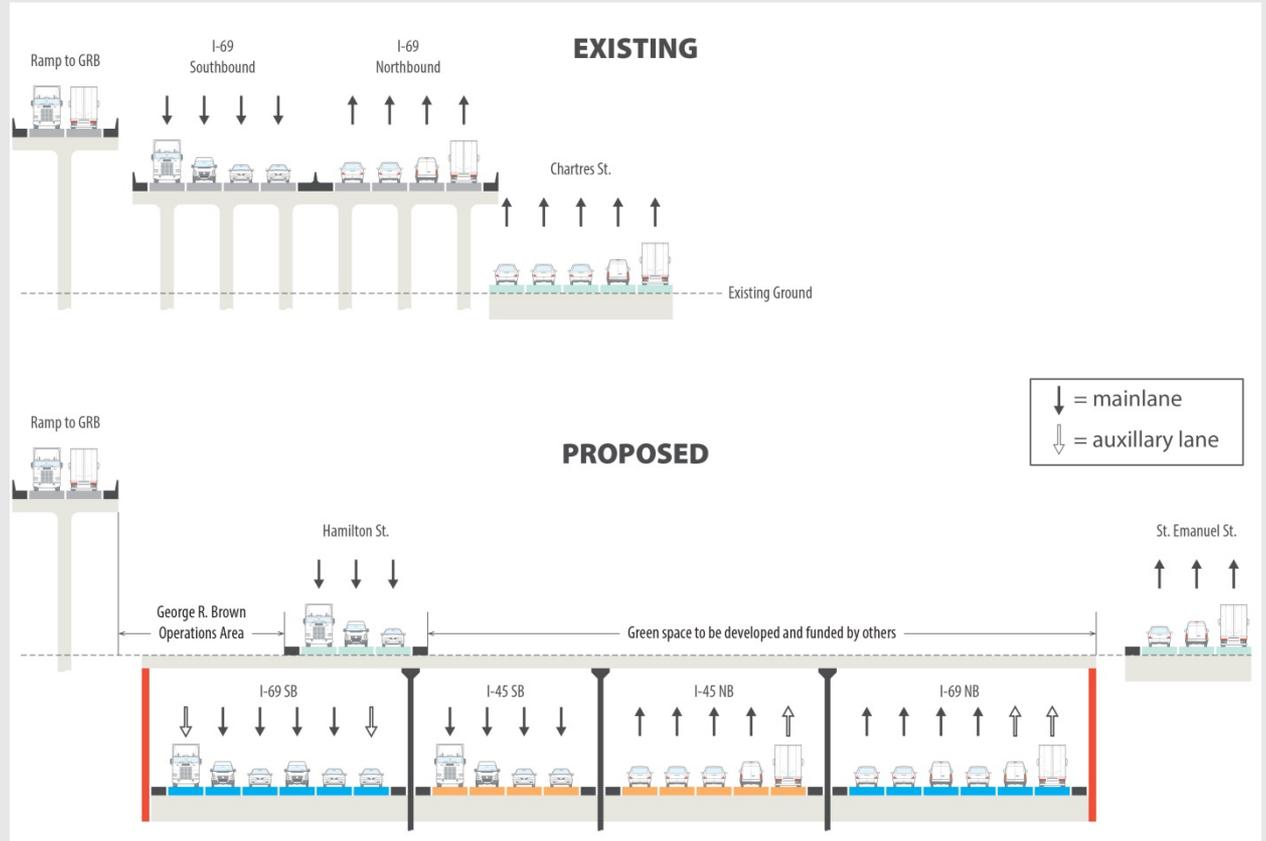
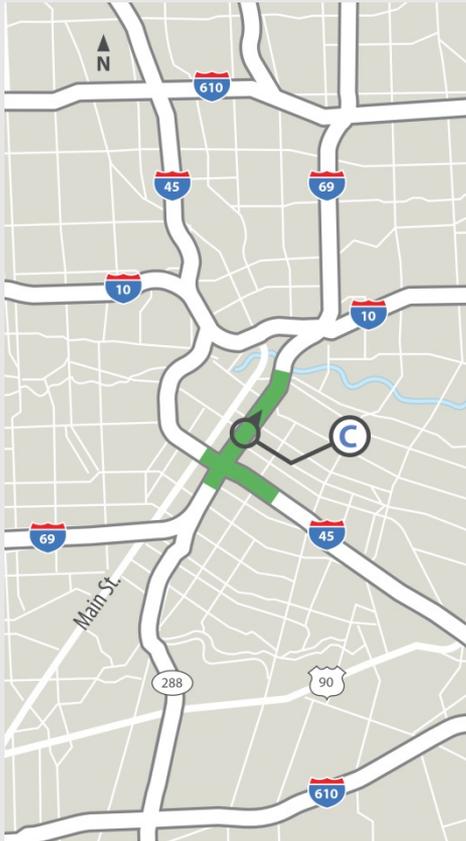
## EXISTING



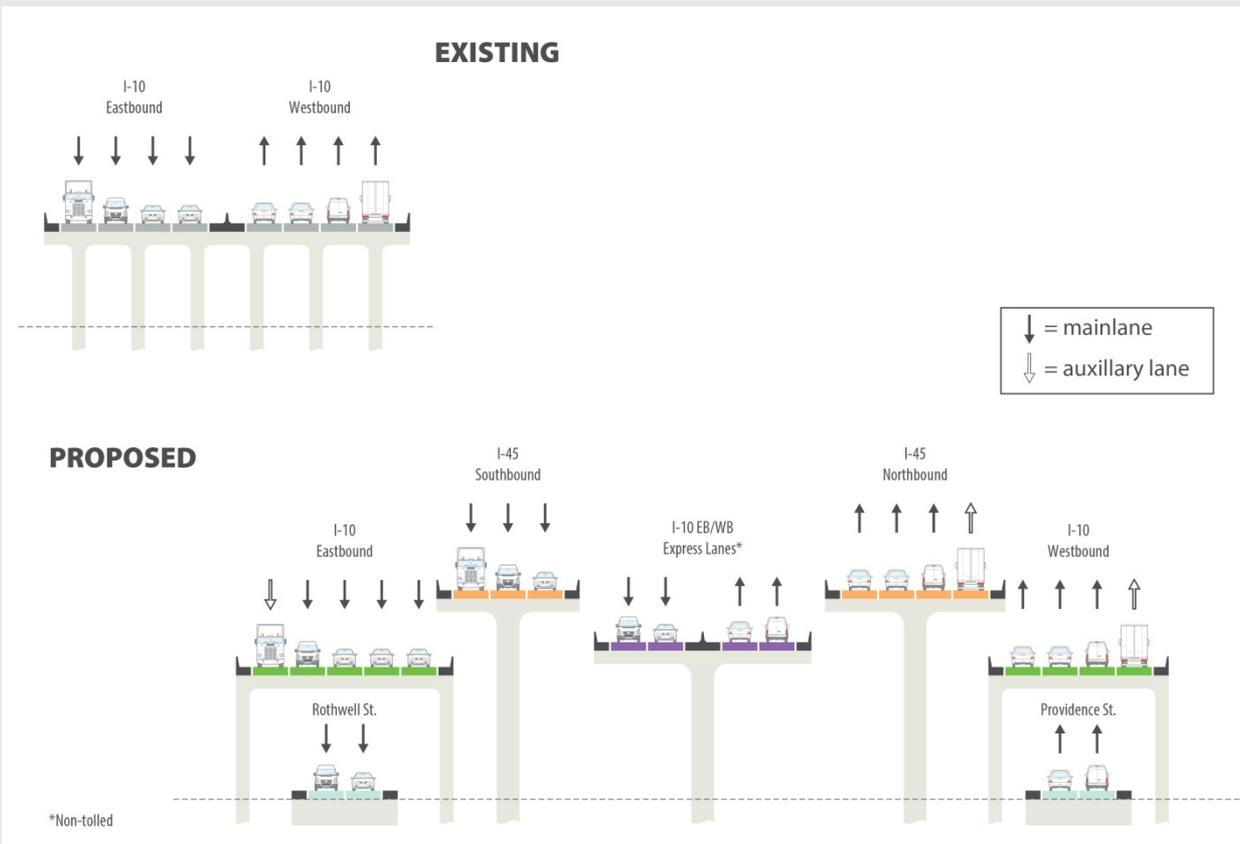
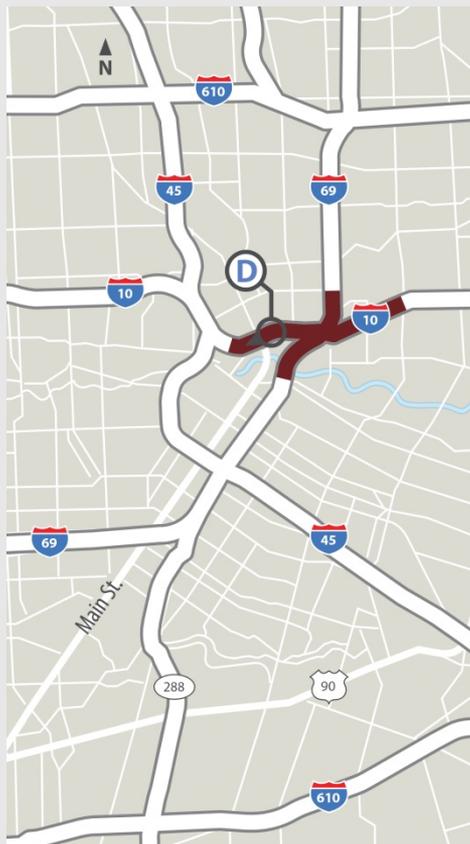
## PROPOSED



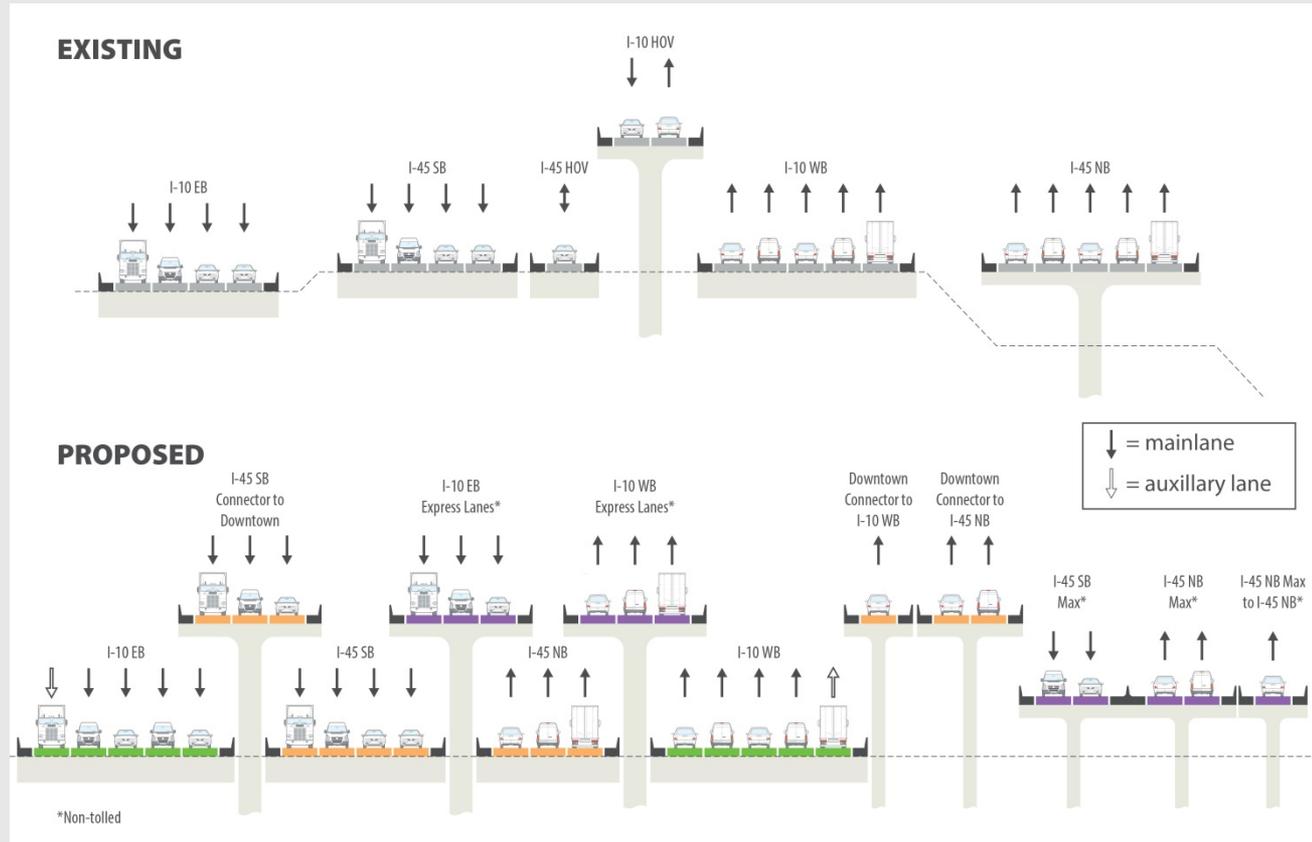
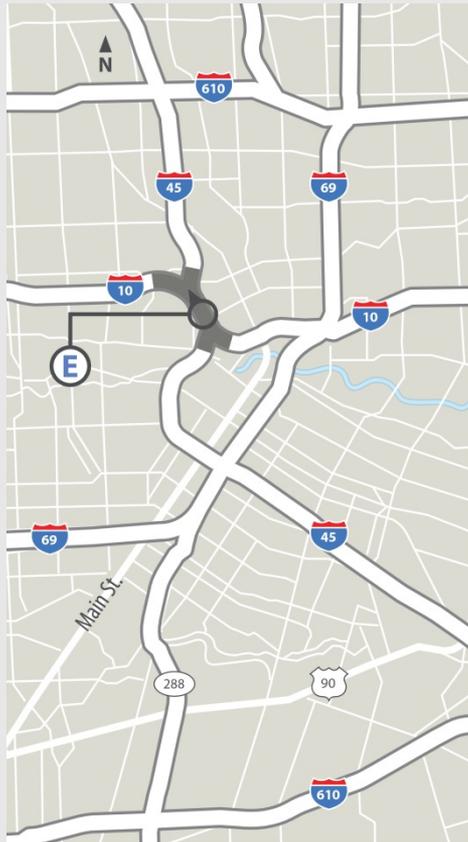
# Section C: I-69 (from I-45 to Buffalo Bayou)



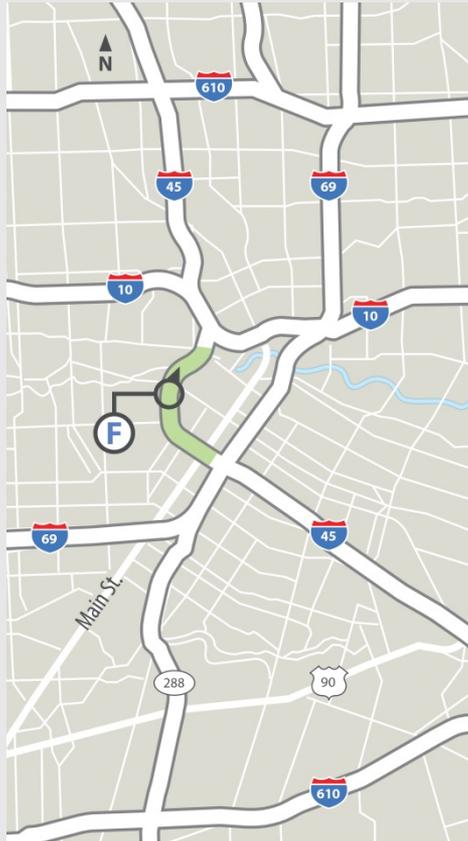
# Section D: I-69 (from Buffalo Bayou to Lyons St) & I-10 (from Waco St to Main St)



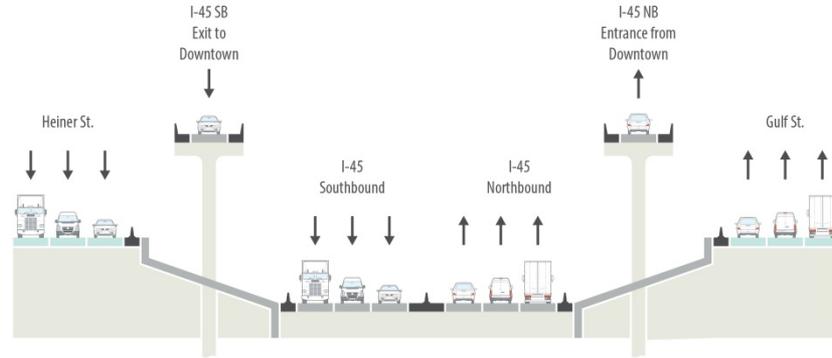
# Section E: I-10 (from Main St to Houston Ave) & I-45 (North St to Preston Ave)



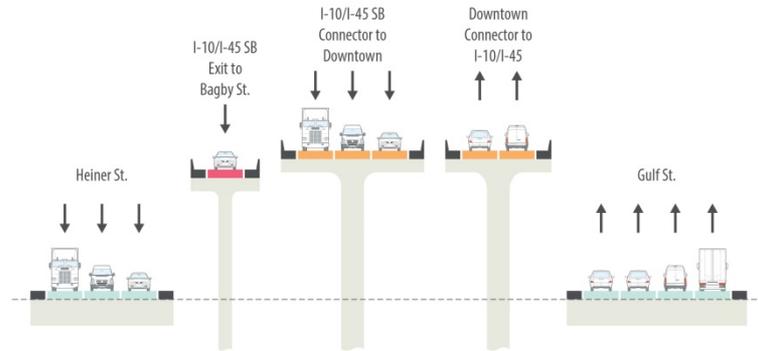
# Section F: I-45/I-10 Downtown Connectors (from Preston St to Jefferson St)



## EXISTING



## PROPOSED



## 3D VISUALIZATION – SEGMENT 3

Please use this link to access the visualization file:

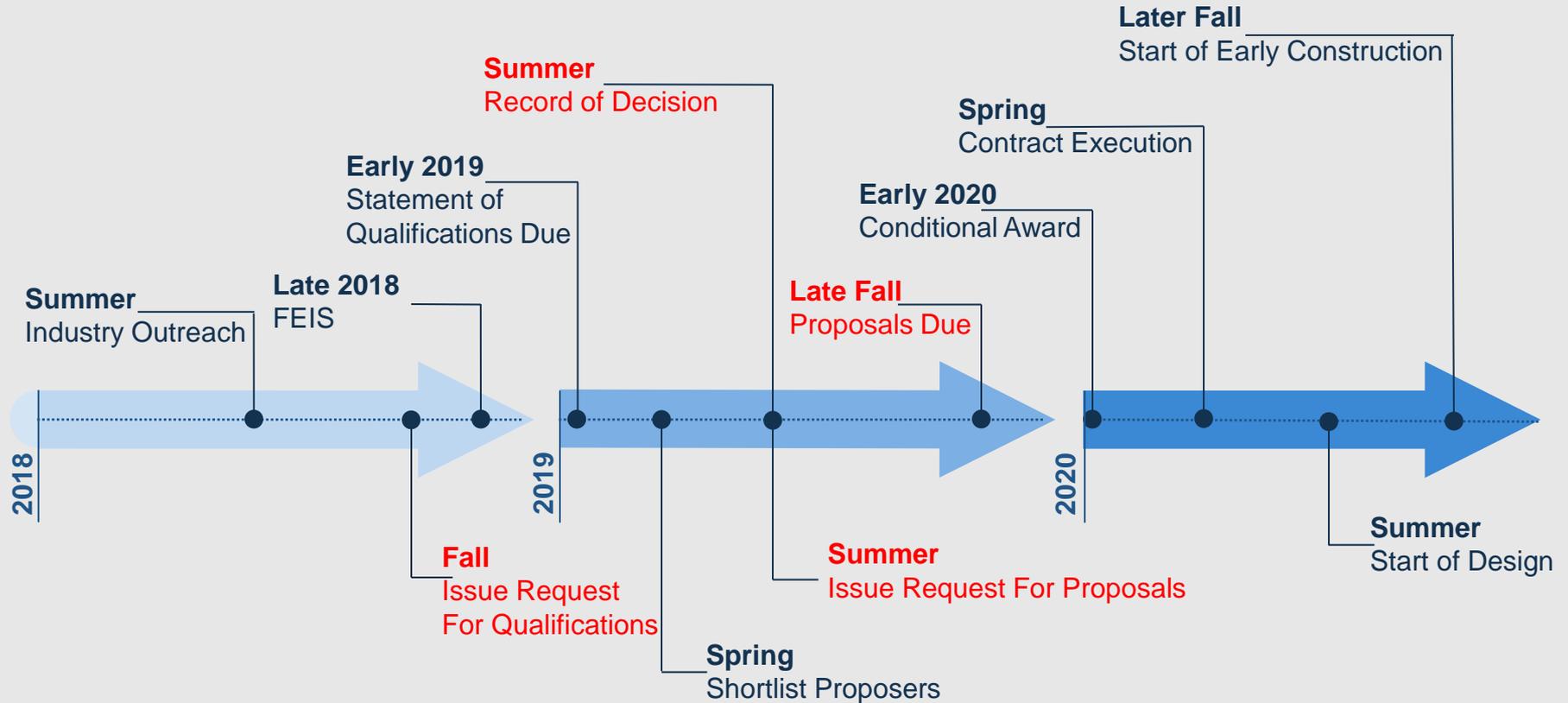
[http://www.ih45northandmore.com/pub\\_hear\\_doc.aspx](http://www.ih45northandmore.com/pub_hear_doc.aspx)

# NHHIP Segment 3 – Project Status

- **Schematic Design**
  - Schematic is provided on the NHHIP website – [www.i45northandmore.com](http://www.i45northandmore.com)
  - Interstate Access Justification Report is under development
- **Environmental Clearance**
  - Draft Environmental Impact Statement (EIS) published April 2017 with Public Hearings in May 2017
  - Final EIS is in progress, expected to be publish in late 2018
  - Record of Decision anticipated by Summer 2019
- **Permitting Required**
  - US Army Corps of Engineers Permit
  - US Coast Guard Permit
- **Right of Way Acquisition**
  - Mapping and early acquisition have begun

- **Railroad Coordination**
  - There are 12 railroad crossings on the project
  - Preliminary coordination has begun with Union Pacific Railroad & METRO light-rail lines
- **Utility Investigations**
  - Aerial and underground utility investigations are underway
- **Geotechnical Studies**
  - Geotechnical investigations are underway
- **Drainage Studies**
  - Preliminary Drainage Report is available on the NHHIP website: [www.i45northandmore.com](http://www.i45northandmore.com)
  - An update to the report is underway

# Anticipated Design-Build Procurement Timeline



## NHHIP Segment 3 –Challenges and Opportunities

- **Maintenance of traffic during construction**
  - I-45 Average Daily Traffic: 206,600
  - I-69 Average Daily Traffic: 176,300
  - I-10 Average Daily Traffic: 233,000
- **Construction phasing**
  - Depressing sections of highway
  - Realigning I-45
  - Reconstructing 4 major interchanges
- **Access in/out of downtown during construction**
- **Maintenance of drainage during construction**
- **Civic Opportunities to unlock downtown's potential**
  - Decks
  - Aesthetic treatment of highway elements

# NHHIP: REPURPOSED FREEWAY - NEW OPPORTUNITIES

Once I-45 is realigned, the existing Pierce Elevated alignment and infrastructure will not be needed by the state for transportation use...

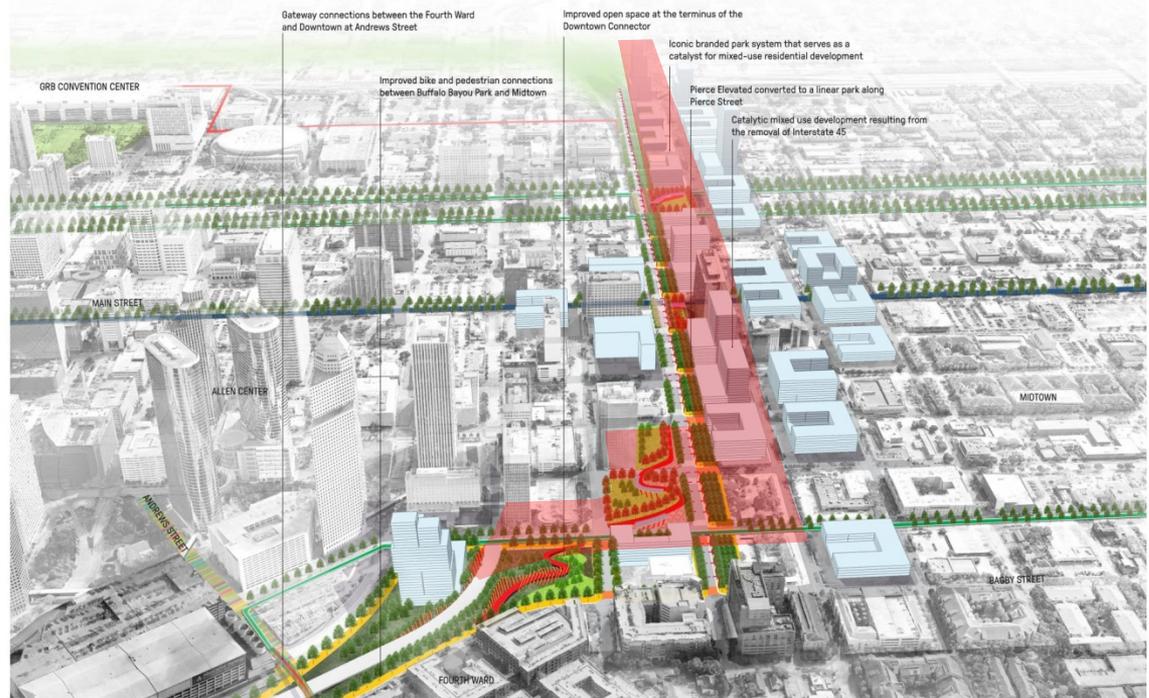
“looking south”



## Artist's rendering of one option to repurpose Pierce Street – by others

*Former alignment of  
I-45 Pierce Elevated*

“looking south”



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Vision and Opportunities | NHHIP

# Design-Build Procurement – Request for qualifications (RFQ)

As a DBE, what you can expect:

- Assumes you are a DBE certified for participation in DOT projects by the Texas Unified Certification Program (TUCP)
  - TxDOT is a member of TUCP.
- Networking with major industry participants (professional and construction) for possible team forming
- You may be asked to finalize team participation; provide business information, signed confidentiality agreement, conflict disclosure, etc.

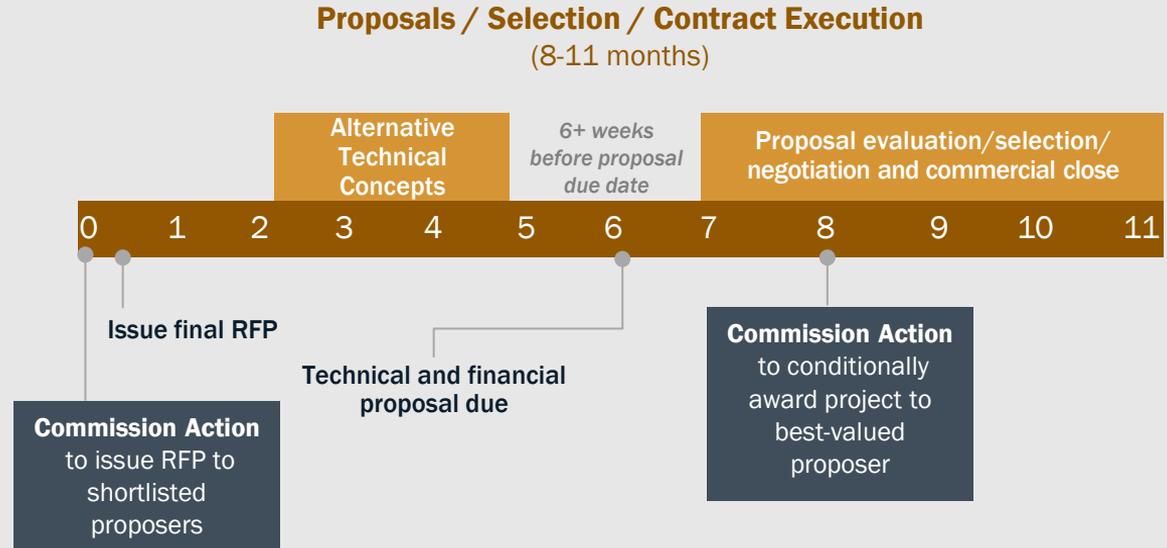


Timeline not to scale

# Design-build procurement – Request for proposals (RFP)

As a DBE, you can expect:

- DBE professionals may need to participate during the RFP process
  - Efforts performed by DBE during team response to RFP may not be compensated.
  - Maintain confidentiality during the procurement process.
  - Bring your subject matter expert(s) to the table.



# Typical construction scopes of work for DBE firms

## Roadway/Bridge

- Drainage elements
- Trucking materials
- Concrete Paving
- Rebar/Reinforcing Steel
- Riprap/Misc Concrete
- Sidewalks/Driveways
- Removal/demolition

## Environmental

- Erosion/Sediment Control
- Landscaping
- Compliance

## Traffic Operations

- Signing
- Illumination
- Signals
- Striping
- Barricades
- Guardrail/Crash Attenuators

## Construction Professional Services

- Survey Support
- Quality Control and Acceptance/Material Testing
- Geotechnical Services

- NHHIP Project Website
  - <http://www.ih45northandmore.com/>
- Strategic Contract Management Homepage
  - <http://www.txdot.gov/inside-txdot/division/debt/strategic-projects.html>
- Architectural, Engineering and Surveying Consultants
  - <https://www.txdot.gov/business/consultants/architectural-engineering-surveying.html>
- DBE TxDOT Page
  - <http://www.txdot.gov/business/partnerships/dbe.html>