North Houston Highway Improvement Project

Project Area

Segment 1

Segment 2

Segment 3
<table>
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<tr>
<th>Year</th>
<th>Segment 1 (Not funded)</th>
<th>Segment 2</th>
<th>Segment 3</th>
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<tr>
<td>2019</td>
<td>CHI Civic Opportunity</td>
<td>COH Facilitation Process</td>
<td>CHI Civic Opportunity Vision &amp; Design</td>
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**Final EIS / ROD**

- **Segment 1 (Not funded)**
  - TxDOT Design Bid Build Procurement
  - TxDOT Design Bid Build Construction Start

- **Segment 2**
  - TxDOT Design Build Procurement
  - TxDOT Design Build Construction Start

- **Segment 3**
  - TxDOT Design Build Procurement
  - TxDOT Design Build Construction Start

**Dates and Events**
- **2019**: CHI Civic Opportunity Vision & Design
- **2020**: CHI Civic Opportunity Detailed Design
- **2021**: TxDOT Design Build Procurement

**Timeline**
- **2020**: TxDOT Design Build Procurement
- **2029**: TxDOT Design Build Procurement
- **2037**: TxDOT Design Bid Build Procurement
Facilitation Group

AARP
Air Alliance Houston
BikeHouston
Central Houston, Inc.
Greater Northside Management District
North Houston (Management) District
Harris County Engineering Department
Harris County Flood Control District
Harris County Precinct 1 – Rodney Ellis
Harris County Precinct 2 – Adrian Garcia
Harris County Judge – Lina Hidalgo

Houston Parks Board
Independence Heights Redevelopment Council
Kinder Institute for Urban Research
LINK Houston
METRO
Scenic Houston
Super Neighborhood Alliance
TxDOT
Dr. Carol Lewis
Buffalo Bayou Partnership
Segments 1 & 2 Facilitation
Segments 1 & 2 led by City of Houston Planning & Development in 2019-20

Segments 1 & 2 Facilitation Goals
1. To unify stakeholder comments to TxDOT regarding issues identified in the NHHIP DEIS
2. To provide a forum for stakeholders along Segments 1 and 2 similar to the process that occurred for Segment 3
3. To bring comments to the Mayor
COH Goals:

- Strengthen economy
- Reduce flooding
- Safer travel
- Long term capacity for all modes
- Serve & preserve neighborhoods
- Mitigate impacts & create opportunities for parks & greenspace
- Limit right-of-way
- Accessible evacuation route
Study w/ TxDOT Segments 1 and 2:

- Lane configuration that reduces required ROW
- METRO regional express bus and BRT with stops for adjacent communities
- Bridges and highway design to accommodate future flood mitigation and open space on bayous
- Frontage roads designed to improved safety and accommodate all road users
- Retain and expand local street connectivity; improve highway aesthetics
- Programs to assist displaced residents
- Use Design-Bid-Build procurement

TxDOT to construct Segment 3:

- Accommodate improvements in Technical Appendix
Key Considerations:

- Footprint
- Transit
- Freight
- Housing
- Air Quality
- Connectivity and Local Streets
- Park Space and Urban Design
- Development Coordination
- TxDOT Surplus ROW

North Houston Highway Improvement Project
Technical Appendix to Mayor Turner’s Letter

Footprint

Segment 1 and 2

Public comments received in the design concept for Segments 1 and 2 of the North Houston Highway Improvement Project. The footprint and linear configuration of this vision is described as follows:

- Reduce the highway within the current footprint as much as possible.
- No extra main lanes.
- Current reversible HOV lane is replaced with two-way, dedicated transit lane.
- Design exceptions and lane widths and shoulder widths are required to keep the footprint within the current right of way.
- Reconstruction of interchanges and on- and off-ramps.

The City requests to partner with TxDOT to study this and other alternative configurations for Segments 1 and 2. This study would include:

- A combination of goals among TxDOT, Harris County, METRO, and the City.
- The development of a new alternative as described, along with any other alternatives that TxDOT may identify.
- Traffic modeling for the new alternative with agreement on the parameters for traffic modeling.
- Robust public input.

Segment 3

No significant changes to configuration or footprint are currently designed. Some modifications to ramps and structures in order for improvements listed in other sections. Ensure seamless transition with new alternative scenario for Segment 2.

Transit

This project should expand transit options, increase the reliability of transit, and support the voter-approved METRO Rapid Revisit plan.

Segment 1 and 2

Segments 1 and 2 should be designed to help accommodate two-way all-day transit service, as envisioned in the METRO Revisit plan. The City anticipates this will be best accomplished with dedicated transit lanes, separated by barrier free main lanes and other managed lanes, which would be used by METRO’s planned North Bus Rapid Transit (BRT) service as well as regional express service by transit agencies.

TxDOT should work with METRO to integrate the planned North BRT service in the design of this project. This should include intermodal stations in the analogy, with METRO using a parallel planning
Connectivity and Local Streets

1. Katy HOV / BRT Facility
2. N San Jacinto St Extension
3. Terminal Subdivision Relocation
4. Runnels St Extension
5. Commerce St at Navigation St
6. Leeland St at Cullen St
7. Northeast Connector Ramps
8. Houston Avenue Connector
9. Cleburne Street Bridge and Caps
10. Gregg St Exit
11. Central City Theme
12. Garden Bridges
13. White Oak Detention Garden
14. Fourth Ward Gateway
15. Buffalo Bayou Promenade
16. Frostown Park
17. Third Ward Detention Tank
18. Four Corners Detention Park
19. Third Ward Bridges
Development Coordination

20. GRBCC
21. EaDo Cap
22. I-10 at I-45 ROW Disposition
23. Pierce Elevated ROW Disposition
24. SH-288 Ingress / Egress Ramps
25. Midtown Caps (Fannin and Wheeler)
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<th>Process for Inclusion</th>
<th>Lead Entity</th>
<th>Deliverable</th>
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<td>Civic Opportunity Masterplan</td>
<td>TXDOT demolition; CCM risk analysis</td>
<td>CCM, CHI</td>
<td>Disposition</td>
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<td>23 Pierce Elevated ROW Disposition</td>
<td>Civic Opportunity Masterplan</td>
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<td>CHI, CCM, TXDOT</td>
<td>Coordinate with TXDOT for inclusion into O&amp;B drawings</td>
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2. North San Jacinto Extension

The City of Houston intends to work with TxDOT to identify funding for the extension of San Jacinto Street to the Near North Side so that this connection can be built at the same time as NHHIP. The highway should be designed to accommodate this connection.
8. Houston Avenue Connector

The City requests TxDOT maintain vehicular and pedestrian connections into Downtown and area parks by:

• Supporting pedestrian and cyclist movement under the new highway with all existing trails to be preserved or reconstructed
• Engineering turn movements on Houston Ave southward extension to facilitate pedestrian crossings to Buffalo Bayou and Sam Houston Park
• Removing highway columns and embankment structures from the bayou waterway
• Spacing columns for new highway components to reduce or eliminate columns in the bayou
NHHIP – Segment 3: Appendix Items

Connectivity and Local Streets

8. Houston Avenue Connector (Railing Type)

A. Updated Railing Profile to Meet Modern Crash Standards

B. Historic Rail with Steel Barrier to Meet Modern Crash Standards
11. Central City Theme (Green Ribbon 2.0)

The City requests TxDOT adopt, design and build new highway components with a neutral theme so that highway elements visually recede, and green landscaped components become more prominent.
Park Space and Urban Design

11. Central City Theme (Green Ribbon 2.0)
12. **Garden Bridges**

The City requests TxDOT rebuild COH street bridges following COH Street Standards and COH Walkable Places by providing:

- Trees and elements that provide shade
- Bike lanes
- Streetlights
- Roadway lights
- Accent pavers
- Fencing with the Central City Theme Green Ribbon 2.0)
Park Space and Urban Design

12. Garden Bridges
12. Garden Bridges
Development Coordination

20. GRBCC

The City requests TxDOT collaborate with Houston First Corporation (HFC) to address the operational and infrastructural needs along the eastern half of the GRBCC and consider the new highway alignment impacts relative to future development expansion of the GRBCC:

• Maintain GRBCC Operations Area and marshalling yard during and after construction
• Develop management plans to reduce noise, vibration, air quality, drainage, and tunnel ventilation impacts during and after construction
• Consider land usage opportunities within existing and surplus ROW
• Support GRBCC plans for an eastside entrance and Ballroom
• Support GRBCC plans for a southside expo hall expansion including a southern approach ramp from Hamilton, Leeland and Bell for upper level loading docks
Development Coordination

20. GRBCC

NHHIP – Segment 3: Appendix Items
Development Coordination

21. EaDo Cap

The City requests TxDOT complete the cap to a safe base level for the community by:

- Waterproofing over beam structures to protect the highway lanes below
- Providing adequate fill material (soils and geofoam) over the waterproofing to allow for installation of landscape sod, with provisions for site drainage and irrigation
- Providing block-perimeter street trees and other infrastructure required by COH Street Standards on all streets crossing the cap and the full limits of “new” southbound Hamilton St and northbound St Emanuel St
Development Coordination

21. EaDo Cap

Concentrate Activity

East/West and North/South Alignment

Distinct and Contained Public Space

Defined Subdistricts
21. EaDo Cap

Development Coordination

**Light: Validate and Enhance**

**Medium: Select Interventions**

**Heavy: Re-Imagine**
Development Coordination

21. EaDo Cap

Urban Development Study
<table>
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<tr>
<th>Year</th>
<th>Civic Opportunities: Vision &amp; Design</th>
<th>Community Input</th>
<th>Highway Aesthetics: 30% Design</th>
<th>Civic Opportunities: Detailed Design</th>
<th>Mayor’s Letter</th>
<th>FEIS</th>
<th>Record of Decision (ROD)</th>
<th>ROW Acquisition</th>
<th>TxDOT Draft RFP</th>
<th>TxDOT Final RFP</th>
<th>Advance Funding Agreements in Place for Civic Opportunities</th>
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**NHHIP – Segment 3: Timeline**