# I-45 North Houston Highway Improvement Project (NHHIP) Segments 2A and 3C-4 PS&E Pre-RFP Meeting

Texas Department

#### Introduction

#### Houston District:

- Grady Mapes, P.E.– CDA Program Director CST Member
- Brett McLeod, P.E. Houston District Design Director CST Member
- Milad Ajir, P.E. Transportation Engineer (CDA) CST Member
- Linda Lindsay, P.E.- Transportation Engineer (CCA) CST Member (3C-4 only)
- Vipinkumar Sumani, P.E. Transportation Engineer (CCA) CST Member (2A only)

#### PEPS Houston Service Center:

- John Mosaffa, P.E. Transportation Engineer (Procurement Engineer)
- Kimlinh V. Nguyen, P.E. PEPS Houston Service Center Section Director



# Housekeeping

**1**.Be sure to provide your information on the sign-in sheet.

2.Please mute your phones.

**3.**You may ask questions at the end of the presentation.



#### **Ground Rules**

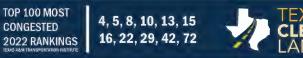
Do Not contact CST Members regarding both procurements.
 This presentation is for INFORMATIONAL PURPOSES ONLY.
 The advertised RFP will dictate the final work categories. Read and comply with the RFP requirements.



# **NHHIP Overview**



NHHIP Segment 2A & 3C-4



#### **NHHIP – STATUS UPDATE**

- Voluntary Resolution Agreement (VRA) with FHWA
  - March 5, 2023
- Memorandum of Understanding with Harris County resolving NEPA lawsuit
  - December 22, 2022
  - Lawsuit was dismissed January 2023
- Memorandum of Understanding with the City of Houston
  - December 19, 2022
- NHHIP remains funded in the 2023 UTP with \$5 billion
  - Including \$490.7M as approved by the TPC





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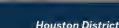


#### WHAT IS THE VRA?

- The Voluntary Resolution Agreement (VRA) is an understanding by and between the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT)
- Resolves the FHWA investigation of TxDOT regarding the North Houston Highway Improvement Project (Project) under Title VI of the Civil Rights Act of 1964 (Title VI) by setting forth specific mitigation actions for the Project

#### Lifts pause

- No Title VI violations identified in VRA
- TxDOT to resume all project development activities.
- Provides specific, enforceable timelines and monitoring by FHWA to ensure TxDOT carries out the Project consistent with the requirements of Title VI
- FHWA has concluded review of TxDOT's responsibilities under the National Environmental Policy Act (NEPA) also with no findings











TOP 100 MOST

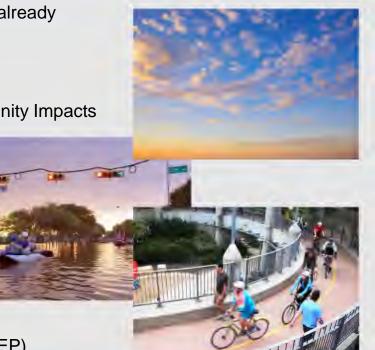
CONGESTED

TOP 100 MOST<br/>CONGESTED4, 5, 8, 10, 13, 152022 RANKINGS16, 22, 29, 42, 72

#### **TXDOT ACTIONS COMMITTED TO IN VRA**

Performed in addition to and/or in compliance with mitigation actions already committed to by TxDOT, as contained within the Record of Decision:

- Twice Annual Public Meetings through Design and Construction
- Mitigating Displacements, Relocations, Housing and other Community Impacts
- Drainage Improvements to Reduce Flooding
- Parks, Open Space, Trails, Pedestrian and Bicycle Facilities
- Community Access During Construction
- Highway Footprint Reduction
- Structural Highway Caps
- Air Quality Mitigation
- Meaningful Access for Persons with Limited English Proficiency (LEP)



 TOP 100 MOST

 CONGESTED

 2022 RANKINGS

 16, 22, 29, 42, 72







**Houston District** 

 TOP 100 MOST
 4, 5, 8, 10, 13, 15

 CONGESTED
 16, 22, 29, 42, 72

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 16, 22, 29, 42, 72

**CONSTRUCTION PHASING** 







3B-1 is phased to start before 3B-2 because drainage elements in 3B-1 need to be constructed and operational to receive drainage from 3B-2.

👗 3C-2 is phased to start before 3D because proposed I-69 in 3C-2 needs to be constructed and operational to receive proposed I-69 in 3D. (Proposed I-69 in 3D is unable to be connected to existing I-69 in 3C-2)

Texas Department of Transportation

📕 3C-4 is phased to start before 2B because drainage elements in 3C-4 need to be constructed and operational to receive drainage from 2B,

Houston District

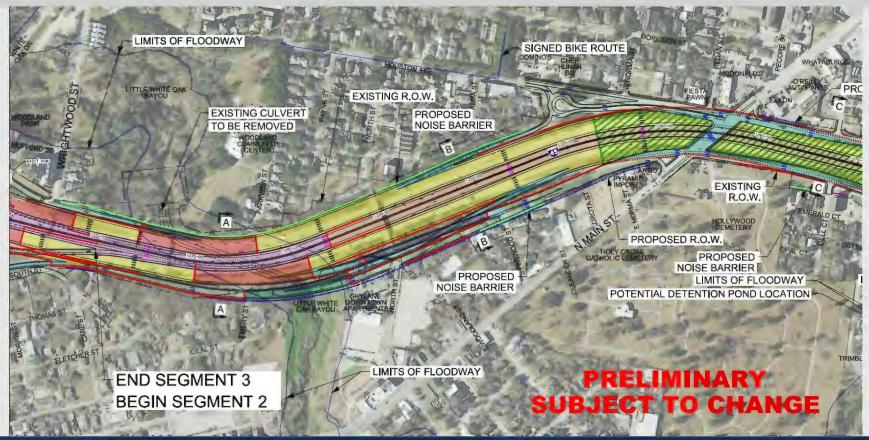
#### **Segment 2A Project Information**

- Hwy: IH 45
- Limits: N. of IH 10 to N. of Cavalcade St
- Scope: Reconstruction of mainlanes, frontage roads, and intersections and construct 4-additional managed lanes
- Est. Cost: \$436,728,193.00
- Estimated Letting: November 2027

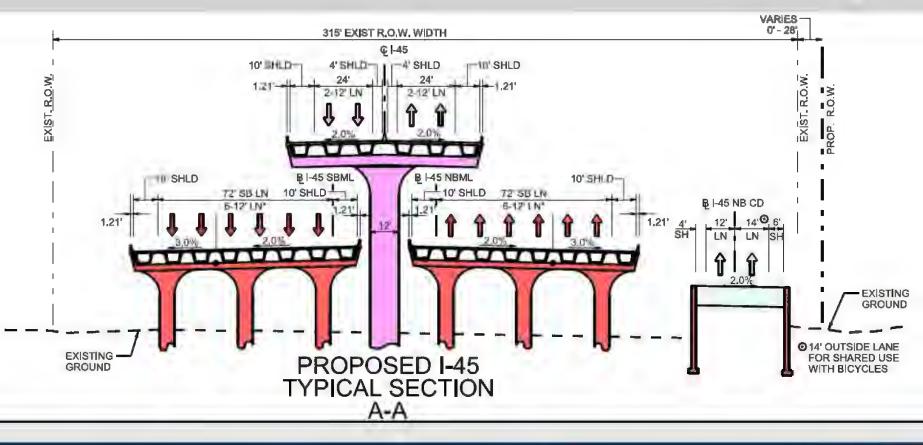
#### **Segment 2A Project Location and Limits**



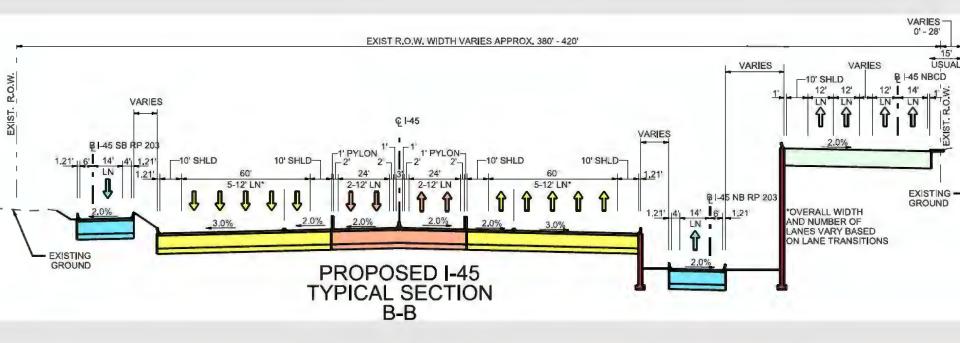




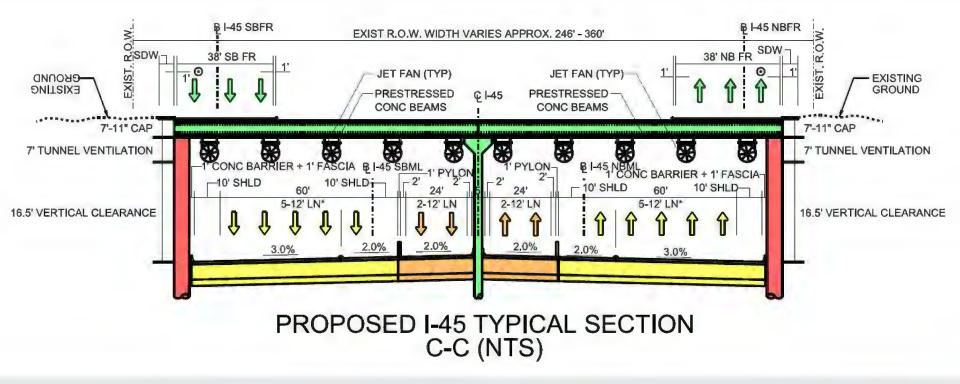








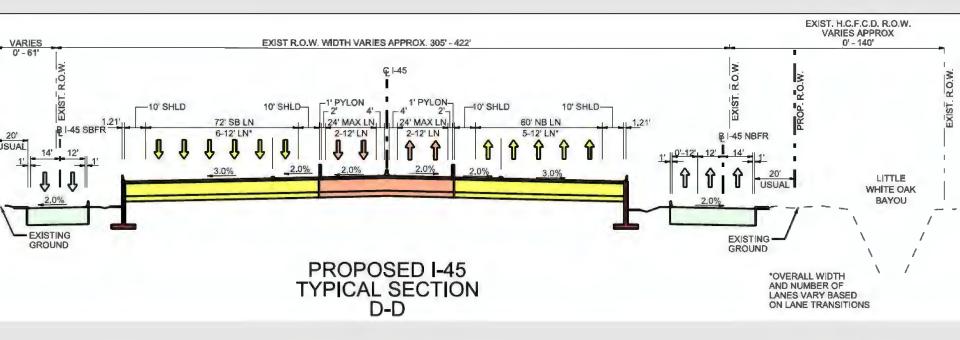




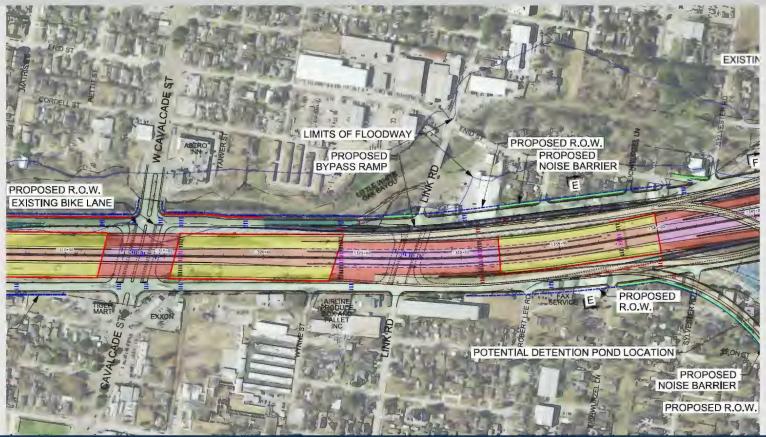














#### **Segment 2A End Limits**





#### **Segment 2A Schematic Proposed Changes Under Evaluation**

- Stream crossings changed from culverts to open bridges
- General purpose Direct Connector tie-in to I-45 mainlanes instead of frontage road (I-10 EB to I-45 NB)
- Southern project limit at Segment 3C-4 location
- Addition of SB Exit Ramp to N. Main and NB Entrance Ramp from N. Main
- Removal of Cottage Street crossover and addition of U-turn at north side N. Main
- Proposed bike trail connections along Little White Oak Bayou
- Potential pedestrian bridge over I-45 at North Street
- Reconfiguration of Houston Ave and I-45 SB Frontage Road interface
- Pump Station and Detention Pond locations



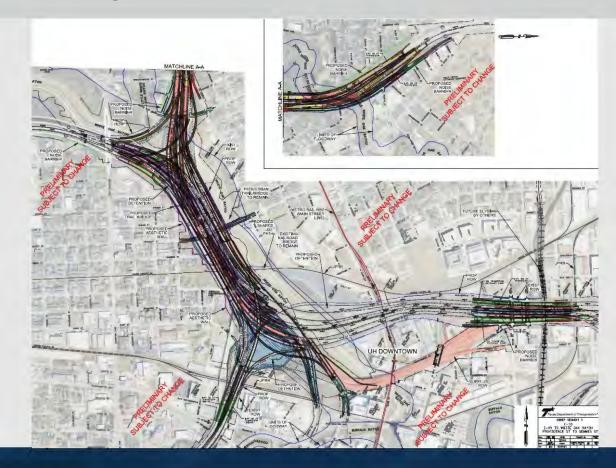
#### **Segment 3C-4 Project Information**

- Hwy: IH 45
- Limits: at IH 10 West, and from west of Houston Avenue to West of White Oak Bayou
- Scope: Reconstruction of main lanes, direct connectors, ramps, and cross streets and construction of four IH10 express lanes and four IH 45 max lanes
- Est. Cost: \$785,995,370
- Estimated Letting: February 2028



#### **Segment 3C-4 Project Information**







23

#### **Segment 3C-4 Project Information (IH 45 Transition)**



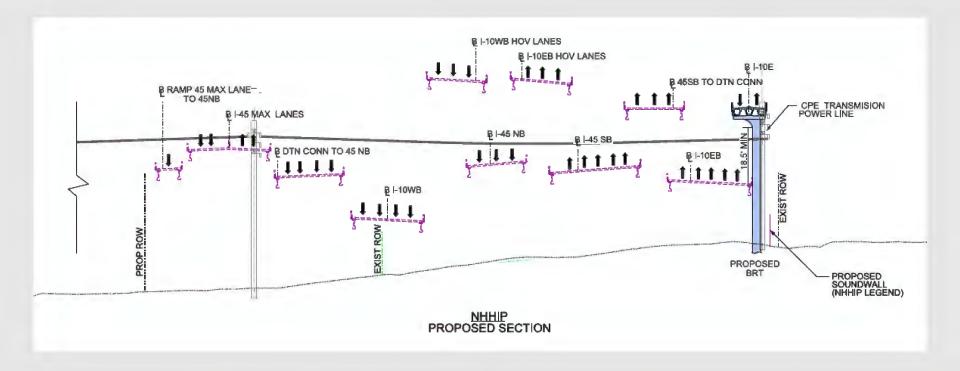


#### **Segment 3C-4 Project Information**





#### Segment 3C-4 Project Information (CNP Crossing at Spring St)

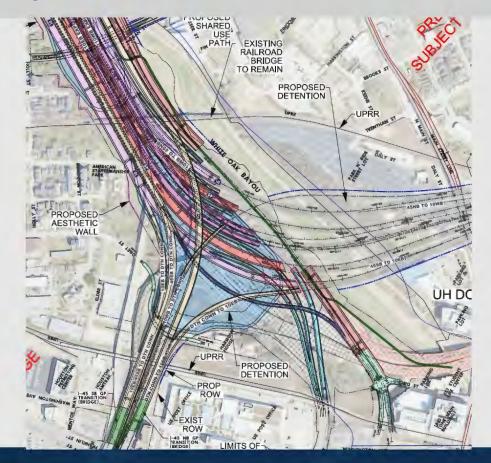




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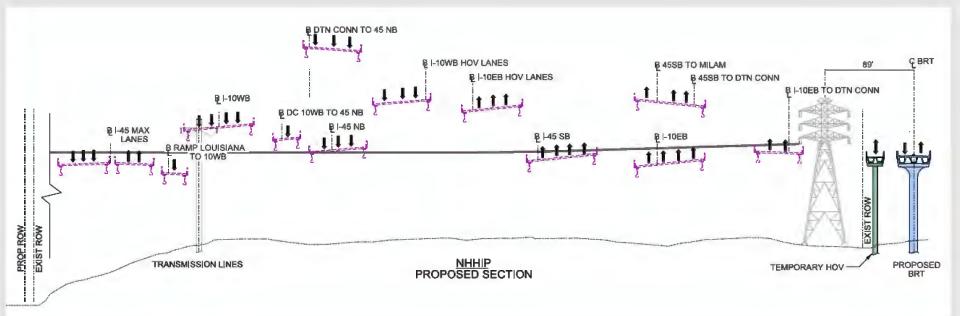
#### **Segment 3C-4 Project Information**







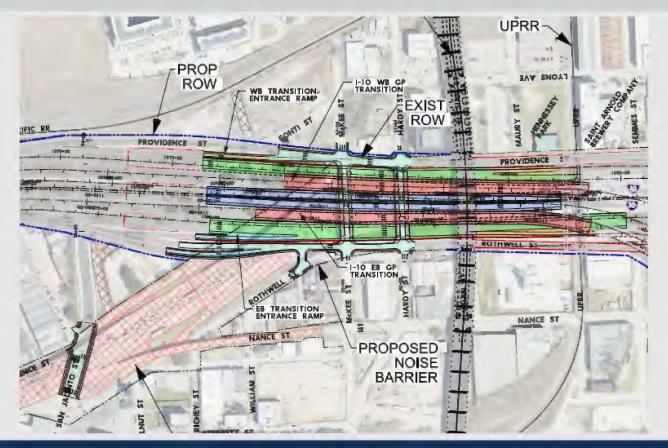
#### Segment 3C-4 Project Information (CNP Conflict at Hogan St)





28

#### **Segment 3C-4 Project Information**





#### **Contract Information**

- Federally Funded Process with Interviews DBE Goal
- 2 SD PS&E Contracts for Segments:
  - > NHHIP 2A
  - > NHHIP 3C-4



#### Work Categories – <u>2A</u> (Preliminary)

Cat. No.	Category Name	
1.8.1	Public Involvement	
1.9.1	Geographic Information System (GIS) and Data Analysis	
2.14.1	Environmental Document Preparation	
3.2.1	Route Studies & Schematic Design	
4.2.1	Roadway Design	
4.5.1	Constructability Review	
4.6.1	3-D Visualization and Animation Services	
5.2.1	Bridge Design	
5.5.1	Bridge & Non-Bridge Class Culvert and Inlet Design	
5.6.1	Structural Engineering for Overhead Sign Supports	
7.1.1	Traffic Engineering Studies	
7.4.1	Traffic Control Systems Analysis, Design & Implementation	
7.5.1	Intelligent Transportation System	
8.1.1	Signing, Pavement Marking & Channelization	



#### Work Categories – 2A (Preliminary) – Cont.

Cat. No.	Category Name	
8.2.1	Illumination	
8.3.1	Signalization	
8.4.1	ITS Control Systems Analysis, Design & Implementation	
9.2.1	Active Transportation Planning	
9.3.1	Pedestrian Facility Design	
9.3.2	Accessibility Design	
9.4.1	Bikeway Design	
10.2.1	Roadway Hydraulic Design	
10.3.1	Bridge Hydraulic Design	
10.4.1	4.1 Storm Water Pump Station-Hydraulic Design	
10.4.2	Pump Stations-Electrical	
10.4.3	Pump Stations-Structures	
10.5.1	Bridge Scour Evaluations And Analysis	
4444		

14.1.1 Soil Exploration

#### Work Categories – 2A (Preliminary) – Cont.

Cat. No.	Category Name	
14.2.1	Geotechnical Testing	
14.3.1	Transportation Foundation Studies	
14.5.1	Evaluation & Design of Geotechnical Related Structures	
15.1.1	Right of Way Surveys	
15.2.1	Design Survey	
18.2.1	Subsurface Utility Engineering (Utility Eng. Investigation)	
18.3.1	Utility Adjustment Coordination	
18.4.1	Utility Engineering	
18.7.1	Utility Relocation Design	
21.6.1	Condemnation Support Services	
NLC-1	Fire and Life Safety Analysis and Design (Tunnel)	



#### Work Categories – <u>3C-4</u> (Preliminary)

Cat. No.	Category Name
1.8.1	Public Involvement
1.9.1	Geographic Information System (GIS) and Data Analysis
2.3.1	Wetland Delineation
2.4.1	Nationwide Permit
2.4.2	Clean Water Act Sec. 404 Permits
2.4.3	U.S. Coast G. & U.S. Army Corps Of Engr. Permits
2.14.1	Environmental Document Preparation
3.2.1	Route Studies & Schematic Design
4.2.1	Roadway Design
4.4.1	Freeway Interchanges
4.5.1	Constructability Review
4.6.1	3-D Visualization and Animation Services
4.7.1	Traffic Safety Analysis
5.2.1	Bridge Design
5.3.1	Multi-Level Interchange Design
5.5.1	Bridge & Non-Bridge Class Culvert and Inlet Design
5.6.1	Structural Engineering for Overhead Sign Supports
7.1.1	Traffic Engineering Studies
7.4.1	Traffic Control Systems Analysis, Design & Implementation
7.5.1	Intelligent Transportation System
8.1.1	Signing, Pavement Marking & Channelization

34

#### Work Categories – 3C-4 (Preliminary) – Cont.

Cat. No.	Category Name	
8.2.1	Illumination	
8.3.1	Signalization	
8.4.1	ITS Control Systems Analysis, Design & Implementation	
8.6.1	Rail-Highway Design	
9.2.1	Active Transportation Planning	
9.3.1	Pedestrian Facility Design	
9.3.2	Accessibility Design	
9.4.1	Bikeway Design	
10.2.1	Roadway Hydraulic Design	
10.3.1	Bridge Hydraulic Design	
10.5.1	Bridge Scour Evaluations And Analysis	
10.8.1	FEMA Regulations and Permits	
14.1.1	Soil Exploration	



35

#### Work Categories – 3C-4 (Preliminary) – Cont.

Cat. No.	Category Name	
14.2.1	Geotechnical Testing	
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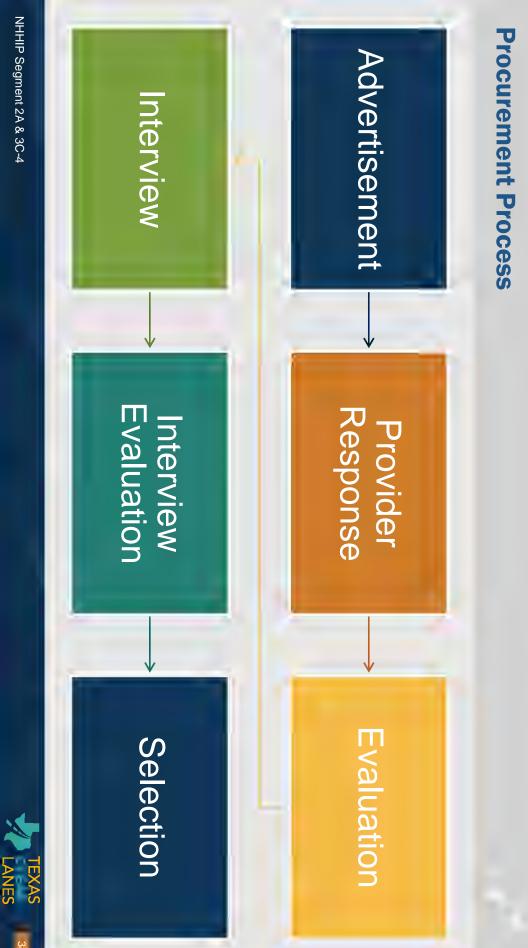


#### **Evaluation Criteria**

Evaluation Criteria	Included Elements
Technical approach	Project understanding, project approach, innovative concepts or
	alternatives
Project Manager's	Experience with similar or related projects, including both technical
relevant experience	and management experience
Project management planning	Project staffing and resource management (who, how, and why), communication plan, and quality control procedures. Includes the prime firm's past experience with utilizing subproviders and meeting program goals (HUB or DBE) and/or how it plans to utilize subproviders to meet the goals on this contract. Also may include project scheduling or phasing for SD projects
Key staff's relevant	Experience with similar projects
experience	
Past Performance Score	

Proposals are independently scored by CST members based on the four evaluation criteria and their corresponding weightings.





#### **Tentative Timeline**

### RFP Posting late March

# Proposals Due Mid April

# Selection Complete May

Contract Execution October '24



39

According to 43 TAC §10.6, a conflict of interest is a circumstance arising out of existing or past activities, business interests, contractual relationships, or organizational structure of an entity and because of which the entity's objectivity in performing the scope of work sought by the Department is or may be otherwise impaired, the entity's ability to give impartial advice or assistance to the Department might be impaired, or because of which the entity has an unfair competitive advantage.



#### **Submittal Reminders**

- Submit before the deadline
- QA/QC the submittal by referring directly to the RFP
- Check that all mandatory forms are in your submittal
- Verify name of project manager and task leaders
- Verify Task Leaders are pre-certified in the listed work categories
- Verify that your sub-providers are pre-certified in the listed work categories
- Check DBE participation
- Ensure your Administrative Qualifications are up to date



 TOP 100 MOST

 CONGESTED

 2022 RANKINGS

 16, 22, 29, 42, 72

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#### **#ENDTHESTREAKTX**

# **HEADTHE STREAKTX** End the streak of daily deaths on Texas roadways.



Texas Department of Transportation

Houston District2

#### **NHHIP**



After this presentation, all questions must be submitted to John Mosaffa at <u>John.Mosaffa@txdot.gov</u> by noon, March 18, 2024, with the subject line: "HOU / PS&E / 3C-4 & 2A / Pre-RFP Meeting / Questions".

Copy of the presentation, questions, and responses will be posted at: https://www.txdot.gov/business/consultants/architectural-engineering-surveying/meetings.html

