

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
Eighth Coast Guard District  
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September 18, 2015

## PUBLIC NOTICE (10-15)

### BRIDGE PERMIT AMENDMENT APPLICATION TO CONSTRUCT REPLACEMENT BRIDGES OVER HOUSTON SHIP CHANNEL, MILE 40, AS PART OF THE SAM HOUSTON TOLLWAY EAST (SHTE), IN HOUSTON, HARRIS COUNTY, TEXAS

All interested parties are notified that an application from HARRIS COUNTY TOLL ROAD AUTHORITY (HCTRA) has been received by the Commander, Eighth Coast Guard District, for approval of the enclosed plans to construct replacement bridges over a navigable waterway of the United States.

**WATERWAY AND LOCATION:** Houston Ship Channel, Mile 40.0, Harris County, Houston, Texas.

**CHARACTER OF WORK:** The HCTRA proposes a replacement bridge project along Beltway 8 to improve the north-south transportation link between Interstate Highway 10 (IH 10) and State Highway 225 (SH 225) in Houston, Harris County, Texas and remove the existing bridge. By removing the existing bridge and constructing new a bridge along this segment of the Sam Houston Tollway East (SHTE) corridor, the HCTRA aims to improve safety by upgrading roadway design to current Association of State Highway and Transportation Officials (AASHTO) design standards, improving mobility within the corridor to accommodate current and future traffic demands, and completing the SHTE system initiative. The SHTE system initiative involves construction of a corridor that is consistent with other segments of the SHTE system to the north and south of the project areas.

The existing fixed highway bridge is a concrete box girder design with a main span of 750 feet. The proposed northbound and southbound bridges will be separate structures, and each will have a fixed cable-stayed main span of 1,320 feet. The piers of the new bridge will be constructed on land and there will be no obstructions in the waterway. The new southbound bridge will be constructed first, within the existing 200-foot right-of-way (ROW), adjacent to the existing bridge to the west. The new bridge will be temporarily fitted to handle two-way traffic so that the existing bridge can be demolished. After the removal of the existing bridge, a second new northbound bridge will be constructed to handle all northbound traffic. Removal of the old bridge will be down to a depth deemed appropriate by the District Commander and the United States Army Corps of Engineers (USACE).

The HCTRA indicates that the proposed bridge project is needed to address safety, improve regional transportation mobility and access, and address transportation consistency. The HCTRA states that safety would be improved by expanding the limited the number of travel lanes with

inadequate shoulders, steep grades, and limited sight distances; HCTRA also proposes this construction to address issues stemming from the narrowness of the Houston Ship Channel due to the current location of the main bridge piers within the waterway but outside of the navigational channel, frequent highway closures, and serious traffic delays that ensue after incidents occur.

Additionally, HCTRA states that highway points of access across the Houston Ship Channel would be improved by the proposed project given the construction of four (4) lanes in each direction and the elimination of the current reduction of the loop highway in lanes from four (4) to two (2) in each direction. The HCTRA states that transportation will be more consistent with the proposed project implementation; the Loop highway around Houston will be improved with the construction of four (4) lanes in each direction and the elimination of the current reduction of the Loop highway in lanes from four (4) to two (2) at the Ship Channel Bridge.

**MINIMUM NAVIGATIONAL CLEARANCES:**

**Existing:**

Horizontal: 500 feet clear channel,  
724 feet between piers

Vertical: 175 feet above  
High Water (HW) elevation  
0.57 feet Mean Sea Level (MSL)

**Proposed:**

Horizontal: 500 feet clear channel

Vertical: 175 feet above  
Mean High Water (MHW), elevation 2.0 feet  
North American Vertical Datum (NAVD) 88

**ENVIRONMENTAL CONSIDERATIONS:** The United States Coast Guard (USCG) as lead federal agency, has made a tentative determination, according to documentation submitted by that the proposed project is a Categorical Exclusion for the purposes of the National Environmental Policy Act (NEPA) because it satisfies criteria for such action listed in the Coast Guard's implementation instructions.

Construction is in a floodplain with a 100-year flood elevation of 11.00 feet, NAVD88. Low chord of the bridge is above this level throughout. The project will not significantly encroach on the floodplain as defined in 23 CFR 650. No additional right-of-way will be required for the proposed project. No displacements or relocations of businesses, residents, or farms will be required. No adverse impacts on low-income or minority populations are anticipated. No parkland, recreational areas, or wildlife refuges will be impacted and no prime farmland will be taken. No significant effects on public utilities, fire protection or other emergency services are anticipated. No impacts on threatened or endangered species are anticipated.

HCTRA performed a wetland delineation in the proposed project area and determined that two United States Army Corps of Engineers (USACE) jurisdictional features exist within the project right-of-way (ROW). The USACE conducted a wetland determination to identify the limits of Clean Water Act (CWA) jurisdiction for the project. By letter dated July 28, 2015, the USACE issued an approved jurisdictional determination and concurred in HCTRA's finding that "there is 0.03-acre of Boggy Bayou, a relatively permanent water, subject to Section 404 of the Clean Water Act...and 5.78-acres of Buffalo Bayou, a traditional navigable waterway, subject to both

Section 404 and the Section 10 [Section 10] of the Rivers and Harbors Act (Section 10). Therefore, HCTRA will apply for Section 404 and Section 10 permits

Concurrent with the processing of this application, the Texas Commission on Environmental Quality (TCEQ) is reviewing the proposed work to determine if the construction would comply with State water quality standards. By virtue of an agreement between the U. S. Coast Guard and the TCEQ, this public notice is also issued for the purpose of advising all known interested persons that there is pending before the TCEQ a decision on or waiver from water quality certification under such act.

TCEQ, Air Quality Division, is expected to furnish a statement that the project meets the requirements of the State Implementation Plan on Air Quality. According to the Environmental Protection Agency (EPA), Harris County has been deemed in nonattainment status for 2015 for the following pollutants: 1-hour ozone (1979), 8-hour ozone (1997), and 8-hour ozone (2008).

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Since the proposed project exists within tidally influenced waters, it may have an impact on EFH or federally managed fisheries. The Coast Guard's final determination, relative to the project impacts and the need for mitigation measures, is subject to review by and coordination with the U. S. National Marine Fisheries Service and Texas Parks and Wildlife Department (TPWD).

The proposed project is located within the Texas Coastal Zone Management (CZM) area. The applicant has stated that the project will be consistent with the Texas CZM requirements. By copy of this public notice, the Texas General Land Office, Coordination Council will initiate review of the project to determine if it is consistent with the Texas Coastal Zone Management Program requirements.

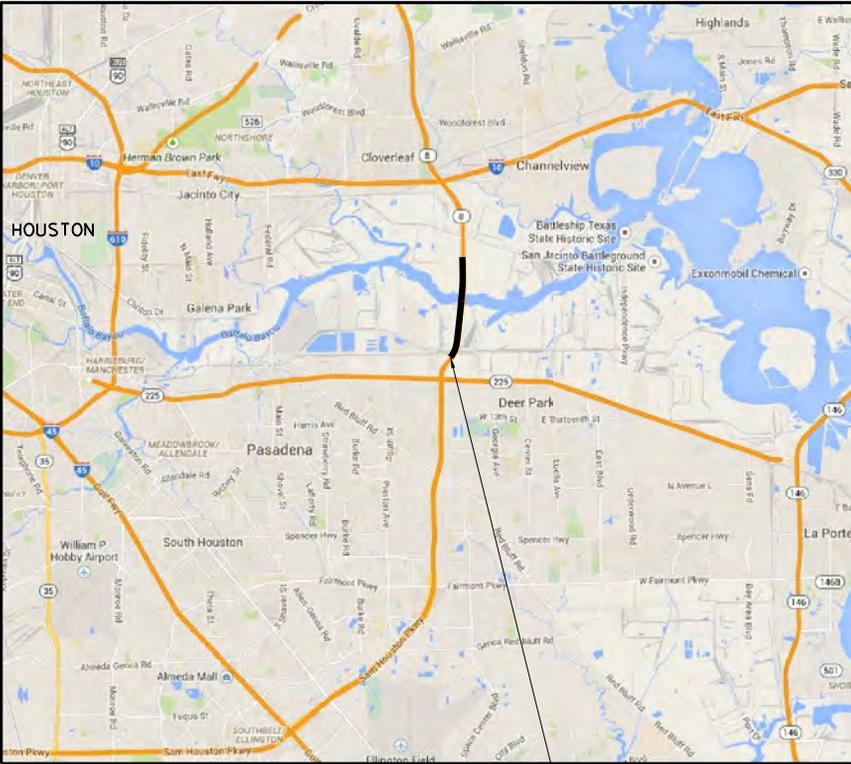
Consultation with the Texas Historical Commission has been conducted, and during the consultation process, HCTRA submitted a Historic Resource Survey Report on Sam Houston Tollway East from SH 225 to IH 10 in Harris County, Texas dated November 19, 2014, to the THC. In that letter, the HCTRA's conveyed that it performed a field survey of the area of potential effect and identified two historic-age resources, the Houston Ship Channel and the San Jacinto Ordinance Depot. The HCTRA also identified on non-historic-age resources, the Sam Houston Tollway East Ship Channel Bridge. The Texas State Historical Preservation Officer (TSHPO) concluded that the report for the proposed project was acceptable by way of stamping and signing the letter on December 19, 2014; the stamp indicates that the project may proceed and that the resources identified are not eligible for listing in the National Register of Historic Places, and the project may proceed.

**SOLICITATION OF COMMENTS:** Interested parties are requested to express their views to the Coast Guard, in writing, giving sufficient details to establish a clear understanding of reasons for support or opposition. Comments will be received at the Eighth Coast Guard District, Bridge Administration Branch, at the address given in the letterhead through October 19, 2015.

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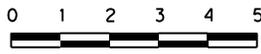
DAVID M. FRANK  
Chief, Bridge Administration Branch  
By direction of the Commander  
Eighth Coast Guard District

This is a web-searchable copy and it is not the official, signed version; however, other than the signature being omitted, it is a duplicate of the official version.

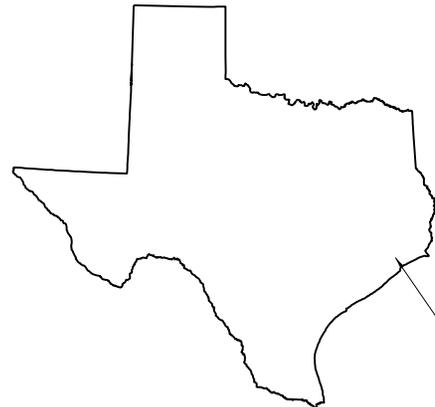


PROPOSED PROJECT

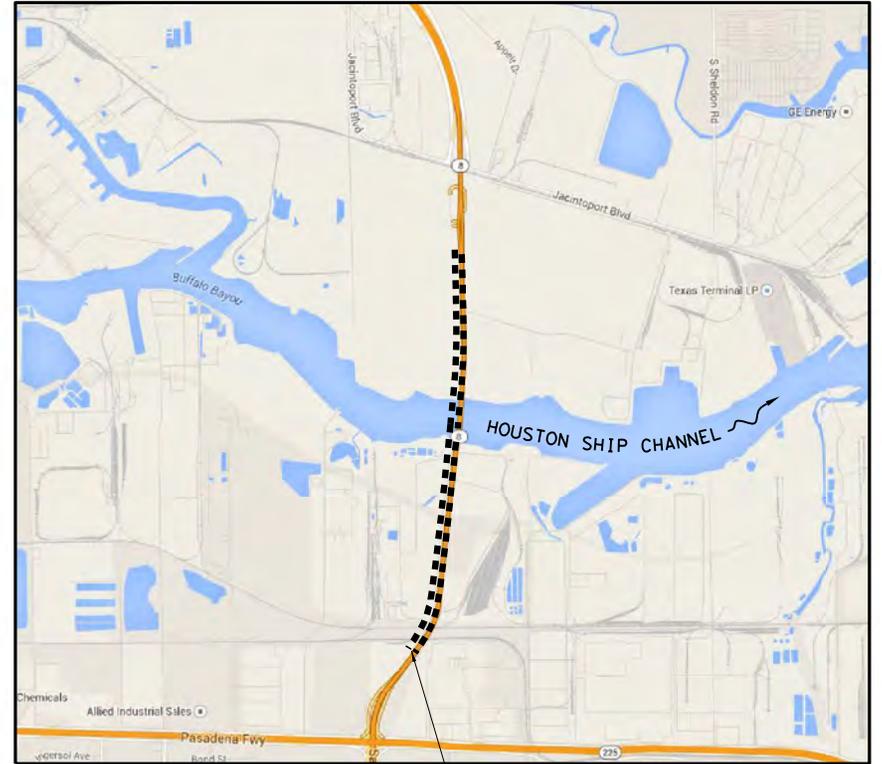
**VICINITY MAP**



SCALE IN MILES

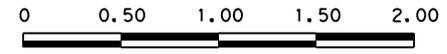


LOCATION OF PROJECT



PROPOSED BRIDGES  
(INCLUDES REMOVAL  
OF EXISTING BRIDGE)

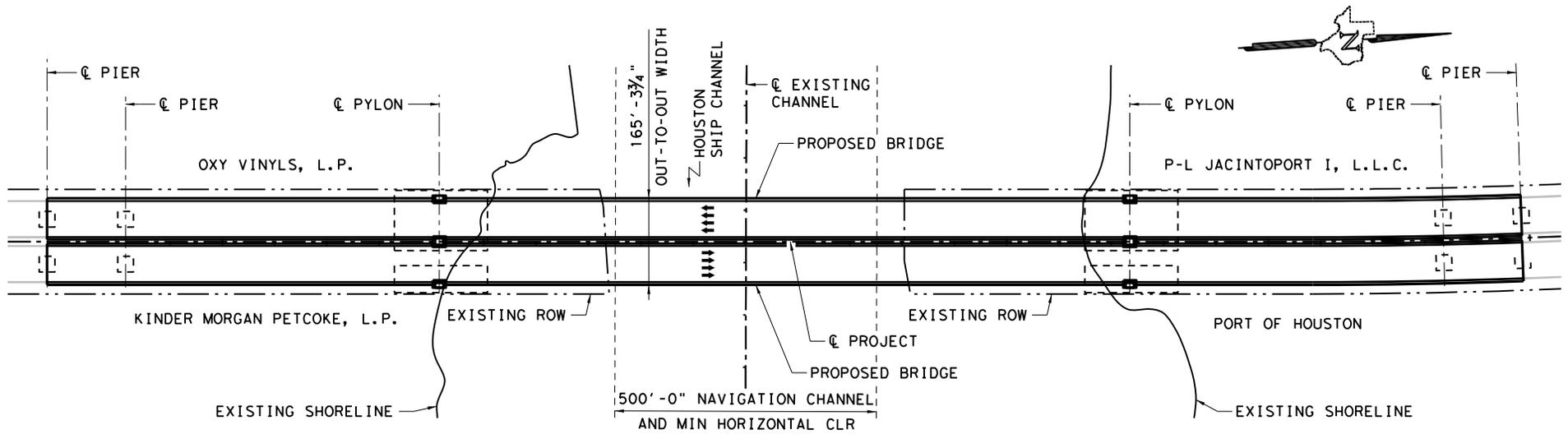
**LOCATION MAP**



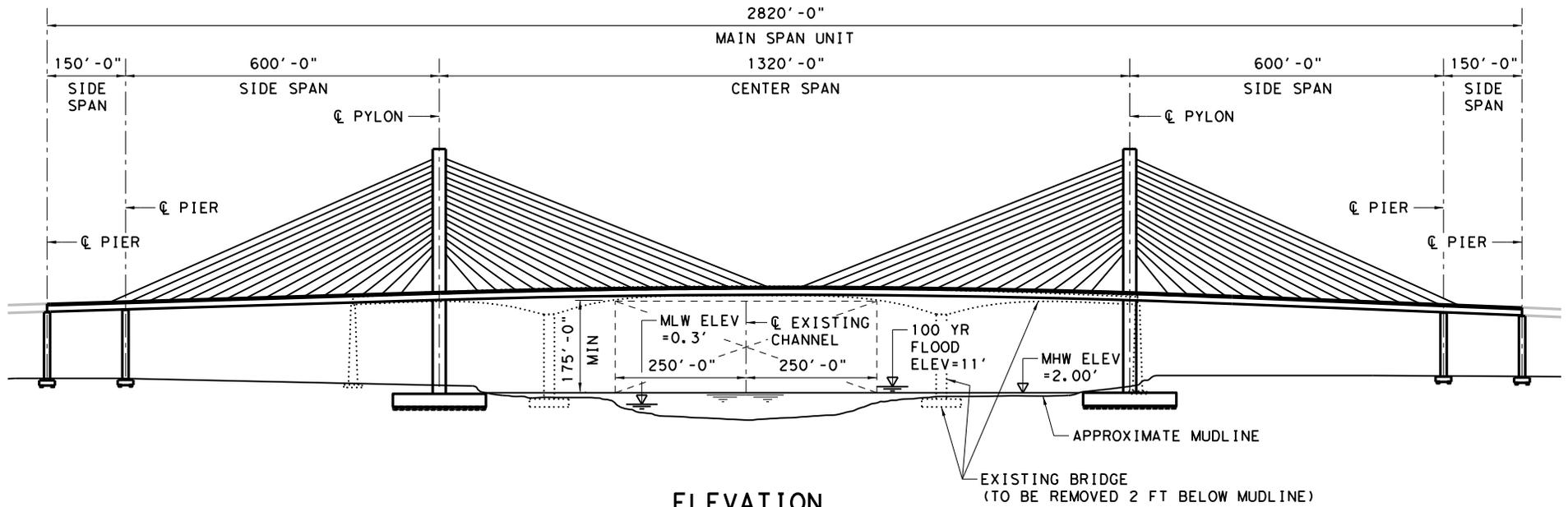
SCALE IN MILES

SAM HOUSTON TOLLWAY EAST  
SHIP CHANNEL BRIDGE IMPROVEMENT PROJECT  
OVER THE HOUSTON SHIP CHANNEL, MILE 40  
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VICINITY AND LOCATION MAP



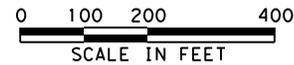
**PLAN**



**ELEVATION**

SAM HOUSTON TOLLWAY EAST  
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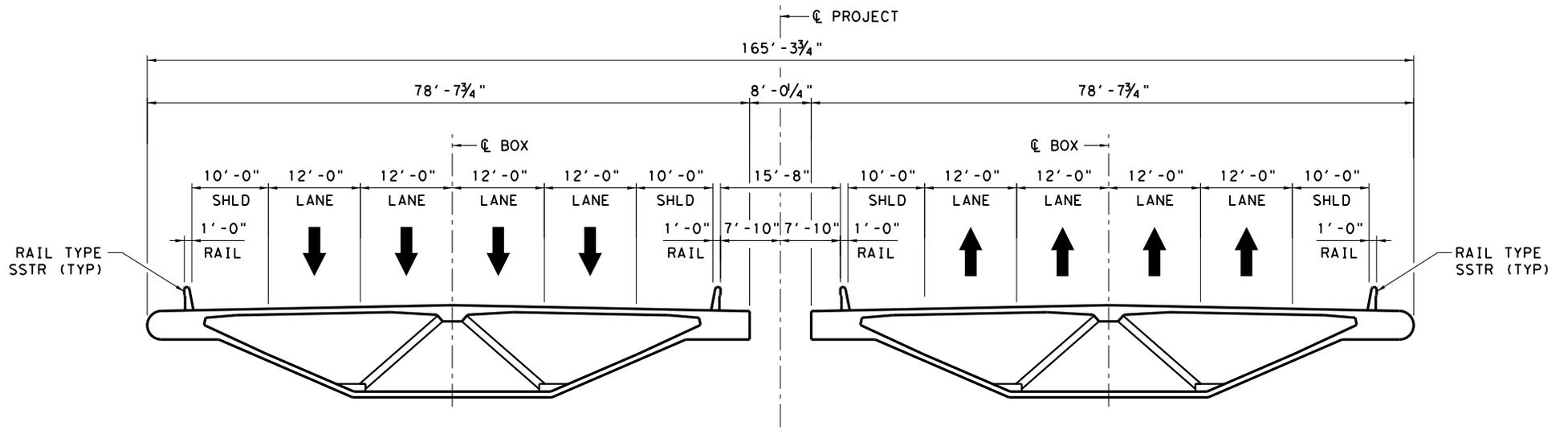
MAIN SPAN PLAN AND ELEVATION



NOTES:  
 1. ELEVATIONS SHOWN ON THESE DRAWINGS ARE REFERENCED TO NAVD 88.

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**CROSS SECTION**  
 0 5 10 20  
 SCALE IN FEET

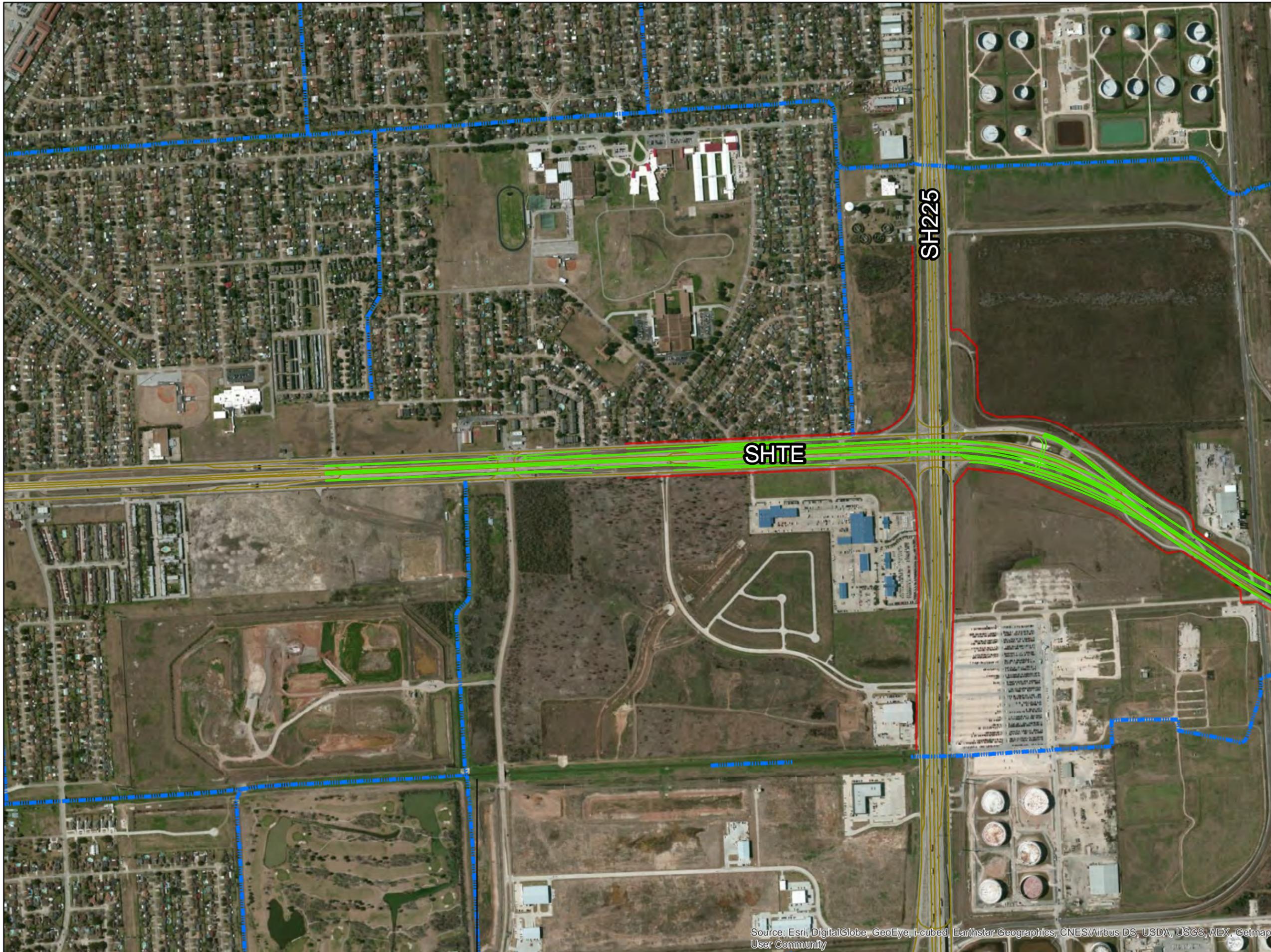
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TYPICAL CROSS SECTION

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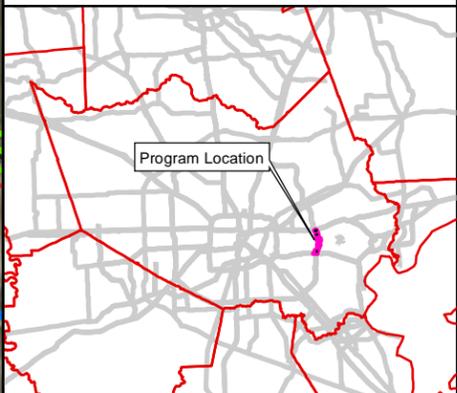
SHEET 3 OF 3 **Exhibit 1C** MAY 2015



- Legend**
- Ship Channel Bridge Schematic
  - Existing ROW
  - - - HCFCD DRAINAGE NETWORK
  - TxDOT\_Roadways



1 inch = 800 feet

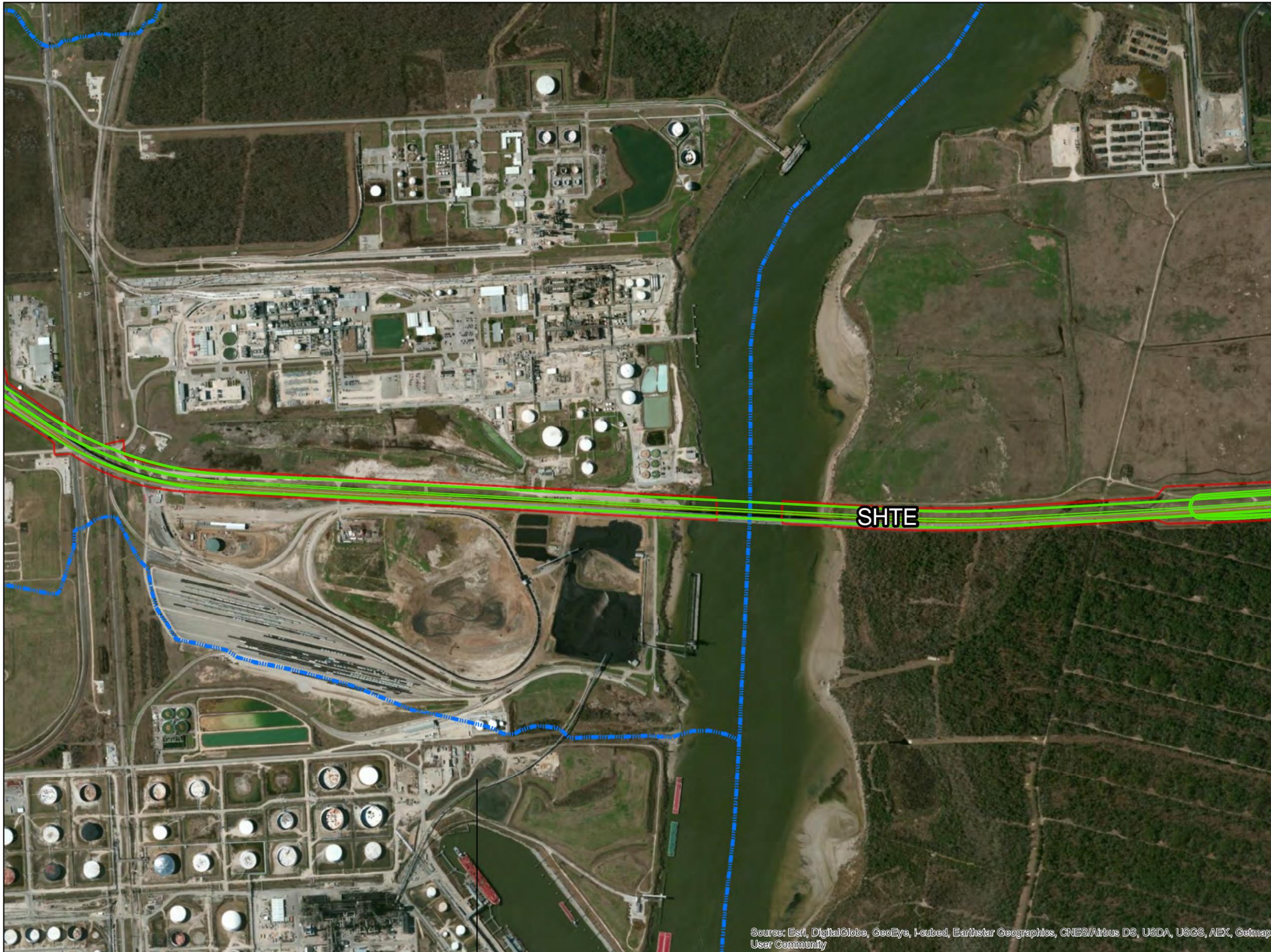


**SHIP CHANNEL BRIDGE**

**Exhibit #2A**

Project Schematic  
 Categorical Exclusion  
 Harris County, Texas

Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmap User Community



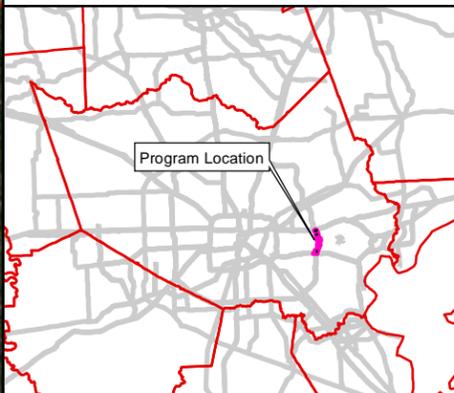
**Legend**

**Ship Channel Bridge Schematic**

- Ship Channel Bridge Schematic
- Existing ROW
- - - HCFC DRAINAGE NETWORK
- TxDOT\_Roadways



1 inch = 800 feet



**SHIP CHANNEL BRIDGE**

**Exhibit #2B**

Project Schematic  
 Categorical Exclusion  
 Harris County, Texas

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmap, User Community



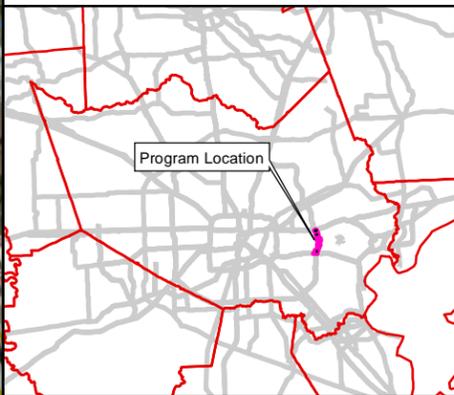
**Legend**

**Ship Channel Bridge Schematic**

- Ship Channel Bridge Schematic
- Existing ROW
- - - HCFC DRAINAGE NETWORK
- TxDOT\_Roadways



1 inch = 800 feet



**SHIP CHANNEL BRIDGE**

**Exhibit #2C**

Project Schematic  
 Categorical Exclusion  
 Harris County, Texas

Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmap User Community

