



# **Texas Department of Transportation Corpus Christi District**

U.S. 181 Harbor Bridge Project

Environmental Documentation and Schematic  
Development

Technical Advisory Committee Meeting

January 11, 2012



# Welcome

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Texas Department of  
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# Today's Agenda

- Welcome and introductions
- Explanation of ground rules
- Group discussion of mission of the Technical Advisory Committee
- Review/group discussion of Harbor Bridge Project history and current status
- Review/group discussion of project Need and Purpose
- Review/group discussion of project alternatives
- Discussion of alternatives analysis process
- Review of Project Timeline
- Group discussion of public involvement activities



# TAC Ground Rules

- Facilitated open discussion among committee members and project team members. Everyone is encouraged to participate.
- To ensure that all committee members have an opportunity to speak, please be respectful of our time limits.
- Members of the public are welcome to attend this meeting and will be given an opportunity to provide comments at the end of the meeting.

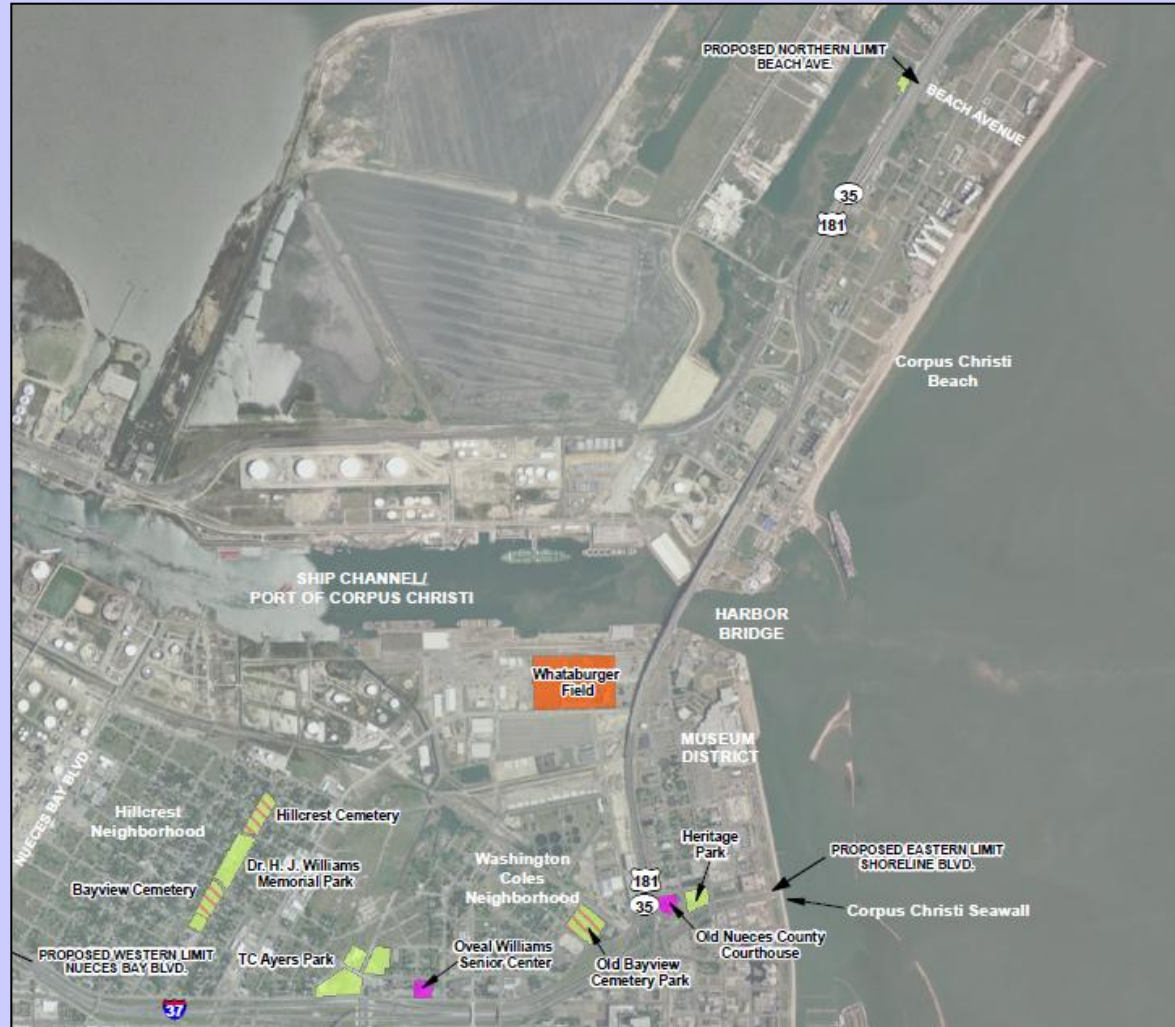
- To review/monitor environmental studies and engineering products, and provide feedback to TxDOT
- To promote public awareness and understanding of the Harbor Bridge Project
- To share information learned at TAC meetings with others in their field and bring back to TAC meetings any feedback received
- To assist TxDOT in identifying environmental impacts and mitigation strategies for those impacts.

# What is the Harbor Bridge Project?

- Proposed improvements to US 181 at the Harbor Bridge over the Corpus Christi Ship Channel.
- Project would extend from Beach Ave on US 181 to Morgan Ave on SH 286
- Federal Highway Administration (FHWA) is the lead Federal agency for project
- TxDOT is the joint lead agency



# What is the Harbor Bridge Project?





# Project History and Status

- 2001 – Harbor Bridge Project initiated
- 2003 – Feasibility Study completed
- 2004 – Environmental and schematic development initiated
- 2005 – First scoping meetings held
- 2007 – Project limits extended and second round of scoping meetings held





# Project History and Status

- 2007 – The project put on hold due to lack of funding
- 2009 – Project reinitiated with new project limits
- 2010 – FHWA determined project should be developed under SAFTEA-LU
- 2011 – New Notice of Intent to prepare an EIS published

# Need for Harbor Bridge Project

- Additional details were incorporated into the Need
- Safety Risks (Including Hurricane Evacuation)
  - Lack of shoulders
  - Steep vertical grades
  - Sharp horizontal curves
  - Non-standard ramp lengths and spacing
- Structural restriction to navigational access to the Port of Corpus Christi



# Need for Harbor Bridge Project

- Increased difficulty in maintaining the structure's operability over the long-term
- Limited connection to local roadways
- Limited capacity to meet future traffic demands





# Purpose of the Harbor Bridge Project

- **Mitigate geometric deficiencies for the highway, including the Harbor Bridge (reduce sharp curves and steep grades)** to improve safety for the travelling public including during hurricane evacuations
- **Reduce the structural restriction to navigational access at the Port of Corpus Christi (raise the bridge height)**, thereby promoting expansion and economic opportunity in the area
- **Maximize the long-term operation** of the Harbor Bridge structure
- **Improve the connectivity** to the local roadway system
- **Meet current standards for capacity on US 181, including the Harbor Bridge**, considering projected future traffic demand

# Alternatives Under Consideration

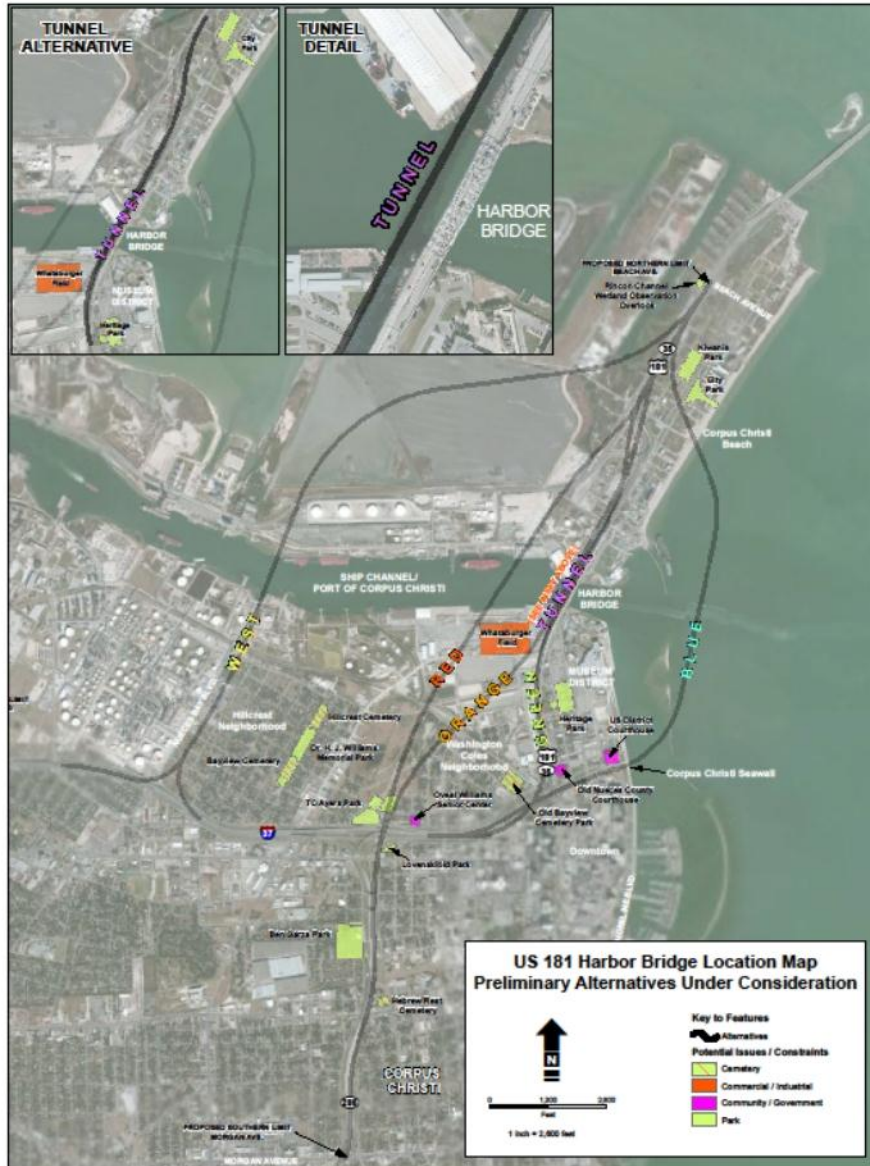
Feasibility Study and Scoping Process – Six build alternatives (plus the No Build) are being considered:

- Red Alternative
- Orange Alternative
- Green Alternative
- Blue Alternative
- Tunnel Alternative\*
- West Alternative\*



\*new alternatives from 1<sup>st</sup> Scoping Meeting

# US 181 Harbor Bridge Location Map





# Summary of Preliminary Environmental Constraints

US 181 – Preliminary Considerations								
Constraints		Alternative Constraints						
		No Build	Red	Orange	Green	Blue	West	Tunnel
Environmental	Environmental Justice neighborhoods		X	X	X	X	X	X
	Wetlands, Ecology, and Threatened and Endangered Species					X	X	
	Hazardous materials		X	X	X		X	X
	Historic Resources		X	X	X	X	X	X
Right-of-Way	Substantial Right-Of-Way		X	X		X	X	
	Impacts to Parks or Recreational Areas		X	X		X		
	Impacts to Major Existing or Planned Developments		X	X	X	X	X	X
Engineering	Safety Considerations	X			X	X		X
	Design Standards	X			X			X

# Alternatives Analysis Methodology

- Methodology Further Developed
  - Measures of Effectiveness (MOEs) developed to evaluate whether a particular alternative meets the Need & Purpose
    - Each alternative will be evaluated against the Measures of Effectiveness
    - Alternatives may be eliminated from further evaluation if it is determined they do not satisfy the MOEs, and therefore the need and purpose of the proposed project
  - Alternatives that meet the Need & Purpose will be evaluated further



# Measures of Effectiveness

Project Purpose	Criteria	Measure
<p><b>Mitigate geometric (design) deficiencies to improve safety for travelling public</b></p>	<p>Corrects geometric (design) deficiencies</p>	<p>Adds shoulders to the bridge and approach sections; reduces the vertical slope; provides ramp lengths commensurate with design speed; provides sufficient spacing for exit ramps to meet driver expectancy; widens travel lanes</p>
	<p>Upgrades facility to current design standards where appropriate, allowing for warranted exceptions</p>	<p>Utilizes TxDOT's Roadway Design Manual and Bridge Design Manual, including associated references, in designing the proposed improvements</p>
	<p>Establishes a reliable hurricane evacuation route</p>	<p>Meets State criteria used to determine Hurricane Evacuation routes for the Corpus Christi area</p>
<p><b>Reduce structural restriction to navigational access to the inner harbor at the Port of Corpus Christi, thereby promoting the expansion of the Port and spurring economic opportunity in the area</b></p>	<p>Rehabilitate or replace the existing Harbor Bridge to allow for a structure with greater vertical clearance above the channel</p>	<p>Provides a vertical clearance sufficient to accommodate the sizes and types of vessels that will facilitate the expansion of the Port of Corpus Christi inner harbor and the spurring of economic opportunity in the area</p>



# Measures of Effectiveness

Project Purpose	Criteria	Measure
<b>Maximize long-term operability of the Harbor Bridge structure</b>	Reduces the cost and frequency of bridge maintenance	Uses non-corrosive building or maintenance materials, such as concrete, and other elements to limit the extent of routine and structural maintenance over the life of the bridge
	Extends the operational life of the bridge well beyond the expected life of the existing bridge	Uses a 100-year design-life for the rehabilitated or replaced bridge
<b>Improve connectivity to the local roadway system</b>	Upgrades the facility to current design standards where appropriate, allowing for warranted exceptions	Utilizes TxDOT's Roadway Design Manual, including associated references, in designing the proposed improvements
	Maintains local roadway accessibility relative to the existing condition	Provides at a minimum the same number of on- and off-ramps as currently exist; does not eliminate access to areas relative to the existing local roadway network
<b>Meet current standards for capacity to accommodate future traffic demand</b>	Increases capacity of the facility (mainlanes and ramps), including the bridge structure	Adds mainlanes if warranted following the project-level traffic analysis; adds shoulders; alters ramp design to increase capacity
	Upgrades the facility to current design standards where appropriate, allowing for warranted exceptions	Utilizes TxDOT's Roadway Design Manual, including associated references, in designing the proposed improvements



# Measures of Effectiveness

- **Any thoughts?**
- **The MOEs will be incorporated into the Draft Coordination Plan**

# Coordination Plan

- A Coordination Plan facilitates and documents TxDOT's and FHWA's interaction with the public and agencies
- Encourages public/agency input to develop the Need & Purpose, Project Build Alternatives and methodology
- Revised Draft Coordination Plan available on our website

# Harbor Bridge Timeline

## Prepare Draft Environmental Impact Statement (DEIS) followed by Final EIS and Record of Decision (ROD)

- Initiate project development with scoping meetings - 2011
- Develop alternatives and begin agency coordination - 2012
- Public Meeting – 2012 - 2013
- Prepare and review draft environmental document - 2012 - 2014
- Public Meeting – Design Guideline Workshop - 2013
- Public Hearing – 2014 - 2015
- Prepare and review final EIS – 2014 - 2016
- Public involvement throughout process

# Harbor Bridge Timeline

- Environmental Clearance - ROD issued 2016 or as early as 2014
  - Considering Condensed FEIS
- Obtain permits and approvals – 2015 - 2017
- Prepare ROW Map and Acquire ROW – 2015 - 2017
- Develop construction plans – 2015 - 2017
- Start phase construction – 2017 - 2020





# Public Involvement Activities

- Public scoping meetings
- Public meetings
- CAC and TAC meetings
- Project website
- Neighborhood/small group informal meetings
- Newsletters
- Project Timeline
- Others? Your ideas requested.



# Public Involvement Opportunities to Share with Community

Stay involved in the Harbor Bridge Project by participating in the following:

- Follow the project online:
- Sign up to be on our mailing list
- Attend public meetings and public hearing
- Participate in small stakeholder meetings
- Read our newsletter
- Contact TxDOT Project Manager or Public Information Officer
  - Victor E. Vourcos, P.E. Phone: 361.808.2378  
Victor.Vourcos@txdot.gov
  - Tom Tagliabue Phone 361.808.2481 Tom.tagliabue@txdot.gov





# Public Comments



# Meeting Summary