

FEDERAL HIGHWAY ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACT

For

SH 288, US 59 to CR 60 Harris and Brazoria Counties, Texas

TxDOT CSJs:

0598-01-090 US 59 to IH 610
0598-01-092 IH 610 to County Line
0598-01-096 BW 8 Interchange
0598-02-092 County Line to SH 6
0598-01-901 US 59 to IH 610
0598-01-902 IH 610 Interchange
0598-01-905 IH 610 to County Line
0598-01-906 IH 610 to BW 8
0598-01-907 BW 8
0598-02-900 County Line to SH 6
0598-02-093 SH 6 to SH 99

INTRODUCTION

The Federal Highway Administration (FHWA) has determined, in accordance with 23 CFR §771.119 and §771.121, that the proposed construction of toll lanes in each direction within the existing grassy median of State Highway (SH) 288 between United States Highway (U.S.) 59 and County Road (CR) 60, interchange improvements at Interstate Highway (I-1) 610 and Beltway 8 (BW 8), additional general-purpose lanes between IH 610 and BW 8, and improved access to the Texas Medical Center (TMC) will not have a significant impact on the human or natural environment.

This Finding of No Significant Impact (FONSI) for the preferred alternative is based on the revised April 2013 Environmental Assessment (EA). The EA was approved for public involvement on January 23, 2013. The Public Hearing Summary, which includes responses to comments, was prepared by the Texas Department of Transportation (TxDOT) in April 2013, and has been incorporated into the project.

The revised April 2013 EA and the Public Hearing Summary Report have been independently evaluated by FHWA, and determined to adequately and accurately discuss the need, purpose, alternatives, environmental issues, and impacts of the proposed SH 288 project and appropriate mitigation measures. These documents provide sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. Finally, these documents are incorporated by reference into this decisional document.

PROJECT BACKGROUND

SH 288 traverses Harris and Brazoria Counties between Houston and Freeport; provides a vital route for commuters, freight and commercial trucking; and is a hurricane evacuation route. From US 59 south of downtown Houston to CR 60 in Brazoria County, a distance of approximately 26 miles, SH 288 provides two-to-four general-purpose travel lanes in each direction, separated by a grassy median.

Population increases associated with new residential subdivisions within the area of the SH 288 corridor have increased the number of vehicles using the highway as a primary travel route along much of the corridor. Residential and commercial development is projected to continue in the area over the next 20 years. As travel demand increases, mobility is projected to deteriorate to unacceptable levels with congestion extending south to SH 6 and eventually to CR 60. The proposed SH 288 improvements need to be implemented to address the continued growth that is expected in the vicinity of the project corridor and the resulting increase in congestion, and to address improving access and travel to the Texas Medical Center (TMC). If additional lanes are not added, the existing SH 288 and other area roadways would become more congested, and mobility in the corridor would decrease. The purpose of the proposed project is to alleviate congestion along the SH 288 corridor from US 59 to CR 60, and to improve access to the TMC.

The proposed SH 288 improvements would be constructed in phases. The interim phase (Phase 1) of the project would involve the construction of two toll lanes from US 59 to SH 6 and direct connector (DC) improvements at BW 8. The direction of travel on the toll lanes would be reversible, based on peak travel times, with traffic on both lanes moving from north to south, or south to north. New overpasses at selected, existing at-grade intersections (part of the toll facility) and some ramp and frontage road improvements would be constructed during the interim phase of the project. The ultimate project (Phase 2) would add two additional toll lanes from US 59 to SH 6, providing a total of four toll lanes (two in each direction); add one additional general-purpose lane in each direction from IH 610 to BW 8, resulting in a total of four general-purpose lanes in each direction; and would extend four toll lanes from SH 6 southward to CR 60. Direct-connector improvements at IH 610 and BW 8, and new overpasses at selected, existing at-grade intersections (part of the toll facility) would be constructed during the ultimate phase of the project. If funding becomes available, the ultimate (Phase 2) configuration would be constructed along with the interim (Phase 1). Implementation of the proposed project would accommodate additional traffic and improve access to the TMC, thereby improving the operational efficiency of the roadway.

Preferred Alternative

In 2005, TxDOT completed the SH 288 Corridor Feasibility Study that included development and evaluation of schematic design alternatives for highway improvements in the SH 288 corridor. Preliminary schematic designs were shown at public meetings in February 2007. Preliminary schematic designs were revised for some areas to address access and mobility.

The resulting preferred alternative is the Build Alternative evaluated in the EA. The Build Alternative would meet the purpose of the project by increasing the roadway capacity to accommodate future traffic demands, making access to TMC more efficient, and increasing mobility. A summary description of the proposed improvements for the preferred alternative is below, organized by project area from north to south.

SH 288 between US 59 and IH 610

The proposed project would retain four general-purpose lanes in each direction along SH 288 with auxiliary lanes for entrance and exit ramps. The proposed project includes the following improvements:

- Construct two toll lanes in each direction within the SH 288 median, beginning just south of US 59.
- Construct southbound entrance ramp and northbound exit ramp for toll lanes near US 59.
- Construct southbound entrance ramp and northbound exit ramp for toll lanes between Macgregor Way and Binz Street.
- Construct southbound exit ramp and northbound entrance ramp for toll lanes near Holcombe Boulevard.
- Reconstruct overpass at Southmore Boulevard.

SH 288 at IH 610 Interchange

The proposed project would retain three general-purpose lanes in each direction along IH 610 with auxiliary lanes for entrance and exit ramps. The proposed project includes the following improvements:

- Construct two toll lanes in each direction within the SH 288 median.
- Construct direct connectors in all eight directions at the interchange.
- Construct entrance and exit ramps from IH 610 main lanes to frontage roads in both eastbound and westbound directions.

Connection to the TMC

The proposed project in the TMC area includes the improvements listed below:

- Construct northbound direct connector from SH 288 to Alameda Road (general-purpose lanes and toll lanes).
- Construct entrance ramp from the IH 610 eastbound frontage road to access the eastbound direct connector from IH 610 main lanes to SH 288 (to general-purpose lanes and toll lanes).
- Extend Cambridge Street south of IH 610 (IH 610 main lanes would be elevated over Cambridge Street).
- Remove existing eastbound entrance ramp to IH 610 between Fannin Street and Alameda Road.
- Remove existing westbound exit ramp from IH 610 between Alameda Road and Fannin Street.

SH 288 between IH 610 and BW 8

The proposed project would increase the number of general-purpose lanes in each direction along SH 288, with auxiliary lanes for entrance and exit ramps. The proposed project includes the following improvements:

- Construct one additional general-purpose lane in each direction.
- Construct two toll lanes in each direction within the SH 288 median.
- Construct southbound exit ramp from toll lanes to general-purpose lanes, north of Reed Road.
- Construct northbound entrance ramp from general-purpose lanes to toll lanes, south of Reed Road.
- Construct southbound exit ramp from toll lanes to general-purpose lanes, south of Almeda-Genoa Road.
- Construct northbound entrance ramp from general-purpose lanes to toll lanes, north of Almeda-Genoa Road.
- Construct southbound exit ramp from general-purpose lanes to frontage road, south of Almeda-Genoa Road.
- Construct southbound connection from frontage road to access road, north of BW 8.
- Construct southbound frontage road between Almeda-Genoa Road and BW 8.
- Construct southbound entrance ramp from frontage road to general-purpose lanes, north of BW 8.
- Widen existing SH 288 bridges at Airport Road, Sims Bayou, and W. Orem Drive.
- Reconstruct and widen existing bridges at Reed Road and Almeda-Genoa Road.

SH 288 at BW 8 Interchange

The proposed project would retain three general-purpose lanes in each direction along SH 288. The proposed project includes the following improvements:

- Construct two toll lanes in each direction within the SH 288 median.
- Construct direct connectors in all eight directions. Direct connectors would provide access to BW 8 from SH 288 general-purpose lanes and toll lanes from north and south sides of the interchange.

SH 288 between BW 8 and SH 6

The proposed project would retain two or three general-purpose lanes in each direction along SH 288 with auxiliary lanes for entrance and exit ramps. The proposed project includes the following improvements:

- Construct two toll lanes in each direction within the SH 288 median.
- Construct southbound exit ramp and northbound entrance ramp for toll lanes between McHard Road and FM 518.
- Construct southbound exit ramp and northbound entrance ramp for toll lanes near FM 518.
- Construct southbound exit ramp and northbound entrance ramp for toll lanes near Rodeo Palms Parkway.
- Reconstruct bridge at Clear Creek, FM 2234/McHard Road, and FM 518.
- Construct bridge at Mustang Bayou and Rodeo Palms Parkway.

SH 288 between SH 6 and CR 60 (Proposed SH 99)

The proposed project would retain two general-purpose lanes in each direction along SH 288 with auxiliary lanes for entrance and exit ramps. The proposed project includes the following improvements:

- Construct two toll lanes in each direction within the SH 288 median.
- Construct bridges over SH 288 at cross streets: CR 56, CR 64, and CR 63.
- Widen bridges at SH 6 and BNSF Railroad.
- Construct bridges at CR 48 and CR 60.
- Construct southbound exit ramp and northbound entrance ramp for toll lanes near CR 57.
- Construct southbound exit ramp and northbound entrance ramp for toll lanes between CR 63 and CR 60.
- Construct frontage roads at various locations.

Preferred Alternative Justification

Section IV of this EA describes the Build Alternative, which includes construction of toll lanes and associated improvements. This alternative achieves the project goals and minimizes environmental impacts of the proposed project.

The Build Alternative would meet the purpose of the project by increasing the roadway capacity to accommodate future traffic demands, making access to TMC more efficient, and increasing mobility. Proposed improvements have been designed to minimize right-of-way (ROW) acquisition and potential adverse impacts to properties and communities.

Potential Impacts and Proposed Mitigation Commitments

TxDOT completed the draft EA in February 2013, and completed the revised EA in April 2013, considering comments received at the public hearings and during the comment period. The EA considered and analyzed the potential social, economic, and environmental impacts related to the construction and operation of the proposed SH 288 project. The potential impacts studied included direct, indirect, and cumulative impacts of the project. Potential adverse impacts and measures that would be incorporated in the project to minimize harm to the environment are described below.

Travel Patterns

A comparison of Level of Service (LOS) between the No Build alternative in the Year 2035 and the Most Feasible Alternative (MFA) (See Section IV of the EA), which is the Build alternative, shows an improvement in traffic mobility in the Year 2035. With the No Build alternative, peak traffic is projected to range from LOS D to F between US 59 and FM 2234, whereas the MFA traffic is projected to range from LOS C to LOS E. Between FM 2234 and SH 6, the No Build alternative would range from LOS C to D and the MFA would operate at LOS C. The LOS for the No Build south of SH 6 would range from LOS B to C, and the LOS for the MFA south to CR 60 would operate similarly to the No Build alternative. With growth and development projected

to continue over the next 20 years, there is a need to provide enhanced roadway capacity.

Mitigation Commitment: Traffic control during project construction will be in accordance with Part VI (Traffic Controls for Street and Highway Construction and Maintenance Operations) of the Texas Manual on Uniform Traffic Control Devices. During construction, travel lanes in each direction will be maintained. However, short-term lane closures may occur during off-peak hours. Access to adjacent property will be maintained during construction. Street intersections would be constructed in phases to maintain through traffic.

Relocations and Right-of-Way Acquisition

The Preferred Alternative would require approximately 67 acres of additional right-of-way, of which approximately 98 percent is currently agriculture/undeveloped uses and two percent is commercial/industrial uses. Although no businesses are expected to be displaced, the right-of-way requirements include acquisition of parking and loading/storage areas at five businesses. Access to residences or use of any commercial or industrial area would be maintained at all times during and after project construction. One billboard sign would be displaced on Alameda Road north of IH 610.

Mitigation Commitment: TxDOT's acquisition and relocation assistance program will provide assistance to property owners that may require relocation as a result of ROW acquisition along SH 288. The relocation assistance program is conducted in accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources shall be available, without discrimination, to all affected property owners required to relocate as a result of the implementation of the proposed project. Non-residential property owners, such as businesses, shall be provided information on adequate replacement locations for their current property and may be reimbursed for costs based on TxDOT policies and procedures.

Socioeconomic Data and Environmental Justice (EJ)

The populations of Harris and Brazoria Counties between 2010 and 2030 are forecast to increase by 27 and 28 percent, respectively. The proposed project would not bisect any established neighborhoods or isolate any neighborhoods or communities, nor would it affect planned development of the project area. Roadway construction activities would create new job opportunities and income potential in the area in the short term. The number of construction-related jobs would vary, depending on the phasing of the project construction. The total jobs that would be created, directly and indirectly, by implementation of the proposed project are estimated to be 46,987 and 45,588 jobs, respectively. The total additional income that would be created, directly and indirectly, by implementation of the proposed project is estimated to be \$404 million and \$811 million, respectively.

Impacts to low-income and minority individuals and communities would be expected as result of the proposed project. The proposed project is expected to improve mobility by reducing congestion along existing mainlanes and frontage roads. In the long term, because the proposed SH 288 improvements would improve mobility, it would benefit all individuals traveling

in the vicinity of the proposed project. Implementation of the proposed project would not cause disproportionate adverse impacts to low-income or minority populations.

Mitigation Commitment: No mitigation or commitments were identified for low-income or Environmental Justice (EJ) communities.

Land Use

The proposed project is located in Brazoria and Harris Counties, Texas, within portions of the Cities of Houston, Pearland, Manvel, and Iowa Colony. The project setting is relatively flat, with a typical elevation of 50-60 feet National Geodetic Vertical Datum (NGVD), but elevations are as low as 20 feet NGVD at the stream crossings, according to U.S. Geological Survey (USGS) 7.5 minute quadrangle maps for Bellaire, Almeda-Juliff, Rosharon, and Angleton, Texas (1982).

Pearland and Manvel have developed comprehensive plans that direct growth and development toward SH 288. Pearland has directed its growth toward SH 288 to take advantage of the development opportunities on SH 288 and at BW 8. Manvel has projected the conversion of the existing commercial and industrial activities in the vicinity of SH 288 and SH 6 to mixed-use commercial and multi-family residential developments. The proposed project is consistent with the plans of Pearland and Manvel, as well as private developments in the vicinity.

Mitigation Commitment: No mitigation or commitments were identified for the land use in the project vicinity.

Soils

The project area is underlain by eleven soil types as mapped by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS). These soils generally occur in nearly level to gently sloping landscape positions. Drainage characteristics of the soils range from moderately well drained to poorly drained. Three of the soils, Aris, Beaumont, and Gessner, are listed by the NRCS as hydric soils.

There are no designated unique farmland soils in the State of Texas. Prime farmland soils, as defined by the NRCS, are soils that are best suited to producing food, feed, forage, fiber, and oilseed crops. According to the NRCS (August 3, 1999), "lands that are already in or committed to urban development or water storage, including those with a density of 30 structures per 40 acres" are not subject to the Farmland Protection Policy Act (FPPA).

Mitigation Commitment: No mitigation or commitments were identified for the soils or Prime Farmland soils.

Beneficial Landscape Practices and Invasive Species

In accordance with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, landscaping would be limited to seeding and replanting the ROW with native species of plants where possible. A mix of native grasses and native forbs would be used to revegetate the ROW.

Mitigation Commitment: No mitigation was identified for beneficial landscape practices and/or invasive species. In accordance with Executive Order 13112, TxDOT will adhere to cost effective landscape measures and practices to the extent practicable.

Vegetation

Clearing, grading, and other roadbed preparation activities associated with the proposed project would permanently or temporarily affect approximately 274 acres of vegetation within the existing and proposed ROW. These vegetation communities include aquatic features, riparian areas, periodically inundated wetlands (including jurisdictional and non-jurisdictional aquatic resources), crops, scrub-shrub areas, and mowed and maintained ROW. Unavoidable vegetation effects would be partially mitigated through replanting and landscaping exposed areas of the ROW, as appropriate, with trees, shrubs, grasses, and approved seed mixes. Landscaping would be in accordance with EO 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping. Habitats given special consideration under the TxDOT-Texas Parks and Wildlife Department (TPWD) Memorandum of Understanding (MOU) for non-regulatory mitigation would be avoided to the extent practicable. Even though attempts would be made to avoid areas such as riparian forests, complete avoidance of special habitat features would not be practicable.

Mitigation Commitment: TxDOT will design, use, and promote construction activities that would avoid and preserve as many trees as practicable. In accordance with Provision (4)(A)(ii) of the TxDOT-TPWD MOU, some habitats may be given consideration for non-regulatory mitigation during project planning. These habitats may include:

- Habitat for federal candidate species if mitigation would assist in the prevention of the listing of the species;
- Rare vegetation series (S1, S2, or S3) that also locally provide habitat for a state-listed species;
- All vegetation communities listed as S1 or S2, regardless of whether or not the series in question provide habitat for state listed species;
- Bottomland hardwoods, native prairies, and riparian areas; and
- Any other habitat feature considered to be locally important.

The area surrounding the West Fork of Chocolate Bayou may meet the habitat requirements stated in the TxDOT-TPWD MOU; therefore, non-regulatory mitigation may be requested. Due to funding limitations, TxDOT does not propose mitigation for non-regulated habitat at this time.

Wildlife

No new barriers to wildlife movement would be introduced since the proposed project is associated with an existing transportation corridor. Construction of the project may widen existing barriers. Temporary effects to wildlife habitat include the decreased attractiveness of habitat adjacent to the project corridor, as well as possible disturbances to normal behavior patterns of wildlife as a result of increased noise levels from construction activities.

No direct effects to Federally-listed threatened or endangered species, their habitat, or designated critical habitat would be anticipated. The proposed project may impact habitat for two State-listed threatened species – the white-faced ibis and the Rafinesque's big-eared bat; however, the habitat for both is marginally suitable, and would be recreated after completion of construction.

Mitigation Commitment: TxDOT will design, use, and promote construction activities that would avoid and preserve as many trees as practicable. Vegetation clearing and work within the proposed project area shall be conducted outside of the normal nesting season for migratory birds, or measures would be taken to discourage birds from nesting in existing structures. Additionally, contractors will be notified about, and be responsible for, complying with the Migratory Bird Treaty Act for migratory birds that may inhabit the project area throughout the construction period of the proposed project.

Threatened and Endangered Species

Databases of sensitive species maintained by the United States Fish and Wildlife Service (USFWS) and TPWD were reviewed to determine state and/or federally listed threatened or endangered species that occur or historically have occurred in Harris and Brazoria Counties. Potential effects of the proposed project on these species were determined by reviewing the TPWD-Natural Diversity Database (NDD) Element of Occurrence (EO) Records (May 30, 2012) and by conducting habitat assessments. No unique, critical, designated, or proposed designated habitat exists in or near the proposed project.

Mitigation Commitment: No mitigation or commitments were identified for threatened and endangered species.

Essential Fish Habitat (EFH)

The proposed project is located within Harris and Brazoria Counties, Texas which have been identified as containing tidally influenced waters. The proposed project does not contain a tidally influenced tributary, and would not affect EFH.

Mitigation Commitment: No mitigation or commitments were identified for EFH.

Cultural Resources

Pursuant to Stipulation VI "Undertakings with Potential to Cause Effects," Appendix 4 of the PA-TU and MOU, TxDOT Historians have determined that the proposed action has no potential to affect historic properties and that individual project coordination with the State Historic Preservation Office is not required.

Pursuant to Stipulation VI of the PA and 43 TAC 2.24(f)(1)(C) of the MOU, TxDOT finds that the proposed undertaking would not affect archeological historic properties (36 CFR 800.16(l)) or State Archeological Landmarks. No further investigations are warranted.

Mitigation Commitment: In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT

archeological staff would be contacted.

Section 4(f) Properties

There would be no impact on publicly owned parklands, recreation areas, wildlife refuges, or areas of unique beauty; therefore, a Section 4(f) evaluation is not required.

Mitigation Commitment: No mitigation or commitments were identified for Section 4(f).

Waters of the United States, including Wetlands

Pursuant to Executive Order 11990 (Protection of Wetlands) and Section 404 of the Clean Water Act (CWA), a wetland delineation was conducted to determine the presence of waters of the United States (U.S.), including wetlands, within the project area. A wetlands delineation of the entire project corridor, including the existing and proposed ROW, was performed using the methodology described by the USACE Wetlands Delineation Manual (USACE 1987) and subsequent guidance on the clarification, interpretation, and implementation of wetlands regulations.

In accordance with the provisions of Section 404(b)(1) Guidelines, an applicant must demonstrate that the proposed project has avoided and minimized effects to waters of the United States, including wetlands, to the greatest extent practicable before compensatory mitigation can be proposed. A majority of the proposed project has been aligned immediately adjacent to the existing ROW, thus avoiding and minimizing effects to surrounding areas to the greatest extent practicable.

Mitigation Commitment: Based on the schematic design, the proposed project could potentially impact approximately four acres of waters of the United States, including wetlands. The proposed project would require U.S. Army Corps of Engineers' authorization under Section 404 of the Clean Water Act prior to the discharge of fill materials into waters of the United States, including wetlands. TxDOT will coordinate with the USACE to obtain any required permits. Based on preliminary design, it is likely that all activities could be authorized under Nationwide Permit (NWP) 14-Linear Transportation Projects, with preconstruction notification to the USACE. A compensatory mitigation plan would be prepared, as necessary, and submitted as part of the permitting process.

Water Quality

The project involves development of more than 1 acre of land, and TxDOT would be required to meet the Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit (CGP) requirements. TxDOT would be required to meet the following TPDES CGP requirements for the proposed project:

- Obtain a copy of the Texas Commission on Environmental Quality (TCEQ) CGP (TPDES Permit Number TXR150000);
- Develop and implement a Storm Water Pollution Prevention Plan (SW3P);
- Complete and submit a Notice of Intent (NOI) to the TCEQ; and

- Submit a Notice of Termination (NOT) once the site has reached final stabilization.

Mitigation Commitment: TxDOT shall develop a new SWP3 or amend a previous plan to address the project, and measures would be taken to prevent or correct erosion that would occur during construction. Guidance documents, such as the TxDOT Storm Water Management Guidelines for Construction Activities, provide discussion of storm water controls to be implemented during construction. The project would fall under the qualifications subject to the TCEQ's Section 401 water quality certification because jurisdictional waters of the United States are within the project ROW and impacts from construction could occur.

The amount of disturbed earth shall be limited so that the potential for excessive erosion is minimized and sedimentation outside of the ROW is avoided. Existing vegetation shall be preserved to the extent practicable. Temporary erosion and sedimentation controls shall be in place according to the construction plans prior to commencement of construction-related activities and inspected on a regular basis to ensure maximum effectiveness. Disturbed areas shall be stabilized to prevent construction-related soil erosion and sedimentation during wet weather conditions. Approved erosion and sedimentation control Best Management Practices (BMPs) shall be maintained and remain in place until the area has been stabilized.

Storm water control measures and BMPs shall be implemented during and after construction of the project to prevent and minimize impacts to water resources. During construction, BMPs may include, but not be limited to, silt fences, hay bales, and seeding or sodding of excavated areas. Permanent BMPs may include a combination of storm water retention, vegetated drainage ditches, and seeding of disturbed areas of soil with native species of grasses, shrubs, or trees in accordance with TxDOT's specification "Seeding for Erosion Control".

Permanent soil erosion control features shall be constructed as soon as feasible during the early stages of the contract through proper sodding and/or seeding techniques. Disturbed areas shall be restored and stabilized as soon as the construction schedule permits, and temporary sodding would be considered where large areas of disturbed ground would be left bare for a considerable length of time. Temporary erosion control measures shall be coordinated with the permanent soil erosion control features that are to be part of the completed project to assure economical, effective, and continuous erosion control throughout the construction and post construction periods. In addition, efforts would be made to prevent long-term water pollution by reducing fertilizer and pesticide use during the installation and maintenance of landscaping.

TxDOT shall require its contractors to take appropriate measures to prevent, minimize, and control accidental spills that may occur during roadway construction. All construction equipment and materials shall be removed as soon as the schedule permits. Demolition of structures may contain asbestos-containing materials. Asbestos inspections, specifications, notification, abatement, and disposal, as applicable, shall be conducted in compliance with federal and state regulations.

Floodplains

The proposed project crosses several 100-year floodplain boundaries, primarily at creek and river crossings along Mustang Bayou, Clear Creek and tributaries, Sims Bayou and tributaries, and Brays Bayou. The existing bridges at these water crossings would be widened to accommodate the proposed roadway improvements. The hydraulic design of the proposed project would be in accordance with current TxDOT policies and standards, and would be designed to prevent inundation at recurrence intervals of at least 100 years, inundation of the roadways being acceptable, without causing significant damage to the roadway, stream, or other property.

Mitigation Commitment: The proposed project would not increase the base flood elevations to a level that would violate applicable floodplain regulations and ordinances. No mitigation or commitments are identified.

Coastal Zone Management

The project is not located within the designated Texas coastal management zone. Thus, coordination with the Coastal Zone Management Agency is not required.

Mitigation Commitment: No mitigation or commitments were identified for coastal zone management.

Noise

FHWA traffic noise modeling software was used to calculate existing and predicted traffic noise levels. The model primarily considers the number, type, and speed of vehicles; highway alignment and grade; cuts, fills and natural berms; surrounding terrain features; and the locations of activity areas likely to be impacted by the associated traffic noise. The traffic noise analysis indicated that the proposed project would result in traffic noise impacts.

Noise impact contours showing predicted traffic noise levels were also developed so that future land use along State Highway 288 could be planned in consideration of predicted traffic noise. The proposed project includes mitigation for noise impacts. The preliminary noise barriers shown in the EA are considered reasonable and feasible for this project. TxDOT would decide whether to construct noise barriers and how they are designed when project design and the public involvement process are complete.

Mitigation Commitment: Noise abatement measures were considered, and noise barriers were evaluated for all impacted receivers. For some, barriers would not meet the FHWA's criteria for incorporation in the project. Noise barriers met the criteria at some locations, and six preliminary noise walls are proposed. The proposed noise walls would benefit an estimated 17 residences and users of a recreation area.

To minimize construction noise, provisions would be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures; such as work-hour controls and proper maintenance of muffler

systems.

Air Quality and Mobile Source Air Toxics (MSAT)

The analysis indicates a decrease in total MSAT emissions for the both the Build and No Build Scenarios in 2035 versus the base year Build Scenario. Total MSAT emissions are predicted to decrease by 58.4 percent for the 2035 Build Scenario as compared to 2011 Build levels. At the same time, vehicle miles travelled (VMT) in year 2035 would increase by 12 percent compared to baseline levels. If emissions are plotted over time, MSAT emissions decrease between the 2011 scenarios and the 2035 No Build and Build Scenarios, although VMT increases, due to anticipated improvements in fuels and emission standards. This is consistent with the TxDOT Air Quality Guidelines for qualitative MSAT analysis, which determined that the magnitude of the Environmental Protection Agency (EPA) projected pollutant reductions is so great that MSAT emissions in the study area are likely to be lower in the future, even after accounting for VMT growth. Differences in total MSAT emissions between the 2035 No Build and Build Scenarios were found. The 2035 No Build Scenario has slightly higher emissions than the 2035 Build Scenario. Emissions could be lower for the Build Scenario due to congestion reduction as a result of the added roadway capacity of SH 288, as well as a reduction in total VMT. These estimated emission levels are for all MSATs evaluated and are based on the projected total VMT.

Mitigation Commitment: This project has been determined to generate minimal air quality impacts related to MSAT emissions and has not been linked with any special MSAT concerns. No mitigation or commitments are identified.

Air-Highway Clearance

Since the project area is not located within 2 miles of an airport, a Federal Aviation Administration Airway-Highway clearance would not be required.

Mitigation Commitment: No mitigation or commitments are identified for air-highway clearance.

Hazardous Materials

The proposed project would require right-of-way from three sites with documented hazardous materials concerns, and is in the vicinity of other sites of concern. Sites estimated to be of high or moderate risks would have further investigation to determine the potential of encountering hazardous materials during construction of the project.

Numerous oil and gas well locations were identified to be located on the west side of SH 288, south of IH 610 and north of Airport Boulevard. Contamination from oil and gas exploration and production would be handled in accordance the Texas Railroad Commission (RRC, 16 TAC 4), and TCEQ (30 TAC 350) regulations. During the preliminary investigations, multiple pipelines were identified that bisect the proposed project. Negotiations would be conducted with the pipeline owners to properly relocate or deepen the affected pipelines, if necessary. Additional evaluation of the Leaking Petroleum Storage Tanks (LPST)/Petroleum Storage Tanks (PST)

sites that pose a high risk to the project will be conducted during the right-of-way negotiation, acquisition, or eminent domain process prior to construction.

Mitigation Commitment: Any hazardous materials and/or petroleum contamination encountered during construction will be handled according to applicable federal and state regulations per TxDOT Standard Specifications.

The contractor will take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. The use of construction equipment within sensitive areas will be minimized or eliminated entirely. All construction materials used for this project will be removed as soon as work schedules permit.

The bridges that may contain asbestos-containing materials (ACM) will be inspected to verify the presence or absence of ACM. Prior to bridge demolition(s), a 10-Day Notification will be submitted to the Department of State Health and Human Services.

Construction Impacts

Traffic control during project construction would be in accordance with Part VI (Traffic Controls for Street and Highway Construction and Maintenance Operations) of the Texas Manual on Uniform Traffic Control Devices. During construction, travel lanes in each direction would be maintained. However, short-term lane closures may occur during off-peak hours. Access to adjacent property would be maintained during construction. Street intersections would be constructed in phases to maintain through traffic.

There may be some short-term noise impacts resulting from construction of the project. It is possible that the areas adjacent to the project ROW would experience above normal noise levels during road construction. To minimize construction noise, provisions would be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems. Due to the relatively short-term exposure periods imposed on any one receiver, extended disruption of normal activities is not considered likely. Reasonable effort would be made to minimize construction noise.

There may be short-term, localized effects to air quality (e.g., increase in dust) in the immediate area adjacent to the project during construction, which may temporarily degrade air quality through dust and exhaust gases associated with construction equipment. Measures to control dust would be considered and incorporated into the final project design and construction specifications.

The proposed project includes the demolition of a structure. The structure may contain asbestos-containing materials. Asbestos inspections, specifications, notification, abatement, and disposal, as applicable, will be conducted in compliance with federal and state regulations.

Mitigation Commitment: TxDOT will require its contractors to take appropriate measures to

prevent, minimize, and control accidental spills that may occur during roadway construction. All construction equipment and materials would be removed as soon as the schedule permits.

Visual and Aesthetic Qualities

Because the proposed project would be constructed primarily in existing ROW where roads exist, visual and aesthetic qualities in the project area would be mostly unchanged.

Mitigation Commitment: The project will be developed under TxDOT's Green Ribbon Program, which allocates funds for trees and plants within roadway ROW.

PUBLIC INVOLVEMENT

Public involvement is an integral and critical component of the NEPA project development process. Comprehensive public involvement was developed to incorporate all of the different types of stakeholders and their needs, from safety, to mobility, to environmental concerns. The public involvement team for this project included representatives from the TxDOT Houston District and the environmental and engineering consultants. The process also included consultation with FHWA and TxDOT – Environmental Affairs Division.

Public Meetings and Public Hearings

TxDOT conducted public involvement activities during preparation of the *SH 288 Corridor Feasibility Study*. During preparation of the EA, public meetings were held in February 2007. Exhibits displayed at the public meetings included diagrammatic layouts with proposed roadway improvements and one set of aerial photographs identifying environmental constraints. TxDOT received comments regarding noise, drainage, and desires for mass transit and other transit options.

Two public hearings were held near the project area: on March 5, 2013 in Houston, and on March 7, 2013 in Pearland. TxDOT presented and discussed preliminary schematics of the proposed roadway improvements and the draft Environmental Assessment, and solicited public comments.

Summary of Comments during Public Hearing and Comment Period

Of the 238 individuals who attended the public hearings, thirteen (13) individuals made verbal comments. Fifty-five (55) people submitted written comments either at the public hearing or by the March 21, 2013 deadline. One (1) individual submitted a verbal comment at the public hearing Google Earth station. Of the fifty-five (55) persons who commented, twenty-three (23) expressed support for the idea of improving highway transportation along SH 288, and nine (9) opposed it. There were three (3) main topics discussed verbally or in written form:

1. Traffic-related comments - Concerns about traffic impacts on area roadways, suggestions regarding design of the proposed project, and needed improvements for frontage roads, intersections, area roadways, and ramps.
2. Preference for rail and transit improvements instead of roadway improvements in the corridor, or in conjunction with the proposed project.

3. Concerns about noise impacts from the proposed project and existing noise in some areas.

Media and Internet Postings

Website postings regarding the project were available on the TxDOT's website, including the public hearing notice and the public hearing summary report. Copies of the schematic layout showing the project location and design, the draft Environmental Assessment, and other information related to the project were on file and made available for public review at TxDOT's Houston District Office, 7600 Washington Avenue, Houston, TX 77007, and the Brazoria Area Office, 1033 East Orange, Angleton, TX 77515, and on TxDOT's SH 288 website - <http://www.txdot.gov/inside-txdot/projects/studies/houston/sh288.html>.

The public hearing was announced and advertised through a variety of methods. Thirty days prior to the public hearing, Texas Department of Transportation (TxDOT) began engaging in an extensive effort to announce the hearing through mailings and published advertisements. Public hearing notices announcing the public hearing time, location and purpose were mailed to a list of individuals interested in the project. An informational letter announcing the public hearing time, location and purpose was sent to public officials. Notice of the public hearing was published in newspapers with local and city-wide circulation, and was posted on TxDOT's website. The notice was published in the Houston Chronicle, La Voz, the Bay Area Citizen, the Friendswood Journal, and the Pearland Journal. Similar outreach efforts were conducted for the public meetings and during preparation of the SH 288 Corridor Feasibility Study.

The public hearings were announced on Houston TranStar Dynamic Message Signs (DMS) in the corridor on the day of the hearings, and on television on ABC Channel 13 (KTRK-TV) and Fox 26 (KRIV-TV) on March 5, 2013.

FHWA DECISION

FHWA has reviewed all of the relevant documents and materials and all of the environmental studies and findings. Based upon our own independent review and analysis we find that the April 2013 EA for the SH 288 project analyzed and considered all of the relevant potential environmental impacts and issues. FHWA concurs with the findings made in the April 2013 EA in that (1) the Build Alternative is the selected alternative for the SH 288 project, (2) the Build Alternative best meets the purpose and need of the project with the least amount of impacts to the resource areas, and (3) the proposed project with all the required mitigation and coordination as detailed above will have no significant impacts on the quality of the human or natural environment under the National Environmental Policy Act (NEPA).

Based upon our own agency review and consideration of the analysis and evaluation contained in the EA for this proposed project, and after further careful consideration of all social, economic, and environmental factors, including input from the public involvement process, FHWA hereby approves the issuance of a Finding of No Significant Impact for the SH 288

project from US 59 to CR 60. The project is included in and consistent with the area's financially constrained 2035 Regional Transportation Plan (RTP) Update, as amended, and is included in the approved financial constrained 2013-2016 Transportation Improvement Program (TIP) for the Houston-Galveston Transportation Management Area. The RTP and the TIP were found to conform to the TCEQ State Implementation Plan (SIP) by FHWA and the Federal Transit Administration (FTA) on January 25, 2011 and November 1, 2012, respectively.

As to project mitigation, TxDOT is hereby required to ensure completion of all mitigation outlined above and set out specifically in this FONSI. TxDOT is also required to ensure that any and all local, state, or federal permit requirements and conditions are met and otherwise complied with.



For Federal Highway Administration

5/23/2013
Date

