RECORD OF DECISION

GRAND PARWAY STATE HIGHWAY (SH) 99 SEGMENT B
FROM SH 288 TO IH 45 SOUTH
BRAZORIA AND GALVESTON COUNTIES, TEXAS

CSJs 3510-01-001, 3510-01-003, 3510-02-001, 3510-02-003, 3510-02-004 and 3510-02-905

Submitted Pursuant to 42 U.S.C. 4332 920 (c)
and 49 U.S.C. 303 by the

Texas Department of Transportation

Cooperating Agencies
U.S. Army Corps of Engineers

11/30/16
Date of Approval

Texas Department of Transportation

November 2016

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

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ABSTRACT: The proposed State Highway (SH) 99 (Grand Parkway) Segment B would include the construction of an approximately 28.6-mile alignment, on new location, from SH 288 to Interstate Highway (IH) 45 South through Brazoria and Galveston Counties. The proposed SH 99 Segment B would be constructed as a four-lane, controlled-access tollway facility, consisting of two lanes in each direction within a 400-foot-wide right-of-way (ROW) and auxiliary lanes between on-ramps and off-ramps where appropriate. The social, economic, and environmental impacts of the proposed SH 99 Segment B are evaluated for resources such as land use, farmland, social, economics, air quality, noise, wetlands, floodplains, water quality, biology, cultural, parklands, hazardous/regulated materials, and visual aesthetics. The Preferred Build Alternative for the proposed SH 99 Segment B (Preferred Build Alternative) as analyzed in the Final Environmental Impact Statement (FEIS) is comprised of minor alignment adjustments made to the Draft Environmental Impact Statement (DEIS) Recommended Alternative that were made after the August 2012 Public Hearing. The Preferred Build Alternative was chosen as the Alternative Alignment that would best fulfill the need for and purpose of the transportation improvements, while also minimizing impacts to social, economic, and environmental resources. The Preferred Build Alternative would require new ROW (approximately 1,072 acres), the adjustment of utility lines, and the filling of aquatic resources, including jurisdictional wetlands. Thirteen business and 17 residential displacements would occur. Archeological resources and non-archeological historic-age resources are still under review at the present time. No threatened or endangered species would be impacted. A total of 31 noise receiver locations would experience noise impacts from the Preferred Build Alternative. TxDOT chooses the Preferred Build Alternative as the Selected Alternative.

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Exhibit 1 Preferred Build/Selected Alternative

Record of Decision

1.0 INTRODUCTION

This document is the Texas Department of Transportation's (TxDOT's) Record of Decision (ROD) regarding the State Highway 99 (SH 99) Segment B in Brazoria and Galveston Counties, Texas. This ROD approves the Selected Alternative for the Grand Parkway SH 99 Segment B, as identified and described in the projects Final Environmental Impact Statement (FEIS) dated April 2016 and approved May 2016. This approval constitutes TxDOT's acceptance of the Selected Alternative for the Grand Parkway SH 99 Segment B and completes the environmental approval process for the project. The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or haven been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding (MOU) dated December 16, 2014, and executed by Federal Highway Administration (FHWA) as the lead federal agency for this project, the authority for National Environmental Policy Act (NEPA) approval was assigned to TxDOT effective December 16, 2014.

The proposed Grand Parkway, SH 99, in its entirety, was conceived in the 1960s as an approximate 180-mile circumferential, four-lane, controlled-access facility around the greater Houston area. In that form, the Grand Parkway has been included in regional planning studies since the 1980s. Adjustments and further study have modified the proposed route to presently be approximately 185 miles. A project Internet website (www.grandpky.com) was also developed and maintained to provide project information and receive comments.

The Selected Alternative would be a proposed toll road consistent with the 2040 Regional Transportation Plan (RTP) that identifies the addition of tolled facilities, including the proposed SH 99 Segment B, as necessary to address congestion and future growth in the Houston-Galveston Area Council (H-GAC) planning region. It is anticipated that the proposed SH 99 Segment B would be completed and open to traffic in 2035. The project is also included in the H-GAC Congestion Management Program. FHWA approved the Conformity Report Form for the proposed project on October 21, 2016.

2.0 DECISION

TxDOT's decision is to approve the Selected Alternative (see **Exhibit 1** in this ROD), which is a four-lane rural, controlled-access toll road, approximately 28.6 miles in total length on a new location that would fulfill the purpose and need of the proposed SH 99 Segment B. The Selected Alternative begins at SH 288 and continues to IH 45 South and consists of an open-ditch design within a 400-foot-wide right-of-way (ROW). The Selected Alternative also involves construction of direct connector ramps at SH 288, SH 35, and IH 45 South for full directional interchanges.

The Selected Alternative was chosen as the Alternative Alignment that would best fulfill the need for and purpose of the transportation improvements, while also minimizing impacts to social, economic, and environmental resources. The basis for this ROD is supported by the

information provided in the FEIS and supporting technical documents; the associated project file; and input received from the public and interested local, state, and federal agencies. TxDOT considered the potential impacts of the project and alternative courses of action under NEPA while balancing the need for safe and efficient transportation with national, state, and local environmental protection goals.

The Grand Parkway Segment B is needed for the following reasons:

- **System linkage**: The existing transportation system does not allow for efficient circumferential traffic movement (i.e., the current system does not provide efficient connections or linkages between major suburban communities and major roadways that radiate outward from Houston).
- **Expanded capacity**: Transportation demand exceeds the current and future capacity of the existing transportation system.
- **Safety (hurricane evacuation route)**: Many radial roadways leading outside of the greater Houston area are characterized by conditions that result in higher congestion during peak travel times or emergency events. Because radial facilities leading into the greater Houston area converge near the center of the City, bottlenecks are created causing increased congestion, especially during an evacuation event. Therefore, there is a need to provide an additional circumferential roadway that would allow evacuees to bypass the greater Houston area.
- **Economic development**: The expected growth in population is likely to continue to strain existing transportation infrastructure, which, in turn, would create a barrier to businesses, commuters, and economic development. With an increasing population and corresponding increases in traffic and congestion throughout the region, it could become progressively more difficult for businesses to function efficiently.

The purpose of the proposed SH 99 Segment B is to efficiently link suburban communities and major roadways, to enhance mobility, to respond to economic growth, and to provide an additional hurricane evacuation route. The Selected Alternative is the design concept that best satisfies the need and purpose of the project to efficiently provide congestion relief, increased local and regional mobility, and increased capacity for hurricane evacuation needs.

The Grand Parkway Segment B will also provide an additional hurricane emergency evacuation route for the Greater Houston area consistent with Minute Order No. 82325 signed October 25, 1984. The circumferential route connects to numerous radial facilities that are often congested during an evacuation. As an example, when as many as 2 million people fled the Houston metroplex before Hurricane Rita on September 22, 2005, evacuees followed roadways leading to Austin, San Antonio, and Dallas. Severe congestion ensued and contra-flow lanes were eventually opened. The Grand Parkway Segment B could alleviate a portion of the congestion during mass evacuations, thus creating safer and more efficient evacuation conditions.

The ROW for the Selected Alternative will encompass approximately 1,072 acres of new transportation ROW. The Selected Alternative will include fully-directional interchanges at SH 288, SH 35 and IH 45 South. In addition, there are proposed "grade separated interchanges" with access ramps where the Selected Alternative crosses the following locations:

SH 288, Old School Road (Rd)/County Road (CR) 60, Farm-to-Market (FM) 1462, Russell Rd/Future CR 511, SH 35 (Liverpool, TX), Liverpool Spur/CR 192, FM 2917/CR 191/Parker Stringtown Rd, FM 2403/CR 890, FM 1462, Mustang Street (St), Fairway Drive, East South St, East House St, SH 6, FM 517/Dickinson Rd, Wheeler Lane (Ln), SH 35 (Alvin, TX), Clifford St, proposed Maple Leaf Drive (Dr), proposed Bay Area Boulevard (Blvd), proposed Landing St, Calder Rd, FM 646, and IH 45 South. Preliminary design of the Selected Alternative proposes continuous frontage roads where Segment B overlaps SH 35. This section will be reconstructed in a frontage road configuration for overall improved traffic operations. In addition, all floodways will be bridged or culverted and rail roads will be overpassed.

The estimated total project cost for the proposed Segment B, per the 2040 RTP (July 2016), is approximately $1.2 billion. It is anticipated that the proposed SH 99 Segment B would be completed and open to traffic in 2035. Environmental issues and proposed mitigation related to the construction of the Selected Alternative are detailed in the following sections.

3.0 ALTERNATIVES CONSIDERED

The preliminary range of alternatives analyzed in the DEIS included transit options, options to increase roadway capacity and options to enhance roadway operations. Based on the results of the alternatives analysis and input from public agencies and the public, a corridor was identified in which 7 reasonable Build Alternatives were analyzed in the DEIS to minimize, to the extent possible, the potential for impact to the social, economic, and natural environment while addressing the need and purpose of the proposed project. The No-Build Alternative was analyzed as the baseline alternative for the purposes of comparison with the Build Alternatives. A detailed discussion of the alternative development process is included in Section 2: Alternatives Analysis in the FEIS Volume 1 and its supporting documentation. Information on public and agency involvement is included in Section 8: Agency and Public Coordination in the FEIS Volume 1.

3.1 NO-BUILD ALTERNATIVE

The No-Build Alternative would represent an initial cost savings compared to the build alternatives. However, there would be higher maintenance requirements and user costs on existing roadways because of the increased traffic volumes and travel delays. The No-Build Alternative would also require additional short-term restoration and improvements to continue any semblance of operational efficiency and safety on the existing roadways. Traffic congestion during periods of required roadway maintenance and reconstruction would be more frequent under the No-Build Alternative. The No-Build Alternative would also not provide system linkage, economic development, and an additional emergency evacuation route to relieve anticipated congestion on the existing major arterial roadways leading away from the coast.

The No-Build Alternative does not meet the need and purpose as discussed in Section 2.2.2.1 in the FEIS Volume 1. The No-Build Alternative mode consists of a continuation of the existing transportation facilities, including the construction of planned and/or committed roadways in the study area. Committed improvements are those projects included in the 2040 RTP. Excluding

new construction of the Grand Parkway Segment B project, and includes all Transportation Systems Management (TSM), Transportation Demand Management (TDM), and modal transportation improvements. Based on analysis of these components individually and collectively, it was found that although the No-Build Alternative will result in some improvements to regional congestion due to planned improvements to the existing roadway network listed in the 2040 RTP, it does not adequately address the purpose and need for the proposed project.

The No-Build Alternative does not adequately address the need and purpose for the project. It will not reduce congestion or improve mobility on existing roadways within the study area and does not provide the needed hurricane evaluation for the Houston region. However, the No-Build Alternative was retained as a basis for comparison with the alternatives carried forward for detailed study.

3.2 BUILD ALTERNATIVES

After the August 2012 Public Hearing, coordination with the public, stakeholders, adjacent property owners, and the design engineers resulted in slight modifications and a revised alignment for the recommended South-New Alternative to create what is currently the Preferred Build Alternative (**Exhibit 1**). The primary goal for considering any alignment revision was to continue to avoid impacts and work with all interested parties to determine the alignment that best fit the purpose and need of the proposed SH 99 Segment B, in addition to accommodating current engineering standards. The alignment revision addressed comments received from the reviewing engineers concerning less than acceptable turn curvatures that would affect sight distances. Modifications to the alignment were conducted within the same property parcels that would be traversed by the previously defined Preferred Build Alternative. As such, the Preferred Build Alternative was carried forward into the FEIS for further detailed analysis. The FEIS presents detailed analyses and results to assess potential environmental impacts resulting from the Preferred Build Alternative (FEIS Volume I, Sections 4.1 through 4.23).

After review of public and agency input and evaluation of environmental, engineering, and traffic criteria, the South-New Alternative was selected as the Selected Alternative for the proposed SH 99 Segment B in the FEIS (Volume 1, Section 2.3.6). Additionally, The Selected Alternative was refined through public and agency input while also minimizing and avoiding impacts to the natural and human environment (to the greatest extent possible); considering indirect and cumulative impacts; as well as meeting the Need and Purpose for the project.

3.3 COMMENTS ON THE FEIS

The Notice of Availability for the FEIS for Segment B of the Grand Parkway, SH 99, was published in the Federal Register and Texas Register on May 25, 2016 and June 3, 2016 respectively. The review period officially closed on July 11, 2016. A total of six comments were received on the FEIS. The agencies that provided comments on the FEIS included the EPA and TPWD. Responses to these comments are included on the following webpage: **http://grandpky.com/Segment-B**.

3.4 SELECTED ALTERNATIVE

The Preferred Build Alternative (chosen as the Selected Alternative) provides the best opportunity to avoid and minimize impacts to the natural, social, and cultural environment while meeting the transportation need and purpose for the area. The impacts of the Selected Alternative were calculated using the most detailed design, which is a 400-foot ROW width except where the ROW expands to accommodate the interchanges. Approximately 1,072 acres of new ROW will be required for the Selected Alternative to accommodate the transportation facility, as well as utility line adjustments. Public feedback and preferences were taken into consideration throughout the alternatives analysis evaluation. In addition to public meetings, coordination meetings with regulatory agencies have been held. Avoidance, minimization, and mitigation for natural, social, and cultural resources will continue as the project develops.

4.0 TRANSPORTATION PLANNING

The proposed project is consistent with the Houston Area Metropolitan Planning Organization's (MPO's) 2040 Regional Transportation Plan (RTP). The CSJs for the proposed are listed in Appendix D (Projects Undergoing Environmental Assessment) in the 2040 RTP as follows:

- CSJ 3510-01-001: From IH 45 S to Brazoria County Line: Construct 4-Lane Tollway with interchanges and two non-continuous 2-Lane Frontage Roads with cost of $231,500,000;
- CSJ 3510-02-001: From SH 288 to Galveston County Line: Construct 4- Lane Tollway with interchanges and two non-continuous 2-Lane Frontage Roads with a cost of $690,800,000;
- CSJ 3510-02-004: At SH 288: Construct 4 Direct Connectors (Toll) with a cost of $74,900,000;
- CSJ 3510-02-905: At SH 288: Construct 4 Direct Connectors (Toll) with a cost of $104,000,000;
- CSJ 3510-02-003: At SH 35: Construct 2 Direct Connectors (Toll) with a cost of $45,200,000; and
- CSJ 3510-01-003 (previously 3510-01-900): At IH 45 S: Construct 4 Direct Connectors (Toll) with a cost of $80,800,000.

As of the publication of this ROD, the Houston Area MPO's 2040 RTP is the most updated transportation planning documents for the area.

5.0 MEASURES TO MINIMIZE HARM

During the project development process, refinements were made to the various alternatives to avoid or minimize impacts to sensitive environmental resources, where possible. Design and construction of Grand Parkway Segment B project will include all practicable measures to continue to minimize harm to the environment. The FEIS presents detailed analyses and results

to assess potential environmental impacts by the Selected Alternative (FEIS Volume I, Sections 4.1 through 4.23). For the resources/issues that will be impacted by the Selected Alternative, the following sections provide a summary of the impacts, the measures taken to minimize harm, and the commitments to continue to minimize potential harm through the associated proposed mitigation. TxDOT and FHWA will require and ensure that all agencies/entities involved with the development of Grand Parkway Segment B project follow all commitments of this ROD, mitigation regulations, and specific mitigation measures developed for this project and approved by TxDOT and FHWA.

5.1 LAND USE

All practicable avoidance and minimization of impacts to land use were used in the identification of the Selected Alternative. Grade separations will be provided for all railroad crossings and major arterial roadways that cross the Selected Alternative to avoid termination of through travel, and there will be no frontage roads except where Segment B overlaps SH 35. Final ROW and access determinations will be evaluated during the design phase.

5.2 COMMUNITY IMPACTS

5.2.1 SOCIAL CHARACTERISTICS

Potential relocations, including 17 single-family residential and 13 businesses, are based on review of aerial photography, Google Earth online mapping, and site reconnaissance conducted in January 2014 from various public roadways (H-GAC 2014c).

A majority of the buildings to be displaced by the Preferred Build Alternative would be outbuildings (i.e., 25 sheds, barns, or residential machine shops). Eleven of the 17 single-family residential displacements would be mobile homes; one of the single-family homes appears dilapidated and is potentially abandoned. Of the 13 potential business displacements, one business appears to be closed. The Preferred Build Alternative would also impact the location of a historical marker and a TxDOT rest area.

Acquisition of ROW will be completed in accordance with TxDOT's Procedures for Purchase of Right-of-Way and the provisions of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Every effort has been made in the selection of the Selected Alternative to avoid or minimize adverse effects to sensitive resources. During the construction phase, short-term effects related to noise and dust will be minimized. Traffic delays will be minimized through coordination among TxDOT, contractors, and affected neighborhoods or landowners (in the areas immediately adjacent to the proposed ROW), and by developing a construction schedule that will allow for a minimum delay for movement across the proposed ROW. Also, efforts will be made to provide appropriate construction detours, informative signage, and access to residences, farms, businesses, and community facilities where practicable. Grade separations will be incorporated into the design of the Selected Alternative, allowing adequate movement of school buses and emergency vehicles.

5.3 VISUAL AND AESTHETIC QUALITIES

Construction of the Selected Alternative would remove existing vegetation and introduce a new visual element in the immediate area of the proposed roadway, which would alter the rural setting in some portions of the study area. Where practical, mitigation measures would establish vegetation within medians, minimize ROW clearing design specifications in order to blend into the existing landscape, and promote roadside native wildflower planting programs. Traffic noise, electronic toll collection gantries, and ambient light levels would also be introduced by the Selected Alternative. If appropriate, noise barriers would be constructed to minimize noise intrusion. Ambient light levels would be considered during final design so as to not impose an undue burden on residents living near the Selected Alternative. To the extent possible, the Selected Alternative would be designed to create a visually and aesthetically pleasing experience for the traveler and the adjacent residents and landowners.

5.4 NOISE ANALYSIS

The Selected Alternative would result in a traffic noise impact on 31 noise representative receiver locations, and noise abatement in the form of noise barriers was determined to provide the best abatement to reasonably and feasibly mitigate traffic noise impacts. Based on preliminary analysis, five noise barriers were considered reasonable and feasible for 12 impacted representative receivers. The final decision to construct each proposed noise barrier would not be made until after the completion of the proposed SH 99 Segment B design, utility evaluation, and polling of adjacent property owners.

5.5 WATER QUALITY

5.5.1 Surface Water

A stormwater pollution prevention plan (SW3P) would be developed in accordance with TxDOT policies, and coordination with the TCEQ would be conducted to comply with Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit requirements. Temporary and permanent erosion control practices would be in place prior to and during the construction period and would be maintained throughout construction to minimize impacts to surface water quality. Contractors would take appropriate measures to prevent or minimize and control hazardous material spills in construction assembly areas.

5.5.2 Groundwater

Potential adverse effects to groundwater quality because of spills would be minimized by the characteristically low permeability of the clayey soils and clay substrate. Stormwater control practices would also be implemented so that construction and operation of the Selected Alternative would have minimal, if any, impact to regional groundwater resources.

5.5.3 Public Drinking Water

Five public water supply wells would occur within 0.25 mile of the Selected Alternative. Two wells would be within the proposed ROW of the Selected Alternative and would be directly impacted. Eight private water wells would be located within 0.25 mile of the Selected Alternative ROW. One well would be directly impacted by the Selected Alternative. Wells occurring within the Selected Alternative ROW would be plugged and abandoned according to TCEQ regulations to eliminate the potential for impacts to groundwater resources.

5.6 WETLANDS AND WATERS OF THE U.S.

5.6.1 Navigable Waters of the U.S.

Geisler Bayou (in the eastern portion of the study area) is identified as a tidal water segment. Coordination with the U.S. Coast Guard (USCG) would be required to construct a bridge structure over Geisler Bayou, and coordination with the U.S. Army Corps of Engineers (USACE) may be required to authorize discharges into tidal (Section 10) waters to construct the bridge.

5.6.2 Waters of the U.S.

Through identification and delineation of potentially jurisdictional waters of the U.S., approximately 25.2 acres of streams, canals, drainage ways, and ponds (i.e., non-wetland waters) have been identified within the Selected Alternative ROW. The Selected Alternative's crossing of four bayous and three irrigation canals would likely be bridged, and smaller waters of the U.S. would either be bridged or placed within culverts. Other waters of the U.S. would likely be filled during construction. Specific impacts to jurisdictional waters of the U.S. would be identified during final design, and coordination with the USACE would be conducted for required permits.

5.6.3 Wetlands

Right of entry was not granted for approximately 70 percent of the Selected Alternative ROW. As such, a detailed delineation of waters of the U.S., including wetlands, could not be performed. Instead, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps, recent color aerial photography, and available LiDAR data were reviewed to determine the location of potential wetlands, and observations were made at locations in which right of entry was granted to verify desktop findings. An estimated 142 wetlands totaling approximately 54.5 acres were identified within the Selected Alternative ROW.

A USACE permit application would be prepared for impacts to jurisdictional waters of the U.S. regulated under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. A compensatory mitigation plan would be included as part of the permit application. Water quality certification as required by Section 401 of the Clean Water Act would be assessed by the TCEQ as part of the USACE permit review process.

5.7 THREATENED AND ENDANGERED SPECIES

Potential habitat for federally-listed threatened or endangered species would not be expected to occur within the Selected Alternative ROW, but potential habitat for state-listed threatened or species of greatest conservation need (SGCN) would be present. An occurrence of two state-listed SGCN has been recorded within 1.5 miles of the Selected Alternative ROW. The following are the results of the Texas Natural Diversity Database (TXNDD) search, including Element Occurrence Identification (EOID) numbers for the species that may be present within a 1.5-mile distance from the Selected Alternative.

Texas Windmill-Grass (EOID 8010): SGCN (G2, S2)

Texas windmill-grass is a tufted perennial grass that occurs in sandy to sandy loam soils in open or barren areas or at the base of pimple mounds within prairies along the Texas coast. Texas windmill-grass flowers in October and November. The TXNDD element of occurrence could be 0.6 mile from the Selected Alternative. TxDOT would follow the vegetation Best Management Practices (BMPs) as stated in the Best Management Practices Programmatic Agreement (BMPPA) under the 2013 MOU between TxDOT and TPWD to reduce impacts, if any, to this species.

Southern Crawfish Frog (EOID 11524): SGCN (G4, S3)

Southern crawfish frogs are found primarily in association with crayfish burrows in prairies and grassland or pastures and overgrown field habitats. The TXNDD element of occurrence could be 3.8 miles from the Selected Alternative, with a precision of location of 5 miles. The frog does not have federal or state protection under the Endangered Species Act or Chapters 68 and 88 of the TPWD code. TxDOT would follow the BMPs as stated in the BMPPA to reduce the impacts, if any, to this species; however, there are currently no specific BMPs for amphibian species.

Further field investigations would be conducted when right-of-entry is obtained for the remainder of the proposed project that was not already surveyed as part of the FEIS to determine if suitable threatened and endangered species habitat would occur within the Selected Alternative ROW. Should threatened or endangered species be determined to occur within the ROW, coordination with the U.S. Fish & Wildlife Service (USFWS) and TPWD would commence to establish the need for further investigations or possible consultation under Section 7 of the Endangered Species Act.

5.8 FLOODPLAINS

5.8.1 Floodplains

Approximately 343 acres of flood hazard areas are mapped within the Selected Alternative. Portions of the Selected Alternative would traverse areas that are designated by the Federal Emergency Management Agency (FEMA) as Special Flood Hazard Areas.

These include the 100-year and 500-year floodplains of Chocolate Bayou, Dickinson Bayou, Geisler Bayou, and Mustang Bayou, and an area of floodway associated with Chocolate Bayou. The Dickinson Bayou floodplain and the floodplain south of Alvin adjacent to the Briscoe Canal

associated with Mustang Bayou would represent the most extensive floodplain areas crossed by the Selected Alternative. The total 100-year floodplain acreage within the proposed ROW of the Selected Alternative would be approximately 307 acres. The total 500-year floodplain would be approximately 21 acres, and the floodway associated with Chocolate Bayou would be approximately 15 acres. The Selected Alternative would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. Coordination with the local floodplain administrators and/or drainage districts for Brazoria and Galveston Counties would be required.

A hydraulic study would be conducted during the design phase of the Selected Alternative to consider impacts as well as mitigation such as detention facilities, bridges, culverts, etc. that would be constructed in compliance with guidelines of the affected cities and flood control districts.

The Selected Alternative would be designed to meet the requirements for approval as an emergency evacuation route, likely related to hurricane evacuation. The Selected Alternative would include construction of the proposed SH 99 Segment B at an elevation approximately 1 foot above the 100-year frequency flood elevations.

5.8.2 Coastal Zone Management and Essential Fish Habitat

Formal coordination with the General Land Office would be required to ensure consistency with the Texas Coastal Management Program. A bridge permit from the U.S. Coast Guard would be required for the proposed roadway crossings of Geisler Bayou.

According to TCEQ's Texas Water Quality Inventory, Geisler Bayou is the only tidally-influenced water body that would be crossed by the Selected Alternative. Therefore, the Selected Alternative could potentially impact essential fish habitat and would be subject to the Magnuson Stevens Fishery Conservation and Management Act. Coordination with the National Marine Fisheries Service was initiated October 1, 2015 and is still in progress (FEIS Appendix E Volume II). Potential impacts to essential fish habitat would be identified following final design of the Selected Alternative. Should adverse impacts to essential fish habitat be identified for the tidal waters of Geisler Bayou occurring within the Selected Alternative ROW, additional coordination with the National Marine Fisheries Service would be conducted as part of the required coordination process.

5.9 CULTURAL RESOURCES

5.9.1 Archeological Resources

Of the 30 percent of the Area of Potential Effect (APE) that was examined for archeological resources, no further archaeological work is recommended. Once the state has taken ownership of the Selected Alternative ROW, investigations would occur in those areas where ROE was not previously granted. These investigations may include backhoe work dependent on Potential Archeological Liability Map (PALM) model recommendations. All subsequent coordination per the findings of the investigations would be conducted in accordance with federal, state and local regulations.

During construction, if archeological materials or human remains are introduced into the Selected Alternative ROW or easements in materials obtained from a material source under option to the contractor, all use of materials from the source must cease and the find reported to TxDOT project inspector or the area engineer in accordance with TxDOT's Emergency Discovery Guidelines.

5.9.2 Historic Non-Archeological Resources

There are three previously determined or recommended National Register of Historic Places (NRHP)-listed or eligible resources within the APE; the ca. 1908 American Rice Canal (Resource 54); the ca. 1925 Briscoe Canal (Resource 16); and the 1935 South Texas Water Company Canal (Resource 1). The three structures are considered locally significant.

Because the Selected Alternative would require no property from the parcels on which the three resources are located, it is anticipated that there would be no direct effect to the resources. It is recommended that the design plans protect each resource with a design that the resource be spanned by pilings or bents separated from the resource by a 20-foot buffer. No components of the Selected Alternative would physically impact the three resources, and their historic function, the ability to carry water, would be maintained.

Because the design is preliminary and detailed design plans are not yet available, it is not currently possible to evaluate effects to historic-age resources. Further information concerning the avoidance of direct and indirect impacts to NRHP-eligible resources will be addressed later in the project development process. TxDOT ENV will determine if the proposed SH 99 Segment B would have no adverse effect to any historic-age resources. Because the proposed SH 99 Segment B is a major federal action requiring the preparation of an Environmental Impact Statement (EIS), individual project coordination with the SHPO is anticipated.

5.10 HAZARDOUS MATERIALS

Construction of the Selected Alternative would have a low potential for intensifying hazardous material impacts on the environment. Impacts associated with hazardous materials would most likely occur during construction and would be related to activities on or near the existing 53 hazardous material sites. It is anticipated that a Phase II Environmental Site Assessment would be required for any high or moderate risk sites that would be adjacent to the Selected Alternative ROW.

The relocation and removal of all existing structures along the Selected Alternative ROW would require completing asbestos and lead-based paint surveys. Asbestos and lead-based paint inspections, specifications, notification, license, accreditation, abatement, and disposal (as applicable) would comply with all federal and state regulations. Asbestos and lead-based paint issues would be addressed during ROW acquisition and prior to construction.

Twenty of the approximately 117 oil and gas well sites in the proposed SH 99 Segment B study area would be within or adjacent to the Selected Alternative ROW. Oil and gas wells located within the proposed ROW of the Selected Alternative would be plugged. Additional investigation would be warranted at any of the sites prior to ROW acquisition. The Selected Alternative would

cross 42 petroleum pipelines. During ROW acquisition, additional investigation would be required to determine if removal or adjustments to the pipelines would be necessary.

5.11 RAILROADS

The Selected Alternative will cross one rail line in the project corridor owned by Burlington Northern/Santa Fe Railway (BNSF). The individual track will not be impacted by the proposed project due to an elevated roadway structure anticipated at the crossing locations. TxDOT will coordinate with BNSF for access, design, and construction phasing during the design/build phase of the project. No long-term adverse impact to any railroad line or operation is anticipated from the Selected Alternative.

5.12 CONSTRUCTION IMPACTS

All construction impacts would be temporary in nature. TxDOT will follow the TxDOT Best Management Practices to reduce construction-related impacts. Postings of the current project status and milestone construction schedules would be available on the GPA website at http://www.grandpky.com.

6.0 MONITORING AND ENFORCEMENT

All commitments and conditions of approval stated in the FEIS regarding mitigation measures and commitments (FEIS Volume 1, Section 7) and agency and public coordination (FEIS Volume I, Section 8) will be monitored by TxDOT, and other appropriate federal, state, and local agencies to ensure compliance per the appropriate approved permit(s). All commitments and conditions will be included in the Environmental Permits, Issues, and Commitments (EPIC) sheets of the project's final design plans. TxDOT will require and ensure that all agencies/entities involved with the development of Grand Parkway Segment B project follow all commitments of this ROD, mitigation regulations, and specific mitigation measures developed for this project and approved by TxDOT. Design and construction of Grand Parkway Segment B project will include all practicable measures to continue to minimize harm to the environment.

7.0 CONCLUSION

Based upon the information presented in the FEIS and supporting technical documents, the associated project file, and input received from the public and interested local, state and federal agencies, the TxDOT decision, after its own independent review and consideration of the referenced information, is to provide approval for the construction of Segment B of the Grand Parkway as new location toll road facility in Brazoria and Galveston Counties. TxDOT chooses the Selected Alternative as described in the Grand Parkway Segment B FEIS approved May 2016 as the Selected Alternative. The Selected Alternative is a four-lane rural, controlled-access toll road, approximately 28.6 miles in total length on a new location that would fulfill the purpose and need of the proposed SH 99 Segment B. The Selected Alternative begins at SH 288 and continues to IH 45 South and consists of an open-ditch design within a 400-foot-wide ROW. An Exhibit of the Selected Alternative is attached in this ROD (**Exhibit 1**).