

DRAFT ENVIRONMENTAL ASSESSMENT
STATE HIGHWAY (SH) 16 FROM CLIFF DRIVE TO SH 254
PALO PINTO COUNTY, TEXAS
CSJ: 0362-02-021



PREPARED BY:
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FORT WORTH DISTRICT

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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 12-16-14, and executed by FHWA and TxDOT.

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1.0 NEED AND PURPOSE

The Fort Worth District of the Texas Department of Transportation (TxDOT), in conjunction with the Federal Highway Administration (FHWA), is proposing a safety improvement project that would add and widen shoulders and realign a portion of State Highway (SH) 16 in northwestern Palo Pinto County, Texas (**Figures 1 and 2 in Appendix A**). The project's logical termini extend from SH 254 to Cliff Drive, a distance of 7.8 miles; however, a 1.5-mile section of the roadway within the project's logical termini (from approximately 1,200 feet south of the Brazos River to Cliff Drive) has been previously upgraded under TxDOT Control-Section-Job (CSJ) 0362-02-020. As a result, the project's construction limits only include a 6.4-mile segment of SH 16 from SH 254 to 1,200 feet south of the Brazos River.

FHWA has developed federal regulations for highway projects, specifically Title 23 of the Code of Federal Regulations (CFR) Part 771, to provide instructions for assessing environmental impacts for federally funded transportation projects. This Environmental Assessment (EA) complies with the National Environmental Policy Act (NEPA) and allows FHWA to determine whether an Environmental Impact Statement (EIS) is necessary to determine if the proposed project may significantly affect the quality of the human environment.

Figure 1 (all figures are in **Appendix A**) shows the location of the proposed project. **Figure 2** is a U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map that shows the proposed project, and **Figures 3.1 through 3.3** show the four alternatives considered for the proposed project in relation to environmental constraints. **Figures 4.1 and 4.2** show the vegetation types that are mapped by the Ecological Mapping Systems of Texas (EMST). **Figures 5.1 through 5.7** illustrate the project improvements in relation to land use/land cover and potential hazardous materials sites, and **Figure 6** shows a topographic map with waters of the U.S. and floodplains. The existing and proposed roadway typical sections are included as **Figure 7**. **Figure 8** shows the Area of Influence (AOI) within which indirect effects of the project were analyzed, **Figure 9** shows the Resource Study Area (RSA) for addressing cumulative impacts to historic resources, and **Figure 10** shows the RSA for addressing cumulative impacts to endangered species.

1.1 Existing Facility

SH 16 is a north-south corridor that extends from North Texas through the Texas Hill Country and San Antonio, south to the Mexican border. The logical termini for this project are from SH 254 (northern terminus) to Cliff Drive (southern terminus) in northwestern Palo Pinto County, on the east side of Possum Kingdom Lake. The northern logical terminus is approximately 7 miles west of Graford, Texas, and the southern terminus is approximately 7.6 miles north of Brad, Texas. Within the project limits, SH 16 serves local traffic needs for the western portion of Palo Pinto County, including providing access to recreational areas associated with Possum Kingdom Lake. The road is classified as a rural major collector, and it has a posted speed limit of 60 miles per hour (mph).

Within the project limits, SH 16 is currently a two-lane rural highway with a typical 100-foot-wide right-of-way (ROW). The roadway has three different pavement widths, which are shown on the existing typical sections (**Figure 7**):

- The 2-mile section from SH 254 to Park Road (PR) 36 – the roadway is approximately 32 to 36 feet wide and contains two 12-foot-wide travel lanes with 4- to 6-foot-wide shoulders (see Photograph 2; all photographs are provided in **Appendix B**).
- The 4-mile section from PR 36 to 1,200 feet south of the Brazos River Bridge – the existing roadway is approximately 22 feet wide and contains two 11-foot-wide travel lanes with no shoulders (see Photograph 7). Within this segment are the historic Brazos River Bridge (see Photograph 26) and a 1-mile segment of steep, winding roadway that traverses a large hill locally known as Kimberlin Mountain.
- The 1.6-mile section from 1,200 feet south of the Brazos River Bridge to Cliff Drive – the existing roadway is typically 32 feet wide and contains two 12-foot-wide travel lanes with 4-foot-wide shoulders (see Photograph 29). This section was widened under a previous project (CSJ: 0362-02-020).

1.2 Project Setting

The project area is located in the Cross Timbers ecoregion and is characterized by rocky hills and canyons, with the Brazos River valley crossing through the central portion of the project corridor and a few intermittent and ephemeral tributaries, such as Loving Creek, draining the larger canyons surrounding the project. The project area is primarily rural with ranches surrounding SH 16. “The Cliffs,” a residential community, is located on the west side of the road at the southern project terminus, near Possum Kingdom Lake. Additionally, recreational and seasonal residences, facilities, and trails are found in the project area, with concentrations of such properties located near the Brazos River and PR 36. A few businesses and a church property are located near the SH 16 and PR 36 intersection, and a church is located at the intersection of SH 16 and SH 254. These properties appear to serve the seasonal population and the small number of residents who live in the area year-round.

Throughout the area are oil and natural gas wells, and pipelines crisscross the project area (see **Figures 5.1** through **5.7**). Two infrastructure facilities are also located in the project area; these include a local wastewater treatment plant on SH 16 approximately 1,700 feet south of the Brazos River and the Possum Kingdom State Fish Hatchery on SH 16 approximately 1,000 feet north of the river. A third infrastructure facility, the Morris Sheppard Dam and powerhouse, is located approximately 0.6 mile west of the SH 16 and Red Bluff Drive intersection; it is located approximately one mile upstream on the Brazos River from the SH 16 Brazos River Bridge. **Figures 3.1** through **3.3** and **Figures 5.1** through **5.7** provide the locations of these subdivisions, facilities, and properties are located.

1.3 Need for the Project

The existing SH 16 roadway from SH 254 to approximately 1,200 feet south of the Brazos River exhibits functional issues relating to its geometric design, including its horizontal alignment, limited sight distance, a constrained clear zone, and narrow roadway width. No major reconstruction or rehabilitation of the roadway has occurred within the construction limits since the Works Progress Administration (WPA) constructed the roadway in the 1940s. The 2008 Average Daily Traffic (ADT) for SH 16 within the project limits is 1,300 vehicles per day (VPD), and by 2028, the ADT is expected to be 2,000 VPD, an

increase of 53.8 percent. The project is needed to provide safe and efficient travel along SH 16 with the geometric design and adequate roadway width to meet the current and projected traffic requirements.

To determine what design thresholds should be met to correct problems with the roadway, project engineers utilized the *TxDOT Roadway Design Manual* for design criteria for 3R and 4R projects. Projects classified as 3R are those that require resurfacing, restoration, and/or rehabilitation. These projects preserve and extend the service life of existing highways and enhance safety. 3R projects do not involve “substantial” deviation from existing horizontal and/or vertical alignment (*TxDOT Roadway Design Manual*, 4-2). Projects classified as 4R projects are those that are on new location and/or projects that involve reconstruction that substantially changes the horizontal and/or vertical alignment.

Designers also utilized the *TxDOT Roadway Design Manual* to determine the design speed of the project. The design speed is a selected speed used to determine the various geometric design features of the roadway, and “design elements such as sight distance, vertical and horizontal alignment, lane and shoulder widths, roadway clearances, superelevation, etc., are influenced by design speed” (*TxDOT Roadway Design Manual*, 2-5). According to the *Roadway Design Manual*, the project would meet a minimum design speed of 30 mph under the 3R design criteria and 40 mph under the 4R design criteria.¹ Discussions regarding the correction of geometric design provided in the remainder of this EA are based on these design speeds.

Within the project limits, some of the most critical geometric problems on SH 16 exist in the 1-mile segment that traverses Kimberlin Mountain, which extends between the SH 16/Red Bluff Drive intersection and SH 16/Farm-to-Market Road (FM) 2353 intersection (see **Figures 1** and **2**). The first major geometric problem is the SH 16 roadway’s horizontal alignment. The turning radius of the curve on Kimberlin Mountain is 245 feet, which is below the minimum horizontal curvature for roadways in Texas, which is 275 feet for a 30 mph design speed (*TxDOT Roadway Design Manual*, Table 2-6). This tight radial curve causes large recreational vehicles and 18-wheel trucks to cross the center line and/or drive off the pavement on the inside of the curve (see Photograph 14).

The steep grade of the road exacerbates the problems with the horizontal alignment. The roadway is situated on the eastern slope of Kimberlin Mountain as it climbs out of the Brazos River basin to the top of the hill, and the roadway’s elevation changes by 135 feet. Although signs warning of the sharp curve and recommending that motorists slow to 25 mph are found north, south, and at the curve, the curve is abrupt for vehicles traveling from north to south (downhill), particularly when the posted speed limit on the roadway is 60 mph. The existing stopping sight distance of 145 feet for this curve falls well below the minimum of 200 feet needed for a 30 mph design speed under 3R criteria and the 305 feet needed for a 40 mph design speed under 4R criteria (*TxDOT Roadway Design Manual*, Table 2-1).

In addition to the geometric issues on Kimberlin Mountain, safety issues along the roadway result from the roadway being cut into the side of the hill. As a result, directly adjacent to the inside of the curve is an

¹ The controlling factor in determining the design speed (and other geometric design features) for the 3R criteria is current ADT (*TxDOT Roadway Design Manual*, Table 4-2). The controlling factors for the 4R criteria are the future ADT, the road’s functional classification (SH 16 is a collector route), and if the terrain is rolling or level (*TxDOT Roadway Design Manual*, Table 3-6). Table 3-6 of the design manual notes that a future ADT of 1,500 to 2,000 VPD would have a design speed of 40 mph.

exposed bedrock wall (see Photograph 14) and on the outside of the curve is a steep cliff that drops to the Brazos River basin below (see Photograph 15). The exposed bedrock wall causes sight distance problems, as it prevents motorists from being able to see around the curve, which is particularly dangerous because the tight curvature makes it difficult for downhill-traveling motorists to stay in their lane. The WPA built a cut-stone masonry wall that serves as a barrier between the roadway and cliff; however, the wall is not an adequate barrier to keep vehicles from going over the cliff into the basin below. Furthermore, the wall has sustained significant damage from past crashes. In a June 30, 2003 letter to TxDOT, the property owner who owns the land surrounding SH 16 on Kimberlin Mountain noted that TxDOT maintenance crews had repaired the wall “almost monthly” due to repeated crashes.

Evidence of the problems posed by the geometric deficiencies and topographic challenges on Kimberlin Mountain are found in the crash data for SH 16 within the construction limits. **Table 1** presents the available crash data collected from 1992 to 2010. The data is divided into two main categories: 1) the number of crashes occurring within the constructions limits, *except* for those on Kimberlin Mountain, and 2) the number of crashes occurring within the 1-mile segment of SH 16 on Kimberlin Mountain. This data is presented by year and includes the number of injuries that were reported by the Texas Department of Public Safety. Please note that the number and location of fatalities occurring between 1992 and 2001 were not available.

Table 1 1992–2010 Crash Data for SH 16 within the Construction Limits

Year	Number of crashes within construction limits NOT on Kimberlin Mountain (5-mile segment)	Number of crashes only on Kimberlin Mountain* (1-mile segment)	Number of injuries within construction limits NOT on Kimberlin Mountain (5-mile segment)	Number of injuries only on Kimberlin Mountain* (1-mile segment)
1992	2	4	2	3
1993	1	2	1	1
1994	6	4	4	3
1995	1	1	1	1
1996	4	7	5	9
1997	7	3	6	6
1998	4	3	2	0
1999	1	0	1	0
2000	5	3	5	3
2001	2	4	1	3
2002	7	1	6	1
2003	0	2	0	1 (Fatality)
2004	10	0	0	5
2005	1	0	0	0
2006	3	1	1	0
2007	3	1	1	0
2008	7	3	5	0
2009	2	4	1	3
2010	5	1	0	0
Total	71	44	42	39

*The section of SH 16 characterized as being on Kimberlin Mountain is between the intersections of FM 2353 at the north end of Kimberlin Mountain and Red Bluff Drive on the south end.

The above crash data show that a total of 115 accidents have occurred from 1992 to 2010 within the six miles of SH 16 included in the project construction limits, and nearly 40 percent of those crashes have occurred within the 1-mile segment on Kimberlin Mountain. During the same 19 years, a total of 81 injuries have occurred within the construction limits, and nearly half of them occurred on Kimberlin

Mountain, including one fatality in 2003 that occurred when a concrete truck crashed through the rock wall and rolled down the cliff. The disproportionate number of accidents and injuries that has occurred on Kimberlin Mountain in relation to the remainder of the construction limits illustrates the primary need for this safety improvement project.

Although the geometry on Kimberlin Mountain poses the primary safety concern, a secondary need of the project results from the narrow width of the existing roadway. Within the construction limits, 4 miles of SH 16 (from PR 36 to 1,200 feet south of the Brazos River Bridge) has two 11-foot-wide travel lanes and no shoulders. This section of the roadway includes the 1-mile segment of SH 16 that is located on Kimberlin Mountain. The existing lane width and lack of shoulders do not meet current 3R design criteria for rural two-lane highways with an ADT of 1,300 VPD, which calls for 11-foot-wide travel lanes and 1-foot-wide shoulders (*TxDOT Roadway Design Manual*, Table 4-2).

The narrow roadway width poses several problems to the traveling public, particularly when comparing this segment of SH 16 to adjacent segments. All sections of SH 16 for several miles north or south of the project area have shoulders. As a result, motorists must adjust to driving on a roadway with very little room for error, particularly on Kimberlin Mountain where vehicles regularly cross the center stripe and/or drive off the pavement. Furthermore, when passing on a two-lane road such as SH 16, the motorist being passed cannot pull over onto the shoulder to ensure a safer passing maneuver. Review of the crash data presented above revealed that some of the crashes were caused when one vehicle was trying to pass another vehicle. In addition, there is no place for motorists to safely pull over in the event of an emergency.

1.4 Purpose of the Project

The purpose of the project is to correct the safety deficiencies while avoiding and/or minimizing impacts to environmental resources and without causing substantial impacts to the human or natural environment. An additional purpose of the project is to meet the project needs while considering the expenditure of public monies.

1.5 Objectives of the Proposed Project

The objectives of the proposed project are to meet the project's purpose and need while minimizing environmental impacts. Specific goals are listed below.

- Improve safety by upgrading the roadway to current design standards by remedying the geometric and functional deficiencies that currently exist.
- Maintain access to the residential, commercial, and infrastructure properties that are located along the roadway. This includes maintaining consistent accessibility to Red Bluff Drive since it provides access to the powerhouse and the downstream side of the Morris Sheppard Dam.
- Provide continuity with the roadway sections found on SH 16 north and south of the project termini.

- Keep the historic Brazos Bridge River in service since the bridge is structurally sound, and although there are no shoulders on the bridge’s deck, there have been very few crashes in the vicinity of the bridge since 1992.
- Minimize the project cost and environmental impacts.

1.6 Planning Process

Since the project’s inception in 2003, TxDOT has been working closely with and planning the proposed safety improvement project with the public and several stakeholders, including agencies with properties adjacent to or near the proposed project. Such efforts have included numerous planning meetings within and between TxDOT and FHWA, as well as early coordination and cooperation with various federal, state, and local agencies. Some of the earliest and most consistent planning efforts have focused on historic properties that may be affected by the proposed project. These historic properties include the Brazos River Bridge, which TxDOT determined individually eligible for listing on the National Register of Historic Places (NRHP), and the SH 16 roadway corridor from SH 254 to Brackeen Drive, which TxDOT determined to be a historic district with 18 contributing features that include 16 masonry culverts, the Brazos River Bridge, and the masonry wall located on Kimberlin Mountain (see **Section 3.2.1 Historic Properties** for more information on these historic properties). The planning process for the proposed project has included on-going coordination efforts with the Texas State Historic Preservation Office (SHPO), Palo Pinto County officials, and historic preservation advocacy groups (Preservation Texas and Palo Pinto County Historical Commission [CHC]).

TxDOT’s planning process has also included meetings with the Texas Parks and Wildlife Department (TPWD), who owns the Possum Kingdom State Fish Hatchery, and the Brazos River Authority (BRA), who owns the Morris Sheppard Dam and powerhouse, to discuss the potential impacts of the proposed project on their respective facilities. The U.S. Fish and Wildlife Service (USFWS) has also been consulted in the project planning process due to the presence of endangered bird habitat along SH 16.

A public meeting was held in March 2012 at the Possum Kingdom Chamber of Commerce in the unincorporated community of Possum Kingdom, Texas. At this meeting, TxDOT officials provided members of the public with general information concerning the limits and scope of the proposed project, showed schematics of the alternatives considered, and solicited comments and opinions from the public to consider during project development.

The planning process for this project has led to several substantial changes in the original project design, including TxDOT’s decision to propose no construction at the Brazos River Bridge in an attempt to avoid adverse effects to the historic property. In sum, engineers originally considered 13 conceptual alignments, developed and closely evaluated five build alternatives, and refined the alternatives analysis to three build alternatives that are presented in this EA and were evaluated in the Section 4(f) Evaluation (see **Section 2.0 Description of the Alternatives** for a detailed description of the three build alternatives and **Appendix E** for the Section 4(f) Evaluation Document).

1.7 Project Funding

This proposed project is programmed in the 2013-2016 Statewide Transportation Improvement Plan as part of “Preventive Maintenance and Rehabilitation” projects (CSJs: 5000-00-952, 5000-00-957, and 5000-00-958). The proposed project is expected to be funded with 80 percent federal funds and 20 percent state funds. The project is scheduled to let for construction in August 2015. A copy of the applicable page from the 2013-2016 STIP is provided in **Appendix F**.

2.0 DESCRIPTION OF THE ALTERNATIVES

2.1 Development of Alternatives

Since the project’s inception in 2003, project engineers have considered a range of alternatives, from 13 initial build alternatives to the three build alternatives discussed in detail below. Originally, engineers considered 13 build alternatives in order to explore all potential options to achieve the purpose of the proposed project, as well as to evaluate options that would avoid adverse effects to the historic roadway and bridge. After consideration of these 13 build alternatives, five build alternatives were studied further; however, three of these five alternatives called for the replacement of the Brazos River Bridge, which is a resource that TxDOT has determined to be individually NRHP-eligible and a contributing feature to an NRHP-eligible historic district (see **Section 3.2.1** regarding the Brazos River Bridge as an NRHP-eligible resource). As a result, TxDOT engineers re-evaluated replacing the Brazos River Bridge. There is no indication that the bridge is structurally unsound, and review of accident data indicates that few accidents occurred at the bridge between 1992 and 2010. Therefore, project engineers have reassessed a reasonable range of alternatives to avoid replacing or bypassing the bridge. The build alternatives presented in the alternatives analysis below call for the continued vehicular service of the existing Brazos River Bridge, with all build alternatives tying into the existing alignment north of the bridge.

Four alternatives are considered in this EA. These alternatives are “No Build” and three “Build” alternatives titled “New alignment bypass east of SH 16,” “Partial new alignment east of SH 16,” and “Realign SH 16 on Kimberlin Mountain.”

2.2 Alternative 1: No Build

The No Build Alternative represents the scenario in which the proposed project would not be constructed. Under the No Build Alternative, the SH 16 roadway would remain in its existing condition and on its existing alignment. Although this alternative would not require the expenditure of public funds for realigning and widening the SH 16 roadway, public funds would be required for continued maintenance of the existing roadway. Furthermore, the masonry wall along the east side of SH 16 on Kimberlin Mountain would need to be regularly repaired since it is frequently damaged.

If the geometric deficiencies and sight distance problems on Kimberlin Mountain (outlined in **Section 1.3 Need for the Project**) were to remain unchanged, it is reasonable to expect that accidents would continue to occur on Kimberlin Mountain (between FM 2353 and Red Bluff Drive) at a rate that is disproportionate to other sections of the roadway. Also, if the majority of SH 16 within the project limits remained a two-lane facility with no shoulders, the traveling public would still have little room to maneuver and move off

the travel lanes during passing movements or in an emergency situation. The routine maintenance that would occur as a result of choosing this alternative would not address the safety problems that exist on this roadway. The No Build Alternative would not require additional ROW, realignment of the roadway, or upgrade of the existing facility, and it would not result in environmental impacts. However, the No Build Alternative would not support the stated need and purpose for the proposed project. The No Build Alternative is carried forward through this EA as a baseline by which to compare the Build Alternative that is carried forward.

2.3 Alternative 2: New alignment bypass east of SH 16

Alternative 2 involves the construction of a road that is on new alignment east of the existing SH 16 roadway from SH 254 to the north end of the Brazos River Bridge. It would traverse several ranch properties to the east of SH 16. This alternative would require the purchase of a 120-foot-wide to 200-foot-wide ROW for the length of the new road, which would be 5.23 miles long. The new road would be a two-lane facility with 12-foot-wide travel lanes and 8-foot-wide shoulders. A 12-foot-wide climbing lane would also be included for northbound traffic as the roadway climbs out of the Brazos River Valley. This alternative would tie into the existing SH 16 alignment immediately north of the Brazos River Bridge. As it transitions into the existing SH 16 alignment, the roadway would be widened to have 12-foot-wide travel lanes and 4-foot shoulders. Progressing south, this alternative would utilize the existing Brazos River Bridge to cross the river.

Alternative 2 would require the acquisition of 98.13 acres of new ROW from seven property owners and would bisect 17 parcels, which are primarily ranching properties. This would require the displacement of one residence near the intersection of SH 16 and SH 254. Such impacts and associated ROW costs and construction of a new roadway are extraordinary in relation to meeting the stated safety concerns in the need and purpose of the project. Additionally, if this alternative were selected, the existing SH 16 roadway would have to remain open because access would need to be maintained to several facilities (including the Possum Kingdom State Fish Hatchery and the downstream side of Morris Sheppard Dam), residences, and commercial properties.

This option was eliminated from further analysis since the geometric deficiencies of the existing roadway would not be remedied, and costs associated with constructing a road on new alignment and maintaining an existing facility would be of an extraordinary magnitude that outweighs the benefits of the project. As a result, this alternative was dismissed from further consideration.

2.4 Alternative 3: Partial new alignment east of SH 16

This alternative involves a combination of upgrading and widening 4.85 miles of the existing facility and constructing 2.58 miles of new-location roadway. Progressing from north to south, this alignment would utilize the existing facility for approximately three miles. The SH 16 existing roadway would be widened to have 12-foot-wide travel lanes and 8-foot-wide shoulders. The intersection of SH 16 and PR 36 would be reconfigured into a T-intersection to improve the turning radius for motorists turning onto the SH 16 southbound lane from PR 36.

Alternative 3 would require a new alignment roadway to be built east of the existing alignment approximately three miles south of SH 254, so that SH 16 on Kimberlin Mountain would be bypassed. In accordance with 4R criteria, the roadway on new location would have 12-foot-wide travel lanes and 8-foot-wide shoulders, as well as a 12-foot-wide climbing lane for northbound traffic as the roadway climbs out of the Brazos River Valley. South of Kimberlin Mountain, near the southernmost fish hatchery ponds, the roadway would tie back into the existing facility, which would be widened to have 12-foot-wide travel lanes and 4-foot-wide shoulders. This alternative would utilize the existing Brazos River Bridge to cross the river.

Under this alternative, the existing roadway would have to stay open to provide access to the Possum Kingdom State Fish Hatchery and the downstream side of the Morris Sheppard Dam. In doing so, the geometric deficiencies of the road would not be resolved. This alignment would also require the purchase of a 120-foot-wide to 200-foot-wide ROW for approximately 2.58 miles, and the land for the new-alignment section would require ROW acquisition that would impact one property owner with seven parcels. In sum, this alternative would require the acquisition of approximately 38.96 acres of new ROW.

This option was eliminated from further analysis since the geometric deficiencies of the roadway would not be remedied, and costs associated with constructing a road on new alignment and maintaining an existing facility would be of an extraordinary magnitude that outweighs the benefits of the project.

2.5 Alternative 4: Realign SH 16 on Kimberlin Mountain

Alternative 4 would consist of utilizing the existing alignment with the exception of a half-mile section of new-location roadway on Kimberlin Mountain. The new alignment section would begin approximately 1,000 feet south of FM 2353, traverse Kimberlin Mountain on new alignment, and tie into the existing SH 16 roadway approximately 600 feet north of the SH 16/Red Bluff Drive intersection. A climbing lane for northbound traffic would be constructed, which would terminate at the top of Kimberlin Mountain as a left-turn lane for turning movements onto FM 2353. Additionally, at the base of Kimberlin Mountain, the SH 16/Red Bluff Drive intersection would be realigned to improve sight distance for motorists turning from Red Bluff Drive onto SH 16. Additionally, the SH 16/PR 36 intersection, located north of Kimberlin Mountain, would be reconfigured into a T-intersection.

The new-alignment section of the roadway would be designed to 4R criteria because it involves a major horizontal and vertical realignment of the roadway. The vertical alignment of this section of roadway would have a 7.4 percent grade, which is within TxDOT's design criteria for 4R projects. The SH 16 roadway on new alignment would be a two-lane facility with 12-foot-wide travel lanes, a 12-foot-wide northbound climbing lane, and 8-foot-wide shoulders per the *TxDOT Roadway Design Manual* guidance for 4R construction projects (see **Figure 7** for the proposed typical sections to follow this discussion of proposed roadway width). To match the width of the new alignment section of the roadway, the existing SH 16 roadway from SH 254 to the new alignment segment would be widened to include two 12-foot-wide travel lanes and 8-foot-wide shoulders. The roadway segment between the new alignment and the NRHP-eligible Brazos River Bridge would include two 12-foot-wide travel lanes and 5-foot-wide shoulders.

Narrowing the shoulder width in this section would serve to transition between the new-alignment section (with its 12-foot-wide travel lanes and 8-foot shoulders) and the Brazos River Bridge (with its 11-foot-wide travel lanes and no shoulders). A Share the Road sign would be added to the north and south approaches of the Brazos River Bridge to indicate that bicyclists may use the bridge. This alternative would be constructed within the existing TxDOT ROW (approximately 106 acres), with the exception of 9.32 acres of new ROW that would be acquired from two property owners for the construction of the new-alignment section of the roadway and the reconfiguration of the SH 16/Red Bluff Road intersection.

Alternative 4 meets the stated Need and Purpose of the project, as it would address the geometric issues on Kimberlin Mountain. It would not only correct the horizontal alignment issues, but it would also eliminate the hazard posed by the combination of the steep cliff and tight curve. Additionally, this alternative maintains access to existing infrastructure facilities, as well as agricultural, residential, and commercial properties within the construction limits, while posing minimal impacts to property owners. These factors, coupled with the public comments in favor of this alternative, resulted in Alternative 4 “Realign SH 16 on Kimberlin Mountain” being identified as the preferred alternative (see **Section 5.2 Public Involvement** for more information about the public’s comments regarding the proposed project). As a result, this is the only build alternative that will be carried forward in this EA and is called the “Build Alternative” through the rest of this EA.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Community Impacts Assessments

3.1.1 Right-of-Way Requirements, Relocations, and Displacements

The existing SH 16 has a typical 100 foot-wide ROW and contains several utilities. Utilities identified within and/or crossing the project ROW include wastewater lines, overhead electric, and natural gas pipelines. All additional ROW would be acquired in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Both the United States and Texas Constitution provide that no private land may be taken for public purposes without providing adequate compensation. The TxDOT ROW Acquisition and Relocation Assistance Program would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970, as amended, in the Uniform Relocation Assistance Act of 1987. Just compensation is based on the fair market value of the property.

No Build Alternative

If the No Build Alternative were chosen, no new ROW acquisitions, relocations, or displacements would occur.

Build Alternative

The construction of the build alternative would not displace any business or residence in the project area or adversely affect planned development, businesses, residences, or neighborhoods in close geographic proximity to the study area. The proposed transportation improvements would maintain existing access and travel patterns in the area.

The proposed project would require 9.32 acres of additional ROW and a 5.08-acre temporary construction easement. The 9.32 acres of additional ROW would be acquired for the construction of the new alignment section of SH 16 on Kimberlin Mountain and the realignment of the SH 16/Red Bluff Drive intersection. The 5.08-acre temporary easement would be constructed at the base of Kimberlin Mountain for a temporary detour to maintain traffic during construction. The proposed additional ROW and proposed temporary construction easement are located on one private property owner's land and one state agency's land. The proposed ROW and temporary construction easement consists of undeveloped land and managed pastures. No structures would be impacted by the new proposed ROW and/or temporary construction easement.

The majority of the proposed ROW acquisition would be from one private property owner, and approximately 9 acres of land would be taken off the tax roll, thereby reducing local government revenue. However, the loss of revenue would be minor.

The remaining 0.32 acre of proposed ROW would be acquired from the Possum Kingdom State Fish Hatchery for the proposed realignment of the Red Bluff Drive intersection with SH 16. The proposed ROW acquisition will not affect the facility's buildings, ponds, or other infrastructure and will not affect the hatchery's operation.

3.1.2 Environmental Justice

Executive Order (EO) 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires each federal agency to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." FHWA has identified three fundamental principles of environmental justice:

- (1) to avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations;
- (2) to ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- (3) to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

A minority population is defined as a group of people and/or community experiencing common conditions of exposure or impact that consists of persons classified by the U.S. Census Bureau as Hispanic or Latino; Black/African-American; Asian; American Indian or Alaska Native; Native Hawaiian or other Pacific Islander; or other non-white persons.

Disproportionately high and adverse human health or environmental effects are defined by FHWA as adverse effects that:

- (1) are predominantly borne by a minority population and/or a low income population, or

(2) will be suffered by the minority population and/or low income population and are appreciably more severe or greater in magnitude than the adverse effects that will be suffered by the non-minority population and/or non-low-income population.

The proposed project is located in Palo Pinto County and includes no urbanized areas. The project includes portions of two census tracts (Census Tract 1 and 2) as identified by the U.S. Census Bureau. In order to identify potential environmental justice issues in the project area, area census data on population, race/ethnicity, and income were analyzed at the census tract, block group, and block levels. The following tables present these data and the potential for impacts to minority and low-income populations is discussed.

Table 2 compares population, race, and ethnicity for Texas, Palo Pinto County, and census units which encompass the proposed project area. The table shows population values and percentages of the total population for each race or ethnicity by geographic area.

Table 2 Race/Ethnicity Comparison

Geographic Area	Total Population	Hispanic or Latino	Not Hispanic Or Latino					Native Hawaiian and Other Pacific Islander	Some Other Race
			White	Black or African American	American Indian and Alaska Native	Asian			
Texas	25,145,561	9,460,921 37.6%	11,397,345 45.3%	2,886,825 11.5%	80,586 0.3%	948,426 3.8%	17,920 0.07%	33,980 0.1%	
Palo Pinto County	28,111	4,985 17.7%	21,958 78.1%	597 2.1%	135 0.5%	132 0.5%	11 0.04%	13 0.05%	
Census Tract 1	2,599	170 6.5%	2,373 91.3%	4 0.2%	15 0.6%	6 0.2%	1 0.04%	0 0.0%	
Census Tract 2	2,191	282 12.9%	1,853 85%	5 0.2%	11 0.5%	17 0.8%	2 0.09%	1 0.05%	
<i>Census Tract 1, Block Group 1</i>	519	16 3.1%	498 96%	0 0.0%	3 0.6%	0 0.0%	0 0.0%	0 0.0%	
Block 1192	25	1 4%	24 96%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
Block 1194	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
Block 1205	4	0 0.0%	4 100%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
Block 1206	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
<i>Census Tract 1, Block Group 2</i>	840	38 4.5%	790 94%	0 0.0%	4 0.5%	4 0.5%	0 0.0%	0 0.0%	
Block 2051	40	0 0.0%	40 100%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
Block 2056	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
Block 2057	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
Block 2065	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	
Block 2083	43	3 7%	43 93%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	

Table 2 Race/Ethnicity Comparison

Geographic Area	Total Population	Hispanic or Latino	Not Hispanic Or Latino					
			White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race
Block 2084	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 2087	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 2120	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
<i>Census Tract 1, Block Group 3</i>	1,240	116 9.4%	1,085 87.5%	4 0.3%	8 0.6%	2 0.2%	1 0.08%	0 0.0%
Block 3310	5	0 0.0%	5 100%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3313	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3314	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3315	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3319	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3324	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3349	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3390	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3391	17	5 29%	12 71%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3392	1	0 0.0%	1 100%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 3403	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
<i>Census Tract 2, Block Group 1</i>	1,451	106 7.3%	1,308 90.1%	1 0.07%	9 0.6%	15 1%	2 0.1%	0 0.0%
Block 1003	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1004	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1005	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1017	69	0 0.0%	68 98.6%	0 0.0%	1 1.4%	0 0.0%	0 0.0%	0 0.0%
Block 1223	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1225	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1226	53	0 0.0%	53 100%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1235	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%

Table 2 Race/Ethnicity Comparison

Geographic Area	Total Population	Hispanic or Latino	Not Hispanic Or Latino					
			White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race
Block 1248	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1249	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Block 1250	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%

Source: U.S. Census Bureau, Census 2010, Summary File 1, Data Set P9

According to this census data, two census tracts, four block groups, and 34 blocks are located within or adjacent to the project area. Of the 34 blocks, only nine of them are populated – Blocks 1192, 1205, 2051, 2083, 3310, 3391, 3392, 1017, and 1226. Of the populated blocks, only three blocks – Blocks 1017, 2083, and 3391 – record any minority group, and there are few people within the recorded minority groups residing in the project area. In Block 1017 there are 69 people, and one person is identified as American Indian and Alaska Native, which constitutes 1.4 percent of the population in that block. In Block 2083 there are 40 people, and three people are identified as Hispanic or Latino, which constitutes 7.5 percent of the population in that block. In Block 3391, five out of 17 people (29.4 percent of the population) were identified as Hispanic or Latino. Out of the 257 people recorded within the census blocks in the project area, only nine people are considered to be minorities, which is 3.5 percent of the population within the project area’s census blocks. Based on these data, a small portion of the population surrounding the project area is within a minority group.

Low-income populations

A low-income population is defined as one with a median annual income equal to or below the national poverty level of \$11,670 for an individual and \$23,850 for a family of four (U.S. Department of Health and Human Services 2014). Data from the 2007-2011 American Community Survey (ACS) 5-year estimates were used to identify low-income population in the project area. Since income data is not available at the block or block group level, the two census tracts that are within the project area were reviewed. The data for the county and both census tracts show that the median household income (including the margin of error) is well above the national poverty level (**Table 3**). Additionally, a small percentage of the population – just 16 percent – lives below the poverty level in Palo Pinto County and Census Tract 1. In Census Tract 2, 13 percent of the population lives below the poverty level.

Table 3 Income and Poverty Level Data

Location	Median Household Income		Percentage Below the Poverty Level	
	Estimate	Margin of Error	Estimate	Margin of Error
Palo Pinto County	\$40,385	+/- 2,737	15.8%	+/- 2.4
Census Tract 1	\$38,068	+/- 10,527	14.3%	+/- 5.5
Census Tract 2	\$42,292	+/- 5,560	13.1%	+/- 5.1

Source: 2010 U.S. Census – American Community Survey 5-year estimates, Tables B19013 and S1701

No Build Alternative

Under the No Build Alternative, all minority and non-minority populations and socioeconomic levels would continue to be impacted by the safety issues relating to the roadway’s geometric and functional deficiencies.

Build Alternative

The proposed project would not displace any business or residence in the proposed project area, or adversely affect planned development, businesses, residences, or neighborhoods near the project area. The proposed additional ROW and temporary easements would impact a total of approximately 14.4 acres of undeveloped property.

In summary, the Build Alternative is not expected to have more than minimal impacts to residents in the area, would maintain access routes, and would not isolate or separate any areas. No disproportionately high and/or adverse effects on any minority and/or low-income population are expected as a result of the proposed project.

3.1.3 Limited English Proficiency

Executive Order 13166, “Improving Access to Services for Persons with Limited English Proficiency (LEP)” requires federal agencies to examine the services they provide and identify any need for those with LEP. Individuals with LEP are defined as those speaking English less than “very well.” As illustrated in **Table 4**, the two census tracts in the proposed project include persons with LEP. Persons speaking English less than “very well” speak Spanish, German, Chinese, or Vietnamese. During field reconnaissance, no indicators of LEP populations, such as non-English language signs or advertisements, were observed.

Table 4 Limited English Proficiency Percentage Comparison

Location	Population Who Speak English Less Than “Very Well”			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Palo Pinto County	1,858	+/- 241	7.1%	+/- 0.9
Census Tract 1	198	+/- 110	8.0%	+/- 4.4
Census Tract 2	110	+/- 53	6.0%	+/- 2.6

Source: U.S. Census Bureau, 2007-2011 ACS, 5-year estimates, Table DP02

No Build Alternative

Under the No Build Alternative, all LEP populations utilizing SH 16 would continue to be impacted by the safety issues relating to the roadway’s geometric and functional deficiencies.

Build Alternative

Under the build alternative, the proposed project would have minimal impacts to surrounding communities and is not expected to adversely impact LEP populations. An open house format public meeting was held in Possum Kingdom on March 6, 2012, to inform the public of the proposed project on SH 16, and to obtain their comments and concerns. Prior to the public meeting, it was determined that the anticipated project impacts would be minimal and not far-reaching, and the immediate project vicinity contained a low LEP population based on a combination of the census data, absence of field indicators of LEP populations, and right-of-entry investigations that included identification of and coordination with

the adjacent property owners prior to and during field investigations. Therefore, the public meeting was not advertised in any non-English newspapers. If requested, TxDOT would provide interpreters at a public hearing if one is determined to be necessary. Attendees were provided an opportunity to review roll plots of four preliminary alternatives and project area land use on 2009 aerial photography. The public meeting was advertised by TxDOT in the *Fort Worth Star-Telegram* and *Lake Country Sun*, and an announcement was posted in the public involvement section of TxDOT's website. Additionally, notices were mailed to listed adjacent property owners according to TxDOT requirements. All notices were published in English. Persons who needed more information, special assistance, or language interpretation were asked to contact TxDOT prior to the meeting.

Prior to the project letting for construction, an opportunity for public hearing would be advertised to inform the public that a public hearing may be held on request. TxDOT would continue to encourage persons who need project-related information or persons with special communication or accommodation needs to contact TxDOT for assistance.

3.1.4 Community Cohesion

The proposed project area is located in northwestern Palo Pinto County and is not located in any unincorporated or incorporated community. Information on the general population, race/ethnicity distribution, and income/poverty levels of areas surrounding the project is provided in **Tables 1** through **3** in **Section 3.1.1** above. Land in and adjacent to the project area and surrounding the project is mainly used for agriculture, with an emphasis on cattle ranching, with limited residential, infrastructure, and commercial purposes. Two infrastructure facilities are located near the Brazos River on the west side of SH 16 – the Double Diamond Water Treatment Facility and the Possum Kingdom State Fish Hatchery. The Cliffs residential subdivision is located on the west side of SH 16 at the project's southern terminus but is outside the proposed construction limits. Within the construction limits, scattered residences are found mainly on the east side of SH 16 north of the river, and a few commercial resources are found along SH 16 near the PR 36 intersection.

It should be noted that outside the project area to the west is Possum Kingdom Lake, which has seasonal residents and visitors. As a result, outside the project area are subdivisions of mainly vacation houses and seasonal residences located south of the proposed construction on SH 16 and on FM 2353.

No Build Alternative

Under the No Build Alternative, the community surrounding the proposed project area would continue to be impacted by the safety issues relating to the roadway's geometric and functional deficiencies.

Build Alternative

Under the Build Alternative, the proposed project would provide shoulders and a short, new alignment route through the project area, which would improve safety to the traveling public though this section of SH 16. The improvements would be constructed primarily within the existing ROW, and the 0.5-mile new-alignment section would not result in relocations or displacements of any business, individual, or group in the project area. While minor congestion delays may occur during construction, it would not result in the division of the community since traffic would be maintained on the existing alignment during construction. Therefore, no changes to community cohesion would occur as a result of the project.

3.2 Cultural Resources

Cultural resources are structures, buildings, archeological sites, districts (a collection of related structures, buildings, and/or archeological sites), cemeteries, and objects. Both federal and state laws require consideration of cultural resources during project planning. At the federal level, the NEPA and National Historic Preservation Act (NHPA), among others, apply to transportation projects such as this one. In addition, state laws such as the Antiquities Code of Texas apply to these projects. Compliance with these laws often requires consultation with the Texas Historical Commission (THC)/SHPO and/or federally recognized tribes to determine the project's effects on cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

3.2.1 Historic Properties

A review of the NRHP, the list of State Archeological Landmarks (SAL), and the list of Recorded Texas Historic Landmarks (RTHL) indicated that no historically significant resources have been previously documented within the area of potential effects (APE). It has been determined through consultation with the SHPO that the APE for the proposed project is 150-feet from the existing and proposed ROW. A reconnaissance-level survey conducted in February and May 2011 revealed that there are 56 historic-age resources (built prior to 1967) located within project APE. TxDOT Historians reviewed the results of the reconnaissance survey, which were documented in a July 2011 Historic Resources Survey Report (HRSR), and determined one historic district is NRHP-eligible and one historic resource is individually NRHP-eligible.

The NRHP-eligible historic district is the SH 16 roadway corridor, completed in 1942 by the WPA. It is eligible under Criterion A: Events and Criterion C: Engineering at the state level of significance. The corridor consists of the roadway itself and 18 contributing features: 16 masonry culverts, the Brazos River Bridge, and one masonry guard wall (Resource Nos. 1A-1O, 1R, and 1W-1X). The Brazos River Bridge (Resource No. 1M), a masonry arch bridge, is also individually eligible for NRHP-listing under Criterion A: Events and Criterion C: Engineering at the state level of significance. The SHPO concurred with these eligibility findings on February 24, 2012. A copy of the letter is in **Appendix D**.

No Build Alternative

Under the No Build Alternative, the historic properties would not be altered and/or modified; however, the traveling public utilizing SH 16 would continue to be impacted by the safety issues relating to the roadway's geometric and functional deficiencies, and the masonry guard wall on Kimberlin Mountain, which is a contributing feature of the SH 16 historic district, would continue to be damaged by periodic collisions.

Build Alternative

Under the Build Alternative, the proposed project would provide shoulders and a short, new-alignment route through the project area, which would improve safety to the traveling public though this section of SH 16. In accordance with CFR 800.5, TxDOT Historians applied the *Criteria of Adverse Effect* and determined in an August 9, 2012 letter to the SHPO that the proposed project would adversely affect the NRHP-eligible SH 16 roadway corridor due to the realignment of a section of the roadway (see **Appendix D**). It will also adversely affect two contributing features to the historic roadway: one masonry

box culvert (Resource No. 1O), which would be covered by the new roadway, and the masonry guard wall on Kimberlin Mountain (Resource No. 1R), which would be bypassed by the proposed realignment on Kimberlin Mountain. The project poses no additional adverse effects to the remaining contributing resources, including the Brazos River Bridge (Resource No. 1M). TxDOT proposes no work at the bridge, and the project calls for a transition between the SH 16 roadway where new shoulders will be added and the bridge where no new shoulders will be added. The SHPO concurred with TxDOT's Determination of Effects on August 30, 2012 (see **Appendix D**).

In accordance with 23 CFR 771, TAC 43, and the NHPA (36 CFR 800.2c), TxDOT conducted several public involvement activities including meetings with civic and preservation groups and individuals. Three consulting parties were identified and requested consulting party status under Section 106 for this project: the Palo Pinto CHC, Preservation Texas, and John Kimberlin (the only affected land owner). Since Preservation Texas and Mr. Kimberlin did not respond within the 30-day review and comment period of the HRSR, TxDOT assumes their concurrence with NRHP eligibility, the preliminary assessment of effects, and the proposed project. The CHC first responded on September 29, 2011, stating that they concurred with the NRHP eligibility findings but objected to the closing of the current SH 16 alignment on Kimberlin Mountain in order to straighten the roadway. The CHC and Palo Pinto County Judge attended the December 6, 2011 Working Meeting and the March 6, 2012 public meeting. Additionally, TxDOT had several discussions with the CHC and the Palo Pinto County Judge in person and by telephone between September 2011 and March 2012 to discuss the proposed project activities and possible mitigation options. The CHC sent a letter to TxDOT on March 15, 2012, outlining more detailed comments on the proposed project activities in relation to historic resources, which provided TxDOT direction for proceeding with mitigation options. On April 16, 2012, TxDOT responded to the CHC's comments and discussed TxDOT's position regarding possible mitigation options. On April 19, 2012, the CHC verbally accepted TxDOT's proposal, and in a letter dated June 8, 2012, the County Judge accepted TxDOT's proposals. Copies of the consultation letters are included in **Appendix D**.

In seeking ways to avoid, minimize, and mitigate adverse effects, TxDOT consulted with agencies, local officials, Section 106 consulting parties, and the SHPO on several occasions and modified their project plans throughout the planning of this project. As described in **Section 2.1 Development of Alternatives**, TxDOT identified 13 potential build alignments and studied them to determine the most viable alternatives. Then, TxDOT refined the 13 alternatives and studied five build alternatives in more detail to determine viable options to meet the need and purpose of the project, while minimizing and/or avoiding adversely affecting historic properties. As a further measure to avoid adverse effects, TxDOT revised the five build alternatives again to avoid adverse effects to the Brazos River Bridge, and TxDOT focused on three build alternatives that did not alter and/or bypass the existing NRHP-eligible bridge. As a result, all of the three build alternatives considered in detail by TxDOT call for the bridge to remain in vehicular service and the proposed project to tie into the existing alignment north of the bridge.

TxDOT has been in consultation with the SHPO regarding this project since 2003. Consultation efforts have consisted of written correspondence, meetings, and field visits. During these coordination activities, TxDOT has tried to accommodate the SHPO's requests to minimize harm to and avoid historic properties while meeting the need and purpose of the proposed project. In 2011 and 2012, as mitigation options were

discussed informally with the Section 106 consulting parties, the SHPO was involved in many of these interactions and meetings.

On August 9, 2012, TxDOT proposed the following mitigation for the adverse effects posed to Resource No. 1 and its 18 contributing features:

- TxDOT will provide the CHC copies of the photographs of Resource No. 1 and its 18 contributing features that were taken during the historic resources survey.
- Palo Pinto County has indicated their interest in establishing an interpretive park in the future on Kimberlin Mountain where the existing SH 16 roadway is currently located. TxDOT will complete a Quit Claim Deed to Palo Pinto County Commissioners' Court, releasing all interest in the existing SH 16 alignment on Kimberlin Mountain that will be bypassed. TxDOT will construct a driveway from the edge of pavement to the proposed ROW line for access to a future interpretive park. The location of the driveway will be determined in coordination with Palo Pinto County and will meet TxDOT's Access Management Policy and all other safety-related requirements.
- TxDOT will salvage the existing masonry headwalls of the adversely affected contributing culvert (Resource No. 10) and give the stone to the Palo Pinto CHC, who expressly requested the stone for a future display.

On August 30, 2012, the SHPO concurred with the mitigation proposal that TxDOT set forth. However, the SHPO also requested that TxDOT nominate the SH 16 roadway and its contributing features to the NRHP due to the significance of the resources (see **Appendix D**). TxDOT has completed a NRHP nomination for the roadway, which was approved by the THC's State Board of Review in October 2013. The nomination is currently at the THC for final processing prior to submission to the National Park Service (NPS) for listing on the NRHP.

In the Fall of 2014, TxDOT sent letters to the three consulting parties (Palo Pinto CHC, John Kimberlin, and Preservation Texas) and requested their final concurrence on the mitigation outlined above. All letters stated that the parties had a 30-day review period and if no response was received within 30 days, their concurrence would be assumed. In September and October 2014, the two Palo Pinto CHC chairpersons and John Kimberlin signed their concurrence of TxDOT's mitigation proposal. Preservation Texas did not respond within 30 days of the receipt of their letter and, therefore, their concurrence is assumed (see **Appendix D** for a copy of all consulting party letters).

Pursuant to Stipulation VI "Undertakings with the Potential to Affect Historic Resources" of the First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings (PA-TU) among FHWA, the SHPO, the Advisory Council on Historic Preservation, and TxDOT and the Memorandum of Understanding (MOU), TxDOT Historians have determined and the SHPO has concurred that the proposed action will adversely affect the SH 16 roadway corridor and two of its contributing features (Resource Nos. 10 and 1R). The SHPO concurred with TxDOT's August 9, 2012 determination that the proposed project will pose an adverse effect to historic properties and approved a mitigation plan for the corridor on August 30, 2012. Copies of the letters outlining the mitigation plan are included in **Appendix D**.

3.2.2 Archeological Resources

No Build Alternative

Under the No Build Alternative, archeological resources would not be altered and/or modified; however, the traveling public utilizing SH 16 would continue to be impacted by the safety issues relating to the roadway's geometric and functional deficiencies.

Build Alternative

Under the Build Alternative, the proposed project would provide shoulders and a short, new alignment route through the project area, which would improve safety to the traveling public through this section of SH 16. In May 2003 and August 2004, TxDOT conducted an archeological impact evaluation and subsequent survey along SH 16 between the Brazos River and SH 254. TxDOT also conducted an archeological background study in February 2013 and surveyed the project area from the Brazos River to 1,200 feet south of the river in June 2013. The reports associated with each of these investigations are on file at TxDOT's Fort Worth District office. Based on the archeological investigations conducted for the proposed project, TxDOT determined that the APE does not contain archeological materials and that the existing ROW has been extensively disturbed by previous construction activities.

Consultation with federally recognized Native American tribes with a demonstrated historic interest in the area was initiated on August 15, 2013. No objections or expressions of concern were received during the comment period. Copies of the coordination letter and responses received are included in **Appendix D**.

TxDOT archeologists completed their review of this project on August 15, 2013, and determined that the project will have no effect or no adverse effect on archeological sites or cemeteries that would be afforded further consideration under cultural resource laws. As provided under the PA-TU among the FHWA, SHPO, the Advisory Council on Historic Preservation, and TxDOT, and the MOU between TxDOT and the THC, no consultation with the Texas SHPO or individual project coordination with the THC is required. In addition, no public controversy exists regarding the project's potential impacts on archeological sites or cemeteries. A copy of TxDOT's internal review memo is included in **Appendix D**.

In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archeological staff will be contacted to initiate post-review discovery procedures.

3.3 Section 4(f) Properties

Section 4(f) of the Department of Transportation (DOT) Act of 1966, as amended, provides for the protection of certain lands affected by transportation projects. Section 4(f) provides that the Secretary of Transportation may not approve any program or project that requires the use of land from a publicly-owned park, recreational area, or wildlife and waterfowl refuge of national, state, or local significance as determined by the official having jurisdiction thereof or any significant historic site, unless there is no feasible and prudent alternative to the use of such land and the proposed action includes all possible planning to minimize harm. A Section 4(f) use can either be a direct or constructive use. A direct use occurs when land is permanently incorporated into a transportation facility or when there is a temporary occupancy of land that is adverse to a Section 4(f) resource. Constructive use occurs when a project's

proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired (FHWA Environmental Review Tool Kit 2013). For historic transportation resources, FHWA considers that there is a use when the proposed improvements adversely affect the historic quality for which the historic resource was determined to be NRHP eligible, as determined by NHPA Section 106 consultation with the SHPO (see **Section 3.2.1 Historic Resources**).

Within the SH 16 project area, there are three Section 4(f) properties located within or directly adjacent to the proposed project activities – one recreational property and two historic properties. The Section 4(f) properties are the Brazos River Nature Trail, the SH 16 historic roadway corridor (with its 18 contributing features), and the Brazos River Bridge (also one of the contributing features to the roadway corridor). The Brazos River Nature Trail is a publicly-owned recreational facility that begins at the northwest corner of SH 16 and the Brazos River and follows the north bank of the Brazos River towards the Morris Sheppard Dam (see **Figure 3.1**). The SH 16 roadway and its 18 contributing features were built in 1942 by the WPA and are NRHP eligible. One of the contributing features of the roadway is the Brazos River Bridge, which is also individually eligible for the NRHP. For more information about the SH 16 roadway, its 18 contributing features, and the Brazos River Bridge, see **Section 3.2.1 Historic Resources**.

An Individual Section 4(f) Evaluation was completed for the proposed project, and it is included in **Appendix E**. The Section 4(f) Evaluation provides an analysis of all alternatives developed for the proposed project in relation to the Section 4(f) properties in and adjacent to the existing SH 16 roadway. It also outlines the prudence and feasibility of each alternative and the measures to minimize harm to the Section 4(f) properties.

No Build Alternative

Under the No Build Alternative, the proposed project would not pose a use to any of the Section 4(f) properties. However, the traveling public utilizing SH 16 would continue to be impacted by the safety issues relating to the roadway's geometric and functional deficiencies.

Build Alternative

Under the Build Alternative, the proposed project would provide shoulders and a short, new-alignment route through the project area, which would improve safety to the traveling public though this section of SH 16. The Build Alternative poses a Section 4(f) use to the SH 16 roadway corridor and two of its contributing features. The proposed project will result in a use of the corridor due to the realignment of the roadway at Kimberlin Mountain. Additionally, the proposed improvements will result in a use of the two specified contributing features: a masonry culvert (Resource No. 1O) will be buried by the new roadway and a masonry guard wall (Resource No. 1R) will be bypassed by the proposed realignment on Kimberlin Mountain.

The Brazos River Trail, a publicly-owned recreational facility, was also initially identified as a Section 4(f) property. However, the Build Alternative will not impact the trail, as none of the proposed work would affect the trail, and no new ROW or easements are required from the facility.

TxDOT Historians, District staff, engineers, and project planners considered alternatives to minimize harm to the historic properties. In addition to consultation efforts and meetings between 2003 and 2014

with civic and preservation groups, project planners originally identified 13 alternatives for the project (as discussed in **Section 2.1 Development of Alternatives**). Of these alternatives, five were chosen for further analysis. When additional review revealed that the Brazos River Bridge would not be impacted or need replacement, project planners reduced the number of alternatives to four, all avoiding any impact to the bridge. In accordance with Section 106 of the NHPA, and the PA-TU between the Texas SHPO, TxDOT, FHWA, and the Advisory Council on Historic Preservation, TxDOT has proposed and agreed to several mitigation efforts, which are outlined in **Section 3.2.1 Historic Resources**.

Based upon the Final Section 4(f) Evaluation (included in **Appendix E**) and the considerations outlined herein, there is no feasible and prudent alternative to the use of land from the SH 16 roadway or two of its contributing features (Resource Nos. 1O and 1R), and the proposed action includes all possible planning to minimize harm to these Section 4(f) properties resulting from such use.

3.4 Biological Resources

3.4.1 Vegetation

The proposed project is located in the Cross Timbers Ecoregion (<ftp://ftp.epa.gov/wed/ecoregions/tx/tx_eco_pg.pdf>). In the Ecological Mapping Systems of Texas (EMST) vegetation mapping system, the existing ROW along SH 16 is primarily mapped as Urban High Intensity, and most of the proposed ROW and temporary easement are mapped as Crosstimbers: Savanna Grassland; Native Invasive: Mesquite Shrubland; Edwards Plateau: Ashe Juniper-Live Oak Shrubland; Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland; and Edwards Plateau: Savanna Grassland. A number of other vegetation types are mapped in small portions of the project area and/or as extensions of adjacent vegetation types (**Figures 4.1 and 4.2**).

A qualified biologist visited the project site in January and February 2011 to characterize the vegetation communities present in the project area. The biologist conducted additional field visits in May and September 2011 to update the vegetation descriptions after wildfires affected the vegetation in the project area. Based on the field investigations, the overall vegetation communities in the project area most resemble the following three EMST vegetation types:

- Urban Low Intensity
- Edwards Plateau: Savanna Grassland
- Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland

The following paragraphs provide a description of each of these vegetation types. **Table 5** summarizes the acreage and relative distribution of each vegetation type in the project area, and **Figures 5.1 through 5.7** show their locations.

Table 5 Summary of Vegetation Types Present in the Project Area

Field-verified EMST Vegetation Type	Relative Distribution in Project Area	Acreage in Project Area	Percent of Project Area
Urban Low Intensity	Dominant vegetation type in the project area, occurring within the existing ROW throughout the project length	103.23 ¹	86.1%

Table 5 Summary of Vegetation Types Present in the Project Area

Field-verified EMST Vegetation Type	Relative Distribution in Project Area	Acreage in Project Area	Percent of Project Area
Edwards Plateau: Savanna Grassland	Primary vegetation type within the proposed ROW and temporary construction easement	11.15	9.3%
Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland	Within proposed ROW on the slopes of Kimberlin Mountain and along the existing ROW edges on hill slopes south of the Brazos River; most of this vegetation type in and adjacent to the project area burned in May/September 2011	5.52 ²	4.6%
TOTAL		119.90	100%

¹ Approximately 28 acres of the Urban Low Intensity vegetation type consists of pavement associated with the existing SH 16 roadway and intersection roads.

² Approximately 4.70 acres of the Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland vegetation type in the project area burned in May/September 2011.

Urban Low Intensity

Based on field investigations, the dominant vegetation type in the project area is characterized as Urban Low Intensity, which occurs within most of the existing ROW. Although the EMST database maps most of this area as Urban High Intensity, this assessment considers it Urban Low Intensity because of the rural nature of the area, the relatively narrow roadway corridor (typical 100-foot-wide ROW), and because the existing pavement covers less than 40 percent of the ROW (the existing pavement ranges from 22 to 36 feet wide in the project area). Outside the existing pavement, the vegetation is mowed and maintained, with dominant plant species that include bermudagrass (*Cynodon dactylon*), little bluestem (*Schizachyrium scoparium*), silver bluestem (*Bothriochloa laguroides*), dallisgrass (*Paspalum dilatatum*), johnsongrass (*Sorghum halepense*), whorled windmillgrass (*Chloris verticillata*), white tridens (*Tridens albescens*), purple-top tridens (*T. flavus*), threeawn (*Aristida* sp.), western ragweed (*Ambrosia psilostachya*), silverleaf nightshade (*Solanum elaeagnifolium*), and broom snakeweed (*Gutierrezia sarothrae*). The Urban Low Intensity vegetation type accounts for approximately 86.1 percent (103.23 acres) of the project area. Several of the photographs in **Appendix B** provide representative views of the existing roadway corridor.

Within the Urban Low Intensity vegetation type, herbaceous riparian vegetation occurs on either side of the existing masonry arch that crosses the Brazos River floodway. The riparian vegetation is limited to the Brazos River floodway between the bridge abutments. No work would occur on the bridge; therefore, the project would not impact the riparian vegetation. Photograph 30 in **Appendix B** shows the riparian vegetation along the Brazos River Bridge.

Edwards Plateau: Savanna Grassland

The Edwards Plateau: Savanna Grassland vegetation type occurs in the proposed ROW on Kimberlin Mountain and in the temporary construction easement and consists of open pasture land that is managed for grasses for cattle grazing. The EMST database maps the grasslands as Edwards Plateau Savanna Grassland in the higher elevations on Kimberlin Mountain and as Crosstimbers Savanna Grassland in the lower elevations below Kimberlin Mountain; however, field investigations revealed that the pastures in the project area are essentially the same due to land management and grazing practices. As a result, they are all categorized as Edwards Plateau: Savanna Grassland. Dominant plant species are similar to those in

the Urban Low Intensity vegetation type. Scattered live oak (*Quercus virginiana* var. *fusiformis*) trees and some mesquite (*Prosopis glandulosa*) and Ashe juniper (*Juniperus ashei*) regrowth also occur. The Edwards Plateau: Savanna Grassland vegetation type accounts for approximately 9.3 percent (11.15 acres) of the project area. Photographs 31 and 32 show representative views of this vegetation type in the proposed ROW and temporary easement, respectively.

Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland

The Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland vegetation type occurs within the proposed ROW on Kimberlin Mountain slopes, as well as along the existing ROW edges on the hill slopes south of the Brazos River and the southern construction limit. Prior to the 2011 wildfires that burned large areas surrounding Possum Kingdom Lake, this vegetation type consisted of oak-juniper woodlands dominated by live oak, Lacey oak (*Quercus laceyi*), and Ashe juniper, with other common species such as Mexican buckeye (*Ungnadia speciosa*), sumac (*Rhus* sp.), and saw greenbrier (*Smilax bona-nox*). Trees ranged from approximately 6 to 18 inches in diameter at breast height (average 8 inches) and were 15 to 40 feet tall. Canopy covers ranged from approximately 70 to 90 percent. However, the 2011 wildfires destroyed about 85 percent of the woodlands in the project area. The Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland vegetation type accounts for approximately 5.52 acres (4.6 percent) of the project area, of which 4.70 acres burned in 2011. Photographs 33 and 34 show the oak-juniper woodlands in the proposed ROW on Kimberlin Mountain before and after the 2011 fires, respectively.

No Build Alternative

If the No Build Alternative were implemented, the proposed safety improvements, including new-alignment section, would not be constructed. Scheduled maintenance on the existing facility would continue. The No Build Alternative would not impact vegetation. Therefore, the No Build Alternative would not require any coordination with the TPWD related to vegetation.

Build Alternative

Table 6 summarizes the anticipated permanent and temporary impacts to vegetation types that would result from implementing the Build Alternative. Permanent impacts include the areas to be covered by new pavement, as well as the entire proposed ROW, which would be permanently converted to transportation uses. Temporary impacts include impacts that may occur during construction and were assumed to occur within all other areas of the project area that are not permanently impacted. As identified in **Table 6**, the proposed Build Alternative would permanently impact approximately 19.85 acres of vegetation, including 10.84 acres of Urban Low Intensity, 6.07 acres of Edwards Plateau: Savanna Grassland, and 2.94 acres of Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland.

Table 6 Potential Impacts to Field-verified EMST and MOU Vegetation Types

Field-Verified EMST Vegetation Type	Ecological System Type	Ecoregion	TxDOT-TPWD MOU Vegetation Type	Permanent Impacts (acres)	Potential Temporary Impacts (acres)
Urban Low Intensity	Urban	Cross Timbers	Urban	10.84	92.38

Table 6 Potential Impacts to Field-verified EMST and MOU Vegetation Types

Field-Verified EMST Vegetation Type	Ecological System Type	Ecoregion	TxDOT-TPWD MOU Vegetation Type	Permanent Impacts (acres)	Potential Temporary Impacts (acres)
Edwards Plateau: Savanna Grassland	Cross Timbers Edwards Plateau Limestone Savanna and Woodland	Cross Timbers	Edwards Plateau Savanna, Woodland, and Shrubland	6.07	5.08
Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland	Cross Timbers Edwards Plateau Limestone Savanna and Woodland	Cross Timbers	Edwards Plateau Savanna, Woodland, and Shrubland	2.94	0
Total Impacts				19.85	97.46
<i>Total Impacts to Urban MOU Type</i>				<i>10.84</i>	<i>92.38</i>
<i>Total Impacts to Edwards Plateau Savanna, Woodland, and Shrubland MOU Type</i>				<i>9.01¹</i>	<i>5.08²</i>

¹ Impacts to the Edwards Plateau Savanna, Woodland, and Shrubland vegetation type would exceed the MOU threshold of 2 acres for this vegetation type; therefore, TPWD coordination will be required for the impacts.

Based on the Crosstab of the Threshold Programmatic Agreement (PA) for the MOU between TxDOT and TPWD (effective September 1, 2013), **Table 6** also provides the TxDOT-TPWD MOU vegetation types that correspond with each EMST vegetation type identified in the project area. As shown in **Table 6**, the proposed impacts to the Edwards Plateau Savanna, Woodland, and Shrubland MOU vegetation type exceeds the MOU threshold for TxDOT-TPWD coordination, which is 2 acres. Therefore, coordination with the TPWD is required for vegetation impacts.

TxDOT has designed the safety improvement project, as proposed by the Build Alternative, to maximize the use of the existing ROW and roadway and to minimize the length and width of the new-alignment section. As a result, the amount of new ROW and the potential impacts to vegetation have been minimized. To further minimize impacts during construction, TxDOT would include notes in the Environmental Permits, Issues and Commitments (EPIC) sheets for the developer/contractor to minimize clearing of and avoiding the placement of Project Specific Locations (PSLs) in or adjacent to wooded areas. In addition, disturbed areas would be reseeded with native plant species where possible.

3.4.2 Beneficial Landscape Practices and Invasive Species

In accordance with the Executive Memorandum on Beneficial Landscaping and Executive Order 13112 on Invasive Species dated August 9, 1994, landscaping would be limited to seeding and replanting the ROW with native species of plants where possible. Soil disturbance would be minimized to reduce the establishment of invasive species in the ROW.

3.4.3 Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) and TPWD threatened and endangered species lists for Palo Pinto County identify several threatened and endangered species that potentially occur in the county. **Table 7** lists these species and their regulatory status, describes their habitat requirements, and identifies whether habitat is present in the project area based on habitat assessments conducted in January through

September 2011. In addition, **Table 7** identifies the anticipated effects of the Build Alternative on listed species.

Table 7 Federal and State Listed Threatened/Endangered Species of Concern in Palo Pinto County

Species	Federal Status	State Status	Description of Suitable Habitat	Potential Habitat Present	Species Effect/ Impact	Pertinent Project Information
Birds						
American Peregrine Falcon <i>Falco peregrinus anatum</i>	DL	T	Year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in U.S. and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Yes (migration)	No impact	Cliffs adjacent to the project area are wooded or not steep enough to provide suitable nesting habitat. Occurrence of American peregrine falcons in the project area would be temporary during migration.
Arctic Peregrine Falcon <i>Falco peregrinus tundrius</i>	DL	—	Migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Yes (migration)	No impact	Occurrence of Arctic peregrine falcons in the project area would be temporary during migration.
Bald Eagle <i>Haliaeetus leucocephalus</i>	DL	T	Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds.	Yes (foraging)	No impact	The Brazos River provides potential foraging habitat, but no suitable nesting trees occur near the proposed construction, and the project would not affect the river.
Black-capped Vireo <i>Vireo atricapilla</i>	LE	E	Oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer.	Yes (burned)	May Affect, Not Likely to Adversely Affect	Suitable habitat and individual birds have been previously recorded south of the Brazos River and the southern construction limit. The habitat burned in 2011 but may re-generate prior to construction. However, the habitat is 1,000 feet or more south of the proposed construction limit.

Table 7 Federal and State Listed Threatened/Endangered Species of Concern in Palo Pinto County

Species	Federal Status	State Status	Description of Suitable Habitat	Potential Habitat Present	Species Effect/ Impact	Pertinent Project Information
Golden-cheeked Warbler <i>Setophaga chrysoparia</i>	LE	E	Juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer.	Yes	May Affect, Not Likely to Adversely Affect	Potential habitat is present south of the Brazos River and the southern construction limit, as well as in the proposed ROW on Kimberlin Mountain; however, most burned in 2011. A presence-absence survey will be conducted prior to construction.
Interior Least Tern <i>Sterna antillarum athalassos</i>	LE	E	Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also known to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony.	Yes	No effect	Potential nesting habitat is present on gravel bars in the Brazos River, but interior least terns are not known to nest on the Brazos River. The project would not impact the Brazos River.
Mountain Plover <i>Charadrius montanus</i>	—	—	Breeding; nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding; shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous.	Yes (migratory)	No impact	Disturbed Prairie vegetation provides potential habitat but occurrence would be temporary during migration.
Peregrine Falcon <i>Falco peregrinus</i>	DL	T	Both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	Yes (migratory)	No impact	Occurrence of peregrine falcons in the project area would be temporary during migration.
Sprague's Pipit <i>Anthus spragueii</i>	C	—	Only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	Yes (migratory)	No impact	Disturbed Prairie vegetation provides potential habitat, but occurrence in the project area would be temporary during migration.

Table 7 Federal and State Listed Threatened/Endangered Species of Concern in Palo Pinto County

Species	Federal Status	State Status	Description of Suitable Habitat	Potential Habitat Present	Species Effect/ Impact	Pertinent Project Information
Western Burrowing Owl <i>Anthene cunicularia hypugaea</i>	—	—	Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows.	Yes	May impact	Disturbed Prairie and Mowed and Maintained ROW vegetation provide potential habitat.
Whooping Crane <i>Grus Americana</i>	LE	E	Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio Counties.	No	No effect	The proposed project area does not contain suitable habitat for this species.
Fishes						
Guadalupe bass <i>Micropterus treculii</i>	—	—	Endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system.	Yes	No Impact	The Brazos River provides potential habitat but would not be impacted by the project.
Sharpnose Shiner <i>Notropis oxyrhynchus</i>	PE	—	Endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud.	Yes	No impact	The Brazos River provides potential habitat but would not be impacted by the project.
Smalleye Shiner <i>Notropis buccula</i>	PE	—	Endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates.	Yes	No impact	The Brazos River provides potential habitat but would not be impacted by the project.
Mammals						
Gray Wolf <i>Canis lupis</i>	LE	E	Extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands.	No	No effect	Species has been extirpated from Texas.
Plains Spotted Skunk <i>Spilogale putorius interrupta</i>	—	—	Catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie.	Yes	May impact	Species could use habitats in project area.
Red Wolf <i>Canis rufus</i>	LE	E	Extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies.	No	No effect	Species has been extirpated from Texas.
Mollusks						
Texas Fawnsfoot <i>Truncilla macrodon</i>	C	T	Little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins.	Yes	No impact	The Brazos River provides potential habitat but would not be impacted by the project.

Table 7 Federal and State Listed Threatened/Endangered Species of Concern in Palo Pinto County

Species	Federal Status	State Status	Description of Suitable Habitat	Potential Habitat Present	Species Effect/ Impact	Pertinent Project Information
Reptiles						
Brazos Water Snake <i>Nerodia harteri</i>	—	T	Upper Brazos River drainage; in shallow water with rocky bottom and on rocky portions of banks.	Yes	No impact	The Brazos River provides potential habitat but would not be impacted by the project.
Texas Horned Lizard <i>Phrynosoma cornutum</i>	—	T	Open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.	Yes	May impact	Species could use Disturbed Prairie and Mowed and Maintained ROW vegetation in project area.

Federal Status Descriptions

LE, LT – Federally Listed Endangered/Threatened
 PE = Federally Proposed Endangered
 C – Federal Candidate for Listing
 DL – Federally Delisted
 EXPN – Experimental Population, Non-Essential
 — -- Not listed by USFWS

State Status Descriptions

E, T - State Listed Endangered/Threatened
 " — " – Considered a Species of Greatest Conservation Need (SGCN) by the TPWD per the TxDOT-TPWD MOU that became effective on September 1, 2013; no regulatory listing status

Data Sources: USFWS 2014a, 2014b, TPWD 2014, and site visits between January and September 2011

A Texas Natural Diversity Database (TXNDD) search managed by the TPWD was conducted on January 17, 2014 (date on which the information was received from TPWD). The review was requested from TPWD by a consulting firm that had no access to the Mimic database and met all the requirements of the TxDOT-TPWD Memorandum of Agreement (MOA) for sharing and maintaining NDD information. The search radius was 10 miles from the project area. Within 1.5 miles of the project area, the NDD identified four records of federal or state-listed species, which are listed in **Table 8**. The federally listed Black-capped Vireo (*Vireo atricapilla*) and Golden-cheeked Warbler (*Setophaga chrysoparia*) have been recorded along SH 16 in oak-juniper woodlands located south of the Brazos River. The Brazos water snake (*Nerodia harteri*) and Texas fawnsfoot (*Truncilla macrodon*) have been recorded in a long stretch of the Brazos River downstream of Morris Sheppard Dam, which includes the SH 16 crossing. No managed areas are recorded in the NDD within 1.5 miles of the project area.

Table 8 NDD Elements of Occurrence Records within 1.5 Miles of Project Area

Element of Occurrence ID No.	Common Name	Scientific Name	Status ¹	Location Description
7679	Black-capped Vireo	<i>Vireo atricapilla</i>	FE	Along SH 16 between the Brazos River and Cliff Drive
1471	Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	FE	Along SH 16 between the Brazos River and Cliff Drive
7875	Brazos Water Snake	<i>Nerodia harteri</i>	ST	In Brazos River from Morris Sheppard Dam downstream to outside the search area
9650	Texas Fawnsfoot	<i>Truncilla macrodon</i>	C, ST	In Brazos River from Morris Sheppard Dam to over 5 miles downstream of SH 16

¹ FE = Federally listed as Endangered; C = Federal Candidate for Listing; ST = State Threatened
 Source: TPWD NDD, January 2014

No Build Alternative

The No Build Alternative would not impact any habitats and would have no effect on threatened or endangered species. However, the traveling public utilizing SH 16 would continue to be impacted by the safety issues relating to the roadway's geometric and functional deficiencies.

Build Alternative

The following sections discuss the potential for the proposed Build Alternative to affect the species for which potential habitat exists in the project area, as outlined in **Table 7**. The species are discussed by regulatory status (e.g., federally listed, proposed, and candidate threatened and endangered species; state-listed species; and Species of Greatest Conservation Need).

Federally Listed, Proposed, and Candidate Threatened and Endangered Species

Of the federally listed, proposed, and candidate threatened or endangered species listed for Palo Pinto County, potential habitat is present or was recently present in the project area for the Black-capped Vireo, Golden-cheeked Warbler, Interior Least Tern (*Sternula antillarum athalassos*), Sprague's Pipit (*Anthus spragueii*), sharpnose shiner (*Notropis oxyrhynchus*), smalleye shiner (*Notropis buccula*), and Texas fawnsfoot (*Truncilla macrodon*). The following discusses the potential effects of the project on these species.

Black-capped Vireo and Golden-cheeked Warbler

Habitat for the Black-capped Vireo and Golden-cheeked Warbler is present along the existing roadway south of the Brazos River bridge, outside the proposed construction limits. Both species have been previously recorded in these habitats; however, wildfires in 2011 destroyed most of the habitat.

Potential habitat for the Golden-cheeked Warbler is also present in the proposed ROW on Kimberlin Mountain, although the habitat is considered marginal and the species has not been recorded there during previous presence-absence surveys. Portions of this habitat also burned during the 2011 wildfires.

South of the Brazos River, the proposed Build Alternative calls for minimal work up to 1,200 feet south of the bridge. There is no Black-capped Vireo or Golden-cheeked Warbler habitat at this location or within several hundred feet of the proposed work. On Kimberlin Mountain, the proposed new-alignment roadway section would cross a strip of oak-juniper woodlands and result in the clearing of approximately 2.94 acres of woodland. Previous presence-absence surveys conducted by TxDOT have not detected either species in this area. As a result, the proposed project may affect, but is not likely to adversely affect, the Black-capped Vireo and Golden-cheeked Warbler. Based on a conversation with the USFWS at the agency working meeting in December 2011 and an on-site field visit with USFWS staff on May 14, 2013, TxDOT will conduct a presence-absence survey on Kimberlin Mountain during the nesting season prior to construction. TxDOT will coordinate the results of the survey as necessary.

Interior Least Tern, Sharpnose Shiner, Smalleye Shiner, and Texas Fawnsfoot

The Brazos River provides potential habitat for the interior least tern, smalleye shiner, sharpnose shiner, and Texas fawnsfoot; however, the proposed Build Alternative is expected to have no effect on these species for the following reasons:

- The proposed Build Alternative would utilize the existing bridge, and no impacts to the Brazos River would occur.
- Although gravel bars within the river's floodway provide suitable nesting habitat for the Interior Least Tern, the species has not been recorded nesting on the Brazos River.
- Although the sharpnose and smallmouth shiners were once present in this stretch of the river, the creation of Possum Kingdom Lake has altered the river downstream of the dam by the release of cold water, which has modified the thermal regime, as well as changed the substrate from a sandy bottom with high turbidity to a clear, gravel bottom habitat. Correspondingly, the shiner species have not been recently recorded downstream of Possum Kingdom Lake.
- The Texas fawnsfoot has been recorded in the Brazos River in Palo Pinto County as recently as 1996; however, the proposed project would avoid impacts to the river and to this species.

Sprague's Pipit

Sprague's Pipit may use open habitats (e.g., pastures) in and adjacent to the project area during migration; however, use of the habitats in the project area would be considered temporary during migration, and there is an abundance of similar habitats in the region. Therefore, the proposed project is not expected to impact Sprague's pipit.

State-listed Species

Of the state-listed species of potential occurrence in Palo Pinto County, potential habitat is present in the project area for the American and Arctic Peregrine Falcons (*Falco peregrines anatum* and *F. p. tundrius*), the Bald Eagle (*Haliaeetus leucocephalus*), the Brazos water snake, and the Texas horned lizard (*Phrynosoma cornutum*). The following discusses the potential impacts of the project on these species.

American and Arctic Peregrine Falcons

The American and Arctic Peregrine Falcons may migrate through the area and may utilize various habitats during migration; however, use of the habitats in the project area would be considered temporary during migration, and there is an abundance of similar habitats in the region. Therefore, the proposed project is not expected to impact Peregrine Falcons.

Bald Eagle

The Bald Eagle could use the Brazos River for foraging, but no suitable nesting trees were observed in or near the project area, and no known nests occur in the area. The proposed Build Alternative would avoid impacts to the river and would not impact the Bald Eagle.

Although no Peregrine Falcons, Bald Eagles, or their nests are expected to be encountered during construction, best management practices (BMPs) identified in the TxDOT-TPWD MOU that became effective on September 1, 2013 would be used to reduce potential impacts on these and other bird species. The BMPs include:

- Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season;
- Avoiding the removal of unoccupied, inactive nests, as practicable;
- Preventing the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair;
- Not collecting, capturing, relocating, or transporting birds, eggs, young, or active nests without a permit.

Brazos Water Snake

The Brazos River and river banks also provide habitat for the Brazos water snake, and this species has been recorded in a long stretch of the river downstream of Possum Kingdom Lake. Like the other species that may utilize the Brazos River, the proposed Build Alternative is not expected to impact the Brazos water snake because it would avoid impacts to the river. Water quality BMPs that will be implemented as part of the storm water pollution prevention plan (SW3P) would help protect the river habitat.

Texas Horned Lizard

The Texas horned lizard may utilize open areas within the project area. This species has not been recorded in the area, but its presence in the project area cannot be ruled out. If present during construction, individuals could be impacted by construction. TxDOT will include notes in the EPIC sheets or otherwise advise the construction contractor of the potential occurrence of this species in the project area and the need to avoid harming the species if encountered. This would include avoiding harvester ant mounds in the selection of PSLs.

Species of Greatest Conservation Need

Species of Greatest Conservation Need (SGCN) identified by the TPWD that may occur in the project area include the Mountain Plover (*Charadrius montanus*), Western Burrowing Owl (*Athene cunicularia hypugaea*), Guadalupe bass (*Micropterus treculii*), and plains spotted skunk (*Spilogale putorius interrupta*). The proposed project is not expected to impact the Mountain Plover or Guadalupe bass because occurrence of the Mountain Plover in the project area would be temporary during migration, and the project will avoid impacts to the Brazos River, which may provide habitat for the Guadalupe bass. If the Western Burrowing Owl and plains spotted skunk are present in the project area during construction, they could be impacted; however, both species would likely avoid construction activities, and there is an abundance of similar habitats surrounding the project.

To further reduce the potential to impact SGCNs, the project's EPIC sheets will include BMPs identified in the TxDOT-TPWD MOU that became effective on September 1, 2013, as listed below.

- For the Mountain Plover and Western Burrowing Owl, BMPs will include the following:
 - Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season;

- Avoiding the removal of unoccupied, inactive nests, as practicable;
 - Preventing the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair;
 - Not collecting, capturing, relocating, or transporting birds, eggs, young, or active nests without a permit.
- For the Guadalupe bass, water quality BMPs to be implemented as part of the SW3P.
 - For the plains spotted skunk, contractors will be advised of the species’ potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.

3.4.4 Texas Parks and Wildlife Department Coordination

In accordance with the TxDOT-TPWD MOU effective September 1, 2013, a Tier I Site Assessment was conducted in order to determine impacts and the need for coordination with the TPWD. A Tier I Site Assessment defines the type and amount of habitat that could be impacted by the proposed project by using information from the Texas Conservation Action Plan (TCAP); EMST; TXNDD; TPWD county list of Rare and Protected Species of Texas; USFWS county list of endangered, threatened, and candidate species; and current aerial photography. In addition, a qualified biologist conducted site visits in January, February, May, and September 2011. **Table 9** outlines the triggers for project coordination. Based on the results of the assessment, coordination with the TPWD was conducted and was completed on April 24, 2014. A copy of the TPWD correspondence is included in **Appendix D**.

Table 9 MOU Triggers for TPWD Coordination

MOU Reference (43 TAC Ch. 2 subchapter G)	Trigger	Is Coordination Required?
2.206(1)	Project is within range of a state threatened or endangered species or Species of Greatest Conservation Need (SGCN) as identified by the TPWD county list (as of date of project scope) and there is suitable habitat for the state threatened or endangered species or SGCN. ----- Unless BMPs are implemented to address potential impacts to suitable habitat.	Yes: the project is within range and suitable habitat for state threatened species and SGCNs. Based on the BMP PA, there are no approved BMPs for the Brazos water snake; therefore, TPWD coordination is required.
2.206(2)	Project may adversely impact important remnant vegetation based on the judgment of a qualified biologist OR as mapped in the TXNDD.	No: no important remnant vegetation is located within the project area.
2.206(3)	Project requires a NWP with preconstruction notification (PCN) or an Individual Permit (IP) from the USACE.	No: a NWP with PCN or an IP is not required for the project.
2.206(4)	Project includes more than 200 linear feet of stream channel within the TxDOT ROW or easements for each single and complete crossing of one or more of the following (that is not already channelized or otherwise maintained): (a) channel realignment, or (b) stream bed or bank excavation, scraping, clearing, or other permanent disturbance.	No: project does not include more than 200 linear feet of stream channel.

Table 9 MOU Triggers for TPWD Coordination

MOU Reference (43 TAC Ch. 2 subchapter G)	Trigger	Is Coordination Required?
2.206(5)	Project contains known isolated wetlands outside the existing TxDOT ROW that would be directly impacted by the project.	No: no wetlands are located in or adjacent to the project area.
2.206(6)	Project impacts at least 0.10 acre of riparian vegetation based on the judgment of a qualified biologist or as mapped in the EMST.	No: no riparian vegetation would be impacted by the project.
2.206(7)	Project disturbs habitat in an area equal to or greater than an area of disturbance indicated in the <i>Threshold Programmatic Agreement</i> .	Yes: proposed impacts to the Edwards Plateau Savanna, Woodland, and Shrubland habitat exceed the 2-acre threshold.

3.4.5 Migratory Birds

The Migratory Bird Treaty Act states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a federal permit issued in accordance within the Act’s policies and regulations. Migratory patterns would not be affected by the proposed project. In the event that migratory birds are encountered on-site during project construction, every effort will be made to avoid take of protected birds, active nests, eggs, and/or young. The contractor would remove all old migratory bird nests from September 1 through the end of February from any structure where work will be done. In addition, the contractor would be prepared to prevent migratory birds from building nests between March 1 and October 1.

3.4.6 Fish and Wildlife Coordination Act

This project would not require the modification or development of water resources, and would not require a Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers (USACE); therefore, no coordination under the Fish and Wildlife Coordination Act is required.

3.4.7 Farmland Protection Policy Act

Within the exception of the 9.32 acres of proposed ROW and 5.08 acres of temporary construction easement, the project area is designated for transportation uses and is exempt from the requirements of the Farmland Protection Policy Act. No permanent conversion of land uses would occur in the temporary easement. Within the proposed ROW, six soil series are mapped, including Palopinto stony clay loam, 1 to 8 percent slopes, extremely stony; Set-Palopinto complex, 8 to 40 percent slopes, extremely stony; Apalo very fine sandy loam, 5 to 8 percent slopes; Bastrop fine sandy loam, 3 to 5 percent slopes; Decordova loamy fine sand, 0 to 5 percent slopes; and Lindy clay loam, 1 to 3 percent slopes. Of these soils, the Bastrop soil is designated as prime farmland, and the Decordova and Lindy soils are considered prime farmland if irrigated. As a result, a Farmland Conversion Rating Form NRCS-CPA-106 for corridor type projects was completed and is included as **Appendix G**. The project received a score of less than 60 points; therefore, coordination with the National Resource Conservation Service (NRCS) concerning prime farmlands is not required for this project.

3.5 Water Resources and Water Quality

This section provides an overview of water resources and water quality in the region, followed by a discussion of the potential impacts of the No Build and Build Alternatives. For the Build Alternative, the section outlines compliance with applicable sections of the Clean Water Act, Executive Order 11990 on wetlands, the Rivers and Harbors Act, and floodplain regulations.

The project area is located in the Brazos River basin, and the vicinity is characterized by rocky hills and canyons, with the Brazos River valley crossing through the central portion of the project corridor and a few intermittent and ephemeral tributaries draining the larger canyons south of the river. North of the river, the existing roadway roughly follows a watershed divide, with areas west of the road draining to Possum Kingdom Lake (Segment 1207 of the Brazos River basin), and areas east of the road draining to the Brazos River below Possum Kingdom Lake (Segment 1206 of the Brazos River basin). In this area, the existing roadway crosses mostly headwater drainages, most of which do not exhibit defined channels with ordinary high water marks (OHWMs). Neither Segment 1206 nor Segment 1207 are listed on the 2012 State of Texas Clean Water Act 303(d) List of threatened and impaired waters.

No Build Alternative

If the No Build Alternative were implemented, no improvements would be made to SH 16, and no impacts to water resources or water quality would occur; as a result, no permits or coordination regarding water resources and water quality would be required for this project. However, the traveling public utilizing SH 16 would continue to be impacted by the safety issues relating to the roadway's geometric and functional deficiencies.

Build Alternative

If the Build Alternative were implemented, the proposed construction is expected to have no more than minimal impacts to water resources and water quality. The following sections discuss the anticipated impacts of the Build Alternative and compliance with pertinent water resource regulations.

3.5.1 Section 404 of the Clean Water Act: Wetlands and Other Waters of the U.S.

Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into wetlands and other waters of the U.S. Waters of the U.S. in the project area were identified by reviewing available data and maps and conducting field investigations. Prior to field investigations, project plans were reviewed relative to aerial photography and USGS topographic, National Wetland Inventory (NWI), and Federal Emergency Management Agency (FEMA) floodplain maps. Field investigations were conducted in January, February, May, and September 2011 and consisted of windshield and pedestrian surveys extending the entire length and width of the project area.

The USGS topographic map (**Figure 6**) shows a number of potential drainages (e.g., blue lines) that cross the project area; however, field investigations identified that only three features exhibit defined channels with OHWMs and are considered waters of the U.S. These include the Brazos River (WOUS 1), an unnamed tributary of the Brazos River that parallels SH 16 south of the river (WOUS 2), and one unnamed tributary of Loving Creek (WOUS 3) (see **Figure 6**). The remaining drainages identified as blue lines on the USGS map are headwater features that do not possess defined channels with OHWMs in or

outside the project ROW. Therefore, they are not waters of the U.S. subject to Section 404 regulation. The following paragraphs describe each water of the U.S. feature and anticipated impacts to the feature. No wetlands or other special aquatic sites were observed in the project area.

Brazos River (WOUS 1)

The Brazos River crosses SH 16 near the south end of the proposed construction project. Within the project area, the Brazos River consists of a broad floodway that is approximately 400 feet wide. The main river channel flows along the north side of the floodway and is typically 40 to 60 feet wide between OHWMs. At the SH 16 bridge, the floodway is scoured, creating an open water feature that connects to the main river channel. During the 2011 field investigations, the river channel and open water feature contained clear water ranging from a few inches to a few feet in depth. The remaining portion of the floodway consists of gravel bars that support herbaceous vegetation dominated by switchgrass, with scattered giant ragweed and Emory's caric-sedge. The river banks support a riparian woodland that contains cedar elm, sugar hackberry, and pecan. No wetlands or other special aquatic sites were observed in the ROW at the Brazos River crossing.

The Build Alternative would not alter the historic Brazos River bridge and does not require the discharge of dredged or fill material or other work in the Brazos River. As a result, no Section 404 permit is required for this crossing.

Unnamed Tributary of the Brazos River (WOUS 2)

South of the Brazos River, an unnamed tributary of the Brazos River that drains the surrounding hills and canyons parallels SH 16 within the ROW and crosses the roadway six times through masonry box culverts. The tributary is ephemeral and nature (i.e., flows only shortly after rainfall events) and contains a rocky channel ranging from about 4 to 12 feet wide between OHWMs. Vegetation along the tributary is dominated by cedar elm, sugar hackberry, Texas ash (*Fraxinus texensis*), Ashe juniper, oaks (*Quercus* spp.), saw greenbrier, and Virginia wildrye. No wetlands or other special aquatic sites were observed within the ROW along this tributary. The tributary begins flowing away from the road to the Brazos River approximately 0.5 mile south of the Brazos River Bridge.

The proposed construction extends to 1,200 feet south of the Brazos River Bridge. South of this point to Cliff Drive (the southern logical terminus), SH 16 was previously widened under a previous project (CSJ: 0362-02-020). As a result, no construction is planned in this section under the Build Alternative, and no discharges would occur at any of the six crossings of WOUS 2.

Unnamed Tributary of Possum Kingdom Lake (WOUS 3)

North of the Brazos River, the USGS topographic maps show several headwater drainages crossing the roadway; however, field investigations identified that only one of the drainages exhibited a defined channel with OHWMs and is considered a jurisdictional water of the U.S. This feature is an unnamed tributary of Possum Kingdom Lake that crosses SH 16 approximately 0.75 mile north of FM 2353 (**Figure 6**). It has a 2-foot wide channel and is bounded by grazed pasture dominated by grasses and forbs.

The Build Alternative would utilize the existing masonry culvert at WOUS 3 and would not widen or otherwise modify the culvert. As a result, the project would not discharge dredged or fill material into WOUS 3, and no section 404 permit would be required for this crossing.

In summary, the Build Alternative entails adding and/or widening shoulders of the existing SH 16 roadway and constructing a 0.5-mile section of new-alignment roadway on Kimberlin Mountain. The existing Brazos River Bridge and culverts along the roadway would remain in place and would not be widened or otherwise modified. As a result, this project would not result in the placement of temporary or permanent dredge or fill material into jurisdictional waters of the U.S., including wetlands or other special aquatic sites; therefore, a Section 404 permit would not be required.

3.5.2 Section 401 of the Clean Water Act: State Water Quality Certification

Section 401 of the Clean Water Act requires a state-level review of projects that are authorized by a USACE Section 404 permit to insure that the projects do not diminish water quality. The proposed project would not require a USACE Section 404 Permit; therefore, Section 401 Certification would not be required.

3.5.3 Executive Order 11990 on Wetlands

During field visits made in January, February, May, and September 2011, the project area was surveyed for the presence of wetlands. No wetlands were identified in the proposed project area; therefore, none would be impacted, and EO 11990 on wetlands does not apply.

3.5.4 General Bridge Act of 1946/Rivers and Harbors Act of 1899, Sections 9 and 10

According to the USACE's list of navigable waters in the Fort Worth District, the Brazos River is not navigable within the project area, and no other navigable waters are present in the project area; therefore, the proposed project does not involve work in or over navigable waters of the U.S., and Sections 9 and 10 of the Rivers and Harbors Act do not apply.

3.5.5 Section 303(d) of the Clean Water Act: Threatened and Impaired Waters

Runoff from the project area would discharge to Possum Kingdom Lake (Segment 1207 of the Brazos River Basin) or the Brazos River Below Possum Kingdom Lake (Segment 1206 of the Brazos River Basin). Segment 1206 is classified for uses that include aquatic life, fish consumption, recreation, and general use by the TCEQ. Segment 1207 is classified for these uses, as well as public water supply. Neither segment is listed as a threatened or impaired stream on the 2012 Clean Water Act Section 303(d) list. As a result, runoff from this project would not discharge directly into a Section 303(d)-listed threatened or impaired water, or into a stream within 5 miles upstream of a Section 303(d) listed threatened or impaired water. Coordination with the TCEQ is not required.

3.5.6 Section 402 of the Clean Water Act: Texas Pollutant Discharge Elimination System

Section 402 of the Clean Water Act regulates the discharge of pollutants into waters by setting up the National Pollutant Discharge Elimination System. Within Texas, authority for most construction projects,

including transportation projects, has been transferred to the TCEQ under the TPDES. In compliance with the TCEQ's General Permit TXR150000 relating to storm water discharges from construction activities and in accordance with TxDOT policies, a SW3P would be prepared and would be implemented prior to and during construction. Temporary erosion control measures would be used during construction to minimize impacts to water quality as specified in the TxDOT manual *Storm Water Management and Guidelines for Construction Activities*. Since the proposed project would disturb more than 5 acres of land, a Notice of Intent (NOI) would be submitted to the TCEQ prior to commencing construction. The project is not located within the boundaries of a regulated municipal separate storm water sewer system (MS4).

3.5.7 Executive Order 11988 on Floodplains

EO 11988 on floodplain management requires that federal agencies avoid activities that directly or indirectly result in the development of a floodplain area. According to FEMA's most current Flood Insurance Rate Maps for Palo Pinto County (Map Panel Numbers 48363C0275E and 48363C0150E, both effective as of August 2, 2012), the project crosses 100-year floodplains in three locations, as shown on **Figure 6**. The hydraulic design for this project would be in accordance with current FHWA and TxDOT design policies. The facility would permit the conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing significant damage to the facility, stream, or other property. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. The proposed project will use existing bridges and culverts, and no new structures or modifications of existing structures are planned within floodplains. Coordination with the local Floodplain Administrator is not expected to be required.

3.6 Air Quality

This section discusses the No Build Alternative and Build Alternative in relation to air quality. To directly compare the alternatives in relation to air quality and mobile source air toxics, the alternatives are discussed simultaneously rather than in separate sections.

The proposed action is consistent with the 2013-2016 STIP. The project is located in Palo Pinto County, which is in an area in attainment or unclassifiable for all national ambient air quality standards (NAAQS); therefore, the transportation conformity rules do not apply.

Generally, projects such as the proposed action are considered exempt from a transportation air quality analysis (TAQA) because they are intended to enhance traffic safety. The proposed action would not add capacity to an existing facility. Current and future emissions should continue to follow existing trends not being affected by this project. Due to the nature of this project, further carbon monoxide analysis was not required.

The purpose of this project is to improve safety by widening shoulders and bypassing a sharp curve. This project has been determined to generate minimal air quality impacts for Clean Air Act Amendments (CAAA) criteria pollutants and has not been linked with any special Mobile Source Air Toxics (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project

location, or any other factor that would cause an increase in MSAT impacts of the project from that of the No Build Alternative.

Moreover, Environmental Protection Agency (EPA) regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES model forecasts a combined reduction of over 80 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 100 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

During the construction phase of this project, temporary increases in air pollutant emissions may occur from construction activities. The primary construction-related emissions are particulate matter (fugitive dust) from site preparation. These emissions are temporary in nature (only occurring during actual construction); it is not possible to reasonably estimate impacts from these emissions due to limitations of the existing models. However, the potential impacts of particulate matter emissions will be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate.

The construction activity phase of this project may generate a temporary increase in MSAT emissions from construction activities, equipment and related vehicles. The primary MSAT construction-related emissions are particulate matter from site preparation and diesel particulate matter from diesel-powered construction equipment and vehicles. The Texas Emissions Reduction Plan (TERP) includes incentive programs to encourage the development of multi-pollutant approaches to ensure that the air in Texas is both safe to breathe and meets minimum federal standards. TxDOT encourages construction contractors to utilize this program to the fullest extent possible to minimize diesel emissions. Information about the TERP program can be found at: <http://www.tceq.state.tx.us/implementation/air/terp/>. However, considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized, it is not anticipated that emissions from construction of this project will have any significant impact on air quality in the area.

3.7 Noise

The majority of the proposed project involves a minor widening of the SH 16 roadway, and a 0.5-mile section of the proposed project would result in a horizontal and vertical realignment on an undeveloped portion of a ranch property.

Since the proposed project would not be on a new location, would not substantially alter either the horizontal or vertical alignment, and would not increase the number of through-traffic lanes or auxiliary lanes, a traffic noise analysis is not required by FHWA Regulation 23 CFR 772 or TxDOT's Guidelines for Analysis and Abatement of Roadway Traffic Noise (2011).

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. No extended disruption of normal activities is expected. Provisions will 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.

3.8 Hazardous Materials

Hazardous materials are substances that are toxic to plants, animals, or humans; corrosive to materials; flammable; or explosive. This section discusses the No Build and the Build Alternatives in relation to hazardous materials.

An Initial Site Assessment (ISA) was completed to identify potential hazardous material concerns within and adjacent to the project area. The ISA consisted of reviewing project design and ROW requirements, conducting a site survey, reviewing existing and previous land use, and American Society for Testing and Materials (ASTM) E1527 level database search. A copy of the database search report is on file at the TxDOT Fort Worth District office..

Database Search

A database search for potential hazardous materials was conducted in February 2012 in accordance with the ASTM. **Table 10** identifies the federal and state databases searched and the corresponding findings.

Table 10 Hazardous Materials Data Search and Findings

Sources	Database Acronym	Minimum Search Distance	Findings	
			Locatable	Un-locatable
<i>Federal</i>				
Aerometric Information Retrieval System/ Air Facility Subsystem	AIRSAFS	target property	0	0
Biennial Reporting System	BRS	target property	0	0
Clandestine Drug Laboratory Locations	CDL	target property	0	0
EPA Docket Data	DOCKETS	target property	0	0
Federal Engineering Institutional Control Sites	EC	target property	0	0
Emergency Response Notification System	ERNS	target property	0	0
Facility Registry System	FRS	target property	3	0
Hazardous Materials Incident Reporting System	HMIRS	target property	0	0
Integrated Compliance Information System	ICIS	target property	0	0
Integrated Compliance Information System National Pollutant Discharge Elimination System	ICISNPDES	target property	0	0
Material Licensing Tracking System	MLTS	target property	0	0
National Pollutant Discharge Elimination System	NPDES	target property	0	0
PCB Activity Database	PADS	target property	0	0
Permit Compliance System	PCS	target property	0	0
CERLIS Liens	SFLIENS	target property	0	0
Section Seven Tracking System	SSTS	target property	0	0
Toxics Release Inventory	TRI	target property	0	0
Toxic Substance Control Act Inventory	TSCA	target property	0	0
No Longer Regulated RCRA Generator Facilities	NLRRCRAG	target property and adjoining	0	0

Table 10 Hazardous Materials Data Search and Findings

Sources	Database Acronym	Minimum Search Distance	Findings	
			Locatable	Un-locatable
Resource Conservation and Recovery Act – Generator Facilities	RCRAGR06	target property and adjoining	0	0
Brownfields Management System	BF	0.5 mi	0	0
Comprehensive Environmental Response, Compensation, and Liability Information System	CERCLIS	0.5 mi	0	0
Land Use Control Information System	LUCIS	0.5 mi	0	0
No Further Remedial Action Planned	NFRAP	0.5 mi	0	0
No Longer Regulated RCRA Non-CORRACTS TSD Facilities	NLRRCRAT	0.5 mi	0	0
Open Dump Inventory	ODI	0.5 mi	0	0
Resource Conservation and Recovery Act – Treatment, Storage & Disposal Facilities	RCRAT	0.5 mi	0	0
Delisted National Priorities List	DNPL	1.0 mi	0	0
Department of Defense Sites	DOD	1.0 mi	0	0
Formerly Used Defense Sites	FUDS	1.0 mi	0	0
No Longer Regulated RCRA Corrective Action Facilities	NLRRCRAC	1.0 mi	0	0
Resource Conservation and Recovery Act - Corrective Action Facilities	RCRAC	1.0 mi	0	0
National Priority List	NPL	1.0 mi	0	0
State				
Groundwater Contamination Cases	GWCC	target property	0	0
TCEQ Liens	LIENS	target property	0	0
Municipal Setting Designations	MSD	target property	0	0
Notice of Violations	NOV	target property	1	0
State Institutional/Engineering Controls	SIEC01	target property	0	0
Spills Listing	SPILLS	target property	0	0
Dry Cleaner Registration Database	DCR	0.25 mi	0	0
Industrial and Hazardous Waste Sites	IHW	0.25 mi	0	0
Permitted Industrial Hazardous Waste Sites	PIHW	0.25 mi	0	0
Petroleum Storage Tanks	PST	0.25 mi	0	0
Affected Property Assessment Reports	APAR	0.5 mi	0	0
Brownfields Site Assessments	BSA	0.5 mi	0	0
Closed and Abandoned Landfill Inventory	CALF	0.5 mi	0	0
Innocent Owner/Operator Database	IOP	0.5 mi	0	0
Leaking Petroleum Storage Tanks	LPST	0.5 mi	0	0
Municipal Solid Waste Landfill Sites	MSWLF	0.5 mi	0	0
Railroad Commission VCP and Brownfield Sites	RRCVCP	0.5 mi	0	0
Radioactive Waste Sites	RWS	0.5 mi	0	0
Tier II Chemical Reporting Program Facilities	TIERII	0.5 mi	0	22
Voluntary Cleanup Program Sites	VCP	0.5 mi	0	0
Recycling Facilities	WMRF	0.5 mi	0	0
State Superfund Sites	SF	1.0 mi	0	0
Tribal				
Underground Storage Tanks on Tribal Lands	USTR06	0.25 mi	0	0

Table 10 Hazardous Materials Data Search and Findings

Sources	Database Acronym	Minimum Search Distance	Findings	
			Locatable	Un-locatable
Leaking Underground Storage Tanks on Tribal Land	LUSTR06	0.5 mi	0	0
Open Dump Inventory on Tribal Lands	ODINDIAN	0.5 mi	0	0
Indian Reservations	INDIANRES	1.0 mi	0	0
Total			4	22

Source: GeoSearch 2/20/2012

A total of four locatable sites are located directly adjacent to the proposed project, and an additional 22 sites are unlocatable. Unlocatable findings do not have definite locations associated with their database entry and may or may not be near the proposed project. A summary of the locatable and unlocatable sites are summarized in **Table 11**, and the locatable sites are mapped on **Figures 5.1** through **5.7**.

Additionally, a search of the Texas Railroad Commission (RRC) website revealed that there are several oil and natural gas pipelines and wells found on properties surrounding the project. The pipelines and wells that were mapped by the RRC are included on **Figure 5.1** through **5.7**; however, it should be noted that some of the pipelines and the wells appear to be slightly askew from their actual locations based on reviews of the current aerial imagery. Several oil and natural gas wells were viewed on properties adjacent to the roadway during site visits, and pipeline corridors were observed in the general areas where the RRC mapped them. There are no oil and natural gas wells located within the existing and/or proposed ROW or the proposed easements; however, there are oil and natural gas pipelines that cross SH 16 within the proposed project limits.

No Build Alternative

If the No Build Alternative were implemented, the traveling public utilizing SH 16 would continue to be impacted by the safety issues relating to the roadway's geometric and functional deficiencies. Also, none of the areas of potential hazardous materials would be affected.

Build Alternative

If the Build Alternative were implemented, the types of facilities identified in the database searches and their associated activities would not affect a shoulder widening and/or the minor realignment of the SH 16 roadway. **Table 11** summarizes each site, their categorical designation, and information about each facility and their compliance.

Table 11 Potential Hazardous Materials Sites In and Near the Project Area

Map	Name	Type	Notes
Site Location Unknown/Not Mapped	Possum Kingdom Central Office, 555 Lake Border Drive, Apopka, Florida	TIERII	Site location unknown. The facility passed all violation checks. The site includes communications facilities and is not expected to adversely affect project construction. There is one reported Tier II site for this property owner.
Site Location Unknown/Not Mapped	Ritchie & Ritchie "C" Tank Bat, SH 16, Graford Texas	TIERII	Site location unknown. The facility passed all violation checks. The site is a crude petroleum and natural gas extraction facility and is not expected to adversely affect project construction. There is one reported Tier II site for this property owner.

Table 11 Potential Hazardous Materials Sites In and Near the Project Area

Map	Name	Type	Notes
Sites Location Unknown/Not Mapped	F. Green, 166 Elm Street, Graham, Texas	TIERII	Site locations unknown. These facilities passed all violation checks. The sites are crude petroleum and natural gas extraction facilities and are not expected to adversely affect project construction. There are 10 reported Tier II sites for this lease holder.
Sites Location Unknown/Not Mapped	Frances Murphy, 166 Elm Street, Graham, Texas	TIERII	Site locations unknown. These facilities passed all violation checks. The sites are crude petroleum and natural gas extraction facilities and are not expected to adversely affect project construction. There are ten reported Tier II sites for this lease holder.
4.1	Double Diamond Water Treatment Facility (Registered as At Water Works), 1100 North SH 16, Graford, Texas	FRS	This facility is considered to be of environmental interest or is subject to environmental regulations. Records regarding this property include no recorded data; it is unlikely that this site would adversely affect project construction.
4.1 through 4.5	SH 16, Graford, Texas	FRS	This roadway is considered to be of environmental interest or is subject to environmental regulations. Records regarding the roadway include no recorded data; it is unlikely that this site would adversely affect project construction.
4.3	Possum Kingdom State Fish Hatchery, 600 South SH 16, Graford, Texas	FRS; NOV	FRS: This facility is considered to be of environmental interest or is subject to environmental regulations. Records regarding this property include no recorded data; it is unlikely that this site would adversely affect project construction. NOV: This facility received a violation on 07/31/2007 for “failure to meet the limit for one or more permit parameter.” Water is noted as the material for which the violation was given, and a violation may have been for water discharge. This facility and activities related to its violation are not expected to adversely affect project construction.

Source: GeoSearch 2/20/2012

An analysis of the ISA data indicates the proposed project would not involve the acquisition of known unresolved contamination where TxDOT could reasonably be expected to assume liability for corrective action. In addition, the proposed project would not involve known hazardous materials impacts that could be anticipated to adversely affect construction (e.g., cannot be resolved prior to letting or during construction).

The only potential hazardous materials sites that are located within the proposed project’s existing ROW and/or proposed ROW are the pipelines that cross SH 16. Since relocation of the pipelines is cost prohibitive for a safety improvement project such as the proposed project and there is no engineering justification to relocate any pipeline within the project limits, no encounters with hazardous materials are expected. If further investigation is required and hazardous materials are discovered, they would be managed, removed, and disposed of in compliance with applicable local, state and federal regulations.

4.0 INDIRECT AND CUMULATIVE IMPACTS

This section discusses the indirect impacts analysis (Section 4.1) and cumulative impacts analysis (Section 4.2) conducted for the proposed safety improvements to SH 16 from SH 254 to Cliff Drive. The analyses were conducted in accordance with Council on Environmental Quality (CEQ), FHWA, and TxDOT regulations and guidance documents, including the guidance documents titled *National Cooperative Highway Research Program Report 466, Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects* (NCHRP Report 466, National Research Council 2002) and *Guidance on Preparing Indirect and Cumulative Impact Analyses* (TxDOT revised 2010).

This project is a safety improvement project that only includes the addition or widening of shoulders on an existing two-lane roadway and the construction of a 0.5-mile-long section on new alignment to avoid a sharp curve. As such, the proposed project's potential for indirect and/or cumulative impacts is minimal due to the scope of the proposed project. However, to verify that there are no significant indirect and/or cumulative impacts, the following section of this EA will assess indirect and cumulative impacts.

4.1 Indirect Impacts Analysis

The CEQ defines indirect impacts as "...effects, which are caused by the action and are later in time and farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing impacts and other impacts related to induced changes in the pattern of land use, population density or growth rate, and related impacts on air and water and other natural systems, including ecosystems" (40 CFR § 1508.8). According to the NCHRP Report 466, the CEQ identifies three broad categories of indirect effects:

- Encroachment-Alteration Effects, which are those effects that alter the behavior and functioning of the physical environment and are related to project design features, but are separated from the project by time and/or distance. An example of this type of indirect effect would be a change in aquatic or riparian habitat resulting from the installation of a new bridge or culvert.
- Access-Alteration Effects (also referred to as Project-Influenced Effects, Induced Growth Effects, or Land Use Effects), which include changes in land use resulting from changes in traffic, access, and mobility. An example would be the development of a new subdivision or commercial center on land that was previously inaccessible but has been made accessible by a new roadway.
- Effects Related to Project-Induced Development (Induced Growth-related Effects), which include those effects that are attributable to the induced growth itself. An example would be habitat loss resulting from the conversion of undeveloped land to a subdivision or commercial center that developed along a new roadway.

The indirect effects analysis conducted for the proposed SH 16 safety improvements followed the seven-step approach outlined in TxDOT's *Guidance on Preparing Indirect and Cumulative Impact Analyses* (revised September 2010), which was adapted from the guidance set forth in NCHRP Report 466. The seven steps include:

1. Scoping: Determine the approach to the analysis, the level of effort needed, and the geographical boundaries of the study area.
2. Identify the Study Area's Goals and Trends: Compile information about the study area to develop a context for the analysis.
3. Inventory the Study Area's Notable Features: Review baseline environmental conditions in the study area to identify specific features that are sensitive, valued, unique, or vulnerable.
4. Identify Impact-causing Activities of the Proposed Action and Alternatives: Describe the project design features and identify the potential impacts associated with their construction, operation, and maintenance.
5. Identify Potentially Substantial Indirect Effects for Analysis: Compare the impact-causing activities with the goals and notable features to identify the effects that may be substantial and warrant further analysis.
6. Analyze Indirect Effects: Estimate the magnitude of the potentially substantial effects, their probability of occurrence, the timing and duration, and degree to which they can be controlled or mitigated.
7. Assess Consequences and Consider/Develop Mitigation: Evaluate the indirect effects in relation to project goals, study area goals, and notable features and, if appropriate, develop strategies to avoid, minimize, and/or mitigate the effects.

The following provides the indirect impacts analysis for the proposed SH 16 safety improvement project based on the seven-step process.

4.1.1 Step 1 – Scoping

The proposed project is a safety improvement project that entails the addition of shoulders, widening of shoulders, realignment of approximately 0.5 mile of roadway to bypass the sharp curve on Kimberlin Mountain, and reconfiguration of the Red Bluff Drive and PR 36 intersections. The existing Brazos River Bridge and masonry culverts along the roadway would remain in place and would not be widened or otherwise modified. One exception is a non-functioning masonry culvert that will be buried where the new-alignment roadway segment transitions into the existing roadway near Red Bluff Road. The proposed improvements would be constructed within the existing TxDOT ROW, with the exception of 9.32 acres of new ROW that would be acquired for the construction of the new-alignment section of the roadway and the reconfiguration of the Red Bluff Road intersection. In addition, a 5.08-acre temporary easement would be required between Red Bluff Road and Kimberlin Mountain during construction.

The geographical boundaries of the indirect effects study area, or Area of Influence (AOI), were determined by considering the project scope and purpose, rural nature of the surrounding area, and interviews with the Possum Kingdom Chamber of Commerce, Palo Pinto County officials, and a local real estate company. The resulting AOI includes the parcels or tracts immediately adjacent to SH 16 between SH 254 and Cliff Drive, as shown in **Figure 8**. Although some developed land exists near the southern project terminus and near the SH 16/PR 36 intersection, the area is primarily rural and undeveloped. The proposed project is intended to improve safety on SH 16 and would not add capacity or alter traffic flow patterns. Furthermore, local officials and the interviewed real estate company have said that there are no known plans for development in the area. The area crossed by the 0.5-mile new-

alignment roadway segment is already accessible from the existing SH 16. For these reasons, the proposed project is not likely to induce growth in the area, and the identified AOI is sufficient to assess potential indirect impacts of the proposed project.

The temporal boundary for the indirect impacts analysis was determined to extend from 2015, when the project is scheduled to let for construction, and 2035, which is the approximate design life of the proposed project.

4.1.2 Step 2 – Identify the Study Area’s Goals and Trends

The AOI is approximately 3,117 acres in size, of which an estimated 2,978 acres (95.5 percent) are undeveloped. The rural nature of the AOI is consistent with Palo Pinto County as a whole, which has been heavily focused on cattle ranching since the county’s creation in the 1850s. The county’s population has grown slowly, increasing from approximately 12,000 residents in 1900 to 28,962 residents 70 years later when the population peaked. Between 1970 and 1980, the population declined by 16.9 percent, then slowly began rising again. Between 2000 and 2010, the population increased by only 4.0 percent, from 27,026 in 2000 to 28,111 in 2010 (Handbook of Texas 2012; U.S. Census Bureau 2000; U.S. Census Bureau 2010). The fact that population levels are slightly less than they were 40 years ago denotes that development in the county is generally static.

Not reflected in the county census figures is the increase in part-time residents who own houses surrounding Possum Kingdom Lake near the project area. The Possum Kingdom Chamber of Commerce Director (Gayla Chambers), Palo Pinto County Judge (David Nicklas), and real estate agent Ed Marten noted that the majority of development that has occurred to date near SH 16 are subdivisions of vacation and part-time residences (personal communications with David Nicklas, Palo Pinto County Judge, real estate agent, Ed Marten, and Gayla Chambers, Possum Kingdom Chamber of Commerce on 5/29/2012 and 5/30/2012). All confirmed that these subdivisions and any development related to the recreational use of the lake are immediately adjacent to the lake. This is consistent with aerial photography from the 1960s to the 1990s. Aerial photographs from 1964 show that residential developments have been on the shores of the lake since the 1960s, and subdivisions were built through the 1970s (as shown on the 1977 aerial photographs) and the 1990s (as shown on the 1995 aerial photographs). Sometime between 1977 and 1995, the Cliffs subdivision was built at the south end of the proposed project. According to local residents, this subdivision primarily consists of vacation homes for people who live year-round in Fort Worth and Dallas, approximately 1.5 and 2 hours from the project area, respectively. Areas like the Cliffs illustrate that development immediately surrounding the lake development has occurred and will likely continue to occur to accommodate part-time residents and vacationers. However, according to the Possum Kingdom Chamber of Commerce, the Palo Pinto County Judge, and a local real estate agent, additional residential and commercial development within the AOI is unlikely since the closest place where SH 16 nears the lake is where the Cliffs subdivision is located.

The unincorporated community of Possum Kingdom and Palo Pinto County do not regulate development in the AOI; therefore, the goals of the area are not defined beyond general growth trends.

4.1.3 Step 3 – Inventory the Study Area’s Notable Features

According to the NCHRP Report 466, notable features include specific sensitive, valued, vulnerable, or unique elements of the environment. Notable features identified in the AOI include the NRHP-eligible SH 16 roadway corridor and its contributing features, the NRHP-eligible Brazos River Bridge, the Possum Kingdom State Fish Hatchery, the Brazos River, the Brazos River Nature Trail, and oak-juniper woods that provide potential habitat for two endangered songbirds. The notable features are briefly described below.

- NRHP-eligible SH 16 Roadway Corridor – The 8.4-mile long section of SH 16 from SH 254 to Brackeen Drive was determined eligible for the NRHP under Criterion A (Events) and Criterion C (Engineering) as a historic district with 18 contributing features, which includes 16 masonry culverts, the masonry wall on Kimberlin Mountain, and the Brazos River Bridge (see **Figures 3.1** through **3.4** in **Appendix A**). The roadway and its contributing features were constructed in 1941 by the WPA. The historic roadway corridor and its 18 contributing features are considered Section 4(f) resources under the USDOT Act (see **Section 3.3** for more information about Section 4(f) resources).
- Brazos River Bridge – The Brazos River Bridge carries SH 16 over the Brazos River and was built by the WPA as part of the project to construct the SH 16 roadway corridor in 1941 (see **Figure 3.1** in **Appendix A**). The bridge is a contributing feature to the NRHP-eligible roadway corridor, as well as individually eligible for the NRHP under Criterion A (Events) and Criterion C (Engineering). It is the longest stone arch bridge in Texas, and during project development several members of the public indicated that it is a valued feature. The bridge is considered a Section 4(f) resource under the USDOT Act (see **Section 3.3** for more information about Section 4(f) resources).
- Possum Kingdom State Fish Hatchery – The Possum Kingdom State Fish Hatchery is located on the northwest side of the Brazos River (see **Figure 5.2** in **Appendix A**). The land for the facility was purchased in 1947, and the fish hatchery officially opened in 1950. This facility is one of ten fish hatcheries in the state and one of the seven freshwater hatcheries in Texas. The fish hatchery has 44 ponds, three houses, an office building, and several support structures on the property.
- Brazos River – The Brazos River crosses the SH 16 roadway within the proposed project area (see **Figure 5.2** in **Appendix A**). It is one of the largest rivers between the Rio Grande and the Red River (TPWD 2012). Three dams have been built along the river, including the Morris Sheppard Dam, located approximately one mile upstream of SH 16. The river provides unique aquatic habitat in the AOI, is designated a State Mussel Sanctuary and an Ecologically Significant Stream Segment by the TPWD (TPWD 2010, TPWD 2012), and provides recreation opportunities for kayakers, hikers, fisherman, and others.
- Brazos River Nature Trail – The Brazos River Nature Trail is a publicly owned and accessible trail near the northwest corner of the SH 16 and the Brazos River (see **Figure 3.1** in **Appendix A**). The trail is located along the north banks of the Brazos River and connects a parking area and trailhead along SH 16 to a parking area near the Morris Sheppard Dam on Red Bluff Drive. As a publicly

owned recreational facility, the trail is considered a Section 4(f) resource under the USDOT Act (see **Section 3.3** for more information about Section 4(f) resources).

- **Oak-Juniper Woodlands** – Oak-juniper woodlands and adjacent edges in the AOI provide habitat for two endangered songbirds: the Golden-Cheeked Warbler and Black-Capped Vireo (**Figures 5.1** through **5.7** in **Appendix A**). Both bird species have been previously recorded along SH 16 near the southern project terminus; however, many of the oak-juniper woodlands in the AOI were destroyed by wildfires in May and September 2011.

4.1.4 Step 4 – Identify Impact-Causing Activities of the Proposed Action and Alternatives

The proposed project entails minor widening of the existing roadway to add/widen shoulders along most of the project length. Within the 0.5-mile new-alignment section, a new roadway would be built within a 200-foot-wide ROW. Most of the construction would occur within the existing ROW, but 9.32 acres of new ROW would be needed for the new-alignment section and reconfiguration of the Red Bluff Road intersection, and a 5.08-acre temporary construction easement would be required between Red Bluff Road and Kimberlin Mountain. Of the 10 general categories of impact-causing activities identified in NCHRP Report 466, the following impact-causing activities are expected to occur with the proposed project:

- **Modification of Regime** – The project would convert approximately 10.84 acres of Urban Low Intensity vegetation, 6.07 acres of Edwards Plateau: Savanna Grassland (e.g., managed pasture), and 2.94 acres of Edwards Plateau: Ash Juniper-Live Oak Slope Shrubland vegetation (e.g., oak-juniper woodlands) to pavement and associated transportation ROW. In addition, 5.08 acres of Edwards Plateau: Savanna Grassland would be temporarily modified during construction.
- **Land Transformation and Construction** – The proposed project would require cut and fill through the new-alignment section across Kimberlin Mountain, which will modify the land form through this area.
- **Resource Extraction** – Excavation would be required to construct the road in the 0.5-mile new-alignment section across Kimberlin Mountain. The length of the cut sections will be approximately 1,300 linear feet with depth of excavation ranges from 1 to 60 feet below ground surface for roadway construction. It is anticipated that excavated materials will be used in the fill sections for the new-alignment section, which includes 1,500 linear feet of fill at a depth of 1 to 25 feet deep.
- **Land Alteration** – Land alteration activities associated with the project primarily include the cut and fill sections that will be needed to traverse Kimberlin Mountain. In addition, TxDOT would install erosion control BMPs as needed along the project length to manage runoff during construction.
- **Resource Renewal Activities** – After construction, the temporary road would be removed, and all disturbed areas not covered with pavement would be restored and reseeded with a mix of native and introduced grasses and forbs.

- Chemical Treatment – After construction is completed and the site is restored and reseeded, fertilization may be required to promote re-vegetation, and the use of herbicides would continue along the roadway during maintenance operations.

4.1.5 Step 5 – Identify Potentially Substantial Indirect Effects for Analysis

This step summarizes the methods used to identify indirect impacts and presents the framework for determining which impacts merit further analysis, or, conversely, which impacts require no further analysis.

The methods used to identify indirect impacts are primarily qualitative. This technique focused on the elements or indicators that characterize the study area using ecological, economic, demographic, and social information and data from the baseline investigations. The discussion of indirect impacts focuses on the identified notable resources and is organized by three types of impacts: encroachment-alteration impacts (ecological and socioeconomic), induced growth impacts, and impacts related to induced growth.

Encroachment-alteration impacts are defined as the alteration of the behavior and functioning of the affected environment caused by project encroachment. These impacts are generally categorized as ecological and socioeconomic.

Encroachment-Alteration Impacts (ecological)

Along most of the project length, the proposed improvements would result in slight widening of the existing roadway to add or widen shoulders and would utilize the existing drainage structures without modifying them. The proposed design feature that would result in potential encroachment effects is the 0.5-mile new-alignment section across Kimberlin Mountain. This portion of the new roadway would cross oak-juniper woodlands that have been identified as potential habitat for the Golden-cheeked Warbler. Although wildfires in 2011 thinned out portions of the woodland, the USFWS has stated that a presence-absence survey should be conducted before construction. Potential encroachment effects of the project on the woodland include fragmentation and edge effects. These are discussed in Steps 6 and 7.

The proposed project was designed to utilize the existing Brazos River Bridge and would therefore avoid direct impacts to the Brazos River and the important aquatic habitat that the river provides. The roadway pavement would be widened by 8 to 16 feet north and south of the river to accommodate the proposed shoulders. As the roadway approaches the river, the shoulders would be 4 feet wide and would taper to match the existing bridge width. The additional impervious cover is not expected to substantially increase runoff that may indirectly affect the river. TxDOT would utilize BMPs during and after construction to reduce sediments and other potential pollutants in runoff. Based on this analysis, the proposed project is not expected to result in substantial indirect effects to the Brazos River, and this feature is not discussed further in Steps 6 and 7.

Encroachment-Alteration Impacts (socioeconomic)

The proposed project is intended to improve safety and would not add capacity, alter traffic patterns, increase access, or provide access to areas that are currently accessible. Furthermore, the project would not cause the relocation or displacement of homes or businesses or adversely impact existing community or neighborhood character. Although new ROW would be acquired as part of the proposed project, the

amount of land anticipated to be removed from the tax rolls is minimal (approximately 9 acres from one property owner), and the county would lose a nominal amount of tax dollars based on the loss of revenue.

Notable recreational features in the AOI include the Brazos River and the Brazos River Nature Trail. As discussed under *Encroachment-Alternation Impacts (ecological)*, the proposed project would not impact the Brazos River directly and is not expected to result in substantial indirect effects on the river. Likewise, the project would not impact the recreational use of the Brazos River. As discussed in **Section 3.3 Section 4(f) Properties**, the proposed project would not impact the Brazos River Nature Trail, as none of the proposed work would affect the trail and no new ROW or easements are required from the facility. Access to the public trail would be maintained, and no substantial indirect effects to the trail are expected to occur.

Notable historic features in the AOI include the NRHP-eligible SH 16 roadway corridor, including its contributing features, and the Brazos River Bridge. As discussed in **Section 3.2.1 Historic Properties**, the proposed project will avoid adverse effects to the Brazos River Bridge; however, the project will adversely affect the SH 16 roadway corridor due to the proposed 0.5-mile realignment, as well as one masonry box culvert that will be buried and the masonry guard wall that will be bypassed. TxDOT and the SHPO have agreed on a proposal to mitigate these direct adverse effects. Substantial indirect effects to the historic features are not expected. The project will eliminate the potential for future collisions with the masonry wall, and TxDOT will release to Palo Pinto County all interest in the bypassed section of SH 16. Palo Pinto County has shown interest in developing a future interpretive park at this location and will manage access to and maintain the area. Based on this analysis, no substantial indirect effects are expected to occur to historic features.

One other notable facility, the Possum Kingdom State Fish Hatchery, is located in the AOI. The proposed project will acquire approximately 0.32 acre of ROW from the hatchery facility to realign the Red Bluff Drive intersection with SH 16. The proposed ROW acquisition will not affect the facility's buildings, ponds, or other infrastructure and will not affect the hatchery's operation. The project will maintain access to the facility, and no indirect impacts to the hatchery are expected.

Based on the analysis conducted above, encroachment-alteration impacts to socioeconomic resources in the AOI are anticipated to be minimal; therefore, they are not analyzed further in Steps 6 and 7.

Induced Growth Impacts

As noted above, the proposed project would not add capacity, alter traffic patterns, increase access, or provide access to areas that are currently inaccessible. Therefore, the project is not expected to enhance the attractiveness of undeveloped land in the AOI to developers and buyers. According to the Possum Kingdom Chamber of Commerce, the Palo Pinto County Judge, and a local real estate company, no additional development is planned or anticipated in the AOI (personal communications from the Palo Pinto County, Pondera Real Estate Company, and Possum Kingdom Chamber of Commerce, 5/29/2012 and 5/30/2012). Development in northwestern Palo Pinto County has been non-existent with the exception of vacation and part-time residents' houses located around the lake in discrete subdivisions such as the Cliffs at the south end of the AOI. The only reasonably foreseeable new development that may occur within the AOI is the construction of new houses on land in the Cliffs Subdivision that has

already been subdivided and parceled sometime between 1977 and 1995 (per review of aerial photographs). Comparison of 1995 and 2010 aerial imagery shows that no substantial growth has occurred along SH 16 since 1995. Development is currently not planned, and subsequent development in the AOI is not likely to be influenced by the proposed safety improvement project. For these reasons, induced growth impacts do not merit further analysis in Steps 6 and 7.

Impacts Related to Induced Growth

The proposed project is not expected to induce growth in the AOI; therefore, no impacts related to induced growth are expected to occur.

4.1.6 Step 6 – Analyze Indirect Effects and Evaluate Results

In Step 5, the only potentially substantial indirect effects identified include the encroachment-alteration effects to ecological components, namely the clearing of oak-juniper woodlands on Kimberlin Mountain, which may provide habitat for the endangered Golden-cheeked Warbler. Approximately 2.94 acres of woodland would be cleared for the proposed project, some of which was already impacted by the 2011 wildfires. The new roadway would bisect the woodland and separate the remaining tracts with a 200-foot-wide cleared ROW. However, the woodland occurs as a relatively narrow strip that follows a ridgeline and is bordered on both sides by open pasture. In addition, the woodland was thinned out by wildfires in 2011, making at least portions of it unsuitable for nesting Golden-cheeked Warblers. Although the new-alignment roadway section would bisect this woodland strip, fragmentation and edge effects are expected to be minor to insignificant due to the existing edges and nature of the woodland.

4.1.7 Step 7 – Assess Consequences and Consider/Develop Mitigation (When Appropriate)

Based on the above analysis, indirect effects of the proposed project are expected to be minimal. The following summarizes the rationale for this determination:

- The proposed project is a safety improvement project that entails only slight widening of the existing roadway through most of the project length. The project would not add capacity, alter traffic patterns, or increase access to adjacent lands. The design feature with the most potential for indirect impact is the 0.5-mile new-alignment section over Kimberlin Mountain, the purpose of which is to bypass the sharp curve in the existing roadway at this location.
- The proposed 0.5-mile new-alignment roadway section has the potential to result in encroachment-alteration effects to ecological resources because it would bisect an oak-juniper woodland that has been identified as potential habitat for the endangered Golden-cheeked Warbler. Construction of the new roadway would require clearing a new 200-foot-wide ROW through the woodland. However, the woodland is narrow, is bordered on both sides by open pasture, and has been impacted by wildfires. Therefore, fragmentation and edge effects are expected to be minor to insignificant.
- The new-alignment roadway section would not result in new access to currently inaccessible lands, and coordination with local officials and a real estate company has revealed no foreseeable development plans in the AOI.

Indirect impacts associated with the proposed project are not expected to be substantial, and the notable features identified in Step 3 would not be substantially impacted. As a result, no mitigation is needed.

4.2 Cumulative Impact Analysis

The CEQ defines cumulative impacts as the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 C.F.R. § 1508.7). Cumulative impacts include both direct and indirect impacts.

The cumulative impacts analysis conducted for the proposed SH 16 safety improvements followed the eight-steps outlined in TxDOT's *Guidance on Preparing Indirect and Cumulative Impact Analyses* (revised September 2010), which were adapted from the guidance set forth in NCHRP Report 466. The eight steps include:

1. Identify the resources to consider in the analysis
2. Define the study area for each affected resource
3. Describe the current health and historical context for each resource
4. Identify the direct and indirect impacts that may contribute to a cumulative impact
5. Identify other reasonably foreseeable actions that may affect resources
6. Assess potential cumulative impacts to each resource
7. Report the results
8. Assess and discuss mitigation issues for all adverse impacts

4.2.1 Step 1 – Identify the Resources to Consider in the Analysis

Based on the guidance document titled *Guidance on Preparing Indirect and Cumulative Impact Analyses* (TxDOT 2010), if a project will not cause direct or indirect impacts on a resource, it will not contribute to a cumulative impact on the resource. Furthermore, the cumulative impact analysis should focus on (1) those resources *substantially* impacted by the project and (2) resources currently *in poor or declining health* or at risk even if the impact of TxDOT's proposed action is minimal. Based on these criteria, the resources that have been determined to evaluate in the cumulative impact analysis are historic resources and threatened and endangered species. **Table 12** provides the rationale for selecting these resources for cumulative impacts analysis and eliminating other resources.

Table 12 Summary of Resource Impacts, Resource “Health” and Determination for Further Analysis

Resource	Summary of Direct Impacts	Summary of Indirect Impacts	Health of Resource	Consideration for Cumulative Impact Analysis
Land Use/Land Cover	Approximately 10.84 acres of Urban Low Intensity vegetation, 2.94 acres of Edwards Plateau: Ashe Juniper-Live Oak Slope Shrubland vegetation (unburned and burned in Summer 2011), and 6.07 acres of Edwards Plateau: Savanna Grassland vegetation would be converted to new roadway. Approximately 5.08 acres for a temporary construction easement is needed to build a temporary detour during construction and would affect Edwards Plateau: Savanna Grassland vegetation.	The proposed project is not expected to induce growth in the AOI; therefore, no impacts related to induced growth are expected.	The project area is largely undeveloped with the exception of areas of residential development near the southern project terminus and scattered throughout the project area, limited commercial development at the SH 16/PR 36 intersection, and two public facilities located near the Brazos River.	Land use changes associated with the proposed project would be limited to the conversion of vegetation within the proposed ROW to transportation uses. The minimal impacts to land use associated with the proposed project and the limited scope of the proposed construction activities, in addition to the low likelihood of future development and land use changes as a result of the proposed project, indicate that cumulative impacts to land use are not expected to be substantial. Therefore, impacts to land use will not be considered further in this analysis.
Minority, Low-income, and LEP Populations	Project would not disproportionately impact any minority, low-income or LEP population, or cause the relocation or displacement of any business, individual, or group.	Project would not displace any business or residence. The proposed project would not alter existing access to businesses, schools, and residences and is not expected to result in indirect changes in access or community cohesion. Transportation improvements would maintain or improve existing access and travel patterns in the area. Access to all properties would be maintained during construction. Disproportionate adverse indirect impacts to minority, LEP, or low income populations as a result of this project are not anticipated.	By definition, Environmental Justice groups are considered marginalized populations. However, there are regulations and policies in place to protect vulnerable populations, and because there are no direct or indirect effects anticipated to these groups, the resource is considered stable. Additionally, no substantial change in population distribution by age, income, racial or ethnic group, or occupational class is expected.	Project would not substantially impact any minority, low-income, or LEP population and this resource is not considered at risk in the study area. Therefore, cumulative impacts on minority, low-income, and LEP populations are not considered further in this analysis.

Table 12 Summary of Resource Impacts, Resource “Health” and Determination for Further Analysis

Resource	Summary of Direct Impacts	Summary of Indirect Impacts	Health of Resource	Consideration for Cumulative Impact Analysis
Cultural Resources	<p>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 the potential to affect historic properties and that individual coordination with the SHPO is required.</p> <p>TxDOT archeologists determined that the project will have no effect on archeological sites or cemeteries that would be afforded further consideration under cultural resource laws.</p>	<p>Induced development associated with the proposed project is not anticipated; however, future development could lead to potential impacts to undisclosed archeological resources and/or historic resources.</p>	<p>Due to the protection afforded NRHP-listed archeological and historic resources, the relative health of these resources is considered stable.</p>	<p>The direct impacts to historic resources associated with this project may contribute to a cumulative impact on historic resources. Therefore, impacts to historic resources will be considered for further analysis.</p>
Water Resources	<p>Water resources would be avoided by utilizing the existing Brazos River Bridge and culverts.</p>	<p>Induced development or other indirect impacts are not anticipated.</p>	<p>There are no streams in the project area designated as threatened or impaired on 2012 Clean Water Act 303(d) List.</p>	<p>Project would not substantially impact water resources, and this resource is not considered in poor or declining health or at risk in the study area. Therefore, cumulative impacts on water resources are not analyzed in Steps 2-8.</p>
Threatened and Endangered Species	<p>At this time, it has been determined that the project may affect, but is not likely to adversely affect, the Black-capped Vireo and Golden-cheeked Warbler. TxDOT will conduct a presence-absence survey for these species during the nesting season prior to construction.</p>	<p>Induced development or other indirect impacts are not anticipated.</p>	<p>Habitats for Black-capped Vireo and Golden-cheeked Warbler in the area were destroyed by wildfires in 2011.</p>	<p>Since the project has the potential to affect the Black-capped Vireo and Golden-cheeked Warbler, and much of the habitat in the area was destroyed by wildfires, this resource is analyzed further in Steps 2-8.</p>
Air Quality	<p>No direct impacts to air quality are anticipated. Emission reductions as a result of EPA’s new fuel and vehicle standards are anticipated to offset impacts associated with future VMT increases.</p>	<p>Induced development or other indirect impacts are not anticipated.</p>	<p>The county is in attainment of all NAAQS, and no change in attainment status is anticipated.</p>	<p>Project would not substantially impact air quality in Palo Pinto County, and air quality in the county is not in poor or declining health or at risk. Therefore, cumulative impacts to air quality are not analyzed in Steps 2-8.</p>

4.2.2 Step 2 – Define the Study Area for each Resource

The cumulative impacts analysis considered both geographic and temporal boundaries for each resource. The following describes the temporal and geographic context for each resource.

Historic Resources

The Resource Study Area (RSA) for historic resources has been defined as the boundaries of the NRHP-eligible SH 16 roadway corridor from SH 254 to Brackeen Drive (see **Figure 9**). In accordance with Section 106 of the NHPA and under the PA-TU, TxDOT determined the boundaries of the NRHP-eligible SH 16 roadway corridor in consultation with the Texas SHPO. The SHPO concurred with the boundary of the historic road corridor in February 2012 (see TxDOT’s letter dated February 15, 2012 and endorsed by the SHPO on February 24, 2012 in **Appendix D**). The boundaries of the historic road corridor include the extent to the WPA-built resources that remain intact and have the integrity to convey their historical significance. No extant, unaltered masonry culverts or other WPA-built resources outside the NRHP-eligible boundaries were found for several miles north and south of the project during field investigations. The roadway’s NRHP-eligible boundaries were selected as the RSA because they represent the full extent of the SH 16 historic roadway (characterized as a historic district), and all of the roadway’s 18 contributing features (16 masonry culverts, a rock wall, and a masonry arch bridge) are located within the NRHP-eligible boundaries. The temporal context for this analysis is set at 1941, the year the NRHP-eligible resources were constructed to the year 2033, to illustrate the approximate design life of the project.

Threatened and Endangered Species

The RSA for threatened and endangered species was defined as the Ashe Juniper Parks/Woods vegetation polygon, as mapped by *The Vegetation Types of Texas*, that is contiguous with the project area woodlands. This polygon extends around most of Possum Kingdom Lake, as well as stretches east and southeast across approximately two-thirds of Palo Pinto County (**Figure 10**). Review of aerial photography and limited field reconnaissance of areas surrounding the project area reveal that the extant woodlands in this polygon are generally found in and along canyons associated with the Brazos River and its larger tributaries. Also, the woodlands are generally dominated by Ashe juniper and oaks and provide suitable habitat for the endangered Black-capped Vireo and Golden-cheeked Warbler. It should be noted that the woodlands along the Brazos River and large tributaries are more similar to the woodlands that occurred along SH 16 south of the Brazos River (outside of the proposed project construction limits) prior to the 2011 wildfires. In comparison, the oak-juniper woodland that would be impacted on Kimberlin Mountain is of lower habitat quality because it is a relatively narrow strip. To date, no Black-capped Vireos or Golden-cheeked Warblers have been observed in the Kimberlin Mountain woodland. The temporal context for this analysis is set at 2015, the year of proposed roadway construction, to year 2033, to illustrate the approximate design life of the project.

4.2.3 Step 3 – Describe the Current Status/Viability and Historical Context for each Resource

Historic Resources

The historic resources that will be addressed in this section are the NRHP-eligible SH 16 roadway corridor and its 18 contributing features. The NRHP-eligible corridor is considered a historic district according to NPS guidance because the masonry culverts, bridge, and masonry wall result in a significant concentration of resources that have linkage to each other that are united historically by plan and physical development. The roadway and its contributing features were constructed in 1941 by the WPA as part of a “make-work” project that employed hundreds of workers during the Great Depression. The NRHP-eligible historic roadway is considered to be a stable resource because it is afforded protection under Section 106 of the NHPA and Section 4(f) of the USDOT Act. Due to the protection afforded NRHP-listed archeological and historic resources, the relative health of these resources is considered stable.

Threatened and Endangered Species

By definition, threatened and endangered species are sensitive resources that are at risk and may be in poor or declining health. Threatened and endangered species that may be affected by the project include the Black-capped Vireo and Golden-cheeked Warbler. Potential habitat for both of these species previously occurred in and adjacent to the project area, but wildfires destroyed much of the area’s habitat in 2011. As a result, the ability of the Possum Kingdom area to support viable populations of these species was reduced.

4.2.4 Step 4 – Identify Direct and Indirect Impacts of the Project that might Contribute to a Cumulative Impact

This section identifies the direct impacts and indirect impacts of the proposed project may contribute to a cumulative impact on historic resources and threatened and endangered species.

Direct Impacts – The proposed project would have a direct adverse effect to the NRHP-eligible SH 16 roadway corridor by realigning a section of the roadway, burying one masonry box culvert, and bypassing the masonry guard wall on Kimberlin Mountain. No additional adverse effects would occur to the remaining contributing resources, including the Brazos River Bridge. TxDOT has proposed appropriate mitigation for the adverse effects posed to historic resources, and the SHPO has concurred with the mitigation proposal.

Approximately 2.94 acres of oak-juniper woodland on Kimberlin Mountain would be removed by the project, portions of which were burned in 2011. TxDOT will conduct a presence-absence survey for the Black-capped Vireo and/or Golden-cheeked Warbler in the proposed ROW during the spring prior to construction.

Indirect Impacts – As discussed in **Section 4.1**, the proposed project would not add capacity, alter traffic patterns, increase access, or provide access to areas that are currently inaccessible; therefore, it is not expected to induce growth. Clearing of oak-juniper woodland on Kimberlin is expected to result in no more than minor to insignificant fragmentation and edge effects due to the narrow width of the existing edges and nature of the woodland. Furthermore, neither the Black-capped Vireo nor the Golden-cheeked

Warbler has been recorded using this woodland to date. As a result, the project is not expected to result in substantial indirect impacts.

4.2.5 Step 5 – Identify other Reasonably Foreseeable Effects

As identified in **Section 4.1.2** (Step 2 of the Indirect Impact Analysis), Palo Pinto County is very rural and has focused on cattle ranching since the county was created in the 1850s. Population growth has been relatively static over the past 40 years, with the population peaking at 28,962 residents in 1970, declining by 16.9 percent between 1970 and 1980, and slowly rising to a population of 28,111 in 2010. As a result, there are no known reasonably foreseeable developments that would contribute to cumulative effects. One can assume that various transportation improvement and maintenance projects will occur, but these are expected to be associated with existing roads and transportation ROWs. As a major recreational feature in Palo Pinto County, Possum Kingdom Lake may experience further development, such as the addition of houses on undeveloped lots in The Cliffs, or the construction of houses along other portions of the lake. However, these effects are expected to be small-scale in nature. Other developments that have occurred in the region include oil and gas development, and the installation of a wind farm approximately 8 miles north of the project area in Jack County. However, no large-scale developments in these industries are known or reasonably foreseeable.

4.2.6 Step 6 – Assess Potential Cumulative Impacts to Each Resource

The existing low development trend in the rural project vicinity is expected to continue based on discussions with the Possum Kingdom Chamber of Commerce, Palo Pinto County officials, and a local real estate company. Future developments would most likely consist of scattered residential properties along Possum Kingdom Lake, which is not expected to compromise the overall health of any of the resources considered in this cumulative impacts analysis or change the rural and recreational nature of the area.

Historic Resources

The proposed project would have a direct adverse effect on the NRHP-eligible SH 16 roadway corridor by realigning a section of the roadway, burying one masonry box culvert, and bypassing the masonry guard wall on Kimberlin Mountain. No substantial indirect effects to historic resources are anticipated as a result of the project. TxDOT has developed, and the SHPO has concurred with, appropriate mitigation for the direct adverse effects posed to historic resources.

Besides the historic SH 16 roadway corridor and its contributing features (including the Brazos River Bridge), no other historic resources exist in the RSA. Past roadway projects and adjacent developments have not adversely affected the historic roadway, bridge or other contributing features, and there are no reasonably foreseeable projects that would affect the historic resources in the future.

Threatened and Endangered Species

The proposed project would remove approximately 2.94 acres of oak-juniper woodland on Kimberlin Mountain that may provide habitat for the Black-capped vireo and Golden-cheeked Warbler. The habitat is considered marginal for these species because the woodland is relatively narrow and portions of it were

burned in 2011. Furthermore, neither species has been recorded in the habitat during previous presence-absence surveys. As a result, the project is not expected to adversely affect the Black-capped Vireo or Golden-cheeked Warbler either directly or indirectly at this time. To verify the project's effects on these species, TxDOT will conduct a presence-absence survey in the proposed ROW on Kimberlin Mountain during the spring prior to construction.

Past, current, and anticipated future development in this rural area is low and has been focused on residential development along Possum Kingdom Lake (e.g., The Cliffs subdivision). Although these developments may have impacted oak-juniper woodlands that provided habitat for the Golden-cheeked Warbler and/or Black-capped Vireo, most of the woodlands that provide suitable habitat for these species in the area occur along steeper slopes that are not conducive to development. As a result, development effects on these species are expected to be minor.

4.2.7 Step 7 – Report the Results

Considering the nature and limited scope of the proposed project, the low development rate in this rural area, the current health and historical context of historic resources and threatened and endangered species in the project vicinity, the direct and indirect impacts of the proposed Build Alternative, and other reasonably foreseeable future actions, the proposed SH 16 improvements would not have a substantial cumulative impact on historic resources or threatened and endangered species. Direct impacts to historic resources have been mitigated through the NHPA Section 106 consultation process, and potential effects to threatened and endangered species are expected to be minor and are not expected to adversely affect any species. The project would not induce development, and indirect impacts associated with the project are expected to be minor. Potentially negative cumulative impacts include the removal of oak-juniper woodlands that may provide habitat for the Golden-cheeked Warbler and Black-capped Vireo; however, this impact is expected to be limited to scattered future residential lots and would not likely affect the oak-juniper woodlands that are located on steeper slopes. Compliance with the Endangered Species Act would help reduce the cumulative effects of future development on threatened and endangered species.

4.2.8 Step 8 – Assess and Discuss Mitigation Issues for All Adverse Impacts

Based on the cumulative impacts analysis, the proposed project will not result in a substantial contribution to cumulative impacts, and no mitigation is needed to offset cumulative impacts. TxDOT will implement the agreed-upon mitigation for the direct adverse effects to historic resources as described in **Section 3.2.1 Historic Properties**. To verify that the project will not adversely affect threatened and endangered species, TxDOT will conduct a presence-absence survey for the Black-capped Vireo and Golden-cheeked Warbler prior to construction.

5.0 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

5.1 Agency Coordination

Agency coordination for the proposed project has been on-going since the project's inception in 2003. Such efforts have included numerous planning meetings within and between TxDOT and FHWA, as well

as early coordination and cooperation with various federal, state, and local agencies. Some of the earliest and most consistent planning efforts have focused on the NRHP-eligible Brazos River Bridge and the NRHP-eligible SH 16 roadway corridor from SH 254 to Brackeen Drive. In February 2004, TxDOT Historians presented details of the proposed project to SHPO staff to discuss how to minimize impacts to the NRHP-eligible SH 16 roadway corridor, particularly on Kimberlin Mountain. The result of this meeting was a change in the project design in 2004, which involved the reduction of the curve at the bottom of Kimberlin Mountain, from a two-degree curve to a one-degree curve to maintain as much of the original alignment as possible.

In April 2004, TxDOT met with TPWD staff to discuss the impacts of the proposed action to the Possum Kingdom State Fish Hatchery. In March 2005, TxDOT designers, environmental staff, and FHWA met with SHPO staff and the affected property owner to discuss project impacts and options for avoiding the replacement of the Brazos River Bridge, as well as for mitigating the bypass of the masonry guard wall on Kimberlin Mountain and the realignment of the historic SH 16 roadway.

Between 2008 and 2010, the proposed project was temporarily suspended due to budget constraints. When the project was reinitiated in December 2010, TxDOT re-evaluated the need to construct a new bridge across the Brazos River and determined that the construction of a new bridge would not be necessary. Since replacement of the Brazos River Bridge was a major concern raised by the SHPO prior to 2010, this planning effort avoided adverse effects to the historic bridge.

On December 6, 2011, TxDOT called a meeting of the pertinent governmental agencies and Section 106 consulting parties to discuss the proposed project, the agencies' construction and post-construction issues, and potential mitigation options. Attendees at the December 2011 meeting included representatives and individuals from the following agencies and organizations:

- BRA
- Possum Kingdom State Fish Hatchery (part of TPWD)
- USFWS
- SHPO
- Palo Pinto County
- Palo Pinto CHC

Following the December 2011 workshop and the March 2012 public meeting (discussed below), TxDOT coordinated with the SHPO, Palo Pinto CHC, and Palo Pinto County Judge regarding possible mitigation options for the roadway (see copies of letters dated March 15, 2012, April 16, 2012, and June 8, 2012 in **Appendix D**). TxDOT completed Section 106 consultation with the Texas SHPO on the proposed project in 2012, as documented in the letters dated February 15, 2012, August 9, 2012, and August 30, 2012 (see coordination letters included in **Appendix D**).

On May 14, 2013, TxDOT representatives conducted a site visit with USFWS representatives to assess the potential for remaining oak-juniper woodlands in and adjacent to the project area to provide habitat for the Golden-cheeked Warbler and Black-capped Vireo. The USFWS confirmed that the woodlands in

and adjacent to the proposed ROW on Kimberlin Mountain may still provide habitat for these species, although they had been affected by wildfires in the summer of 2011. The USFWS stated that TxDOT should conduct a presence-absence survey on Kimberlin Mountain during the spring prior to construction. If no individuals of either species are detected during that survey, the data, coupled with the negative results from previous presence-absence surveys on Kimberlin, would confirm that these species do not use the woodlands on Kimberlin Mountain and would not be adversely affected by the project.

On April 24, 2014, TxDOT completed coordination with the TPWD in accordance with the TxDOT-TPWD MOU effective September 1, 2013. A copy of the TPWD correspondence is included in **Appendix D**.

5.2 Public Involvement

Due to the numerous agencies and public interest in the proposed project, a Public Involvement Plan (PIP) was completed in March 2011. The PIP provided an outline to determine the appropriate procedures for completing the public involvement process for NEPA and Section 106 of the NHPA. It included a plan for an open-house public meeting and opportunity for public hearing, as well as a detailed outline of how to identify Section 106 consulting parties.

A public meeting was held on March 6, 2012, at the Possum Kingdom Chamber of Commerce in the unincorporated community of Possum Kingdom, Texas. At this meeting, TxDOT officials provided members of the public with general information concerning the limits and scope for the proposed project and solicited comments and opinions from the public to include in the development of the project. In addition, TxDOT presented the four alternatives – one no build alternative (Alternative 1) and three build alternatives (Alternatives 2 through 4) – that were studied in detail for the project. See **Section 2.0** for a description of the alternatives considered for the proposed project.

The March 2012 meeting was attended by 25 interested citizens and three local government representatives. Several comments showing support for the project were made, and no comments opposing Alternative 4 (discussed in **Section 2.5**) were received. Primary concerns and suggestions brought forth during the meeting and during the comment period following the meeting focused on what will happen to the existing SH 16 alignment on Kimberlin Mountain if it was bypassed, requests for a reconfiguration of the SH 16/PR 36 intersection, and requests that TxDOT seek alternatives to affecting the masonry road features, which were determined to be a contributing features of the NRHP-eligible SH 16 roadway corridor historic district. A summary of the public meeting is provided in **Appendix C**.

TxDOT completed additional public involvement on the proposed project per the PIP for Section 106 of the NHPA compliance, in which TxDOT invited four consulting parties to participate in the Section 106 process. Three of the invited consulting parties accepted TxDOT's invitation. These consulting parties were Preservation Texas (a statewide preservation organization), the Palo Pinto CHC (a local preservation organization), and an affected property owner. Two of the three consulting parties attended a working meeting that included TxDOT, the SHPO, and other federal, state, and local agencies on December 6, 2011, to address the consulting parties' concerns regarding the proposed project and potential mitigation

proposals. For more information regarding the Section 106 process, the comments received by consulting parties, and/or information about historic resources in the proposed project area, see **Section 3.2.1**.

TxDOT prepared and advertised a Notice Affording the Opportunity for a Public Hearing (NAOPH) for the SH 16 project in December 2014. The NAOPH states that any interested citizen may request a public hearing covering the social, economic and environmental effects of the proposed location and design for this project. If a request to hold a public hearing is received before January 30, 2015, then a public hearing will be scheduled. Adequate notice will be published to announce the date and location of the hearing.

6.0 RECOMMENDATION OF THE PREFERRED ALTERNATIVE

TxDOT recommends the Build Alternative (presented as “Alternative 4: Realign SH 16 on Kimberlin Mountain” in the Alternatives Analysis in **Section 2.5**) as the preferred alternative. This section identifies the rationale for selecting the Build Alternative to be the Preferred Alternative and discusses mitigation requirements.

6.1 Support Rationale for Selecting the Preferred Alternative

The Build Alternative would fulfill the stated needs for the transportation project and would satisfy the purpose for the project, which is to improve safety along this section of SH 16 by correcting the geometric and functional deficiencies of the existing roadway. In addition, the selection of the Preferred Alternative would meet the following project objectives:

- Improve safety by upgrading the roadway to current design standards by remedying the geometric and functional deficiencies that currently exist.
- Maintain access to the residential, commercial, and infrastructure properties that are located along the roadway.
- Provide continuity with the type of safe roadway that is found on SH 16 north and south of the project termini.
- Minimize the cost of the project, ROW acquisitions, and environmental impacts.

6.2 Mitigation and Monitoring Requirements

Construction inspectors and TxDOT environmental staff would monitor the construction phase of this project. Mitigation and monitoring activities proposed for the Preferred Alternative are discussed in the following sections.

6.2.1 Historic Resources

In accordance with Section 106 of the NHPA (36 CFR 800), when a project with federal involvement (such as permitting or funding) adversely affects properties eligible for or listed on the NRHP, considerations to avoid, minimize, or mitigate adverse effects are required. TxDOT has determined that the Preferred Alternative would adverse affect one NRHP-eligible historic district (the SH 16 roadway)

and two of its contributing elements (a masonry culvert and a rock wall). TxDOT has undertaken planning efforts during the project development process to try to avoid and minimize adverse effects to the NRHP-eligible resources. Efforts to avoid and minimize adverse effects to historic properties are outlined in **Section 3.2.1**. Although adverse effects were avoided to some historic properties, such as the Brazos River Bridge, mitigation would be required for the construction of the Preferred Alternative.

In 2003, TxDOT completed a mitigation effort for the NRHP-eligible SH 16 roadway corridor and its contributing features, including the Brazos River Bridge, as part of the widening of SH 16 from US 180 to the Brazos River (TxDOT CSJ: 0362-02-020). This mitigation entailed the completion of a Historic American Engineering Record (HAER)-like documentation of the NRHP-eligible transportation resources. TxDOT provided this information to the Texas SHPO in 2003. Although these mitigation efforts were completed for another construction project, they are identified here to show that the documentation of the resources within the historic road corridor has already been completed and, for this reason, was not offered for the current project.

On August 9, 2012, TxDOT proposed the following mitigation for the adverse effects posed to Resource No. 1 and its 18 contributing features:

- TxDOT will provide the CHC copies of the photographs of Resource No. 1 and its 18 contributing features that were taken during the historic resources survey.
- Palo Pinto County has indicated their interest in establishing an interpretive park in the future on Kimberlin Mountain where the existing SH 16 roadway is currently located. TxDOT will complete a Quit Claim Deed to Palo Pinto County Commissioners' Court, releasing all interest in the existing SH 16 alignment on Kimberlin Mountain that will be bypassed. TxDOT will construct a driveway from the edge of pavement to the proposed ROW line for access to a future interpretive park. The location of the driveway will be determined in coordination with Palo Pinto County and will meet TxDOT's Access Management Policy and all other safety-related requirements.
- TxDOT will salvage the existing masonry headwalls of the adversely affected contributing culvert (Resource No. 1O) and give the stone to the Palo Pinto CHC, who expressly requested the stone for a future display.

On August 30, 2012, the SHPO concurred with the mitigation proposal that TxDOT set forth. However, the SHPO also requested that TxDOT nominate the SH 16 roadway and its contributing features to the NRHP due to the significance of the resources (see **Appendix D**). TxDOT has completed a NRHP nomination for the roadway, which was approved by the THC's State Board of Review in October 2013. The nomination is currently at the THC for final processing prior to submission to the NPS for listing on the NRHP. Therefore, in accordance with Section 106 of the NHPA and the PA-TU among the Texas SHPO, TxDOT, FHWA, and the Advisory Council on Historic Preservation, the SHPO has concurred with TxDOT's mitigation proposal for the adverse effects posed to the roadway and its affected contributing features.

6.2.2 Threatened and Endangered Species

As identified in **Section 3.4.3**, potential habitat for the federally listed Golden-cheeked Warbler was identified within a portion of the proposed ROW on Kimberlin Mountain, but the woodlands were partially destroyed by wildfires in May and September 2011. As the woodlands regenerate, they may provide habitat for both the Black-capped Vireo and the Golden-cheeked Warbler, depending on the timing of the proposed construction and the rate of regrowth. As requested by the USFWS representative at the agency working meeting in December 2011 and on-site field visit on May 14, 2013, TxDOT would conduct a presence-absence survey in the proposed ROW in the spring prior to construction.

During construction, BMPs identified in the TxDOT-TPWD MOU that became effective on September 1, 2013 would be implemented to reduce potential impacts to state-listed threatened and endangered species and SGCNs that may occur in the project area. These BMPs are outlined in **Table 13**.

Table 13 TxDOT-TPWD MOU BMPs to Reduce Impacts to State-listed Species and SGCNs

State-listed Species or SGCNs That May Be Present	BMPs include:
<u>Birds</u> Bald Eagle (potential foraging in Brazos River) Peregrine Falcon (potential temporary migrant) Mountain Plover (potential temporary migrant) Western Burrowing Owl	<ul style="list-style-type: none"> • Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season. • Avoiding the removal of unoccupied, inactive nests, as practicable. • Preventing the establishment of active nests during the nesting season on TxDOT-owned and operated facilities and structures proposed for replacement or repair. • Not collecting, capturing, relocating, or transporting birds, eggs, young, or active nests without a permit.
Plains Spotted Skunk	<ul style="list-style-type: none"> • Contractors will be advised of potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
Texas Horned Lizard	<ul style="list-style-type: none"> • Contractors will be advised of potential occurrence in the project area and the need to avoid harming the species if encountered. This would include avoiding harvester ant mounds in the selection of PSLs.
Brazos Water Snake	<ul style="list-style-type: none"> • No BMPs for this species are included in the TxDOT-TPWD MOU. Water quality BMPs that will be implemented as part of the SW3P will help protect the habitat in and along the Brazos River.
Guadalupe Bass	<ul style="list-style-type: none"> • Water quality BMPs to be implemented as part of the SW3P.

6.3 Public and Agency Input

Public involvement activities that have been conducted to dated are described in **Section 5.2**. TxDOT plans to afford an opportunity for public hearing or schedule and hold a public hearing after FHWA has reviewed this EA and determined that the project is satisfactory for further processing. Legal notices advertising for the opportunity for hearing or the announcement of the hearing would be published in local newspapers. TxDOT would coordinate with the appropriate agencies, including the TPWD and USFWS for vegetation and wildlife impacts.

6.4 Recommendation for Alternative Selection and Finding of No Significant Impact

The analysis of alternatives for the proposed project determined that improvements to SH 16 proposed in the Build Alternative would meet the need and purpose of the proposed project and project objectives better than the other alternatives considered. Specifically, the Build Alternative would improve safety by upgrading the road to current design standards and remedying the existing road's geometric and functional deficiencies. A Draft Individual Section 4(f) Evaluation is included in **Appendix E**. It states that there is no prudent and feasible avoidance alternative that avoids the use of a Section 4(f) property (the NRHP-eligible SH 16 roadway corridor), and measures to minimize harm have been and will be taken prior to and during construction as outlined in **Section 3.3**. It is requested that FHWA approve the appended Draft Individual Section 4(f) Evaluation as part of this EA. The engineering, social, economic, and environmental investigations conducted thus far on this proposed project indicate that it would result in no significant environmental effects. A Finding of No Significant Impact is anticipated.

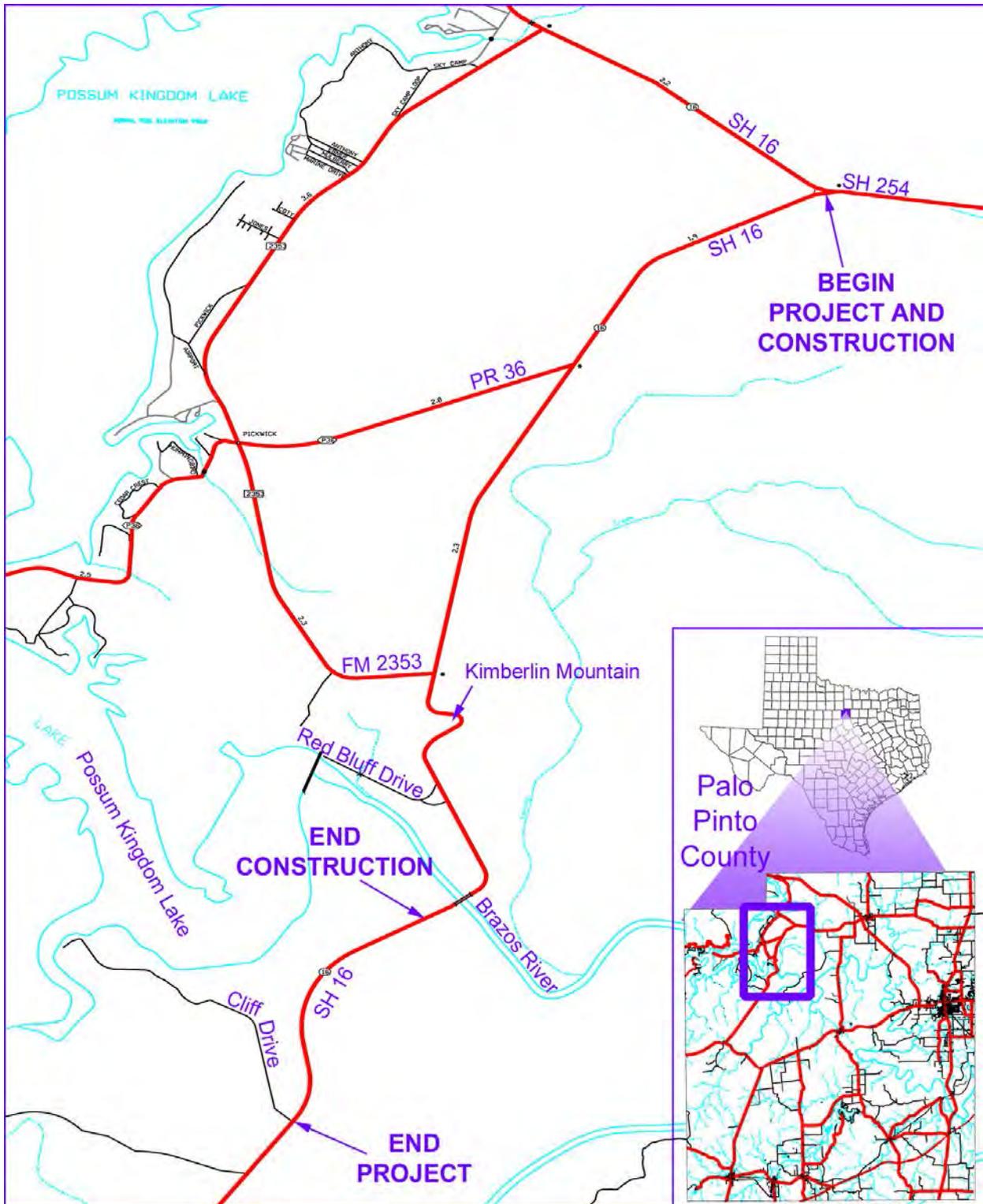
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Accessed February 2014.

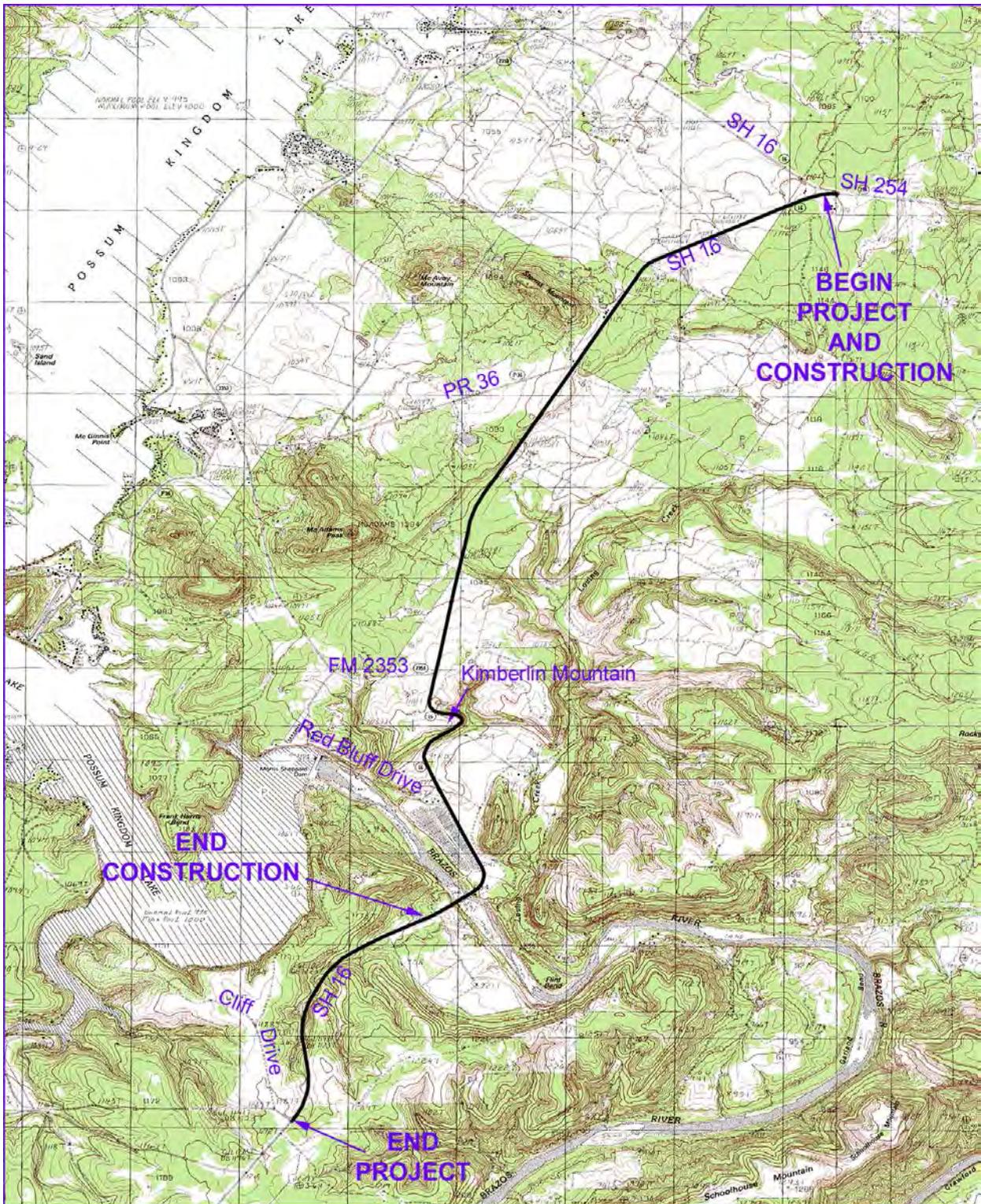
U.S. Department of Health and Human Services. “2013 Poverty Guidelines.”
<http://aspe.hhs.gov/poverty/13poverty.cfm>. Accessed February 14, 2013.

Appendix A
Figures



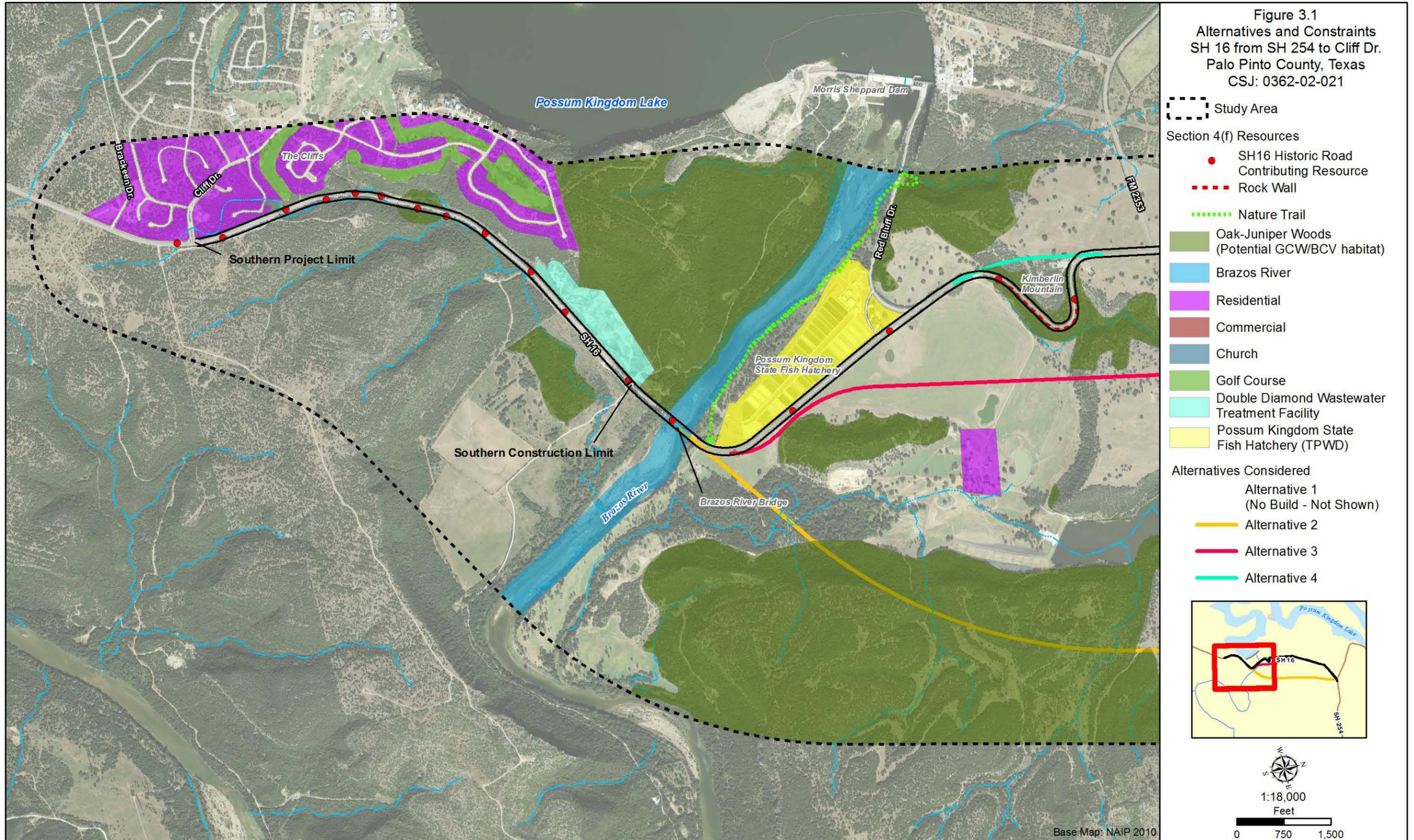
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Accessed 7/09

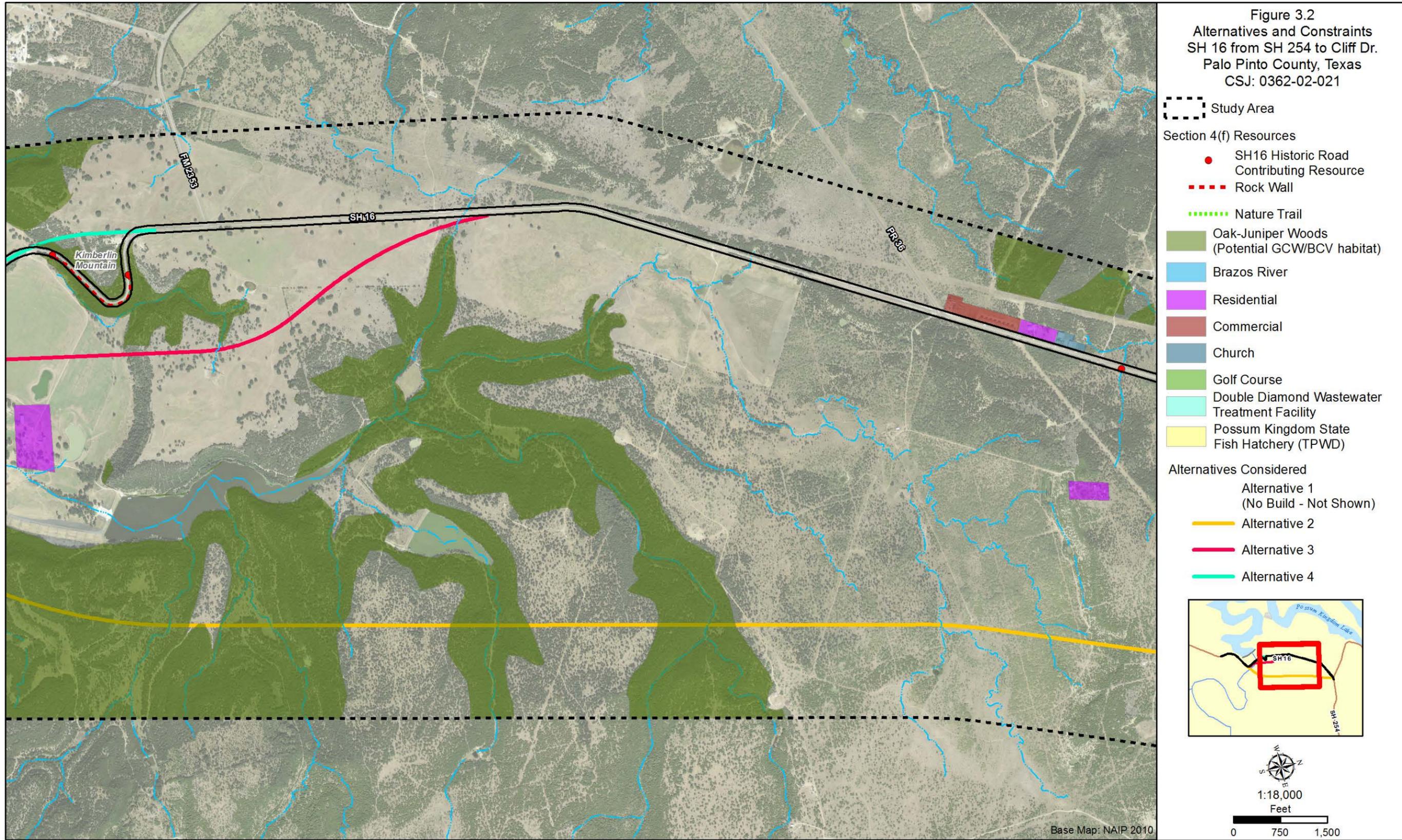
Figure 1
Project Location on County Base Map
SH 16 from SH 254 to Cliff Drive
Palo Pinto County
CSJ: 0362-02-021

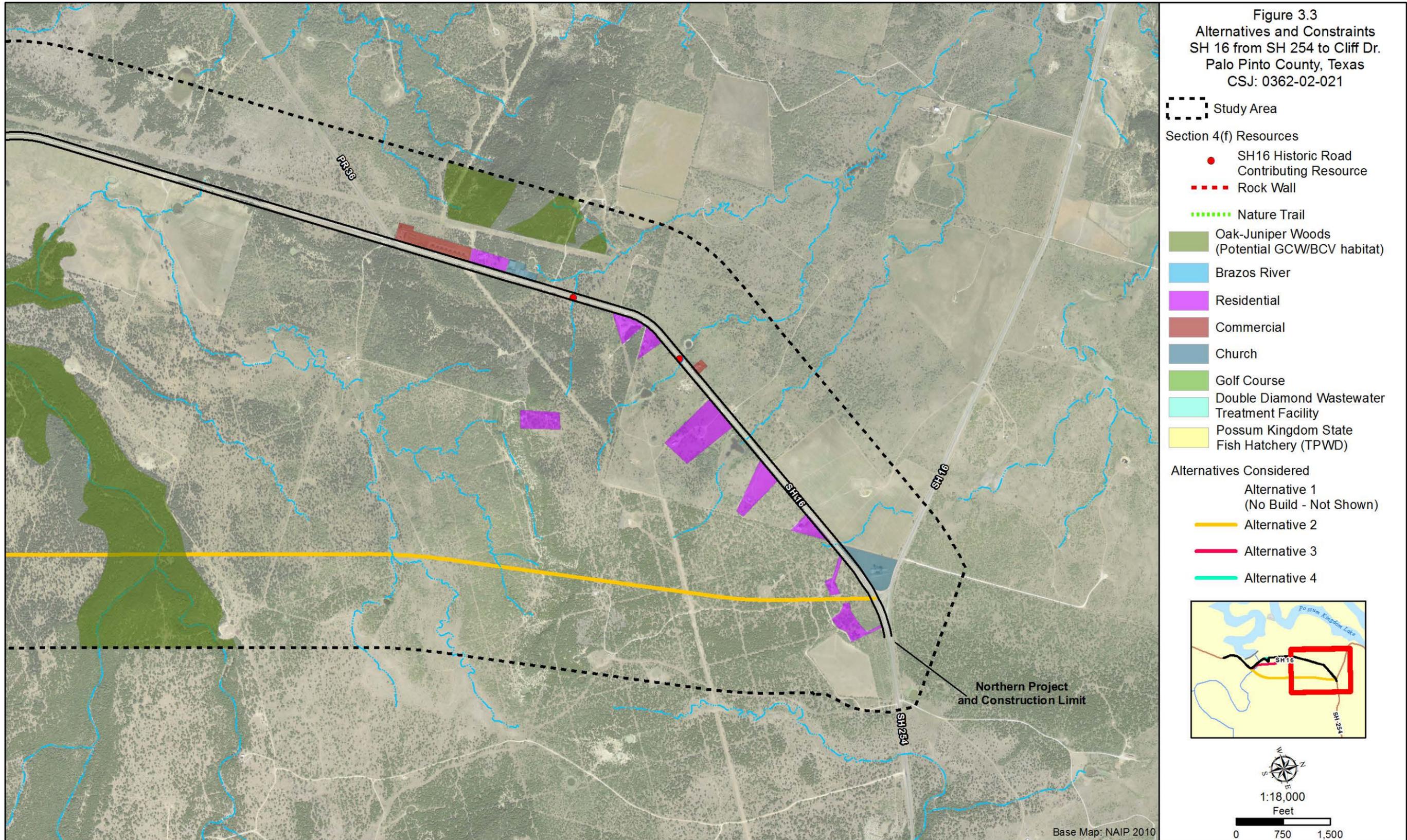


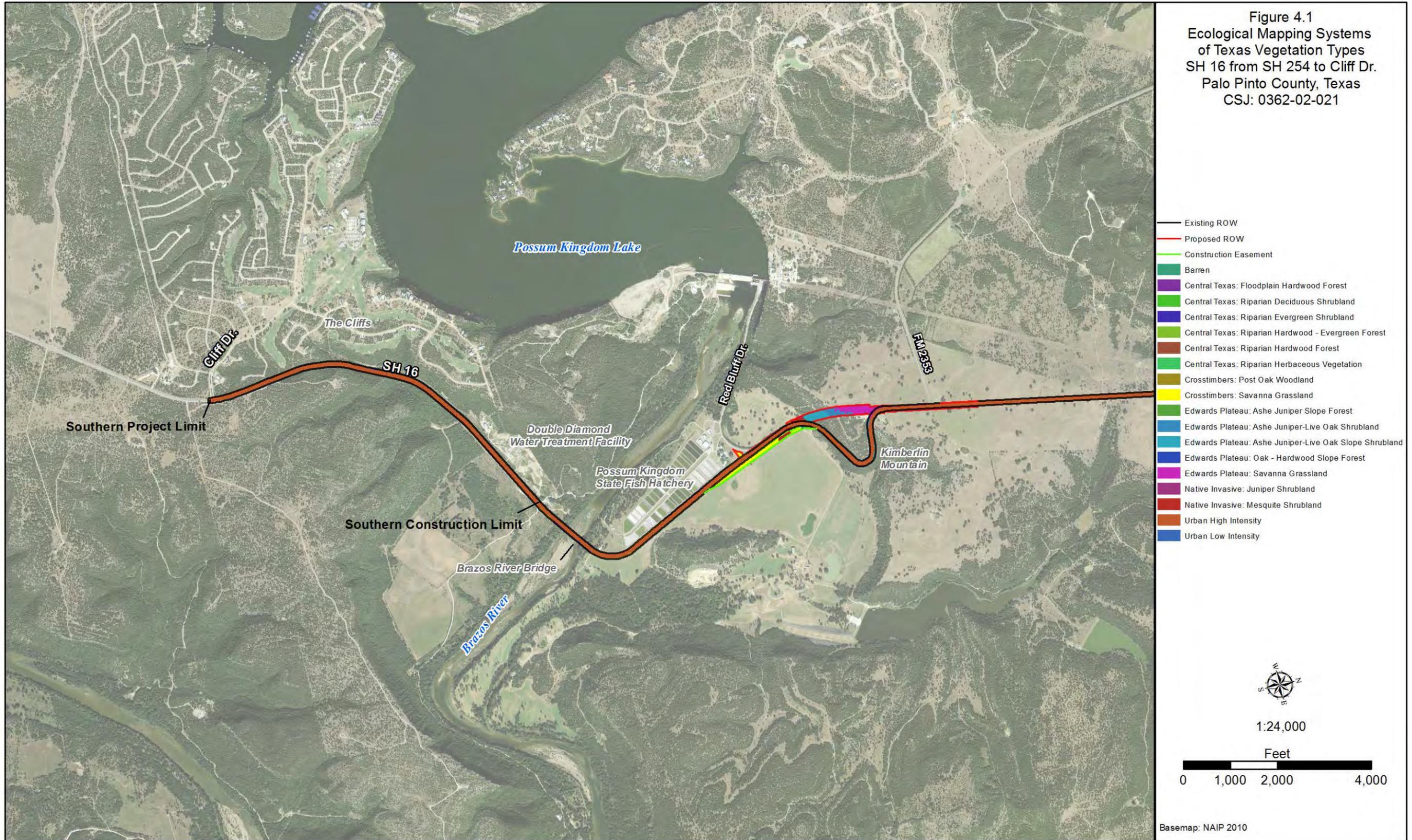
Base map: 7.5' USGS topographic quadrangles, Costello Island, Fortune Bend, Grafrod West, and Palo Pinto, Texas
<http://www.tnris.state.tx.us/datadownload/download.jsp>
 Accessed 7/09

Figure 2
 Project Location on USGS Base Map
 SH 16 from SH 254 to Cliff Drive
 Palo Pinto County
 CSJ: 0362-02-021



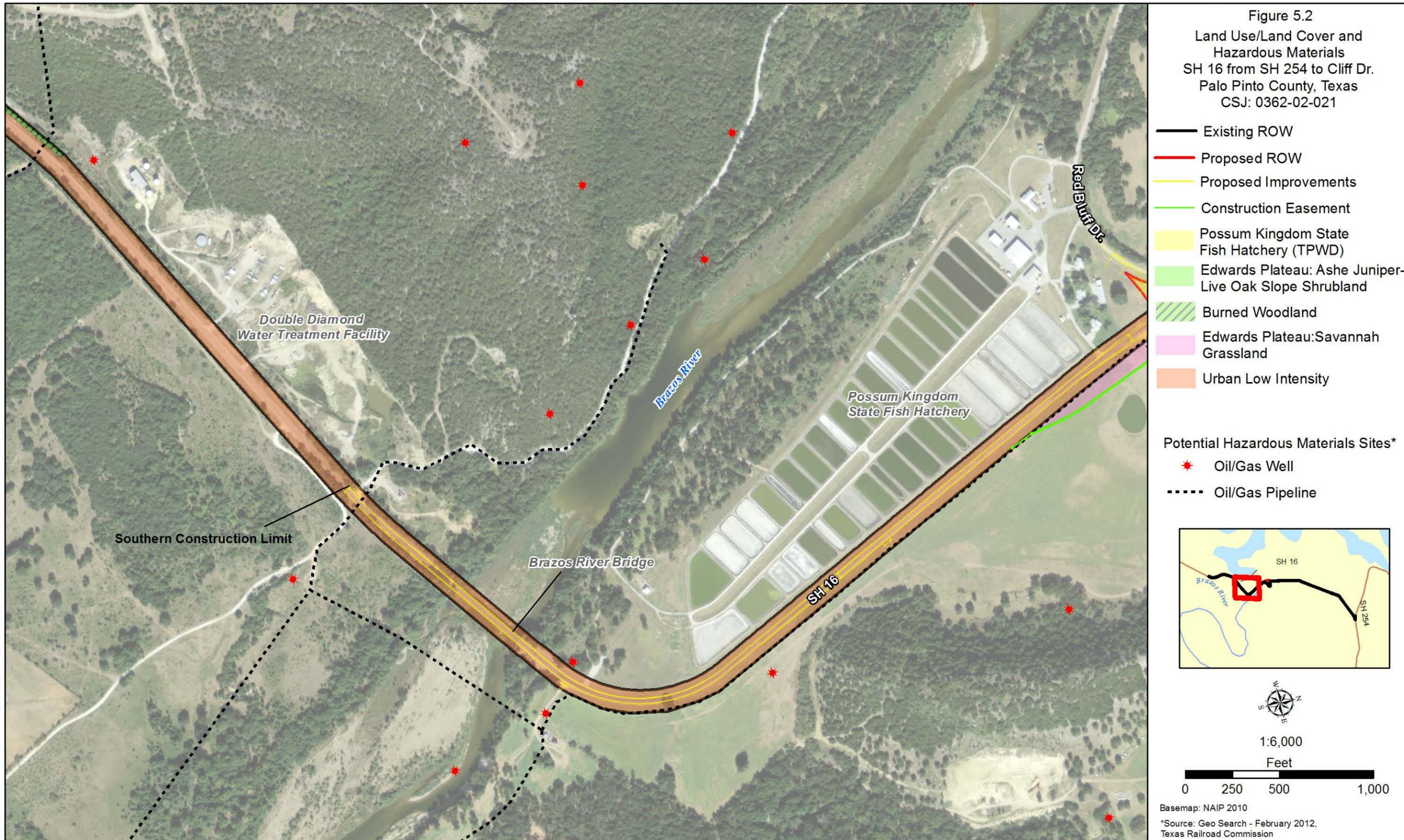


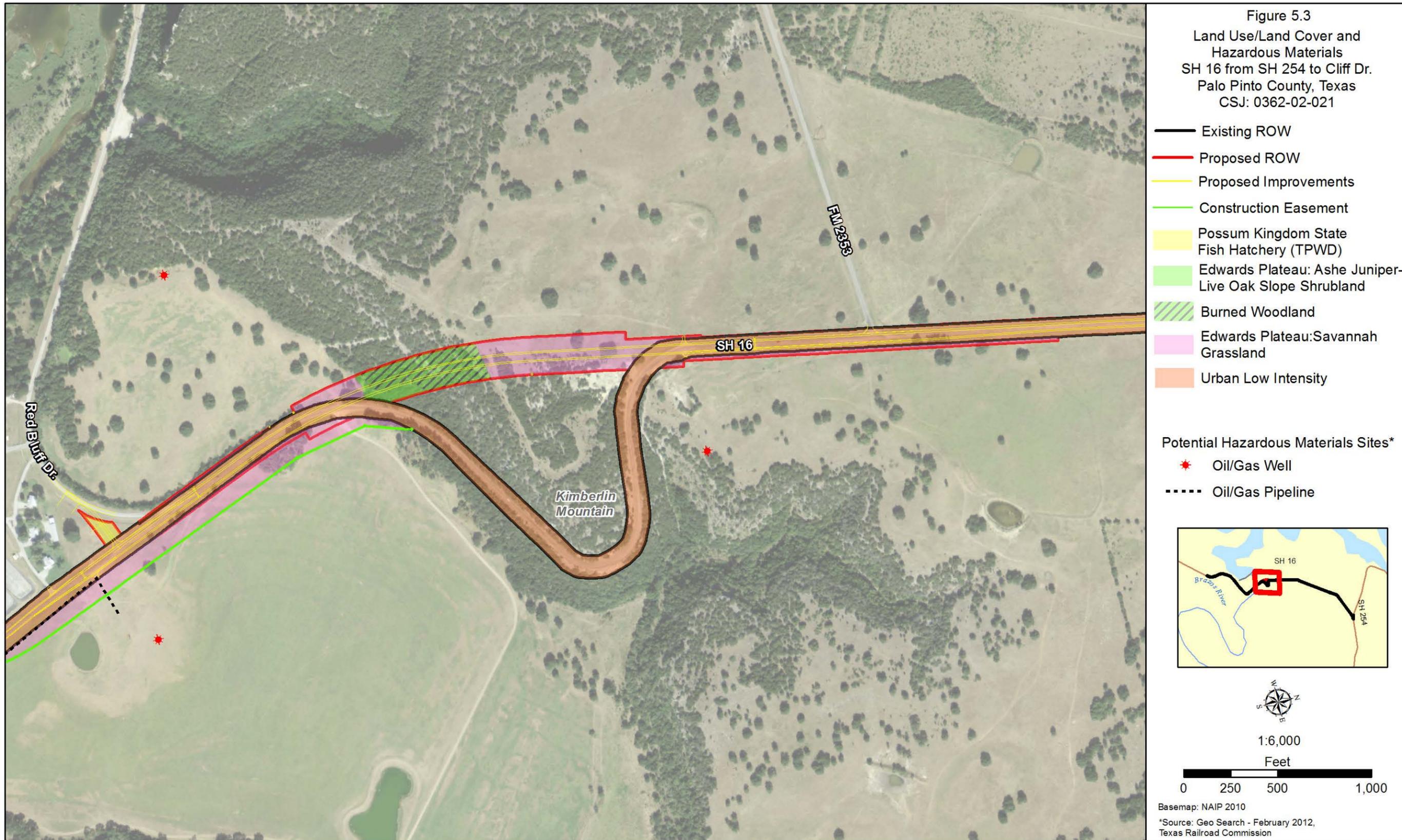










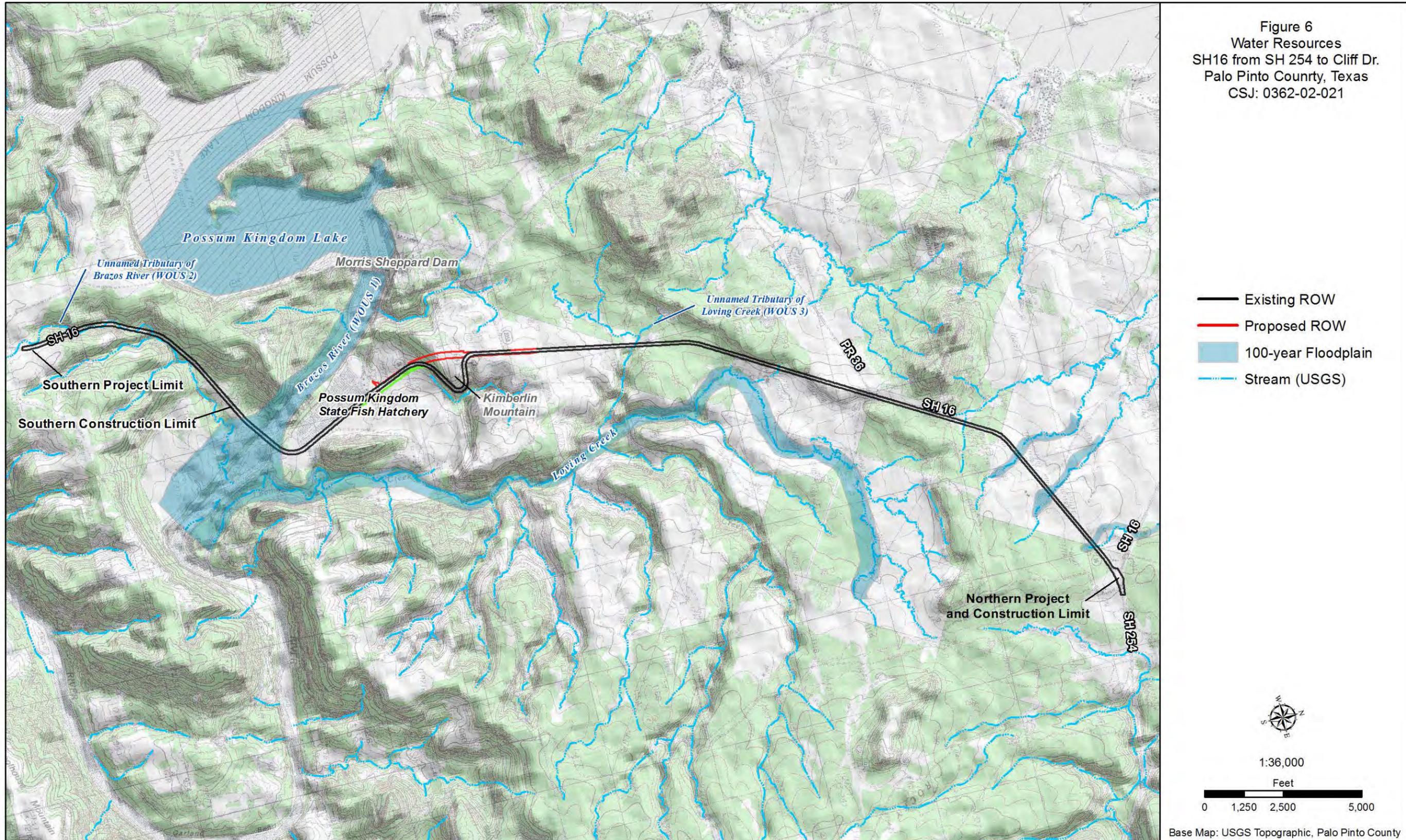












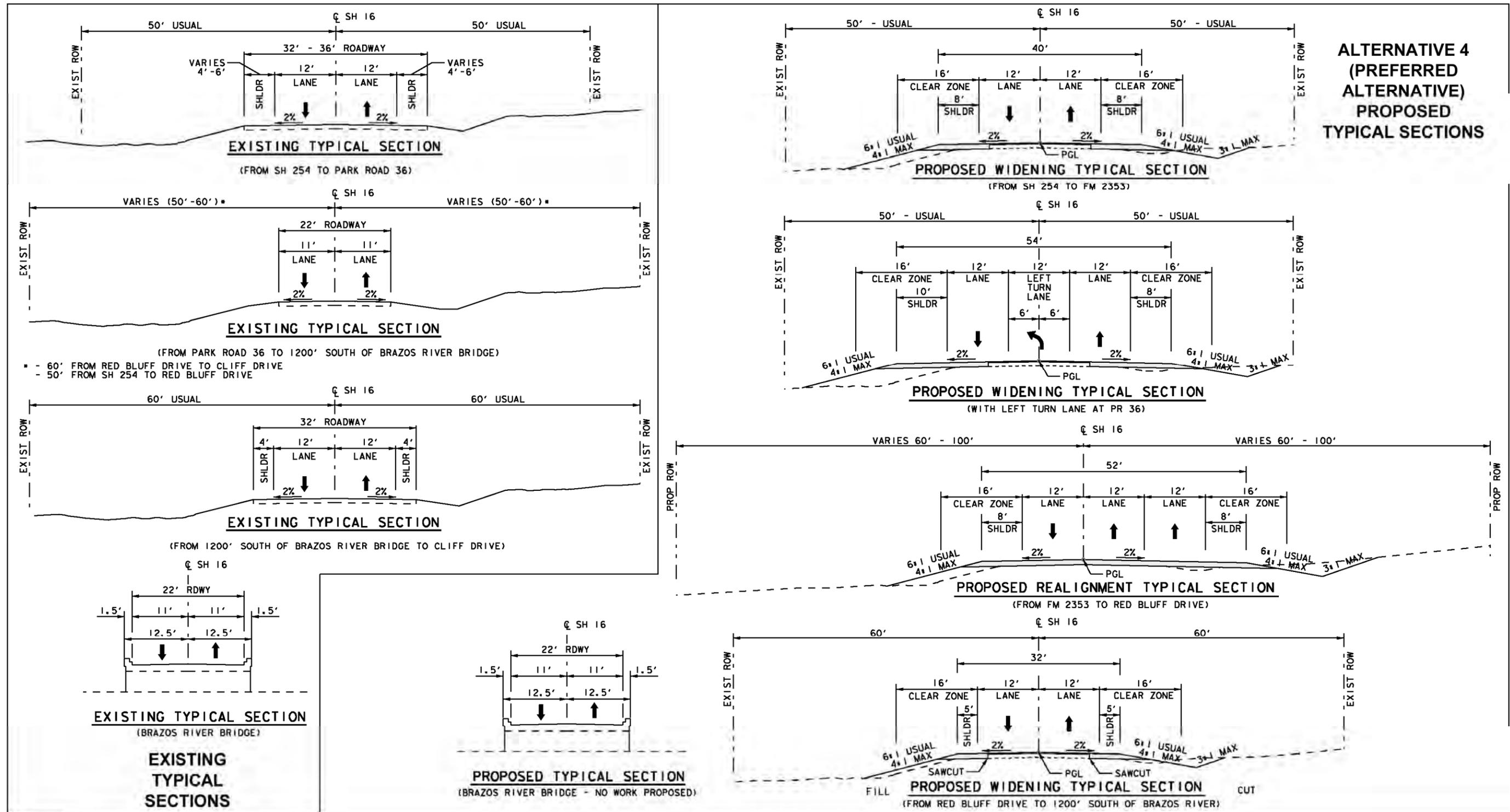


Figure 7
Existing and Proposed Typical Sections
SH 16 from SH 254 to Cliff Drive
Palo Pinto County
CSJ: 0362-02-021



Figure 8
 Area of Influence
 SH 16 from SH 254 to Cliff Dr.
 Palo Pinto County, Texas
 CSJ: 0362-02-021

- Proposed Improvements
- Existing ROW
- Proposed ROW
- Area of Influence
- Parcels Within Area of Influence



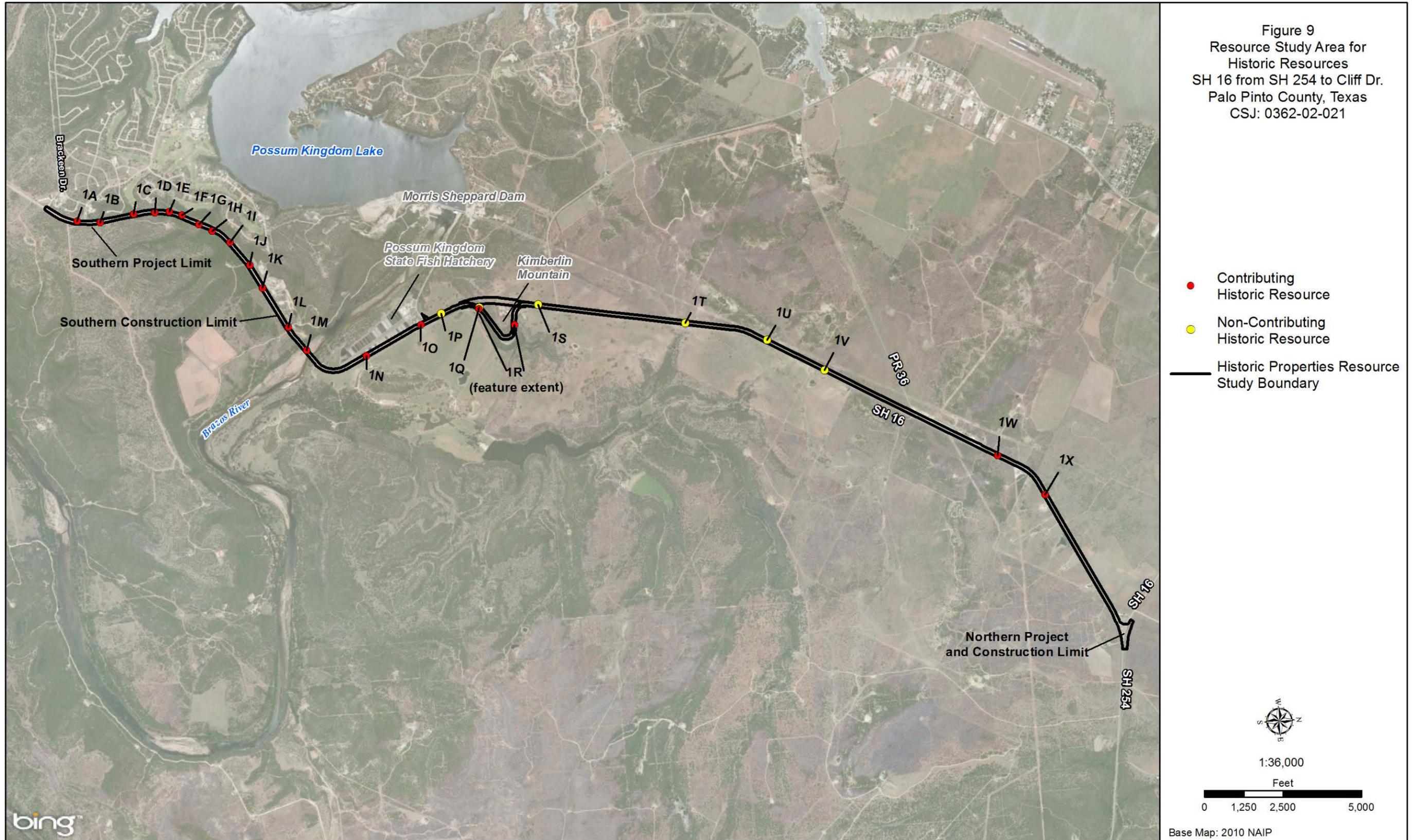
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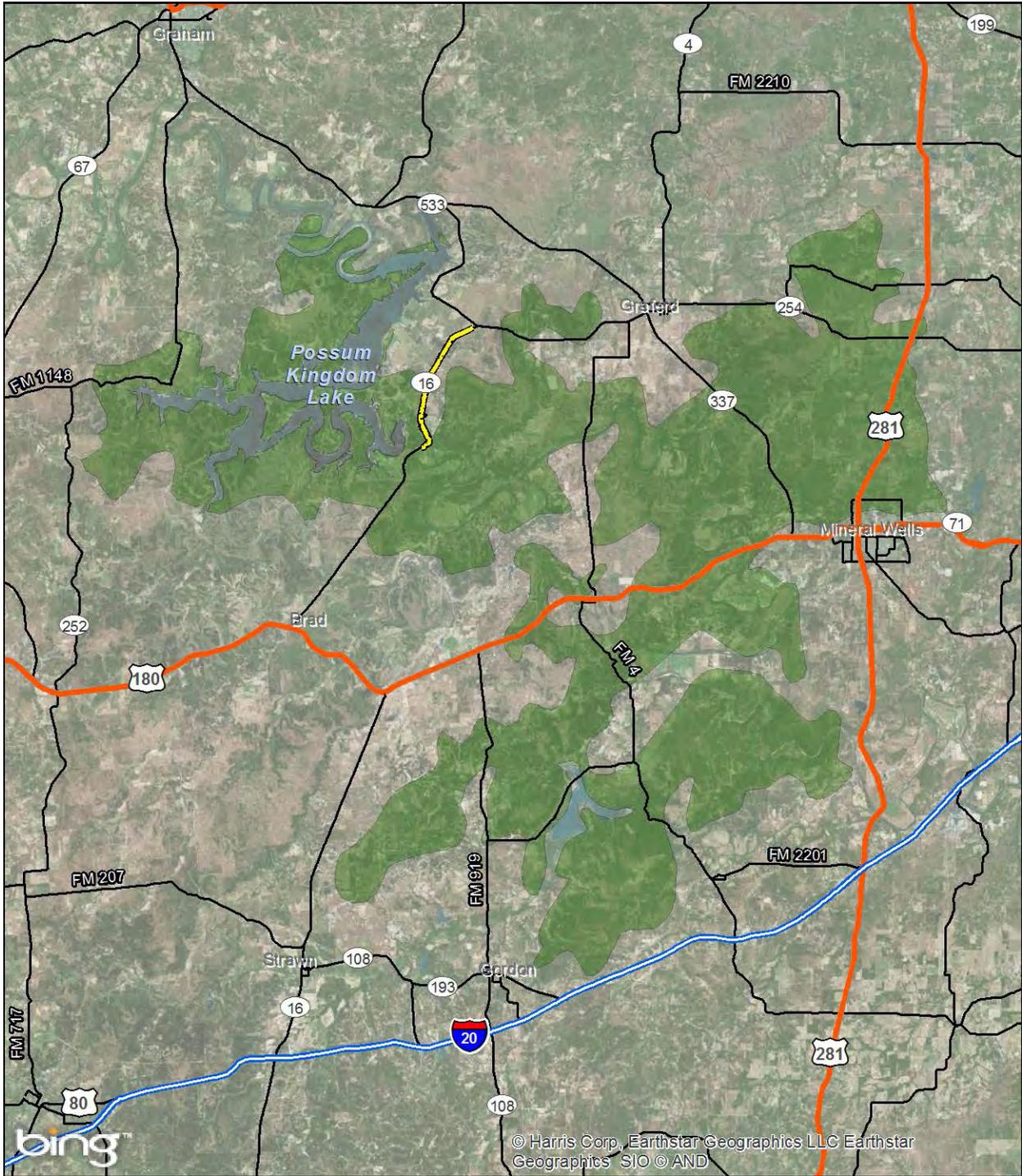
Feet



Preliminary - Subject to Change

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getm
 User Community





Base Map: Bing Aerial Imagery 2010 Palo Pinto County, Texas

- Proposed Project
- Resource Study Area (Ash Juniper Parks/Woods)

Figure 10
Resource Study Area for
Threatened and Endangered Species
SH 16 from SH 254 to Cliff Dr.
Palo Pinto County, Texas
CSJ: 0362-02-021

Appendix B
Photographs



Photograph 1: View facing west, showing the intersection of SH 16 and SH 254 (northern project terminus)



Photograph 2: View facing southwest on SH 16 from the SH 254 intersection, showing the existing roadway between SH 254 and PR 36 with 4- to 6-foot-wide shoulders



Photograph 3: View facing west on SH 16 between SH 254 and PR 36, showing an example of a natural gas tank located on a ranch adjacent to the roadway



Photograph 4: View facing south on SH 16 at the intersection with PR 36, showing the transition of the roadway section from 4- to 6-foot-wide shoulders in the foreground to roadway with no shoulders in background



Photograph 5: View facing north along SH 16 at the intersection of PR 36; note a commercial property on the left and a row of vacation cottages in the background on the left



Photograph 6: View facing south on SH 16 between PR 36 and FM 2353, showing transmission line located parallel to SH 16 that leads to the Morris Sheppard Dam



Photograph 7: View facing south on SH 16 between PR 36 and the Brazos River; note no shoulders are located on this section of SH 16



Photograph 8: View facing south at the intersection of SH 16 and FM 2353; note caution signs on the north end of the 1-mile segment on Kimberlin Mountain are in the background



Photograph 9: View facing south on SH 16, showing the caution signs at the top (northern end) of Kimberlin Mountain; the intersection with FM 2353 is on the right in the foreground



Photograph 10: View facing east (downhill) on Kimberlin Mountain at rock wall (mapped as Resource No. 1R on **Figure**) on the left



Photograph 11: View facing east (downhill) on Kimberlin Mountain in the sharp curve; note the poor sight distance to the right



Photograph 12: View facing southeast (downhill) in the curve on Kimberlin Mountain; note the poor sight distance on the right; the pull-off and locally erected Oliver Loving marker is located on the left



Photograph 13: View facing southeast (downhill) on Kimberlin Mountain; note the rock cut on the right and sight distance problems at this location



Photograph 14: View facing southeast (downhill) on Kimberlin Mountain showing an 18-wheeler truck (carrying another vehicle); note back right tires are off the pavement and front left tires are on the center line



Photograph 15: View facing northwest, showing the curve on Kimberlin Mountain and the relationship between the roadway and the private property below



Photograph 16: View facing northeast (uphill) on Kimberlin Mountain showing the sharp curve in the background



Photograph 17: View facing southwest (downhill) on Kimberlin Mountain



Photograph 18: View facing north (uphill) on SH 16 at the base (southern end) of Kimberlin Mountain



Photograph 19: View facing north along SH 16 from the intersection of Red Bluff Drive; new-alignment section in Alternatives 4 and 5 would be located adjacent to the power line on the hill in the background



Photograph 20: View facing southwest showing intersection of SH 16 and Red Bluff Drive, which is to be straightened with Alternatives 4 and 5 (proposed realigned intersection to be located on the left); the Possum Kingdom State Fish Hatchery is on the far left



Photograph 21: View facing west, showing the downstream side of the Morris Sheppard Dam and power plant (on right), which are located 0.6 mile from the project but are accessed from Red Bluff Drive



Photograph 22: View facing southwest on SH 16 near the Red Bluff Drive intersection, showing the Possum Kingdom State Fish Hatchery on the west side of the road



Photograph 23: View facing north along SH 16, showing the Possum Kingdom State Fish Hatchery on the left and SH 16 roadway leading to Kimberlin Mountain (in background)



Photograph 24: View facing west on SH 16, showing the parking area and trail head for the Brazos River Trail, which is located approximately 400 feet north of the Brazos River Bridge



Photograph 25: View facing south at the Brazos River Bridge



Photograph 26: View facing south on SH 16 approximately 1,200 feet south of the Brazos River showing the southern terminus of the construction limits and the section of SH 16 that was widened as part of a previous project south of the river (CSJ: 0362-02-020)



Photograph 27: View facing southwest from SH 16, showing a water treatment plant facility approximately 1,700 feet south of the Brazos River



Photograph 28: SH 16 between the Brazos River and Cliff Drive; note that this section was upgraded as part of a 2003 safety improvement project south of the Brazos River (CSJ: 0362-02-020)



Photograph 29: Intersection of SH 16 and Cliff Drive (southern project terminus) facing north; the entrance to “The Cliffs” subdivision is on the left



Photograph 30: Riparian vegetation in existing ROW along the Brazos River Bridge



Photograph 31: View of Proposed ROW (right side of photo) and Edwards Plateau Savanna Grassland vegetation within Proposed ROW on Kimberlin Mountain



Photograph 32: View of Edwards Plateau Savanna Grassland vegetation in temporary construction easement



Photograph 33: View of oak-juniper woodlands (background of photo) in proposed ROW on the Kimberlin Mountain slopes.



Photograph 34: Post-fire view of oak-juniper woodlands in proposed ROW on the Kimberlin Mountain slopes

Appendix C
Public Meeting Summary

SH 16 FROM CLIFF DRIVE TO SH 254
PALO PINTO COUNTY, TEXAS
CSJ: 0362-02-021

Public Meeting Summary

TUESDAY, MARCH 06, 2012



Table of Contents

Background.....	1
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Summary of How Comments and Issues Were Addressed.....	3
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Attachments

Attachment A: Public Notice Mailing List and Announcements

Attachment B: Sign-in Sheets

Attachment C: Public Comment Forms

Background

The proposed project covered under this report is a 7.6-mile-long segment of State Highway (SH) 16 from Cliff Drive to SH 254 in Palo Pinto County, Texas. The construction limits for this project are approximately six miles long from approximately 1,200 feet south of the Brazos River Bridge to SH 254. The Texas Department of Transportation (TxDOT) proposes a safety improvement project that calls for the widening and adding of shoulders to the existing roadway and realigning an approximately 2,000-foot-long section of the road to eliminate a sharp curve.

Approximately two miles of the existing SH 16 roadway (from SH 254 to Park Road [PR] 36) has two 12-foot-wide travel lanes and 4- to 6-foot wide shoulders, and approximately four miles of the existing roadway (PR 36 to 1,200 south of the Brazos River Bridge) has two 11-foot-wide travel lanes and no shoulders. The existing right-of-way (ROW) is approximately 100 feet wide. SH 16 within the construction limits is a rural collector. The entire length of the SH 16 roadway within the construction limits and within the logical termini has been determined eligible for the National Register of Historic Places (NRHP) with 18 contributing resources (sixteen masonry culverts, one masonry arch bridge, and one masonry wall).

Most of the proposed project area is ranchland and residential, with limited commercial and light industrial facilities near the intersection with PR 36. There are some infrastructure facilities adjacent to the proposed project or in the immediate area, such as a Texas Parks and Wildlife Department (TPWD) freshwater fish hatchery, a local water treatment plant, and the Possum Kingdom Dam. The posted speed limit is 60 miles per hour (mph). The 2008 average daily traffic (ADT) volume on SH 16 was approximately 1,300 vehicles per day (vpd). The projected 2028 ADT is approximately 2,000 vpd.

Proposed Improvements

Three build and one no-build alternative have been studied for the proposed project. The recommended alternative would involve realigning the roadway to avoid a sharp curve and adding shoulders or widening existing shoulders to meet TxDOT's current design standards. The recommended alternative's proposed improvements call for realigning approximately 0.5 mile of SH 16 roadway on Kimberlin Mountain to avoid a sharp curve located between Farm-to-Market Road (FM) 2353 and Red Bluff Drive. The new-location section of SH 16 on Kimberlin Mountain would begin approximately 1,000 feet south of FM 2353, traverse Kimberlin Mountain on new location, and tie into the existing SH 16 roadway approximately 600 feet north of the SH 16/Red Bluff Drive intersection. The new roadway would have two 12-foot travel lanes and 8-foot shoulders. A climbing lane for northbound traffic would be constructed, which would terminate at the top of Kimberlin Mountain as a left turn lane for turning movements at the FM 2353 intersection. Additionally, at the base of Kimberlin Mountain, the SH 16/Red Bluff Drive intersection would be realigned to improve sight distance for motorists turning from Red Bluff Drive onto SH 16.

The recommended alternative also calls for widening the existing two-lane roadway. From SH 254 to FM 2353, the existing shoulders would be widened to 8-foot shoulders. From FM 2353 to Red Bluff Drive,

the majority of this section of roadway is on new alignment, and the width of the roadway was described in the section above. From Red Bluff Drive to the Brazos River Bridge, 5-foot shoulders would be added to the existing roadway. No work is proposed on the Brazos River Bridge, which has no shoulders. A transition would be built between the south end of the bridge and approximately 1,200 feet south of the bridge. As noted above between approximately 1,200 feet south of the bridge to Cliff Drive, no work is proposed.

The recommended alternative would require 9.32 acres of new ROW, all of which would be required for the new location section between FM 2353 and Red Bluff Drive. The proposed ROW would be acquired from one property. This new ROW is on vacant land, and no displacements would be required. All of the work that requires the addition and widening of shoulders would be within existing ROW.

Public Reaction

The Public Meeting was advertised in the *Fort Worth Star-Telegram* on Sunday, February 5, 2012 and again on Sunday, February 26, 2012. The notice was also advertised in the *Lake Country Sun* on Friday, February 3, 2012 and again on Friday, February 24, 2012. Additionally, notices were mailed to listed adjacent property owners according to TxDOT requirements. Copies of the notices and the mailing list are included in **Attachment A**.

The actual meeting was held on Tuesday, March 6, 2012 between the hours of 6:30 p.m. and 8:30 p.m. at the Possum Kingdom Chamber of Commerce at 362 North FM 2353 in Graford, Texas. An open house “come and go” format was employed for the meeting. There was no formal presentation but maps, drawings, and other information about the project were on display throughout the hours of the meeting. Project personnel were on hand to assist with orientation and interpretation of the display materials and to discuss possible design and environmental effects of the project.

A total of 41 individuals attended the public meeting. Attendance was comprised of a total of 25 interested citizens, another 3 local government representatives, and 13 TxDOT representatives/consultants. The sign-in sheets for the meeting are included in **Attachment B**. As noted above, one no-build and three build alternatives were presented to the public. Public reaction during the meeting was favorable for the recommended alternative. The general consensus of the attendees was that the project was necessary and that they looked forward to the completion of the recommended alternative.

Summary of Comments

The project team discussed the verbal comments received immediately following the meeting, and team members noted how they addressed verbal comments. All comments have been reviewed and will be considered during development of the environmental assessment for the proposed project and any possible design modifications. Five written comments were submitted to TxDOT at the meeting and one written comment was sent to TxDOT during the comment period via facsimile. Some of the comments contained multiple comments (see Figure 3). The following summarizes the comments that were included in the six written comment forms and the verbal comments received at the meeting:

Verbal and written comments

- Favorable support of the recommended alternative (TxDOT received no verbal or written comments that were in favor of any other alternative).
- Favorable support for keeping the Brazos River Arch Bridge in service.
- Concerns over what will happen to the scenic portion of the existing SH 16 alignment that would be bypassed and rock wall within that section of roadway.
- Request for reconfiguration of the SH 16/PR 36 intersection.

Written comments only

- Request that TxDOT seek alternatives to burying Culvert “10” (as designated in the July 2011 Historic Resources Survey Report).

Verbal comments only

- Concerns over mailbox relocations.
- Question why TxDOT looked at alternatives that caused more impacts to residences and cost much more than the recommended alternative.
- Request for realignment of the curve on SH 16 near the north end of the Brazos River Bridge.
- Request that a curve north of the SH 16/PR 36 intersection not be realigned.
- Request that a brown road sign be erected to point towards the Grady Spruce YMCA Camp by a YMCA representative.

Summary of How Comments and Issues Were Addressed

Below is the summary of comments and related issues addressed by TxDOT.

Verbal and written comments:

- *Comment:* Favorable support of the recommended alternative (TxDOT received no verbal or written comments that were in favor of any other alternative).
 - *Response:* Comment noted.
- *Comment:* Favorable support for keeping the Brazos River Arch Bridge in service.
 - *Response:* The project does not include any work at the Brazos River Arch Bridge, and the bridge would remain in service.

- *Comment:* Concerns over what will happen to the portion of the existing SH 16 alignment that would be bypassed and the scenic overlook and rock wall within that section of roadway.
 - *Response:* TxDOT is currently negotiating with Palo Pinto County and the Palo Pinto County Historical Commission to determine if Palo Pinto County will take over the existing alignment with the intention of creating an interpretative park. If so, TxDOT would construct a driveway for access to an interpretative park from the edge of pavement to the proposed ROW line.

TxDOT objects to fixing the deteriorated portions of the rock wall since TxDOT has been directed that no repairs should be attempted as the repairs may affect the historical integrity of resources' design, materials, and workmanship. TxDOT believes the best mitigation action is preservation of the remaining elements.
- *Comment:* Request for reconfiguration of the SH 16/PR 36 intersection.
 - *Response:* The proposed project includes a reconfiguration of the SH 16/PR 36 intersection into a T-configuration with a northbound left turn lane.

Written comments only

- *Comment:* Request that TxDOT seek alternatives to burying Culvert "10" (as designated in the July 2011 Historic Resources Survey Report)
 - *Response:* TxDOT evaluated several different horizontal alignment options; however, they were determined to be imprudent and costly. Also the culvert's purpose of conveying water across the road right-of-way is no longer needed due to changes in the adjacent land use. With fifteen other Works Progress Administration (WPA) constructed masonry culverts nearby within the corridor, TxDOT feels the prudent course of action is to bury the culvert. TxDOT will remove the existing masonry headwalls of the culvert and offer the material to the County Historical Commission for their use.

Verbal comments only

- *Comment:* Concerns over mailbox relocations.
 - *Response:* TxDOT will work with local residents to relocate their mailboxes to their current locations in compliance with postal regulations.
- *Comment:* Question why TxDOT looked at alternatives that caused more impacts to residences and cost much more than the recommended alternative.
 - *Response:* Federal law (Section 4(f) of the U.S. Department of Transportation Act) required that TxDOT look at alternatives that avoided potential adverse effects to the historic SH 16 roadway corridor.

- *Comment:* Request for realignment of the curve on SH 16 near the north end of the Brazos River Bridge.
 - *Response:* The project will maintain the existing alignment at this location.
- *Comment:* Request that a curve north of the SH 16/PR 36 intersection not be realigned.
 - *Response:* The project will maintain the existing alignment at this location.
- *Comment:* Request that a brown road sign be erected to point towards the Grady Spruce YMCA Camp by a YMCA representative.
 - *Response:* TxDOT will erect a sign per their request.

Conclusion

After review of the comments received during the public involvement phase, TxDOT will continue to work with Palo Pinto County, local agencies, and property owners during the design and construction phases of the project. All comments have been satisfactorily addressed.

Attachment A:

Public Notice Mailing List and Announcements



Texas Department of Transportation

P.O. BOX 6868 • FORT WORTH, TEXAS 76115-0868 • (817) 370-6500

January 26, 2012

File
PI

SH 16
From SH 254 to Cliff Drive
Palo Pinto County
CSJ: 0362-02-021

The Honorable Carl Walston
Mayor, City of Graford
P. O. Box 97
Graford, Texas 76449

Dear Mayor Walston:

The Texas Department of Transportation (TxDOT) is currently proposing a project on SH 16 from the Brazos River Bridge to SH 254. The proposed project is a safety improvement project that calls for widening/adding shoulders to the existing roadway and realigning an approximately 2,000-foot-long section of the road to eliminate a sharp curve.

A public meeting for the project has been scheduled for Tuesday, March 6, 2012. The meeting will be held on a come and go basis from 6:30 p.m. to 8:30 p.m. at the Possum Kingdom Chamber of Commerce located at 362 North FM 2353 in Graford, Texas.

A Notice of Public Meeting will be published in the following newspapers on the following dates:

<i>Fort Worth Star-Telegram</i>	-----	Sunday – February 5, 2012 & Sunday – February 26, 2012
<i>The Lake Country Sun</i>	-----	Friday – February 3, 2012 & Friday – February 24, 2012

For your convenience, a copy of the public meeting notice and a project location map are attached.

You and your staff are cordially invited to attend this public meeting. If you would like additional information regarding the project, please contact Mr. John Cordary, P.E. at (682) 229-2800.

Sincerely,

Maribel P. Chavez, P.E.
District Engineer
Fort Worth District

Attachments



NOTICE OF PUBLIC MEETING

**Widening or Adding Shoulders to Existing Roadway and
Realignment of Section of Roadway:**

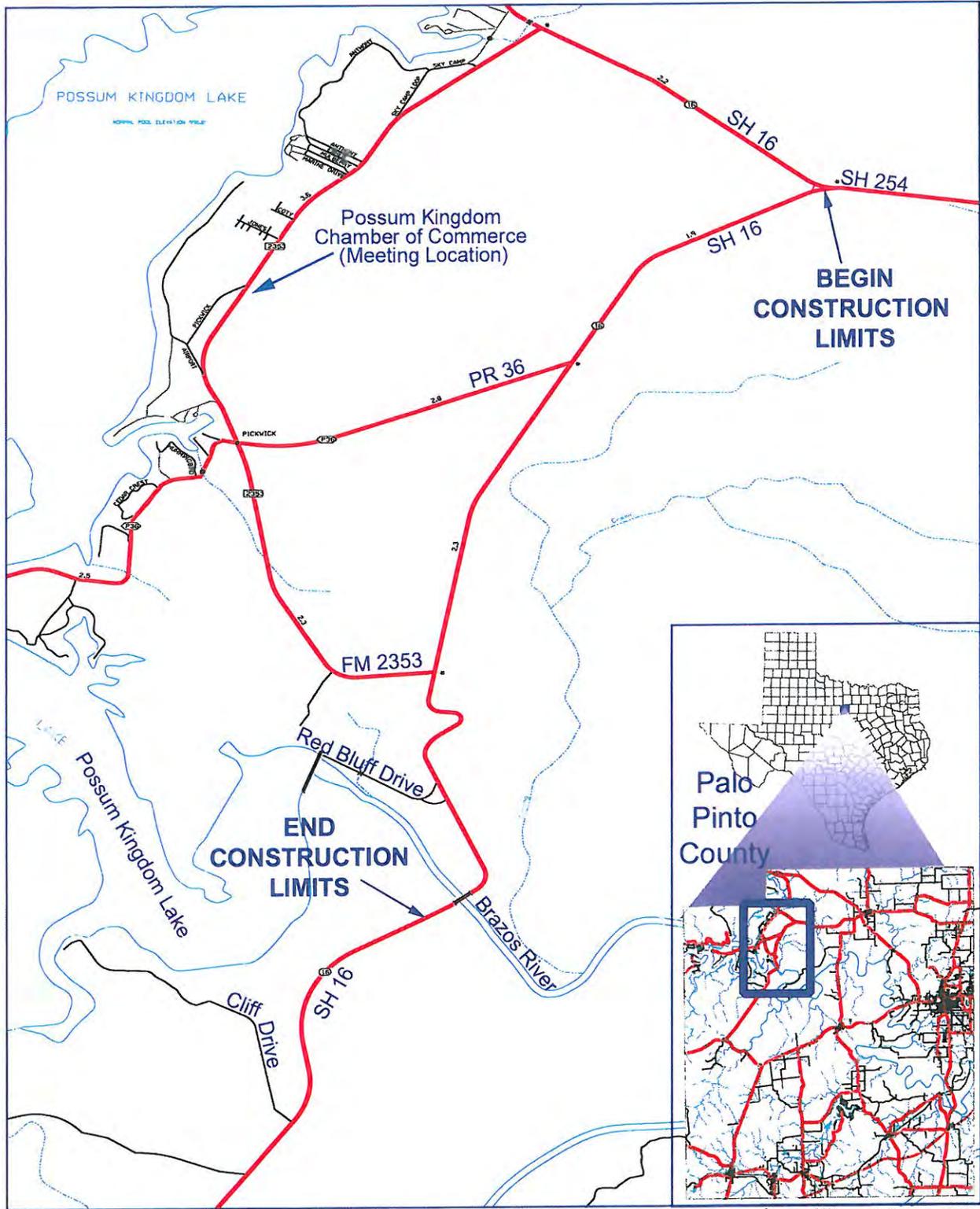
SH 16 from SH 254 to Cliff Drive

The Texas Department of Transportation (TxDOT) will be holding an open house public meeting on Tuesday, March 6, 2012. This meeting will be a come and go between 6:30 p.m. and 8:30 p.m. at the Possum Kingdom Chamber of Commerce located at 362 North FM 2353 in Graford, Texas. The purpose of the meeting is to offer an opportunity to view and make comments on the proposed safety improvements which include widening or adding shoulders to the existing roadway and realigning an approximately 2,000-foot-long section of the road to eliminate a sharp curve (see attached map of the project location).

Maps, drawings, and other information about the proposed improvements will be on display. Project personnel will be on hand to assist with orientation and interpretation of the displays and discuss the project.

All interested citizens are invited to attend this public meeting. Written comments can be submitted at the meeting or mailed to the Texas Department of Transportation, Weatherford Area Office at 1427 W. Bankhead, Weatherford, Texas 76086 on or before March 16, 2012.

Persons interested in attending the meeting who have special communication or accommodation needs are encouraged to contact Tanya Fitzgerald at (817) 370-6610. Requests should be made at least 72 hours prior to the public meeting. Every reasonable effort will be made to accommodate those needs.



ftp://ftp2.tnris.org/Transportation/
TxDOT/UrbanFiles/dgn/
Accessed 7/09

Project Location on County Base Map
SH 16 from SH 254 to Cliff Drive
Palo Pinto County
CSJ: 0362-02-021

SH 16 – CSJ 0362-02-021

On 1/26/2012, the attached Notice of Public Meeting was sent addressed to each of the individuals listed below.

DAVID COE
101 STATE HWY 16
GRAFORD, TX 76449

DOUBLE DIAMOND UTILITIES CO.
10100 N CENTRAL EXPRESSWAY, SUITE 400
DALLAS, TX 75231-4156

DOUBLE DIAMOND INC.
10100 N CENTRAL EXPRESSWAY, SUITE 600
DALLAS, TX 75231-4156

LELA M. NIE
102 STATE HWY 254
GRAFORD, TX 76449

SHIRLEY JUNE BENNETT
102 STATE HWY 254
GRAFORD, TX 76449

TYNA C. COE
102 STATE HWY 254
GRAFORD, TX 76449

SANDRA ALTUM
105 S HIGHWAY 16
GRAFORD, TX 76449

CHAD HENDERSON
BRIDGEFARMER AND ASSOCIATES
12801 N. CENTRAL EXPRESSWAY, SUITE 400
DALLAS, TX 75243

OLLIE ANN BLACKERBY TRUST
13695 NW 79TH TER
PARKVILLE, MO 64152-5620

CROSBY-LOCKHART RANCH
17508 OAK MOUNTAIN PLACE
DALLAS, TX 75287

BURTON CLIFTON, P.E.
2008 CLIFFSIDE DRIVE
FORT WORTH, TX 76134

CHINH PHAN
2777 N. STEMMONS FREEWAY, SUITE 1333
DALLAS, TX 75207

MR. WESLEY KAISERSHOT, P.E.
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
300 EAST 8TH STREET, ROOM 826
AUSTIN, TX 78701

KIMBERLIN PK TRUST ET AL
3322 SHORECREST DRIVE, SUITE 200
DALLAS, TX 75235-2010

MR. JOHN KIMBERLIN
KIMBERLIN RANCHES
3322 SHORECREST DRIVE, SUITE 200
DALLAS, TX 75235

MR. DALE LYON
POSSUM KINGDOM FISH HATCHERY
401 RED BLUFF ROAD
GRAFORD, TX 76449

GREG AND MICHELE BENNETT
4115 BELLAIRE DRIVE S
FORT WORTH, TX 76109-2026

MR. TODD ENGELING
CHIEF OF INLAND HATCHERIES
TEXAS PARKS AND WILDLIFE
4200 SMITH SCHOOL ROAD
AUSTIN, TX 78744

MR. MARK STENDAHL, P.E.
ENGINEERING SERVICES MANAGER
BRAZOS RIVER AUTHORITY
4600 COBBS DRIVE
WACO, TX 76710

MR. OMAR BOCANEGRA
U.S. FISH & WILDLIFE SERVICE
711 STADIUM DRIVE EAST, SUITE 252
ARLINGTON, TX 76011

TIM HENZ
7273 CR 526
MANSFIELD, TX 76063

GLASGOW FAMILY TRUST
7819 BLUEBONNET DRIVE
AMARILLO, TX 79108-2703

MR. MIKE LEWIS
PALO PINTO COUNTY HISTORICAL
COMMISSION
P. O. BOX 105
PALO PINTO, TX 76484

BARBARA C. MALEY, AICP
ENVIRONMENTAL & TRANSPORTATION
PLANNING COORDINATOR
FEDERAL HIGHWAY ADMINISTRATION, TEXAS
DIVISION
P. O. BOX 260729
PLANO, TX 75026

MR. MARK WOLFE
EXECUTIVE DIRECTOR
TEXAS HISTORICAL COMMISSION
P.O. BOX 12276
AUSTIN, TX 78711-2276

MS. KRISTA S. GEBBIA
PRESERVATION TEXAS
P.O. BOX 12832
AUSTIN, TX 78711

FRANCES B. GREEN
PO BOX 177
PALO PINTO, TX 76484-0177

BR AT POSSUM KINGDOM INC.
PO BOX 200456
ARLINGTON, TX 76006-0456

HELEN S. DONNELL
PO BOX 382
GRAFORD, TX 76449-0382

HINKSON CATTLE COMPANY INC.
PO BOX 540
GRAHAM, TX 76450

ERIC AND DONNA HINKSON
PO BOX 63
GRAFORD, TX 76449-0063

SUZETTE HINKSON FLOW
PO BOX 73
GRAFORD, TX 76449-0073

O LAUGHLIN D V RANCH PRTN
PO BOX 87
MINERAL WELLS, TX 76068-0087

SH 16 – CSJ 0362-02-021

On 1/27/2012, the attached letter was sent addressed to each of the individuals listed below with copies sent as shown. In addition, blind copies were sent as follows:

BC: Robin Ayers – TxDOT Federal Legislative Affairs
Jefferson Grimes – TxDOT State Legislative Affairs
John Cordary – TxDOT – Weatherford Area Office

THE HONORABLE CARL WALSTON
MAYOR, CITY OF GRAFORD
P. O. BOX 97
GRAFORD, TX 76449

THE HONORABLE DAVID NICKLAS
COUNTY JUDGE, PALO PINTO COUNTY
P. O. BOX 190
PALO PINTO, TX 76484

THE HONORABLE BETH RAY
PALO PINTO COUNTY COMMISSIONER,
PRECINCT 1
P. O. BOX 369
PALO PINTO, TX 76484

THE HONORABLE LOUIS RAGLE
PALO PINTO COUNTY COMMISSIONER,
PRECINCT 2
P. O. BOX 369
PALO PINTO, TX 76484

THE HONORABLE MIKE PIERCE
PALO PINTO COUNTY COMMISSIONER,
PRECINCT 3
P. O. BOX 369
PALO PINTO, TX 76484

THE HONORABLE JEFF FRYER
PALO PINTO COUNTY COMMISSIONER,
PRECINCT 4
P. O. BOX 369
PALO PINTO, TX 76484

THE HONORABLE MAC THORNBERRY
THE HOUSE OF REPRESENTATIVES
4245 KEMP, SUITE 506
WICHITA FALLS, TX 76308

THE HONORABLE CRAIG ESTES
STATE SENATOR, DISTRICT 30
4401 N. IH 35, #202
DENTON, TX 76207

CC: THE HONORABLE CRAIG ESTES'S
CAPITOL OFFICE

THE HONORABLE JIM LLOYD KEFFER
STATE REPRESENTATIVE, DISTRICT 60
1100 E. HWY. 377, SUITE 105
GRANBURY, TX 76048

THE HONORABLE JOHN CORNYN
UNITED STATES SENATE
5001 SPRING VALLEY ROAD, SUITE 1125E
DALLAS, TX 75244

CC: THE HONORABLE JIM LLOYD KEFFER'S
CAPITOL OFFICE

THE HONORABLE KAY BAILEY HUTCHISON
UNITED STATES SENATE
10440 NORTH CENTRAL EXPRESSWAY, SUITE
1160
DALLAS, TX 75231

Attachment B:
Sign-In Sheets

PUBLIC MEETING REGISTRATION

SH 16
 From SH 254 to Cliff Drive
 Palo Pinto County

March 6, 2012

PLEASE PRINT

NAME	PHONE NUMBER	REPRESENTING	ADDRESS
Nevin McCoy	(940) 682-6277	YMCA	3000 Park Rd 36
Steve Bowder	(214) 522-9115	MABCTC	3067 ' ' ' 36
Randy Cole	(940) 452-2567		101 Hwy 116
Jim Harvey	(940) 452-3014		
Maggie Campbell	(940) 329-0141	Self	102 S.H. 254 Graford
S.S. Bennett	(")		" "
Bill + Ann Reagan	(940) 659-2555	PPCHC	PO Box 72, Palo Pinto 76484
Son Carol Garsey	(940) 179-9255	ERCNINEZ ME	1050 N FM 2353, Graford, TX 76449
A.M. Engelbrechtson	()		Lake Country Sun
Shirley M. Drath	(940) 729-4123		105 Marine DR Graford TX
Jackie Fwee	(940) 445-7622	Bonera Properties	1406 Park Rd 36 Chesnut 76449
Don Zebun	(940) 779-3791	DZ	3201 Redbird Rd. Graford, TX 76449
	()		
	()		
	()		

PUBLIC MEETING REGISTRATION

SH 16

From SH 254 to Cliff Drive
Palo Pinto County

March 6, 2012

PLEASE PRINT

NAME	PHONE NUMBER	REPRESENTING	ADDRESS
DEAN COUSSEY	(214) 535-1554	YMCA Camp	3000 Park Road 36
Sharon HANSEN	(940) 779-6210	Self	540 Colonial Dr Stamford Tx
Tommy Barron	(254) 631-1577	Self	325 Turnberry Lane, Groesbeck Tx. 76449
FRANKIE BARTO	(940) 659-8302	PKVFD	139 City Ln Groesbeck TX 76449
Louis Ragle	(940) 682-6316	Palo Pinto Co	P.O. Box 254 Groesbeck, TX 76449
George Donnell	(940) 659-8086	Self	Box 156 Groesbeck, TX 76449
Helen Sue Donnell	()	"	" " "
Mert Fawell	(940) 415-1316	"	1007 Redbud Point Groesbeck TX
John Kimberlin	(214) 351-0885	Kimberlin Ranch	3322 Shoreside #200 Palo Alto Tx
W & Linda Hayward	(940) 651-0004	Self	45 Muehfeld Ct Lloyd TX 76449
Dean Tesmer	(512) 264-1095	Blanton Associates	5 Lakeway Centre Ct, Suite 200, Austin TX 78734
CECILE LAMIE	682 (817) 228-2021	TXDOT	1421 WEST BARKHEAD W FORD TX 76086
	()		
	()		
	()		

PUBLIC MEETING REGISTRATION

SH 16

From SH 254 to Cliff Drive
Palo Pinto County

March 6, 2012

PLEASE PRINT

NAME	PHONE NUMBER	REPRESENTING	ADDRESS
Tanya Fitzgerald Chad Putnam	(817) 370-6610 (817) 370-6567	Tx DOT Tx DOT	2501 SW Loop 820, Ft Worth 76133 "
Curtis Hanan	()	Tx DOT	"
Elisa Garcia	(817) 370-6718	Tx DOT	"
John Cordary	(682) 229-2800	Tx DOT	1427 W Bankhead Weatherford Tx
Stan Elliott	(682) 229-2822	Tx DOT	"
Wade Strong	(512) 585-2139	RTG	11211 Taylor Draper Ln #100, Austin, TX 78717
PAUL SMITH	(972) 377-3535	RTG	4949 Hedgocoxe, Suite 220, Plano, TX 75024
Jason Schindler	(512) 264-1095	Blanch & Assoc.	5 Lakeway Centre Ct, Suite 200, Austin, TX 78734
CAROLYN LAND	(940) 779-3863	Self	155 River Rd Graford Tx 76449
DAVID WICKENS	(940) 659-8208	P.P. County	P.O. Box 190 Palo Pinto, TX 76484
Kara Crow	(940) 328-3112	P.K. EMS	P.O. Box 345 Graford TX 76449
Kelly Price	(817) 370-6723	Tx DOT	2501 SW Loop 820, Ft. W. 76133
Donna Hinkson	(940) 745-0203		Box 63 Graford 76449
Dejue Shaw	(940) 452-4202		P.O. Box 73 Graford 76449

EARLY SIGN-IN

SH 16 from SH 254 to Cliff Drive

Public Meeting, March 6, 2012

Name	Interest in Project	Address
Eddie GARLAND	Local Resident	2240 GARLAND Bend Rd GRAford, TX. 76449
Maryellen RUSSELL	Blanton & Assoc.	5 Lakeway Center Court, Suite 200 Austin, TX 78734

Attachment C:

Public Comment Forms



SH 16
From SH 254 to Cliff Drive
 Palo Pinto County
 0362-02-021
 Public Meeting
 March 6, 2012

The Texas Department of Transportation (TxDOT) actively seeks your comments on this proposed project. Your comments are always welcome and will be given serious consideration during the remainder of project development. Written comments may be submitted to the Weatherford Area Office using this form or by letter postmarked by March 16, 2012. Thank you for your comments.

COMMENTS: (PLEASE PRINT)

Please consider leaving "the curve" over Kimberlin Ranch intact as a "scenic drive." Access No+ So to the scenic drive will cost so much less than abandoning it.

Seems like every interesting place has its very own scenic drive. Why can't we here at PK?

Please, Please, Please

Name Jon Carol Carney
 Address 1050 N FM 2353
GRAFFORD, TX 76449
 Phone 940 779 2515

Affix Seal Here



SH 16
From SH 254 to Cliff Drive
 Palo Pinto County
 0362-02-021
 Public Meeting
 March 6, 2012

The Texas Department of Transportation (TxDOT) actively seeks your comments on this proposed project. Your comments are always welcome and will be given serious consideration during the remainder of project development. Written comments may be submitted to the Weatherford Area Office using this form or by letter postmarked by March 16, 2012. Thank you for your comments.

COMMENTS: (PLEASE PRINT)

INTERSECTION OF PARK ROAD 36
 AND HWY. 16 IS DANGEROUS

Name George Donald
 Address Box 154
Weatherford, Texas 76449
 Phone 940 659 8086
 Affix Seal Here



SH 16
From SH 254 to Cliff Drive
Palo Pinto County
0362-02-021
Public Meeting
March 6, 2012

The Texas Department of Transportation (TxDOT) actively seeks your comments on this proposed project. Your comments are always welcome and will be given serious consideration during the remainder of project development. **Written comments may be submitted to the Weatherford Area Office using this form or by letter postmarked by March 16, 2012. Thank you for your comments.**

COMMENTS: (PLEASE PRINT)

My husband and I are in favor of the road work on Hwy 16 that would cut straight up ~~to~~ and over the mountain. (Alternative 4)

This work is the shortest route.

Our only concern is keeping the bridge over the Brazos River in place as is!

The previous work on widening Hwy 16 is appreciated.

Thanks

Name

Carolyn & Monte Land

Address

155 River Rd

Weatherford, Texas 76449

Phone

940 779-3863

Affix Seal Here

SH 16
From SH 254 to Cliff Drive
Palo Pinto County
0362-02-021
Public Meeting
March 6, 2012

The Texas Department of Transportation (TxDOT) actively seeks your comments on this proposed project. Your comments are always welcome and will be given serious consideration during the remainder of project development. Written comments may be submitted to the Weatherford Area Office using this form or by letter postmarked by March 16, 2012. Thank you for your comments.

COMMENTS: (PLEASE PRINT)

Alternative 3 is not feasible
financially, time wise, or utilization
wise. Alternative 2 also the same,

Alternative 4 is the only one
that makes sense for utilization
& economical reasons

Name

Donna Hinkson

Address

Box 63
Gratford TX 76449

Phone

940 745-0203

Affix Seal Here



SH 16
From SH 254 to Cliff Drive
Palo Pinto County
0362-02-021
Public Meeting
March 6, 2012

The Texas Department of Transportation (TxDOT) actively seeks your comments on this proposed project. Your comments are always welcome and will be given serious consideration during the remainder of project development. *Written comments may be submitted to the Weatherford Area Office using this form or by letter postmarked by March 16, 2012. Thank you for your comments.*

COMMENTS: (PLEASE PRINT)

Alternet is not feasible - unreasonable
Cost and Displacement -!

Name

A. P. Cole

Address

101 ST HWY 16

Phone

340 459 7543

Affix Seal Here

Palo Pinto County Historical Commission (PPCHC)
 P O Box 105
 Palo Pinto, Texas 76484

TXDOT – FT WORTH

Ms: Elisa Garcia / TO Whom It Concerns:

The Palo Pinto County Historical Commission is voicing concerns and proposed responses/actions for the SH16 corridor project/CSJ: 0362-02-021. These items were reviewed by the PPCHC at our meeting, March 15, 2012 and this letter is forwarded to your office for review.

Concerns:

A. Culvert "O" to be covered permanently by TXDOT during proposed construction.

Response to TXDOT:

A. As stated in the December 6th meeting, TXDOT needs to submit additional alternatives for the WPA culvert destruction.

Concerns:

B. WPA roadway to be turned back to Kimberlin Ranch.

Response to TXDOT:

B. Palo Pinto County Historical Commission to work with the County Commissioners Court in retaining the WPA roadway for Historical preservation.

Area to be preserved as a "Interpretive Park" showing WPA achievements and surrounding area significance.

- o Story of WPA projects in area, including people and construction techniques.
- o Morris Sheppard dam overview/Importance to area
- o "THE FIRE" of 2011
- o Low water bridge and State stocking programs
- o Ranching and Cattle drives
- Gated access under the direction of the PPCHC
- Gated access would allow Mr. Kimberlin passage from North to South.
- The PPCHC would operate and maintain the Park thru the County Commissioners.
- TXDOT will need to negotiate new land agreement directly with Mr. Kimberlin.

Concerns:

C. Northern driveway access to Interpretive Park would be cut off by TXDOT after construction.

Response to TXDOT:

C. TXDOT to reconnect North entrance after completion of project. PPCHC acknowledges the closure of the southern entrance due to construction.

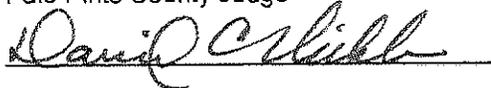
Concern:

D. TXDOT's, "Heavy" use of WPA roadway as construction corridor will future damage rock structures.

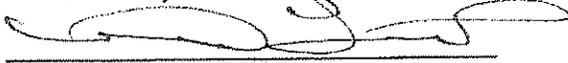
Response to TXDOT:

D. TXDOT to repair damaged WPA rock formations back to the condition of period works. Several WPA rock formations have been noted to been repaired not to original standards. *Blanton and Associates report. (Appendix page C-80/ resource No.1R)*

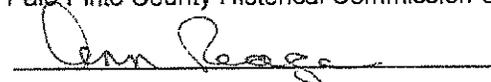
Judge David Nicklas
 Palo Pinto County Judge



Mike Lewis
 Palo Pinto County Historical Commission Co-Chair



Ann Reagan
 Palo Pinto County Historical Commission Co-Chair



Appendix D
Agency and Consulting Party Coordination



P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

Krista S. Gebbia
Preservation Texas
P.O. Box 12832
Austin, Texas 78711

NHPA SECTION 106 APPROVED CONSULTING PARTY STATUS

Palo Pinto County, TxDOT Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ: 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Ms. Gebbia:

In a letter dated July 19, 2011, we informed you that the above referenced project was reinitiated after a period of being suspended due to budget constraints. A Historic Resources Survey Report (HRSR) has been completed and, as a consulting party, you have the opportunity to review and comment on the attached July 2011 HRSR. The report includes National Register of Historic Places (NRHP) eligibility recommendations of properties located within the Area of Potential Effect and the effects the proposed project may have on properties/districts listed or determined eligible for listing in the NRHP. You will also be provided an opportunity to comment on proposed measures to minimize harm or proposed mitigation options for NRHP-eligible properties/districts that would be adversely affected by the proposed undertaking, which will be provided at a later date.

We request that you review the attached HRSR within 30 days of this letter and provide written comments to our environmental consult, Maryellen Russo at Blanton & Associates. Your comments may be sent to her via email at mrusso@blantonassociates.com or via U.S. Postal Service at 5 Lakeway Center Court, Suite 200, Austin, Texas 78734. Please also feel free to call her at 512-264-1095 if you have any questions or need additional information.

Sincerely,

Elisa F. Garcia
Environmental Coordinator
TxDOT Fort Worth District

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P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

John Kimberlin
Kimberlin Ranches
3322 Shorecrest Drive, Suite 200
Dallas, Texas 75235

NHPA SECTION 106 APPROVED CONSULTING PARTY STATUS

Palo Pinto County, TxDOT Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ: 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Mr. Kimberlin:

This letter is to confirm that TxDOT has received your request for consulting party status. As a consulting party, you will be notified of any public meetings and will be provided the opportunity to comment on proposed plans as they may affect historic buildings, structures, sites, objects, and districts located in the project Area of Potential Effect (APE). As a consulting party, you may:

- Review and comment on the attached July 2011 Historic Resources Survey Report, which includes National Register of Historic Places (NRHP) eligibility recommendations of properties located within the APE and the effects the proposed project may have to properties/districts listed or determined eligible for listing in the NRHP.
- Comment on proposed measures to minimize harm or proposed mitigation options for NRHP-eligible properties/districts that would be adversely affected by the proposed undertaking (to be provided at a later date).

TxDOT has contracted with Blanton & Associates, Inc. to conduct historical studies and to assist with the Section 106 public involvement process. Blanton & Associates project staff will be available at the public meetings and via correspondence to answer questions about the Section 106 process. The following key personnel will serve as primary points of contact throughout the project's public involvement process:

- TxDOT Fort Worth District Environmental Coordinator: Elisa Garcia
- Blanton & Associates Senior Historian: Maryellen Russo (formerly Maryellen Ficker)

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Page 2
Mr. Kimberlin
September 2, 2011

We request that you review the attached HRSR within 30 days of this letter and provide written comments to our environmental consult, Maryellen Russo at Blanton & Associates. Your comments may be sent to her via email at mrusso@blantonassociates.com or via U.S. Postal Service at 5 Lakeway Center Court, Suite 200, Austin, Texas 78734. Please also feel free to call her at 512-264-1095 if you have any questions or need additional information.

Sincerely,



Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation
Fort Worth District



P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

Ann Reagan or Mike Lewis
Palo Pinto County Historical Commission
P. O. Box 105
Palo Pinto, Texas 76484

NHPA SECTION 106 APPROVED CONSULTING PARTY STATUS

Palo Pinto County, TxDOT Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ: 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Ms. Reagan or Mr. Lewis:

This letter is to confirm that TxDOT has received your request for consulting party status. As a consulting party, you will be notified of any public meetings and will be provided the opportunity to comment on proposed plans as they may affect historic buildings, structures, sites, objects, and districts located in the project Area of Potential Effect (APE). As a consulting party, you may:

- Review and comment on the attached July 2011 Historic Resources Survey Report, which includes National Register of Historic Places (NRHP) eligibility recommendations of properties located within the APE and the effects the proposed project may have to properties/districts listed or determined eligible for listing in the NRHP.
- Comment on proposed measures to minimize harm or proposed mitigation options for NRHP-eligible properties/districts that would be adversely affected by the proposed undertaking (to be provided at a later date).

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- TxDOT Fort Worth District Environmental Coordinator: Elisa Garcia
- Blanton & Associates Senior Historian: Maryellen Russo (formerly Maryellen Ficker)

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We request that you review the attached HRSR within 30 days of this letter and provide written comments to our environmental consult, Maryellen Russo at Blanton & Associates. Your comments may be sent to her via email at mrusso@blantonassociates.com or via U.S. Postal Service at 5 Lakeway Center Court, Suite 200, Austin, Texas 78734. Please also feel free to call her at 512-264-1095 if you have any questions or need additional information.

Sincerely,



Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation
Fort Worth District



P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

State Highway (SH) 16 from SH 254 to Cliff Drive
Palo Pinto County, Fort Worth District
CSJ: 362-02-021

Kevin Spohrer
U.S. Department of Transportation
Federal Highway Administration
300 East 8th Street, Room 826
Austin, Texas 78701

Dear Mr. Spohrer:

In accordance with Section 106 of the National Historic Preservation Act, and the First Amended Programmatic Agreement for Transportation Undertakings (PA-TU), this letter is to notify you of persons who have requested consulting party status for the above referenced project. A similar letter of notification has been sent to the Texas Historical Commission (THC).

Per this project's March 2011 Public Involvement Plan (attached), TxDOT sent out an invitation letter to prospective consulting parties who have a vested interest in the preservation of historic properties on July 19, 2011. A copy of the consulting party invitation letters are enclosed for your records. TxDOT thus far has received responses from the Palo Pinto County Historical Commission and an affected property owner, John Kimberlin, requesting consulting party status. Additionally, the Historic Bridge Foundation Executive Director, Kitty Henderson, has verbally confirmed twice to TxDOT Environmental Affairs Division historian, Renee Benn, that she will request consulting party status in the next few weeks. It should be noted that a fourth entity, Preservation Texas, was already granted consulting party status in 2006. The attached table provides a summary of TxDOT's efforts to invite consulting parties to participate in the Section 106 process on this project.

TxDOT has accepted these individuals and groups as consulting parties. Consulting parties will be notified of any public meetings and will be provided the opportunity to comment on the results of historic resources surveys, including determinations of National Register of Historic Places (NRHP) eligibility and Section 106 determinations of project effects.

If you have questions or comments, please call me at (817) 370-6718.

Sincerely,

Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation, Fort Worth District

Enclosures

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Consulting Parties and Contact Information
 SH 16 from SH 254 to Cliff Drive
 CSJ: 0362-02-021

<i>Potential Consulting Party</i>	<i>Justification for Consulting Party Invitation</i>	<i>Representative Contacted</i>	<i>Contact information</i>	<i>Date of Invitation</i>	<i>Response</i>
Historic Bridge Foundation	National preservation organization concerned with historic bridges	Kitty Henderson	P.O. Box 66245 Austin, Texas 78766 (512) 407-8898	July 19, 2011 (letter returned to TxDOT in August 2011) August 16, 2011 (email to Ms. Henderson)	Two verbal requests to TxDOT in July and August 2011.
John Kimberlin	Affected property owner	John Kimberlin	3322 Shorecrest Dr., Suite 200 Dallas, Texas 75235	July 19, 2011	Written request dated July 25, 2011
Palo Pinto County Historical Commission	Local preservation organization	Ann Reagan and Mike Lewis	P. O. Box 105 Palo Pinto, Texas 76484 (940) 328-4068	July 19, 2011	Written request dated August 14, 2011
Preservation Texas	State preservation organization	Krista Gebbia	P.O. Box 12832 Austin, Texas 78711 (512) 472-0102	2006 (exact date unknown)	April 20, 2006

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P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

State Highway (SH) 16 from SH 254 to Cliff Drive
Palo Pinto County, Fort Worth District
CSJ: 0362-02-021

Mark Wolfe
Executive Director
Texas Historical Commission
P.O. Box 12276

Dear Mr. Wolfe:

In accordance with Section 106 of the National Historic Preservation Act, and the First Amended Programmatic Agreement for Transportation Undertakings (PA-TU), this letter is to notify you of persons who have requested consulting party status for the above referenced project. A similar letter of notification has been sent to the Texas Historical Commission (THC).

Per this project's March 2011 Public Involvement Plan (attached), TxDOT sent out an invitation letter to prospective consulting parties who have a vested interest in the preservation of historic properties on July 19, 2011. A copy of the consulting party invitation letters are enclosed for your records. TxDOT thus far has received responses from the Palo Pinto County Historical Commission and an affected property owner, John Kimberlin, requesting consulting party status. Additionally, the Historic Bridge Foundation Executive Director, Kitty Henderson, has verbally confirmed twice to TxDOT Environmental Affairs Division historian, Renee Benn, that she will request consulting party status in the next few weeks. It should be noted that a fourth entity, Preservation Texas, was already granted consulting party status in 2006. The attached table provides a summary of TxDOT's efforts to invite consulting parties to participate in the Section 106 process on this project.

TxDOT has accepted these individuals and groups as consulting parties. Consulting parties will be notified of any public meetings and will be provided the opportunity to comment on the results of historic resources surveys, including determinations of National Register of Historic Places (NRHP) eligibility and Section 106 determinations of project effects.

If you have questions or comments, please call me at (817) 370-6718.

Sincerely,

Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation, Fort Worth District

Enclosures

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Consulting Parties and Contact Information
 SH 16 from SH 254 to Cliff Drive
 CSJ: 0362-02-021

<i>Potential Consulting Party</i>	<i>Justification for Consulting Party Invitation</i>	<i>Representative Contacted</i>	<i>Contact information</i>	<i>Date of Invitation</i>	<i>Response</i>
Historic Bridge Foundation	National preservation organization concerned with historic bridges	Kitty Henderson	P.O. Box 66245 Austin, Texas 78766 (512) 407-8898	July 19, 2011 (letter returned to TxDOT in August 2011) August 16, 2011 (email to Ms. Henderson)	Two verbal requests to TxDOT in July and August 2011.
John Kimberlin	Affected property owner	John Kimberlin	3322 Shorecrest Dr., Suite 200 Dallas, Texas 75235	July 19, 2011	Written request dated July 25, 2011
Palo Pinto County Historical Commission	Local preservation organization	Ann Reagan and Mike Lewis	P. O. Box 105 Palo Pinto, Texas 76484 (940) 328-4068	July 19, 2011	Written request dated August 14, 2011
Preservation Texas	State preservation organization	Krista Gebbia	P.O. Box 12832 Austin, Texas 78711 (512) 472-0102	2006 (exact date unknown)	April 20, 2006

File PI

9171 9690 0935 0003 2707 24



Texas Department of Transportation

P.O. BOX 6868 • FORT WORTH, TEXAS 76115-0868 • (817) 370-6500

July 19, 2011

John Kimberlin
Kimberlin Ranches
3322 Shorecrest Drive, Suite 200
Dallas, Texas 75235

NHPA SECTION 106 REQUEST FOR CONSULTING PARTY STATUS

Palo Pinto County, Fort Worth District, SH 16
CSJ# 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Mr. Kimberlin:

As you may be aware, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas near Possum Kingdom Lake. Although the project limits extend from SH 254 to Cliff Drive (the logical termini for the project), the proposed construction limits extend from SH 254 to the north side of the SH 16 bridge at the Brazos River. The purpose of this project is to improve safety on the SH 16 corridor by adding shoulders and straightening a portion of the roadway. **Figure 1** shows the location of the proposed project in relation to the county.

In accordance with federal and state statutes, TxDOT is seeking individuals who have an interest in the historic preservation of significant historic properties (buildings, structures, sites, objects, and districts) that may be located within the Area of Potential Effect along the SH 16 corridor. Section 106 of the National Historic Preservation Act (NHPA) of 1966 has provisions allowing the public to be consulted about TxDOT's findings and determinations regarding the presence of historic properties and the potential for project activities to adversely affect them. For your information, enclosed is a brochure summarizing Section 106 of the NHPA. Participation in the Section 106 review will ensure that your interests in historic properties within the Area of Potential Effect are considered in the decision process.

If you would like to participate as a designated consulting party, please sign and date the following page and return it as indicated. All consulting parties will be notified of any public meetings and will be provided the opportunity to comment on proposed plans as they may affect historic sites, structures, objects, buildings, and districts, located in the project Area of Potential Effect.

Please feel free to call Maryellen Ficker, our environmental consultant, at (512) 264-1095 or Gregg Lane, TxDOT's Project Manager, at (682) 229-2827, if you have any questions or need additional information.

Sincerely,

Elisa Garcia
Environmental Coordinator
Texas Department of Transportation, Fort Worth District

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NHPA SECTION 106 REQUEST FOR CONSULTING PARTY STATUS
Palo Pinto County, Fort Worth District, SH 16
CSJ# 0362-02-021
SH 16 from SH 254 to Cliff Drive

Request to participate as a designated Consulting Party for Historic Properties

By signing and dating this form, I am requesting that TxDOT add me to the list of designated consulting parties. I understand that as a Consulting Party I will receive notices of public meetings and be provided an opportunity to review and comment on reports and findings regarding potential project impacts to historic properties.



Signature
July 25, 2011

Date

John Kimberlin
Kimberlin Ranches
3322 Shorecrest Drive, Suite 200
Dallas, Texas 75235

Additional Contact Information (not required)

Telephone: _____

Email Address: ckimberdal@aol.com

If any of this information needs updating, please make corrections above.

Please return this form to:

**Texas Department of Transportation
c/o Maryellen Ficker
Blanton & Associates, Inc.
5 Lakeway Centre Court, Suite 200
Austin, Texas 78734**

9171 9690 0935 0003 2786 56



Texas Department of Transportation

P.O. BOX 6868 • FORT WORTH, TEXAS 76115-0868 • (817) 370-6500

July 19, 2011

Ann Reagan or Mike Lewis
Palo Pinto County Historical Commission
P. O. Box 105
Palo Pinto, Texas 76484

NHPA SECTION 106 REQUEST FOR CONSULTING PARTY STATUS

Palo Pinto County, Fort Worth District, SH 16
CSJ# 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Ms. Reagan or Mr. Lewis:

As you may be aware, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas, near Possum Kingdom Lake. Although the project limits extend from SH 254 to Cliff Drive (the logical termini for the project), the proposed construction limits extend from SH 254 to the north side of the SH 16 bridge at the Brazos River. The purpose of this project is to improve safety on the SH 16 corridor by adding shoulders and straightening a portion of the roadway. **Figure 1** shows the location of the proposed project in relation to the county.

In accordance with federal and state statutes, TxDOT is seeking individuals who have an interest in the historic preservation of significant historic properties (buildings, structures, sites, objects, and districts) that may be located within the Area of Potential Effect along the SH 16 corridor. Section 106 of the National Historic Preservation Act (NHPA) of 1966 has provisions allowing the public to be consulted about TxDOT's findings and determinations regarding the presence of historic properties and the potential for project activities to adversely affect them. For your information, enclosed is a brochure summarizing Section 106 of the NHPA. Participation in the Section 106 review will ensure that your interests in historic properties within the Area of Potential Effect are considered in the decision process.

If you would like to participate as a designated consulting party, please sign and date the following page and return it as indicated. All consulting parties will be notified of any public meetings and will be provided the opportunity to comment on proposed plans as they may affect historic sites, structures, objects, buildings, and districts located in the project Area of Potential Effect. Please feel free to call Maryellen Ficker, our environmental consultant, at (512) 264-1095 or Gregg Lane, TxDOT's Project Manager, at (682) 229-2827, if you have any questions or need additional information.

Sincerely,

Elisa Garcia

Environmental Coordinator

Texas Department of Transportation, Fort Worth District

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NHPA SECTION 106 REQUEST FOR CONSULTING PARTY STATUS
Palo Pinto County, Fort Worth District, SH 16
CSJ# 0362-02-021
SH 16 from SH 254 to Cliff Drive

Request to participate as a designated Consulting Party for Historic Properties

By signing and dating this form, I am requesting that TxDOT add me to the list of designated consulting parties. I understand that as a Consulting Party I will receive notices of public meetings and be provided an opportunity to review and comment on reports and findings regarding potential project impacts to historic properties.



Signature
8/14/2011

Date

Ann Reagan or Mike Lewis
Palo Pinto County Historical Commission
P. O. Box 105
Palo Pinto, Texas 76484

Additional Contact Information (not required)

Telephone: 940-328-4068

Email Address: PaloPinto1@aol.com

If any of this information needs updating, please make corrections above.

Please return this form to:

**Texas Department of Transportation
c/o Maryellen Ficker
Blanton & Associates, Inc.
5 Lakeway Centre Court, Suite 200
Austin, Texas 78734**

9171 9690 0935 0003 2786 49



Texas Department of Transportation

P.O. BOX 6868 • FORT WORTH, TEXAS 76115-0868 • (817) 370-6500
July 19, 2011

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

NHPA SECTION 106 REQUEST FOR CONSULTING PARTY STATUS

Palo Pinto County, Fort Worth District, SH 16
CSJ# 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Ms. Henderson:

As you may be aware, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas, near Possum Kingdom Lake. Although the project limits extend from SH 254 to Cliff Drive (the logical termini for the project), the proposed construction limits extend from SH 254 to the north side of the SH 16 bridge at the Brazos River. The purpose of this project is to improve safety on the SH 16 corridor by adding shoulders and straightening a portion of the roadway. **Figure 1** shows the location of the proposed project in relation to the county.

In accordance with federal and state statutes, TxDOT is seeking individuals who have an interest in the historic preservation of significant historic properties (buildings, structures, sites, objects, and districts) that may be located within the Area of Potential Effect along the SH 16 corridor. Section 106 of the National Historic Preservation Act (NHPA) of 1966 has provisions allowing the public to be consulted about TxDOT's findings and determinations regarding the presence of historic properties and the potential for project activities to adversely affect them. Participation in this review will ensure that your interests in historic properties within the Area of Potential Effect are considered in the decision process.

If you would like to participate as a designated consulting party, please sign and date the following page and return it as indicated. All consulting parties will be notified of any public meetings and will be provided the opportunity to comment on proposed plans as they may affect historic sites, structures, objects, buildings, and districts, located in the project Area of Potential Effect.

Please feel free to call Maryellen Ficker, our environmental consultant, at (512) 264-1095 or Gregg Lane, TxDOT's Project Manager, at (682) 229-2827, if you have any questions or need additional information.

Sincerely,

Elisa Garcia

Environmental Coordinator

Texas Department of Transportation, Fort Worth District

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NHPA SECTION 106 REQUEST FOR CONSULTING PARTY STATUS
Palo Pinto County, Fort Worth District, SH 16
CSJ# 0362-02-021
SH 16 from SH 254 to Cliff Drive

Request to participate as a designated Consulting Party for Historic Properties

By signing and dating this form, I am requesting that TxDOT add me to the list of designated consulting parties. I understand that as a Consulting Party I will receive notices of public meetings and be provided an opportunity to review and comment on reports and findings regarding potential project impacts to historic properties.

Signature

Date

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

- No written response as of
September 2, 2011

Additional Contact Information (not required)

- 2 verbal confirmations to
be a consulting party in
July and August 2011.

Telephone: _____

Email Address: _____

If any of this information needs updating, please make corrections above.

Please return this form to:

**Texas Department of Transportation
c/o Maryellen Ficker
Blanton & Associates, Inc.
5 Lakeway Centre Court, Suite 200
Austin, Texas 78734**

9171 9690 0935 0003 2766 32



Texas Department of Transportation

P.O. BOX 6868 • FORT WORTH, TEXAS 76115-0868 • (817) 370-6500

July 19, 2011

Krista S. Gebbia
Preservation Texas
P.O. Box 12832
Austin, Texas 78711

NHPA SECTION 106 REQUEST FOR CONSULTING PARTY STATUS

Palo Pinto County, Fort Worth District, SH 16
CSJ# 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Ms. Gebbia:

On April 20, 2006, your organization was granted Consulting Party status by the Texas Department of Transportation (TxDOT), on behalf of the Federal Highway Administration (FHWA), for the above referenced project in Palo Pinto County, Texas, near Possum Kingdom Lake. Since that time, the proposed project has been suspended due to budget constraints, and the design has been revisited. The project has been reinitiated and currently the proposed project limits extend from SH 254 to Cliff Drive (the logical termini for the project); however, the proposed construction limits extend from SH 254 to the north side of the SH 16 bridge at the Brazos River. The purpose of the current project is to improve safety on the SH 16 corridor by adding shoulders and straightening a portion of the roadway. **Figure 1** shows the location of the proposed project in relation to the county.

We are currently in the process of inviting other potential consulting parties. We will be beginning public involvement activities in the upcoming weeks, and we will inform you of when meetings will be occurring. In the meantime, Please feel free to call Maryellen Ficker, our environmental consultant, at (512) 264-1095 or Gregg Lane, TxDOT's Project Manager, at (682) 229-2827, if you have any questions or need additional information.

Sincerely,

Elisa Garcia
Environmental Coordinator
Texas Department of Transportation, Fort Worth District

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Palo Pinto County Historical Commission (PPCHC)
P O Box 105
Palo Pinto, Texas 76484

9-29-2011

Maryellen Russo
Blanton & Associates
5 Lakeway Center Court
Suite 200
Austin, Texas 78734

Dear Ms Russo:

The Palo Pinto County Historical Commission, (PPCHC), along with County Judge David Nicklas, would like to state our objections on the proposed project - SH16 from SH 254 to Cliff Drive, CSJ: 0362-02-021. The PPCHC agrees under Section 106, that at least 18 structures have the potential of being adversely affected by this project. We support the return of the land to the control of the Palo Pinto County Court and the PPCHC, at the end of straightening the big curve.

To retain the historical integrity of this land, The Palo Pinto County Historical Commission would:

- Pursue the “National Registered Historical Place” NRHP, outlined in your documentation.
- Work with TXDOT to develop a written Educational Historic documentation of the WPA works and other historical events, and publish a brochure outlining this history prior to the proposed reconstruction.
- Establish a “Guide for Tourism” – CD format for visitors to Palo Pinto County. This Guide would have Markers on the roadside pointing out the, “Follow the trail of the WPA”.
- Pursue various Historical markers in the corridor outlined in the mentioned report.
- Explore the opening of a potential interruptive park showing the *NRHP* sections:
 - **Criteria A** – Significant Historical Associations with events, trends, or patterns
 - **Criteria C** – Design/Construction, embody distinctive characteristics of a type, period, or method of construction, representing the work of a master, possess high artistic values.

The PPCHC again recognizes the potential ADVERSE effect to the roadway under Section 106 and would like to request the land to be protected for future generations. The Educational and recreational benefit of this area will be treasured by all residents and visitors to our County.

Thank you for allowing time to discuss the Palo Pinto TXDOT project CJS: 0362-02-021, (SH16 from Cliff Drive to SH 254), with me. .

Sincerely:

Mike Lewis

Palo Pinto County Historical Co-Chair



2501 SOUTHWEST LOOP • FORT WORTH, TX 76133 • (817) 370-6500

November 7, 2011
Mr. Kevin Spohrer, P.E.
U.S. Department of Transportation
Federal Highway Administration
300 East 8th Street, Room 826
Austin, Texas 78701

State Highway (SH) 16 from SH 254 to Cliff Drive
Palo Pinto County, Fort Worth District
CSJ: 0362-02-021

Dear Mr. Spohrer:

On September 2, 2011, a copy of Public Involvement Plan (PIP) for SH 16 from SH 254 to Cliff Drive was sent to you for your records. As the project has progressed, TxDOT has reviewed and re-evaluated some sections of the PIP. One of the modifications that TxDOT has made in the PIP is the list of participants and purpose of the Agency/Stakeholders' meeting. TxDOT has determined that it is prudent at this point in the process to only meet with the pertinent agencies and the consulting parties to discuss project planning prior to the first public meeting (to likely occur in 2012). As such, we have attached an update to the end of the PIP titled the November 2011 Update, which outlines this change and updates other sections of the document. Footnotes have been added within the PIP text where modifications were made.

If you have questions or comments, please call me at (817) 370-6718.

Sincerely,

Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation
Fort Worth District

Enclosures



2501 SOUTHWEST LOOP • FORT WORTH, TX 76133 • (817) 370-6500

November 7, 2011
Mr. Mark Wolfe
Executive Director
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

State Highway (SH) 16 from SH 254 to Cliff Drive
Palo Pinto County, Fort Worth District
CSJ: 0362-02-021

Dear Mr. Wolfe:

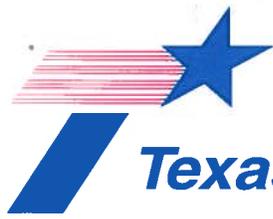
On September 2, 2011, a copy of Public Involvement Plan (PIP) for SH 16 from SH 254 to Cliff Drive was sent to you for your records. As the project has progressed, TxDOT has reviewed and re-evaluated some sections of the PIP. One of the modifications that TxDOT has made in the PIP is the list of participants and purpose of the Agency/Stakeholders' meeting. TxDOT has determined that it is prudent at this point in the process to only meet with the pertinent agencies and the consulting parties to discuss project planning prior to the first public meeting (to likely occur in 2012). As such, we have attached an update to the end of the PIP titled the November 2011 Update, which outlines this change and updates other sections of the document. Footnotes have been added within the PIP text where modifications were made.

If you have questions or comments, please call me at (817) 370-6718.

Sincerely,

Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation
Fort Worth District

Enclosures



Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

February 15, 2012

SECTION 106: Determination of Eligibility

Palo Pinto County, Fort Worth District
CSJ# 0362-02-021

SH 16, Cliff Drive to SH 254, Palo Pinto County

Mrs. Adrienne Campbell
Division of Architecture
Texas Historical Commission
Austin, Texas 78711

Dear Mrs. Campbell:

In accordance with 36 CFR 800.5 and the First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings (PA-TU), we are initiating Section 106 consultation for the above referenced project, which will be carried out with Federal funding. We request agency review regarding the National Register of Historic Places (NRHP) eligibility of properties located in the project's area of potential effects.

Introduction

The Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration, is proposing to make improvements to State Highway (SH) 16 from Cliff Drive to SH 254 in Palo Pinto County. The proposed improvements consist of: adding shoulders or widening existing shoulders and re-aligning 0.5 mile of the roadway to straighten a sharp curve on Kimberlin Mountain. The recommended alternative new-location section of SH 16 on Kimberlin Mountain would begin approximately 1,000 feet south of FM 2353, traverse Kimberlin Mountain on new location, and tie into the existing SH 16 roadway approximately 600 feet north of the SH 16/Red Bluff Drive intersection. A climbing lane for northbound traffic would be constructed, which would terminate at the top of Kimberlin Mountain as a left turn lane for turning movements at the FM 2353 intersection. Additionally, at the base of Kimberlin Mountain, the SH 16/Red Bluff Drive intersection would be realigned to improve sight distance for motorists turning from Red Bluff Drive on to SH 16. In order to construct the proposed improvements, it would be necessary to acquire approximately 9.66 acres of additional right-of-way. A temporary construction easement of 5.08 acres is also required. No work would take place on the Brazos River bridge.

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Identification Efforts to Identify Historic Properties

The methodology used to identify recorded and potentially eligible sites located within the Area of Potential Effects (APE) included a reconnaissance level historic resources survey. For the reconnaissance survey, background research was conducted using the Texas Historical Commission's (THC) *Texas Historic Sites Atlas*, to identify sites listed on the National Register of Historic places (NRHP) and State Archeological Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL) as well as Official Texas Historical Markers (OTHM). The records search revealed no previously recorded NRHP, SAL or RTHL sites located within the project APE. The APE for the project was determined to be 150-feet from the existing or proposed right-of-way, whichever is greater. Eight properties containing 56 resources were determined to be 45 years or older (constructed before 1967) and were evaluated and photographed. The results of the survey and accompanying documentation are attached.

Determinations of National Register Eligibility

There is one NRHP-eligible historic district, the SH 16 roadway corridor, in the APE. The roadway was completed in 1942 by the Works Progress Administration (WPA) in order to provide a year-round, all-weather transportation facility to and from the Morris Sheppard Dam (outside APE) under construction on the Brazos River. This historic roadway corridor district includes 18 contributing masonry features (culverts and one rock guard wall-resources No. 1A-1O, 1R, and 1W-1X). In addition the contributing Brazos River Bridge (No. 1M) is also individually eligible for NRHP-listing. The roadway contains one contributing rock guard wall (1R) on a sharp curve on a large hill locally known as Kimberlin Mountain. This portion of the roadway would be straightened as a result of the project and likely closed to vehicular traffic. Currently travelers often pull over and stop on the shoulder of this curve to take in the view; however this is not a designated TxDOT roadside park or pullout as it is not large enough to meet safety requirements for a roadside park.

In order to evaluate the historic road corridor, TxDOT consultants used the *Evaluation Criteria- Historic Roads in Texas* draft document produced by TxDOT staff, which has been reviewed by the SHPO, but not yet concurred with, as it is a work in progress. The consultant also used the THC-developed registration requirements for Depression-era road corridors and structures. A document by Paul Marriott – *The Preservation Office Guide to Historic Roads* was also referenced. These helped the consultant focus on integrity considerations made under Criteria A & C and determine the character-defining features of the SH 16 corridor.

The eligible section of the roadway extends approximately 8.4 miles, from Brackeen Drive NE to SH 254. These limits were determined by the southern terminus of the WPA project (around current Brackeen Drive) and a windshield survey of SH 254 to the east towards Graford, the original WPA project alignment. All of the culverts for six miles to the east along SH 254 had been widened, as had the road itself,

therefore the logical northern terminus was the SH 254 intersection. For further information regarding these limits and a map, see attached survey report. The SH 16 road corridor is eligible under Criteria A for events and C for engineering at the state level of significance.

I have evaluated each of the rest of the surveyed properties (consisting of residential, agricultural, religious and government types) through application of the Criteria of Eligibility for listing in the National Register of Historic Places. The properties documented in the survey are not known to be associated with a significant historical event, or associated with a person of transcendent importance; nor do they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master. Therefore, these properties are determined to be **not eligible** for listing in the National Register of Historic Places.

Public Involvement

In accordance with 23 CFR 771, TAC 43, and the National Historic Preservation Act (36 CFR 800.2c), TxDOT conducted several public involvement activities. As part of these activities TxDOT met with a number of civic and preservation groups including the SHPO and private citizens in order to solicit their comments concerning the project. In addition, a representative from your office participated in a stakeholder meeting on 12.6.11 with the local entities (meeting minutes attached). A total of four persons or organizations were identified as consulting parties for the Section 106 process. These parties include the Palo Pinto County Historical Commission, the Historic Bridge Foundation, one affected land owner- Mr. John Kimberlin, and Preservation Texas.

One consulting party (Palo Pinto CHC) responded with written comment or concurrence on the determinations of eligibility. The response is attached. The CHC concurs with the eligibility findings but objects to the closing of the current SH 16 alignment on Kimberlin Mountain in order to straighten the roadway. Several parties (other county officials, TxDOT, and local landowners) are currently working on a mitigation proposal for potential adverse effects to the SH 16 corridor, including possibly leaving the rock walled portion of the alignment on Kimberlin Mountain open to the interested public as a roadside park, and/or publishing an educational brochure about the area's history.

Conclusion

TxDOT historians have determined that there is **one historic district with 18 contributing resources present** in the project APE, the SH 16 roadway corridor (No. 1). In accordance with 36 CFR 800 and the PA-TU, I hereby request your signed concurrence with these findings of eligibility.

Effects to the SH 16 roadway corridor historic district are expected to be adverse and these determinations, with mitigation proposal, will be sent to your office when these issues are closer to resolution. Further, an individual Section 4(f) evaluation is being

Palo Pinto County Historical Commission (PPCHC)
 P O Box 105
 Palo Pinto, Texas 76484

TXDOT – FT WORTH
 Ms: Elisa Garcia / TO Whom It Concerns:

The Palo Pinto County Historical Commission is voicing concerns and proposed responses/actions for the SH16 corridor project/CSJ: 0362-02-021. These items were reviewed by the PPCHC at our meeting, March 15, 2012 and this letter is forwarded to your office for review.

Concerns:

A. Culvert "O" to be covered permanently by TXDOT during proposed construction.

Response to TXDOT:

A. As stated in the December 6th meeting, TXDOT needs to submit additional alternatives for the WPA culvert destruction.

Concerns:

B. WPA roadway to be turned back to Kimberlin Ranch.

Response to TXDOT:

B. Palo Pinto County Historical Commission to work with the County Commissioners Court in retaining the WPA roadway for Historical preservation.

Area to be preserved as a "Interpretive Park" showing WPA achievements and surrounding area significance.

- o Story of WPA projects in area, including people and construction techniques.
- o Morris Sheppard dam overview/Importance to area
- o "THE FIRE" of 2011
- o Low water bridge and State stocking programs
- o Ranching and Cattle drives
- Gated access under the direction of the PPCHC
- Gated access would allow Mr. Kimberlin passage from North to South.
- The PPCHC would operate and maintain the Park thru the County Commissioners.
- TXDOT will need to negotiate new land agreement directly with Mr. Kimberlin.

Concerns:

C. Northern driveway access to Interpretive Park would be cut off by TXDOT after construction.

Response to TXDOT:

C. TXDOT to reconnect North entrance after completion of project. PPCHC acknowledges the closure of the southern entrance due to construction.

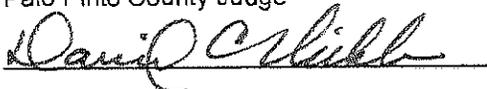
Concern:

D. TXDOT's, "Heavy" use of WPA roadway as construction corridor will future damage rock structures.

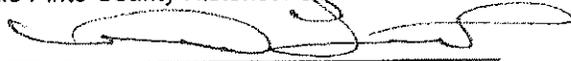
Response to TXDOT:

D. TXDOT to repair damaged WPA rock formations back to the condition of period works. Several WPA rock formations have been noted to been repaired not to original standards. *Blanton and Associates report. (Appendix page C-80/ resource No.1R)*

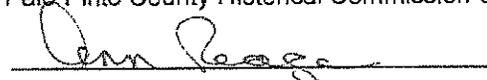
Judge David Nicklas
 Palo Pinto County Judge



Mike Lewis
 Palo Pinto County Historical Commission Co-Chair



Ann Reagan
 Palo Pinto County Historical Commission Co-Chair





Texas Department of Transportation

Parker County Area Office • 1427 West Bankhead • Weatherford, TX 76086

April 16, 2012

The Honorable David Nicklas
Judge of Palo Pinto County
P.O. Box 190
Palo Pinto, Texas 76484

RE: SH 16
0362-02-021
Palo Pinto County

Dear Judge Nicklas:

The Texas Department of Transportation (TxDOT) received your letter dated March 15, 2012 regarding the proposed State Highway (SH) 16 safety improvement project. TxDOT has considered your comments in accordance with Section 106 of the National Historic Preservation Act (NHPA) and has the following responses to your concerns.

Concern A: Culvert "O" Burial

TxDOT's Response to CHC: As outlined in the July 2011 Historic Resources Survey Report (HRSR), the culvert inventoried as Resource No. 1O (numeric character 1, alpha character O) will be buried with the recommended alignment. TxDOT did evaluate several different horizontal alignment options; however, they were determined to be imprudent and costly. Also, the culvert's purpose of conveying water across the right of way is no longer needed due to changes in the adjacent land use. With fifteen other Works Progress Administration constructed masonry culverts nearby, TxDOT feels the prudent course of action is to bury the culvert.

TxDOT will remove the existing masonry headwalls of Culvert "O" and offer the material to the CHC for their use.

Concern B: Ownership of existing SH 16 alignment

TxDOT's Response to CHC: TxDOT will submit to the Palo Pinto County Commissioners Court a Quit Claim Deed releasing all interest in the section of SH 16 no longer needed by TxDOT.

Concern C: Driveway Access to CHC's Interpretative Park

TxDOT's Response to CHC: TxDOT, at its expense, will construct during the safety improvement project's construction, a driveway for access to CHC's Interpretative Park. The driveway will be located in accordance with TxDOT's Access Management policy. The driveway will extend from the edge of pavement to the proposed right of way line. Palo Pinto County will be responsible for connecting the driveway to the abandoned portion of SH 16, if needed.

Concern D: Heavy Use of Roadway and Repair to rockwall

TxDOT's Response to CHC: The use of the existing roadway is an unavoidable condition as the road is public and open to all users.

TxDOT objects to repairing the rockwall. Past instructions involving repairs to historical features directed that no repairs should be attempted as the repairs may affect the historical integrity of the design, materials, and workmanship of the resource. Previous attempts to repair the wall were unsympathetic and TxDOT believes the best mitigation action is preservation of the remaining elements.

Thank you for your participation in the Section 106 of the NHPA consultation process. TxDOT will be sending a mitigation proposal to the Texas State Historic Preservation Officer for review and you will be copied with the correspondence. TxDOT is committed to completing the safety project in a manner sensitive to the historic resources along the roadway corridor.

If you should have any questions concerning this matter, please contact me at 682-229-2800.

Sincerely,

John F. Cordary, Jr., P.E.
Area Engineer
Parker County Area Office

JFC

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DAVID NICKLAS
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 or PO Box No. **P.O. BOX 190**
 City, State, ZIP+4
PALO PINTO, TEXAS 76484
 PS Form 3800, August 2006 See Reverse for Instructions

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
DAVID NICKLAS, COUNTY JUDGE
P.O. BOX 190
PALO PINTO, TEXAS
76484

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 Linda Huusinger Agent
 Addressee

B. Received by (Printed Name) **Linda Huusinger** C. Date of Delivery **4-17-12**

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
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Restricted Delivery Fee (Endorsement Required)	\$0.00		
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 or PO Box No. **P.O. BOX 105**
 City, State, ZIP+4
PALO PINTO, TEXAS 76484
 PS Form 3800, August 2006 See Reverse for Instructions

7007 0220 0002 9226 8274



**DAVID C. NICKLAS
COUNTY JUDGE
PALO PINTO COUNTY, TEXAS**



P.O. BOX 190
PALO PINTO, TEXAS 76484-0190

(940) 659-1253
FAX (940) 659-2411

June 8, 2012

Mr. John F. Cordary
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086

Dear Mr. Cordary:

Please accept this letter as our concurrence with your recommendations stated in your letter of 16 April 2012 regarding SH 16, 0362-02-021, Palo Pinto County.

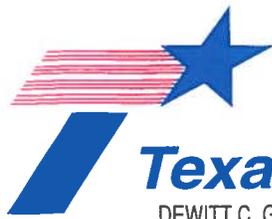
Thanks for your assistance.

Sincerely,

A handwritten signature in cursive script that reads "David C. Nicklas".

David C. Nicklas
Palo Pinto County Judge

DCN:lh



Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

August 9, 2012

SECTION 106: DETERMINATION OF ADVERSE EFFECT WITH MITIGATION

Palo Pinto County
CSJ: 0362-02-021
SH 16 from Cliff Drive to SH 254

RECEIVED

AUG 09 2012

Ms. Linda Henderson
Division of Architecture
Texas Historical Commission
Austin, Texas 78711

History Programs Division

Dear Ms. Henderson:

The above referenced undertaking will be carried out with federal funding. In accordance with the first amended Programmatic Agreement for Transportation Undertakings (PA-TU) between the Texas Department of Transportation (TxDOT) the Federal Highway Administration (FHWA) the Advisory Council for Historic Preservation (ACHP) and the Texas Historical Commission (THC) this letter initiates Section 106 consultation on the effect the proposed undertaking will have on a National Register eligible property located within the project area of potential effects (APE).

Introduction

The Texas Department of Transportation – Fort Worth District, in conjunction with FHWA, is currently proposing improvements to SH 16 in Palo Pinto County. TxDOT proposes to widen and rehabilitate SH 16 from SH 254 (northern terminus) to Cliff Drive (southern terminus), a distance of approximately 7.6 miles. No work is proposed on the Brazos River Bridge. The proposed improvements consist of realigning SH 16 on Kimberlin Mountain, widen or add shoulders, and reconfigure two intersections. The realignment of SH 16 would occur from approximately 1,000 feet south of FM 2353 to Red Bluff Rd, a distance of approximately 0.5 mile. Approximately 9.3 acres of new ROW would be required for the new alignment section.

Determination of National Register Eligibility

Eligibility of historic-age properties in the area of potential effect (APE) was coordinated with your office in February 2012. One NRHP-eligible historic district (SH 16 road corridor, property 1) containing 18 contributing features (masonry culverts and rock wall) is located within the APE.

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Effects

After applying the criteria of *Adverse Effects* as stipulated in 36 CFR 800.4, I have determined that the proposed project would have an **adverse effect** to the NRHP-eligible SH 16 historic road corridor. One contributing feature (rock culvert, 1O) would be covered and another contributing feature, a rock wall (1R), would be bypassed by the proposed project. The realignment near Kimberlin mountain would also pose an **adverse effect** to the historic SH 16 road corridor (1) itself, as integrity of location in the vicinity of Kimberlin mountain would be lost, and the alignment of the roadway is a contributing feature of the historic district. The alignment would be shortened by approximately 1000 feet as it would go over Kimberlin Mountain rather than around it.

Efforts to Minimize Harm and Mitigation

To minimize adverse effects, TxDOT engineers redesigned the project. Originally the shoulders of the new section were proposed to be 8' on either side. In order to retain the width of the contributing culverts, the shoulder width was reduced to 4' on either side. The original project also proposed removal of the contributing masonry arch bridge at the Brazos River. An inspection revealed the bridge could continue to carry traffic. The bridge will remain in vehicular service and not be altered as a result of the project.

In accordance with CFR 800.6, TxDOT proposes to mitigate the above mentioned adverse effects with several actions. TxDOT will deed the ROW on Kimberlin mountain to the county and install a driveway to the property during construction. The county proposes to make the rock wall (1R) and overlook accessible to the public and also put up interpretative signage. This solution allows the property to remain open, otherwise it would be permanently closed to the public and the rock wall could not be viewed.

One contributing feature, a culvert, would be lost as a result of the proposed construction. To mitigate adverse effects of the loss of this resource, TxDOT will donate the rock material of the headwalls of the culvert to the CHC for their use, perhaps in the interpretative park on Kimberlin Mountain. TxDOT will provide the CHC with several hundred digital photos of the SH 16 corridor. TxDOT also updated the survey of road corridor, initially completed in 2002 (HRSR, July 2011). For further information on mitigation efforts, see the attached letters between the county officials and TxDOT.

Responsive consulting parties for this project were directly involved in developing the proposal for mitigation. One of them is the land owner adjacent to Kimberlin Mountain, who agreed to donate the property for public use. One is the county historical commission, who agreed to install interpretative signage and maintain the property for future use by the public.

SH 16
CSJ: 0362-02-021
Fort Worth District, Palo Pinto County

Conclusion

After applying the criteria of *Adverse Effects* as stipulated in 36 CFR 800.4, I have determined the proposed action to widen and realign SH 16 will constitute an **adverse effect** to this National Register eligible property. Please sign in the space provided below indicating your concurrence with this finding and proposed mitigation.

In accordance with 23 CFR 771.135, Section 4(f), attached please find a copy of the draft individual Section 4(f) evaluation. As the official with jurisdiction over the Section 4(f) resource, it is provided for your comment. FHWA will consider this the formal coordination and review in approving the Section 4(f) evaluation.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2611.

Sincerely,



Renee Benn
Historic Preservation Specialist
Historical Studies Branch
Environmental Affairs Division
Attachments

CONCUR -ADVERSE EFFECTS WITH MITIGATION	
NAME: <u>See letter dated 8/30/12</u>	DATE: _____
<u>for State Historic Preservation Officer</u>	

NO COMMENTS TO FINAL DRAFT, SECTION 4(f) EVALUATION	
NAME: <u>[Signature]</u>	DATE: <u>30 August 2012</u>
<u>for State Historic Preservation Officer</u>	

TEXAS HISTORICAL COMMISSION

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30 August 2012

Renée Benn, Historian
Historical Studies Branch
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701

*Re: Project review under Section 106 of the National Historic Preservation Act of 1966
Determination of Adverse Effect with Mitigation, SH 16 from Cliff Drive to SH 254, Palo Pinto County, Texas
(FHWA; TxDOT CSJ # 0362-02-021)*

Dear Ms. Benn,

Thank you for contacting us regarding the above-referenced project. This letter serves as a comment from the State Historic Preservation Officer (SHPO), the Executive Director of the Texas Historical Commission (THC).

THC staff members reviewed the materials submitted and concur with your determination that the project will have an **adverse effect** on historic properties that are eligible for listing in the National Register of Historic Places (NRHP). Regarding your proposed mitigation, we feel that nominating the historic SH 16 corridor to the NRHP is also appropriate. While your office and ours cannot guarantee that the nomination would ultimately be put forward or approved, we feel the significance of the resources warrants the preparation of a nomination that would be made available should the county and local residents wish to move forward with having the corridor designated. We would like to continue the conversation about what mitigation would be most suitable, with clarification about what the Texas Department of Transportation is proposing. Based on the desired mitigation listed in the September 2011 letter from the Palo Pinto County Historical Commission, it seems that additional ideas have included an educational brochure, a tourism guide, and additional historic markers along the corridor. The preparation of NRHP materials could serve as a foundation for these additional components.

Thank you for your consideration of our comments. If you have any questions concerning this review or if we can be of further assistance, please contact Linda Henderson at linda.henderson@thc.state.tx.us or 512/463-5851.

Sincerely,



Linda Henderson

For:

Mark Wolfe, State Historic Preservation Officer





MEMO

August 14, 2013

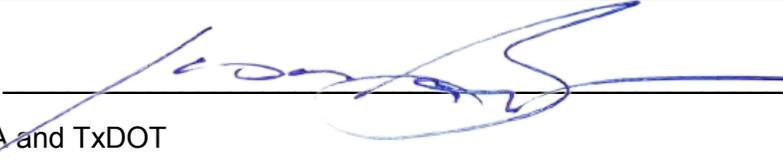
To: 850 File, Various Road Projects, Various CSJs, Various Districts

From: Scott Pletka, Ph.D.

Subject: Internal review under the First Amended Programmatic Agreement Among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), and internal review under the Memorandum of Understanding (MOU) Between the Texas Historical Commission and the Texas Department of Transportation

Listed below, are the projects reviewed internally by qualified TxDOT archeologists from 08/08/13 to 08/14/13. These projects either do not warrant survey as a result of a low probability of encountering archeological historic properties and State Archeological Landmarks, or the projects were inspected by survey or impact evaluation and do not warrant further work. As provided under the PA-TU, consultation with the Texas State Historic Preservation Officer is not necessary for these undertakings. As provided under the MOU, the proposed projects do not require individual coordination with the Texas Historical Commission.

CSJ	DISTRICT	ROADWAY	WORK PERFORMED
0091-05-060	Dallas	SH 289	No Survey
0957-09-018	El Paso	FM 170	Survey
0362-02-021	Fort Worth	SH 16	Survey
0901-32-044	Paris	CR 3395	Impact Evaluation
0688-03-023	Paris	FM 1497	Impact Evaluation
0769-01-025	Paris	FM 197	Survey
0921-27-035	Pharr	CR 156	No Survey
0921-27-036	Pharr	CR 3500	No Survey
0907-24-022	San Angelo	San Angelo Reliever Route	No Survey
0909-36-120	Waco	FM 2271	Survey

Signature  Date: 08 / 15 / 2013

For FHWA and TxDOT

cc: ECOS Data Entry; PD; ENV_ARC: PA File

Table Template for Weekly List Memo.doc

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August 15, 2013

Mr. Donnie Cabaniss, Chairman
Apache Tribe of Oklahoma
P.O. Box 1330
Anadarko, OK 73005

RE: CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive, Roadway Improvements; Palo Pinto County, Fort Worth District

Dear Mr. Cabaniss:

The above referenced transportation project is being considered for construction by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Environmental studies are in the process of being conducted for this project. The purpose of this letter is to contact you in order to initiate Section 106 consultation with your Tribe pursuant to stipulations of the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU). The project is located in an area that is of interest to your Tribe.

The proposed project would improve a portion of State Highway (SH) 16 in northwestern Palo Pinto County, Texas. Maps that show the proposed project area are enclosed, as well as a map of the state that indicates the location of Palo Pinto County.

The proposed project's logical termini would extend from SH 254 to Cliff Drive, a distance of 7.6 miles. A portion of the roadway within these limits has been previously upgraded under TxDOT CSJ: 0362-02-020, and as a result, the construction limits of this proposed project would include an estimated distance along SH 16 of approximately 6.5 miles from SH 254 to 1,200 feet south of the Brazos River bridge. The proposed action is a safety improvement project that would include widening and rehabilitating the SH 16 roadway between SH 254 and the north side of the Brazos River bridge, as well as from the south end of the Brazos River bridge to 1,200 feet south of the bridge. As part of the proposed action, a 2,000-foot section of SH 16 would be realigned on new location.

OUR GOALS

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Re: Section 106 Consultation, National Historic Preservation Act;
Proposed Texas Department of Transportation Project, Fort Worth District
CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive,
Roadway Improvements; Palo Pinto County

The proposed 2,000-foot realignment of the roadway would occur on Kimberlin Mountain, located north of the Brazos River between Red Bluff Drive and FM 2353. The existing highway alignment on Kimberlin Mountain includes a very sharp curve (radius of 245 feet), with a Works Progress Administration (WPA)-constructed masonry guard wall, that would be bypassed for safety reasons. To bypass the curve, approximately 2,000 feet of SH 16 would be realigned onto new location west of the existing ROW. To facilitate traffic flow on SH 16 during the proposed construction, a temporary construction easement would be necessary east of, and adjacent to, the eastern boundary of the existing SH 16 ROW at the base of Kimberlin Mountain. The proposed action would not include any work on the Brazos River Bridge.

The project area of potential effects (APE) would be comprised of existing right of way (ROW), new ROW for the re-alignment, and the temporary construction easement. The project limits extend from SH 254 to Cliff Drive. The existing SH 16 ROW has a typical width of 120 feet. The 2,000-foot-long segment of proposed ROW for the proposed realignment would vary from 120 to 200 feet wide and would comprise approximately 9.2 acres. At the SH 16/Red Bluff Drive intersection, approximately 0.1 acre of new ROW is also proposed. The temporary easement at the base of Kimberlin Mountain would be approximately 2,820 feet long, a maximum of 100 feet wide, and 5.1 acres in size. For the purposes of this cultural resources review, potential impacts are considered within an area that includes the stated horizontal limits of the area of potential effects, as well as a 50-foot lateral buffer around the area of potential effects to account for potential alterations to the proposed area of potential effects included in the final design. Consultation would be continued if potential impacts extend beyond this buffer, based on the final design. Vertical impacts would extend to a maximum depth of approximately 20 feet below ground surface for new culverts, culvert extensions and/or culvert replacements, and 2 to 3 feet below ground surface for roadway construction.

The project APE was surveyed on behalf of TxDOT during the course of three separate archeological investigations, most recently in June 2013. These investigations included review of the Texas Archeological Sites Atlas for the presence of previously recorded in or within 1.0 kilometer (0.62 mile) of the proposed APE. The Atlas review shows the nearest archeological site is located approximately 1.4 kilometers (0.87 mile) beyond the APE. The surveys did not identify any archeological materials and noted that the existing ROW was extensively disturbed by previous construction activities. Consequently, no additional investigation is necessary.

Therefore, TxDOT provides the following findings and recommendations for this proposed project:

- that no archeological historic properties (36 CFR 800.16(I)) would be affected by this project;***
- that a buffer zone of 50 feet beyond the APE be considered as part of the cultural resources evaluation;***
- that no further archeological investigation is warranted at this time.***

According to our Programmatic Agreement under Section 106 of the National Historic Preservation Act, we are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project APE and the area within the above defined buffer. Any comments you may have on the TxDOT

Re: Section 106 Consultation, National Historic Preservation Act;
Proposed Texas Department of Transportation Project, Fort Worth District
CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive,
Roadway Improvements; Palo Pinto County

recommendation should also be provided. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object with a recommendation of "no historic properties affected," please sign below to indicate your concurrence. In the event that further investigations by our office disclose the presence of archeological deposits, we will contact your Tribe to continue consultation.

Thank you for your attention to this matter. If you have questions, please contact Scott Pletka (TxDOT Archeology Supervisor) at 512/416-2631 (email: Scott.Pletka@txdot.gov) or me at 512/416-2638 (email: Sharon.Dornheim@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,



Sharon Dornheim
Staff Archeologist / Consultation Coordinator
Environmental Affairs Division

Concurrence by:

Date:

Attachments

cc w/attachments:

Elisa Garcia, TxDOT Fort Worth District Environmental Coordinator;
Chad Davis, ENV-PD TxDOT;
ENV-ARCH Project File / ENV-ARCH ECOS

The attached letter was sent to the following tribes on August 15, 2013:

Mr. Donnie Cabaniss, Chairman
Apache Tribe of Oklahoma
P.O. Box 1220
Anadarko, OK 73005

Robert Cast, THPO
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

Mr. Jimmy Arterberry, THPO
Comanche Nation of Oklahoma
Comanche Nation Office of Historic Preservation
P.O. Box 908
Lawton, OK 73502

Mr. Tiger Hobia, Town King
Kialegee Tribal Town
P.O. Box 332
Wetumka, OK 74883

Ms. Amie Tah-Bone
Museum Director and NAGPRA Representative
Kiowa Indian Tribe of Oklahoma
P.O. Box 369
Carnegie, OK 73015

Mr. Frederick Chino Sr., President
c/o Holly Houghten
Mescalero Apache Tribe
P.O. Box 227
Mescalero, NM 88340

Mr. Don Patterson, President
Tonkawa Tribe of Indians of Oklahoma
1 Rush Buffalo Rd
Tonkawa, OK 74653

[emailed to Miranda Myer]



U.S. Department
of Transportation
**Federal Highway
Administration**

FEDERAL HIGHWAY ADMINISTRATION
300 EAST 8TH STREET, RM 826
AUSTIN, TEXAS 78701



**Texas
Department
of Transportation**
TEXAS DEPARTMENT OF TRANSPORTATION
125 E. 11th STREET
AUSTIN, TEXAS 78701-2483

August 15, 2013

Mr. Juan Garza, Jr., Chairperson
NAGPRA Coordinator
Kickapoo Traditional Tribe of Texas
HC1 Route, Box 9700
Eagle Pass, TX 78852

RE: CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive, Roadway Improvements; Palo Pinto County, Fort Worth District

Dear Mr. Garza:

The above referenced transportation project is being considered for construction by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Environmental studies are in the process of being conducted for this project. The purpose of this letter is to contact you in order to initiate Section 106 consultation with your Tribe pursuant to stipulations of the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU). The project is located in an area that may be of interest to your Tribe.

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Re: Section 106 Consultation, National Historic Preservation Act;
Proposed Texas Department of Transportation Project, Fort Worth District
CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive,
Roadway Improvements; Palo Pinto County

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Therefore, TxDOT provides the following findings and recommendations for this proposed project:

- that no archeological historic properties (36 CFR 800.16(l)) would be affected by this project;***
- that a buffer zone of 50 feet beyond the APE be considered as part of the cultural resources evaluation;***
- that no further archeological investigation is warranted at this time.***

According to our procedures and at the request of the FHWA under Section 106 of the National Historic Preservation Act, we are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed undertaking APE and the area within the above defined buffer. Any comments you may have on the TxDOT

Re: Section 106 Consultation, National Historic Preservation Act;
Proposed Texas Department of Transportation Project, Fort Worth District
CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive,
Roadway Improvements; Palo Pinto County

recommendation should also be provided. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object with a recommendation "no historic properties affected," please sign below to indicate your concurrence. In the event that further investigations by our office disclose the presence of archeological deposits, we will contact your Tribe to continue consultation.

Thank you for your attention to this matter. If you have questions, please contact Scott Pletka (TxDOT Archeology Supervisor) at 512/416-2631 (email: Scott.Pletka@txdot.gov) or me at 512/416-2638 (email: Sharon.Dornheim@txdot.gov). When replying to this correspondence, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,



Sharon Dornheim
Staff Archeologist / Consultation Coordinator
Archeological Studies Branch
Environmental Affairs Division

Concurrence by:

Date:

Attachments

cc w/attachments:

Elisa Garcia, TxDOT Fort Worth District Environmental Coordinator;
Chad Davis, ENV-PD TxDOT;
ENV-ARCH Project File / ENV-ARCH ECOS

The attached letter was sent to the following tribes on August 15, 2013 :

Mr. Gilbert Salazar, Chairperson
Business Committee
Kickapoo of Oklahoma
P.O. Box 70
McLoud, OK 74851

Mr. Juan Garza, Jr., Chairperson
NAGPRA Coordinator
Kickapoo Traditional Tribe of Texas
HC1 Route, Box 9700
Eagle Pass, TX 78852

Ms. Terri Parton, President
Wichita and Affiliated Tribes
P.O. Box 729
Anadarko, OK 73005

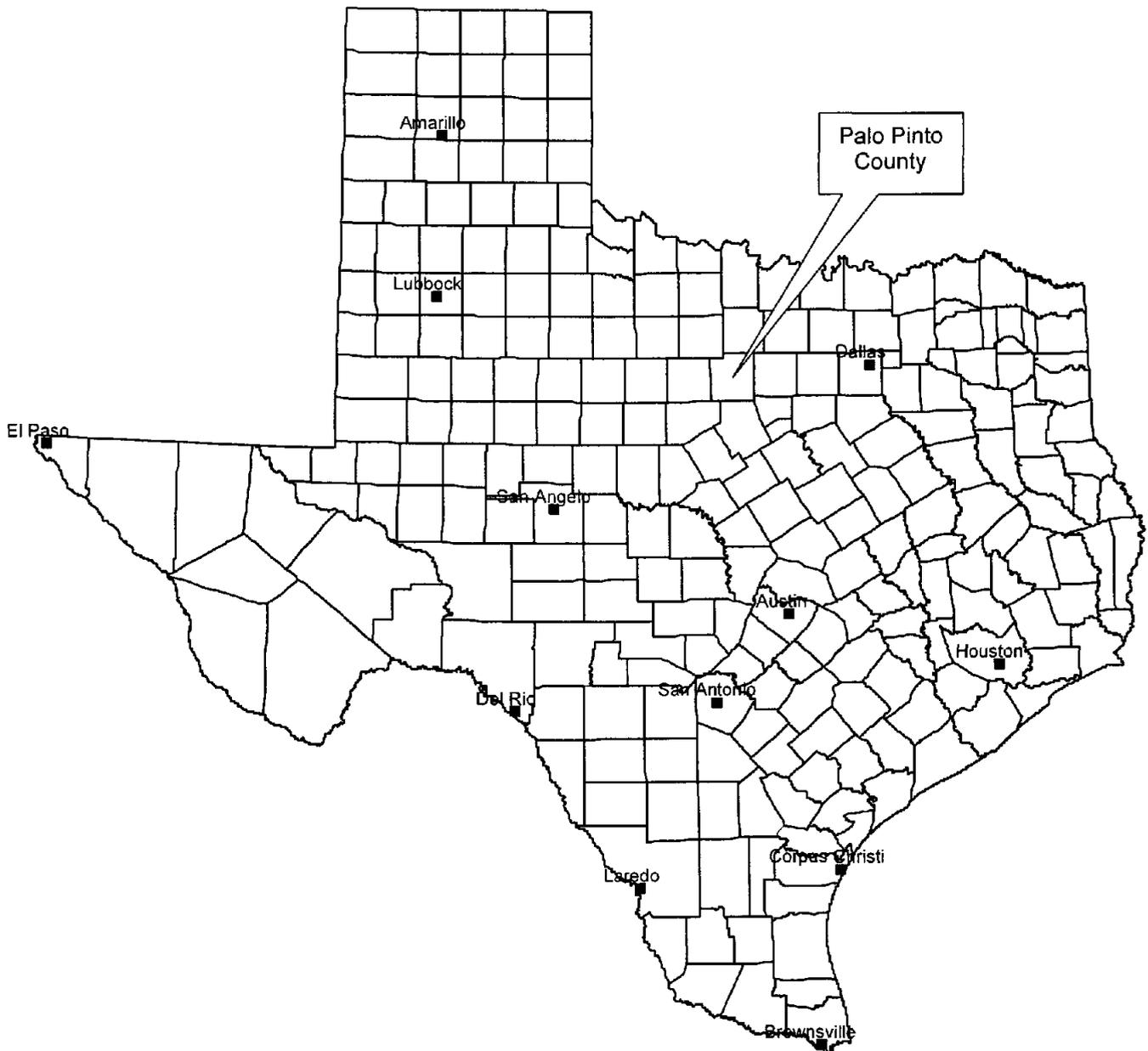
Mr. Buford Rolin, Chairperson
Poarch Band of Creek Indians
5811 Jack Springs Road
Atmore, AL 36502

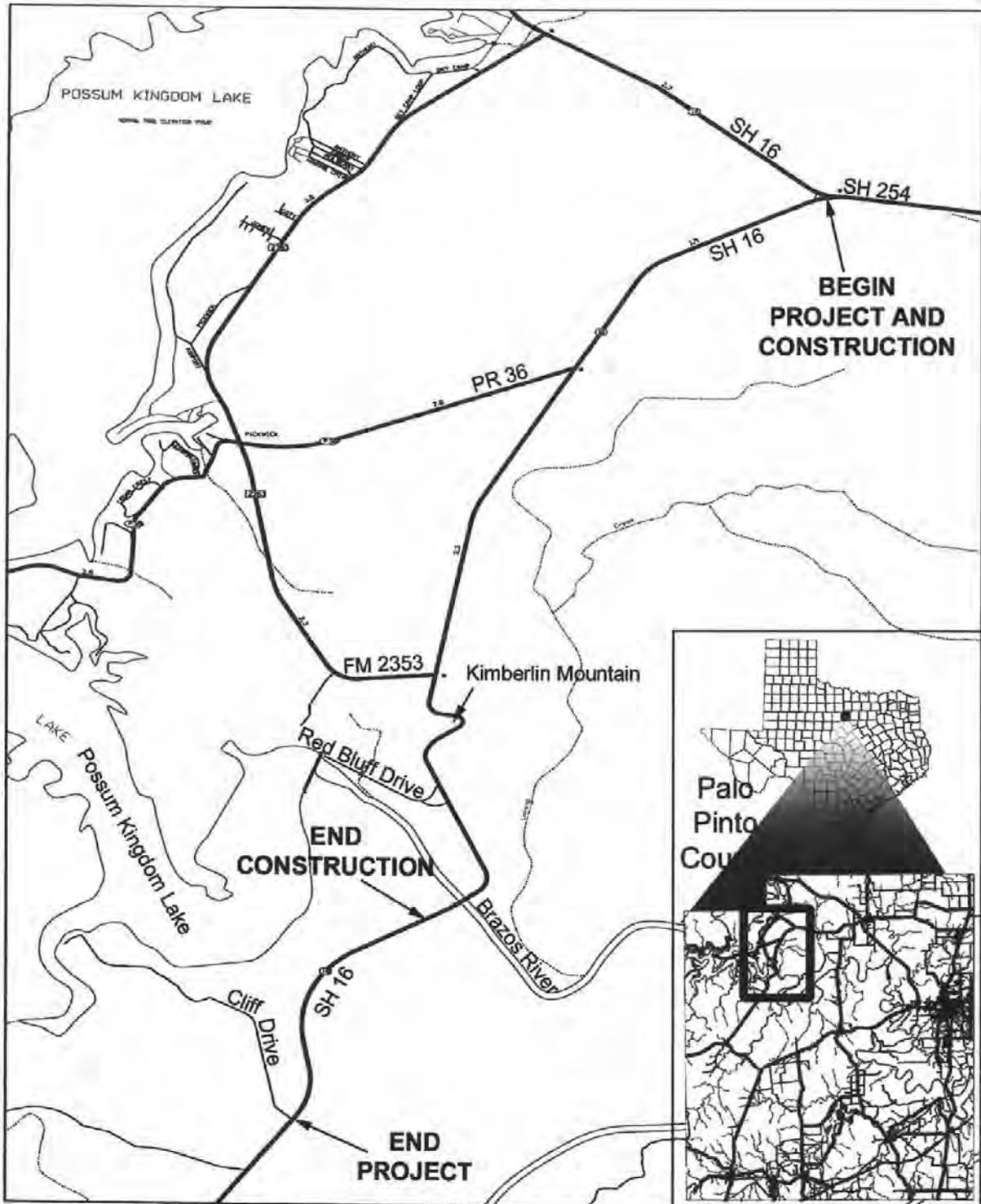
County Location Map

County: Palo Pinto

Project CSJ: 0362-02-021

Project Name: SH 16, from SH 254 to Cliff Drive, Roadway Improvements; Fort Worth District



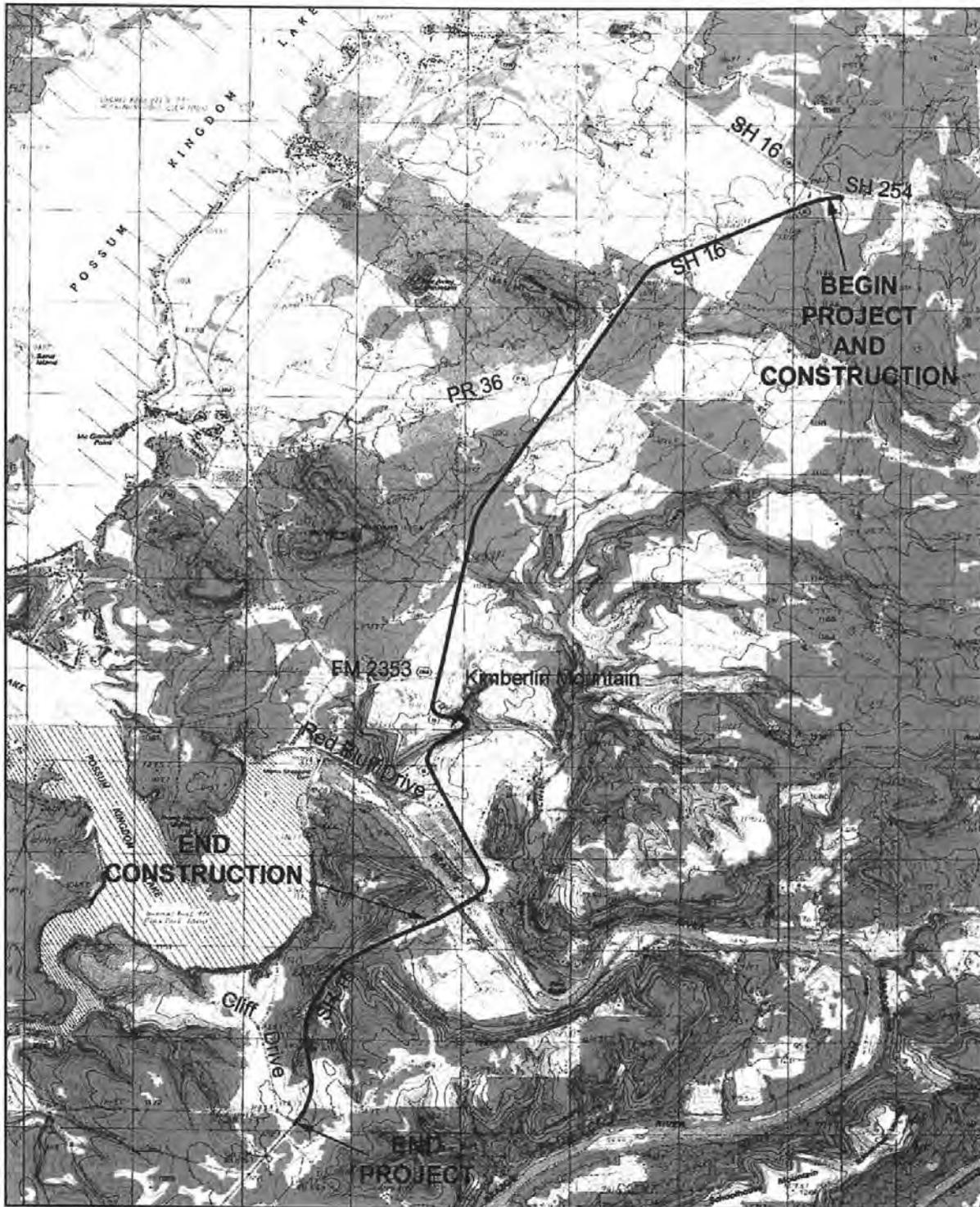


ftp://ftp2.tnris.org/Transportation/
 TxDOT/UrbanFiles/dgn/
 Accessed 7/09

Figure 1
 Project Location on County Base Map
 SH 16 from SH 254 to Cliff Drive
 Palo Pinto County
 CSJ: 0362-02-021

0 2,000 4,000 8,000 ft





Base map: 7.5' USGS topographic
 quadrangles, Costello Island,
 Fortune Bend, Graford West,
 and Palo Pinto, Texas
[http://www.tnris.state.tx.us/
 datadownload/download.jsp](http://www.tnris.state.tx.us/datadownload/download.jsp)
 Accessed 7/09

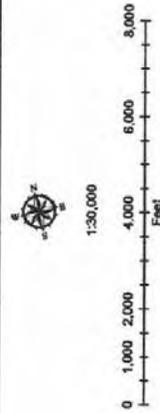
Figure 2
 Project Location on USGS Base Map
 SH 16 from SH 254 to Cliff Drive
 Palo Pinto County
 CSJ: 0362-02-021



Base Map: Bing Aerial Imagery (Palo Pinto County), Texas 2010

Figure 3
Project Area on Aerial Imagery
 SH 16 from SH 254 to Cliff Drive
 Palo Pinto County, Texas
 CSJ: 0362-02-021

- Existing Right-of-way
- Proposed Right-of-way
- Proposed Construction Easement



Kickapoo Tribe of Oklahoma

P.O.Box 70
407 N. Hwy 102
McLoud, Oklahoma 74851

Administration Department
Phone: 405-964-7053; Fax: 405-964-7065
Email: kwilson@kickapootribeofoklahoma.com

August 27, 2013

TXDOT-ENV

SEP 03 2013

CRM

Texas Department of Transportation
ATTN: Sharon Dornheim
Staff Archeologist/Consultant Coord.
Archeological Studies Branch
Environmental Affairs Division
125 E. 11th Street
Austin, TX 78701-2483

RE: CSJ: 0362-02-021

Dear Mrs. Dornheim:

Thank you for consulting with the Kickapoo Tribe of Oklahoma in regard to the above referenced site(s). At this time, the Kickapoo Tribe of Oklahoma has no objections to the proposed project at the intended site(s). However, in the event burial remains and/or artifacts are discovered during the development or construction process, the Kickapoo Tribe of Oklahoma would ask for immediate notification of such findings.

Should I be of any further assistance, please contact me at (405) 964-4227.

Sincerely,



Kent Collier
NAGPRA Contact
Kickapoo Tribe of Oklahoma

Cc: File

Gilbert Salazar
APETOKA
CHAIRMAN

Boyd Ponkilla
ADAMIDATA
VICE-CHAIRMAN

Patricia Gonzales
MOKITANOCUA
SECRETARY

Jennell Downs
KISAKODICUA
TREASURER

Everett Suhe
MOKITANO
COUNCILMAN

Sharon Dornheim

From: Jimmy Arterberry <jimmya@comanchenation.com>
Sent: Tuesday, September 03, 2013 9:45 AM
To: Sharon Dornheim
Subject: CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive, Roadway Improvements; Palo Pinto County, Fort Worth District

In response to your request, the above referenced project has been reviewed by staff of this office. Based on the information provided and a search within the Comanche Nation Site Files, we have determined that there are ***no properties*** affected by the proposed undertaking.

If you require additional information or are in need of further assistance, please contact this office at (580) 595-9960 or 9618.

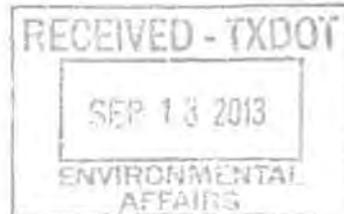
This review is performed in order to identify and preserve the Comanche Nation and State's cultural heritage, in conjunction with the State Historic Preservation Office.

Jimmy W. Arterberry, THPO
Comanche Nation
P.O. Box 908
Lawton, Oklahoma 73502
(580) 595-9960 or 9618
(580) 595-9733 FAX

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Kiowa Tribe Museum
P.O. Box 369
Carnegie, Oklahoma 73015
580-654-2300 ext. 370



Texas Department of Transportation
Archeological Studies Branch
Environmental Affairs Division
Dewitt C. Greer State Highway DLDG
125 E. 11th Street
Austin, TX 78701-7483

9/5/13

(0362-02-021) SH 16

kd

RE: CSJ 0362-021; SH 254 to Cliff Drive, Roadway Improvements; Palo Pinto County, Fort Worth District [^]from

Dear Ms. Sharon Dornheim,

Thank you for informing the Kiowa Tribe of Oklahoma about the above referenced project. By initiating Section 106 consultation, we are allowed an opportunity to determine the potential effects that a project may have on cultural resources that are important to our tribe.

We made the conclusion of "no historic properties affected." If, however, any additional information becomes available our assessment may be revised. In the event that any archaeological or historical objects/materials are discovered during this project, the Kiowa Tribe requests that all work ceases, the area is secured, and that the Tribe is immediately notified.

Thank you for initiating the Section 106 consultation process. Any questions or comments regarding our determination of "no historic properties affected" can be forwarded to atahbone@kiowatribe.org or at the above letterhead.

Sincerely,

Amie Tah-Bone
Museum Director/NAGPRA Representative
Kiowa Tribe of Oklahoma

9/5/13

Date

Re: Section 106 Consultation, National Historic Preservation Act;
Proposed Texas Department of Transportation Project, Fort Worth District
CSJ: 0362-02-021; SH 16, from SH 254 to Cliff Drive,
Roadway Improvements; Palo Pinto County

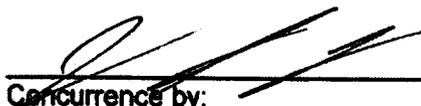
recommendation should also be provided. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object with a recommendation "no historic properties affected," please sign below to indicate your concurrence. In the event that further investigations by our office disclose the presence of archeological deposits, we will contact your Tribe to continue consultation.

Thank you for your attention to this matter. If you have questions, please contact Scott Pletka (TxDOT Archeology Supervisor) at 512/416-2631 (email: Scott.Pletka@txdot.gov) or me at 512/416-2638 (email: Sharon.Dornheim@txdot.gov). When replying to this correspondence, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,



Sharon Dornheim
Staff Archeologist / Consultation Coordinator
Archeological Studies Branch
Environmental Affairs Division


Concurrence by:

KICKAPOO TRADITIONAL TRIBE OF TEXAS

9.12.13
Date:

Attachments

cc w/attachments:

Elisa Garcia, TxDOT Fort Worth District Environmental Coordinator;
Chad Davis, ENV-PD TxDOT;
ENV-ARCH Project File / ENV-ARCH ECOS

TXDOT-ENV

SEP 12 2013

CRM

United States Department of the Interior



OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1001 Indian School Road NW, Suite 348
Albuquerque, New Mexico 87104



ER 13/552
File 9043.1

September 19, 2013

VIA ELECTRONIC MAIL ONLY

Salvador Deocampo
District Engineer
U.S. Department of Transportation
Federal Highway Administration - Texas Division
300 East 8th Street, Room 826
Austin, Texas 78701

Dear Mr. Deocampo:

Thank you for the opportunity to review the Environmental Assessment and Draft Section 4(f) Evaluation for the Widening and Rehabilitation of SH 16 between SH 254 and the North Side of the Brazos River Bridge, Palo Pinto County, Texas. The U.S. Department of the Interior has reviewed the document and submits these comments for your use as you prepare the final document.

SECTION 4(f) EVALUATION COMMENTS

The Department acknowledges that this project will have an adverse effect on one historic property and that the Texas State Historic Preservation Office (SHPO) has concurred with this determination of effect. In lieu of a Memorandum of Agreement (MOA) to minimize the adverse effect, the SHPO has concurred with your measures to minimize harm to the historic property in a letter dated August 9, 2012 "Section 106: Determination of Adverse Effect with Mitigation." We appreciate that you have consulted with the SHPO; however, it is not clear that other consulting parties including the Palo Pinto County Historical Commission (PPCHC) and John Kimberlin, land owner adjacent to Kimberlin Mountain, have concurred.

Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document and that all measures have been taken to minimize harm to these resources. Please note, however, that this concurrence is contingent upon successful completion of the Section 106 process with all consulting parties including the PPCHC and John Kimberlin (i.e., that all consulting parties concur with the measures to minimize harm).

We appreciate the opportunity to review this document. Should you have questions about the Section 4(f) Evaluation comments, please contact Cheryl Eckhardt, National Park Service, Intermountain Regional Office, at 303-969-2851.

Sincerely,

A handwritten signature in blue ink that reads "Stephen R. Spencer". The signature is written in a cursive style with a long horizontal flourish at the end.

Stephen R. Spencer, Ph.D.
Regional Environmental Officer

cc: Texas State Historic Preservation Office
Attn: Mark Wolfe
Texas Department of Transportation
Attn: Renee Benn

----- Original Message -----

Subject: FW: early coordination on CSJ: 0362-02-021

From: Elisa Garcia <Elisa.Garcia@txdot.gov>

To: Dean Tesmer <dtesmer@blantonassociates.com>

CC: John Cordary <John.Cordary@txdot.gov>

FYI. TPWD coordination completed.



Elisa F. Garcia

ENVIRONMENTAL PROJECT MANAGER

Transportation Planning and Development
Fort Worth District

2501 SW Loop
Fort Worth, TX 76133

Office: (817) 370-6718
Fax: (817) 370-6759
Email: Elisa.Garcia@txdot.gov

From: Julie Wicker [mailto:Julie.Wicker@tpwd.texas.gov]

Sent: Thursday, April 24, 2014 2:45 PM

To: Elisa Garcia

Subject: RE: early coordination on CSJ: 0362-02-021

The proposed project as I understand it would widen the roadway on the existing alignment with the exception of a 1/2 –mile section of new location roadway on Kimberlin Mountain. The intersections Red Bluff Drive and PR 36 with SH 16 would be realigned/reconfigured. The project would be constructed within existing TxDOT right of way with the exception of 9.32 acres that would be acquired for the construction of the new location section and the reconfiguration of the intersection at Red Bluff Road. A 5.08-acre temporary construction easement would also be needed at the base of Kimberlin Mountain for a temporary detour to maintain traffic during construction.

In the draft EA, TxDOT committed to implement the following avoidance measures and best management practices (BMPs) to avoid and minimize adverse impacts to natural resources:

- ? Access to Possum Kingdom Fish Hatchery would consistently be maintained
- ? No work would occur at the Brazos River bridge, thereby avoiding impacts to riparian vegetation and aquatic species associated with this waterway, including rare and protected species that have been documented in the Brazos River
- ? Include notes in the Environmental Permits, Issues and Commitments (EPIC) sheets for the developer/contractor to minimize vegetation clearing of and avoiding the placement of Project Specific Locations (PSLs) in or adjacent to wooded areas. In addition, disturbed areas would be reseeded with native plant species where possible
- ? Conduct a presence/absence survey for Golden-cheeked Warbler in the proposed right of way on Kimberlin Mountain
- ? Implement the Bird BMPs listed in the Programmatic Agreement between TxDOT and TPWD regarding Best Management Practices (2013)
- ? Implement water quality BMPs as part of a Storm Water Pollution Protection Plan to protect rare aquatic species
- ? include notes in the EPIC sheets or otherwise advise the construction contractor of the potential occurrence of the Texas horned lizard in the project area and the need to avoid harming the species if encountered. This would include avoiding harvester ant mounds in the selection of PSLs to the extent feasible.
- ? For the plains spotted skunk, contractors will be advised of the species' potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.

In addition, in subsequent email correspondence below, TxDOT confirmed that the masonry culvert that would be buried as a result of the proposed project was examined for the presence of bats. No bats or evidence of bats were observed.

TPWD appreciates TxDOT's commitment to implement the BMPs discussed above. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that the project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect fish and wildlife.

Thanks!!

Julie

Julie C. Wicker
Wildlife Division - [Habitat Assessment Program](#)
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
Phone: (512)389-4579

Please make a note of my new email address: julie.wicker@tpwd.texas.gov

From: Elisa Garcia [<mailto:Elisa.Garcia@txdot.gov>]
Sent: Tuesday, April 22, 2014 2:36 PM
To: Julie Wicker
Subject: RE: early coordination on CSJ: 0362-02-021

Julie,

I just got back from SH 16 project in Palo Pinto County. To answer your question regarding bats, NO there is no evidence that the structure is being utilized by any bat colonies etc. THANKS



Elisa F. Garcia

ENVIRONMENTAL PROJECT MANAGER

Transportation Planning and Development
Fort Worth District

2501 SW Loop
Fort Worth, TX 76133

Office: (817) 370-6718
Fax: (817) 370-6759
Email: Elisa.Garcia@txdot.gov

From: Julie Wicker [<mailto:Julie.Wicker@tpwd.texas.gov>]
Sent: Tuesday, April 22, 2014 8:39 AM
To: Elisa Garcia
Subject: RE: early coordination on CSJ: 0362-02-021

If it's a maternity colony they'd be there during this time of year because they arrive in about March and leave around the end of August. If someone goes out during the day (which I assume they would), they may be able to see the bats themselves up in the crevices between bricks or in joints in the culvert. You can often hear them before you see them (it sounds like a very soft chirp). Also, you can usually smell their guano. It's kind of a musty smell that I've heard described as "funky grapes," although I'm not really sure what that means.

From: Elisa Garcia [<mailto:Elisa.Garcia@txdot.gov>]
Sent: Tuesday, April 22, 2014 7:29 AM
To: Julie Wicker
Subject: RE: early coordination on CSJ: 0362-02-021

Hi Julie,

No I do not believe the presence of bats has been detected. No it is not mentioned in the EA. Can you tell me more of what to look for? I can have someone out there to verify this week but I am not sure if bats are seasonal or if I am looking for some type of nest? Can you provide me more of what to look for? THANKS



Elisa F. Garcia

ENVIRONMENTAL PROJECT MANAGER

Transportation Planning and Development
Fort Worth District

2501 SW Loop
Fort Worth, TX 76133

Office: (817) 370-6718

Fax: (817) 370-6759
Email: Elisa.Garcia@txdot.gov

From: Julie Wicker [<mailto:Julie.Wicker@tpwd.texas.gov>]
Sent: Saturday, April 19, 2014 2:20 PM
To: Elisa Garcia
Subject: early coordination on CSJ: 0362-02-021

Hi Elisa,

Section 3.1.2 of the draft EA states that one masonry box culvert would be covered by the new roadway. Due to the crevices these culverts provide, they can sometimes provide roosting sites for bats. Do you know if anyone has looked for bats or evidence of bats in this structure? I apologize if this was addressed in the document and I missed it.

Thanks!!

Julie

Julie C. Wicker
Wildlife Division - [Habitat Assessment Program](#)
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
Phone: (512)389-4579

Please make a note of my new email address: julie.wicker@tpwd.texas.gov

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Texas Department of Transportation

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September 12, 2014

Mike Lewis
Palo Pinto County Historical Commission Chair
2602 N. Lakeview Drive
Palo Pinto, Texas 76484

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Mr. Lewis:

As you may recall, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway.

In 2011, the Palo Pinto County Historical Commission (CHC) became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). Since that time, we consulted with you and your county judge, David Nicklas, regarding the proposed project and the mitigation options for the proposed adverse effects to the SH 16 roadway, which TxDOT historians determined eligible for the National Register of Historic Places (NRHP).

On March 15, 2012, TxDOT received correspondence signed by you, your co-chair (Ann Reagan), and Judge Nicklas regarding the project's possible adverse effects to the historic roadway and its associated masonry features. On April 16, 2012, TxDOT copied you on a letter to Judge Nicklas that addressed those concerns and included several recommendations to mitigate the project's adverse effects. On June 8, 2012, Judge Nicklas concurred with TxDOT's recommendations. On August 9, 2012, TxDOT received written concurrence from the Texas State Historic Preservation Office (SHPO) regarding the TxDOT's proposed mitigation options and recommendations.

Although we know you have been working with Judge Nicklas regarding this project, this letter outlines and documents TxDOT's mitigation proposal, which TxDOT created as a result of our coordination with you and the SHPO. Therefore, we request the Palo Pinto CHC's written concurrence of TxDOT's mitigation efforts as outlined below.

OUR GOALS

MAINTAIN A SAFE SYSTEM ▪ ADDRESS CONGESTION ▪ CONNECT TEXAS COMMUNITIES ▪ BEST IN CLASS STATE AGENCY
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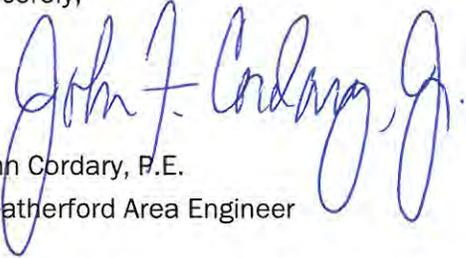
TxDOT proposes to complete or has completed the following mitigation efforts:

- TxDOT owns the SH 16 roadway and its associated historic rock wall (inventoried as Resource No. 1R in the HRSR) on Kimberlin Mountain; however, the existing SH 16 right-of-way (ROW) on Kimberlin Mountain is owned by Palo Pinto County. After the roadway is realigned, TxDOT would recommend that the Texas Transportation Commission remove the existing SH 16 roadway and its associated historic rock wall on Kimberlin Mountain from the state highway system and that control, maintenance and jurisdiction be transferred to Palo Pinto County. Palo Pinto County proposes to make the rock wall and overlook accessible to the public and erect interpretative signage. This mitigation effort would allow the existing SH 16 roadway on Kimberlin Mountain to remain open to the public; otherwise, it would be permanently closed to the public, and the rock wall could not be viewed. TxDOT would also install a driveway to connect the existing ROW to the proposed ROW at the top of Kimberlin Mountain during construction.
- One contributing feature to the NRHP-eligible SH 16 roadway, the culvert inventoried as Resource No. 10 in the HRSR, would be covered by the proposed improvements. To mitigate adverse effects of the loss of this resource, TxDOT would donate the rock material from the culvert headwalls to the Palo Pinto CHC, per your request. It is possible the County may use this rock as part of the interpretative signage noted above.
- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced mitigation efforts, please sign in the space provided below within 30 days, indicating your concurrence. We are also sending this same letter to Ann Reagan; either of you or both of you can sign your respective letters indicating the Palo Pinto CHC's concurrence. If we do not receive correspondence from you or Ms. Reagan within 30 days, we will assume the Palo Pinto CHC's concurrence with the mitigation efforts outlined in this letter.

If you have questions or need additional information about TxDOT's mitigation proposal, please feel free to call me or Gregg Lane at (682) 229-2800.

Sincerely,



John Cordary, P.E.
Weatherford Area Engineer

cc: Judge David C. Nicklas, Palo Pinto County

Concurrence of SH 16 Mitigation Proposal



Signature - Mike Lewis

9/16/2014
Date

Please return this letter within 30 days to:

**Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086**



Texas Department of Transportation

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September 12, 2014

Ann Reagan
Palo Pinto County Historical Commission Chair
P.O. Box 72
Palo Pinto, Texas 76484

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Ms. Reagan:

As you may recall, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway.

In 2011, the Palo Pinto County Historical Commission (CHC) became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). Since that time, we consulted with you and your county judge, David Nicklas, regarding the proposed project and the mitigation options for the proposed adverse effects to the SH 16 roadway, which TxDOT historians determined eligible for the National Register of Historic Places (NRHP).

On March 15, 2012, TxDOT received correspondence signed by you, your co-chair (Mike Lewis), and Judge Nicklas regarding the project's possible adverse effects to the historic roadway and its associated masonry features. On April 16, 2012, TxDOT copied you on a letter to Judge Nicklas that addressed those concerns and included several recommendations to mitigate the project's adverse effects. On June 8, 2012, Judge Nicklas concurred with TxDOT's recommendations. On August 9, 2012, TxDOT received written concurrence from the Texas State Historic Preservation Office (SHPO) regarding the TxDOT's proposed mitigation options and recommendations.

Although we know you have been working with Judge Nicklas regarding this project, this letter outlines and documents TxDOT's mitigation proposal, which TxDOT created as a result of our coordination with you and the SHPO. Therefore, we request the Palo Pinto CHC's written concurrence of TxDOT's mitigation efforts as outlined below.

OUR GOALS

MAINTAIN A SAFE SYSTEM ▪ ADDRESS CONGESTION ▪ CONNECT TEXAS COMMUNITIES ▪ BEST IN CLASS STATE AGENCY

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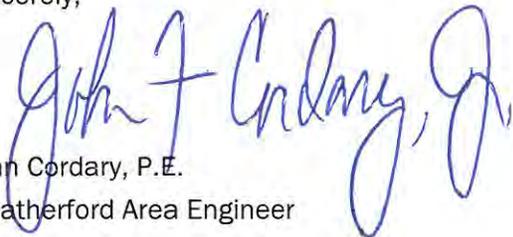
TxDOT proposes to complete or has completed the following mitigation efforts:

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- One contributing feature to the NRHP-eligible SH 16 roadway, the culvert inventoried as Resource No. 10 in the HRSR, would be covered by the proposed improvements. To mitigate adverse effects of the loss of this resource, TxDOT would donate the rock material from the culvert headwalls to the Palo Pinto CHC, per your request. It is possible the County may use this rock as part of the interpretative signage noted above.
- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced mitigation efforts, please sign in the space provided below within 30 days, indicating your concurrence. We are also sending this same letter to Mike Lewis; either of you or both of you can sign your respective letters indicating the Palo Pinto CHC's concurrence. If we do not receive correspondence from you or Mr. Lewis within 30 days, we will assume the Palo Pinto CHC's concurrence with the mitigation efforts outlined in this letter.

If you have questions or need additional information about this project's mitigation efforts, please feel free to call me or Gregg Lane at (682) 229-2800.

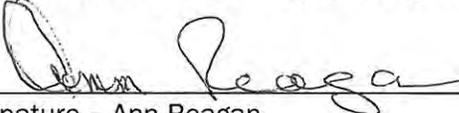
Sincerely,



John Cordary, P.E.
Weatherford Area Engineer

cc: Judge David C. Nicklas, Palo Pinto County

Concurrence of SH 16 Mitigation Proposal



Signature - Ann Reagan

9-18-14

Date

Please return this letter within 30 days to:

Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086



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September 4, 2014

John Kimberlin
Kimberlin Ranches
3322 Shorecrest Drive, Suite 200
Dallas, Texas 75235

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Mr. Kimberlin:

As you may recall, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway.

In 2011, you became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). In September 2011, we sent you a copy of and requested your comments on the Historic Resources Survey Report (HRSR). We also consulted with you regarding mitigation options for the proposed adverse effects to the SH 16 roadway, which TxDOT historians determined eligible for the National Register of Historic Places (NRHP).

To date, TxDOT has received written concurrence from the Texas State Historic Preservation Office (SHPO) and Palo Pinto County regarding the mitigation options. Although you previously provided your verbal agreement regarding TxDOT's proposed mitigation for the adverse effects to the SH 16 roadway, this letter documents the mitigation proposal and requests your written concurrence of these mitigation efforts.

TxDOT proposes to complete or has completed the following mitigation efforts:

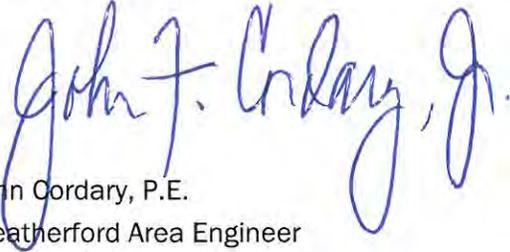
- TxDOT owns the SH 16 roadway and its associated historic rock wall (inventoried as Resource No. 1R in the HRSR) on Kimberlin Mountain; however, the existing SH 16 right-of-way (ROW) on Kimberlin Mountain is owned by Palo Pinto County. After the roadway is realigned, TxDOT would recommend that the Texas Transportation Commission remove the existing SH 16 roadway and its associated historic rock wall on Kimberlin Mountain from the state highway system and that control, maintenance and jurisdiction be transferred to Palo Pinto County. Palo Pinto County proposes to make the rock wall and overlook accessible to the public and erect interpretative signage. This mitigation effort would allow the existing SH 16 roadway on Kimberlin Mountain to remain open to the public; otherwise, it would be permanently closed to the public, and the rock wall could not be viewed. TxDOT would also install a driveway to connect the existing ROW to the proposed ROW at the top of Kimberlin Mountain during construction.
- One contributing feature to the NRHP-eligible SH 16 roadway, the culvert inventoried as Resource No. 10 in the HRSR, would be covered by the proposed improvements. To mitigate adverse effects of the loss of this resource, TxDOT would donate the rock material from the culvert headwalls to the Palo Pinto County Historical Commission (CHC) per their request. It is possible the County may use this rock as part of the interpretative signage noted above.
- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced mitigation efforts, please sign in the space provided below within 30 days, indicating your concurrence. If we do not receive correspondence from you within 30 days, we will assume your concurrence with the mitigation efforts outlined in this letter.

Please note that this letter only addresses mitigation efforts associated with adverse effects to historic resources under Section 106 of the NHPA (in accordance with 36 Code of Federal Regulations [CFR] 800.5). This letter does not address proposed ROW or easements on your property. Such ROW matters would be completed after the environmental documentation associated with this undertaking is approved.

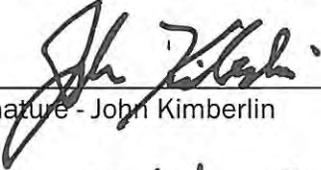
If you have questions or need additional information about this project's mitigation efforts, please feel free to call me or Gregg Lane at (682) 229-2800.

Sincerely,

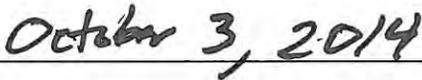


John Cordary, P.E.
Weatherford Area Engineer

Concurrence of SH 16 Mitigation Proposal



Signature - John Kimberlin



Date

Please return this letter within 30 days to:

**Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086**



October 14, 2014

Evan R. Thompson
Preservation Texas
P.O. Box 12832
Austin, Texas 78711

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Mr. Thompson:

The Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway. Please note that the proposed project does not include widening or rehabilitating the masonry arch bridge over the Brazos River. As a consulting party on this SH 16 project, we request your concurrence with the mitigation proposal outlined in this letter below.

In 2006, Preservation Texas became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). In July 2011, the Palo Pinto County Historical Commission (CHC) and an impacted landowner, John Kimberlin, became consulting parties. Although TxDOT invited the Historic Bridge Foundation to be a consulting party on this project in July 2011, they declined due to the lack of potential adverse effects to the SH 16 masonry arch bridge at the Brazos River.

In September 2011, TxDOT sent all consulting parties (including Preservation Texas) a copy of and requested comments on the Historic Resources Survey Report (HRSR), which noted that the SH 16 roadway and 18 contributing masonry features were eligible for the National Register of Historic Places (NRHP). The HRSR also noted that the proposed project posed adverse effects to the NRHP-eligible roadway. Preservation Texas did not provide comment on the HRSR or its findings; however, the Palo Pinto CHC provided comments that mainly included possible mitigation options.

To discuss potential mitigation options, TxDOT invited Preservation Texas to a meeting with all consulting parties and numerous agencies (including the Texas Historical Commission [THC]) on

December 6, 2011. This meeting focused on the overall development of the project and possible mitigation options. When Preservation Texas did not reply to this invitation, TxDOT's environmental consultant, Maryellen Russo at Blanton & Associates, Inc., called Krista Gebbia, the previous Preservation Texas Executive Director. Ms. Gebbia indicated that Preservation Texas' primary role as a consulting party would involve providing advice and assistance to the local consulting parties, if required, and she declined the invitation. TxDOT also sent Preservation Texas an invitation to the public meeting that was held on March 6, 2012; however, no representative from Preservation Texas attended the meeting.

Over that last two years, TxDOT has worked with the Palo Pinto CHC, Mr. Kimberlin, the THC, and Palo Pinto County to develop several mitigation measures for the proposed project. To date, TxDOT has received written concurrence regarding these mitigation options from the Palo Pinto CHC, Mr. Kimberlin, and the THC (see the attached correspondence). While your organization has not been involved in creation of these mitigation measures, we request your written concurrence of this mitigation proposal to complete the Section 106 of the NHPA process.

The following information provides mitigation efforts that TxDOT proposes to complete or has completed:

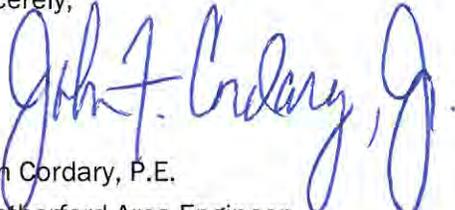
- TxDOT owns the SH 16 roadway and its associated historic rock wall (inventoried as Resource No. 1R in the HRSR) on Kimberlin Mountain; however, the existing SH 16 right-of-way (ROW) on Kimberlin Mountain is owned by Palo Pinto County. After the roadway is realigned, TxDOT would recommend that the Texas Transportation Commission remove the existing SH 16 roadway and its associated historic rock wall on Kimberlin Mountain from the state highway system and that control, maintenance and jurisdiction be transferred to Palo Pinto County. Palo Pinto County proposes to make the rock wall and overlook accessible to the public and erect interpretative signage. This mitigation effort would allow the existing SH 16 roadway on Kimberlin Mountain to remain open to the public; otherwise, it would be permanently closed to the public, and the rock wall could not be viewed. TxDOT would also install a driveway to connect the existing ROW to the proposed ROW at the top of Kimberlin Mountain during construction.
- One contributing feature to the NRHP-eligible SH 16 roadway, the culvert inventoried as Resource No. 10 in the HRSR, would be covered by the proposed improvements. To mitigate adverse effects of the loss of this resource, TxDOT would donate the rock material from the culvert headwalls to the Palo Pinto CHC, per your request. It is possible the County may use this rock as part of the interpretative signage noted above.

- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced proposal to mitigate the adverse effects to the historic SH 16 roadway, please sign in the space provided below within 30 days, indicating your concurrence with the proposed mitigation. If we do not receive correspondence from you within 30 days, we will assume your concurrence with the mitigation proposal outlined in this letter.

If you have questions or need additional information about this project's mitigation efforts, please feel free to call me or Gregg Lane at (682) 229-2800.

Sincerely,



John Cordary, P.E.
Weatherford Area Engineer

Concurrence of SH 16 Mitigation Proposal

Signature - Evan R. Thompson, Preservation Texas

Date

Please return this letter within 30 days to:

Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086

Appendix E
Individual Section 4(f) Evaluation

Individual Section 4(f) Evaluation

**SH 16 from SH 254 to Cliff Drive
Palo Pinto County, Texas
TxDOT CSJ 0362-02-021**

Prepared for
Federal Highway Administration
and
Texas Department of Transportation

December 2014

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 12-16-14, and executed by FHWA and TxDOT.

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1.0 DESCRIPTION OF THE PROPOSED ACTION

1.1 Introduction/Section 4(f) Applicability

Under Control-Section-Job (CSJ) Number 0362-02-021, the Texas Department of Transportation (TxDOT) proposes to improve a portion of State Highway (SH) 16 in northwestern Palo Pinto County, Texas (see **Figures 1** and **2** in **Appendix A**). The proposed project's logical termini extend from SH 254 to Cliff Drive, a distance of 7.6 miles. A portion of the roadway within these limits has been previously upgraded under TxDOT CSJ: 0362-02-020, and as a result, the construction limits of this proposed project only include a 6-mile segment of SH 16 from SH 254 to 1,200 feet south of the Brazos River Bridge. This proposed project is programmed in the fiscal years 2013 to 2016 of the 2013-2016 Statewide Transportation Improvement Plan as part of "Preventive Maintenance and Rehabilitation" projects (CSJs: 5000-00-952, 5000-00-957, and 5000-00-958).

In accordance with 23 Code of Federal Regulation (CFR) 774, Section 4(f) of the U.S. Department of Transportation (DOT) Act, a property subject to Section 4(f) is a publicly owned land of a park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance. Section 4(f) properties that are located within the proposed project limits and construction limits include historic sites of State significance and a recreation area of local significance (also see 23 United States Code [USC] 138 and 49 USC 303). This Section 4(f) Evaluation document was written to comply with these laws and regulations.

At the end of this document are five appendices, **Appendix A** through **E**, which include information that supplements the text. **Appendix A** includes project location maps and a map of the alternatives discussed in the Alternatives Analysis (**Section 4.0**). Existing and proposed typical sections are included in **Appendix B**. **Appendix C** includes photographs of the project area and setting. Photographs in this appendix are labeled Photographs C1 through C31. Photographs of the SH 16 historic corridor and its associated features, including the Brazos River Bridge, are included in **Appendix D**. These photographs are labeled Photographs D1 through D16. **Appendix E** includes the documentation between TxDOT, the Texas State Historic Preservation Officer (SHPO), and the consulting parties regarding Section 106 coordination and mitigation agreements.

As part of compliance activities under Section 106 of the National Historic Preservation Act (NHPA), TxDOT determined the SH 16 roadway corridor and 18 contributing features (16 masonry culverts, the Brazos River Bridge, and a masonry wall on Kimberlin Mountain) are eligible for the National Register of Historic Places (NRHP) under Criterion A and Criterion C as a historic district (see **Figures 3.1, 3.2, and 3.3** in **Appendix A**). TxDOT also determined that the Brazos River Bridge (Structure Number: 021820036202003) is eligible for the NRHP under Criterion A and Criterion C as an individual property (see **Figure 3.1** in **Appendix A**). There are two preservation organizations, Preservation Texas and Palo Pinto County Historical Commission [CHC]) and one private property owner (John Kimberlin) who are consulting parties for this proposed project. These consulting parties and the Texas SHPO concurred with TxDOT's NRHP-eligibility determination regarding the roadway and its associated masonry features in February 2012 (see SHPO's concurrence in **Appendix E**).

The Brazos River Nature Trail is another Section 4(f) property located in the proposed project area (see **Figure 3.1** in **Appendix A**). This publicly owned recreational facility is open to the public and is a linear facility that extends approximately one mile along the northern bank of the Brazos River from SH 16 to Red Bluff Drive. It is one of several nature trails surrounding Possum Kingdom Lake, and provides pedestrian access through riparian woodlands along the Brazos River. There is no evidence that the trail is used for any purposes other than recreation. The trail head and one of the parking lots for this trail are located on SH 16 approximately 400 feet north of the Brazos River Bridge.

It should also be noted there is a small pull-off on the north side of SH 16 on Kimberlin Mountain. This pull-off is within the existing TxDOT right-of-way (ROW) and is only large enough for three or four cars (see Photograph C12 in **Appendix C**). The adjacent landowners (Kimberlin family) have erected a subject marker on their property directly adjacent to the parking area (see Photograph C13 in **Appendix C**). The marker claims that nineteenth century cattle rancher, Oliver Loving, began the Goodnight-Loving trail on the land that is now the Kimberlin Ranch (TxDOT's pre-certified professional historians who wrote the Historic Resources Survey Report (HRSR) could not find documented evidence to support this claim). The marker also makes note of the "Lonesome Dove" novel and movie, which is a fictionalized account of Loving's death, and it includes information about the Kimberlin's New Mexico ranch and the family's 1940s acquisition of the ranch in the proposed project area. The pull-off is not a roadside park or other official parking area; rather, it is a non-designated area where motorists can stop and view the Brazos River valley and Kimberlin Ranch below. It is not considered or designated as park by TxDOT (the official with jurisdiction over the pull-off), there are no rest-stop facilities (e.g., restrooms, picnic tables, or barbeques) at the pull-off, and its major purpose is a pull-off for cars to temporarily stop; therefore, the pull-off does not function as a park and is not considered a Section 4(f) property.

The proposed action is a safety improvement project that includes widening and rehabilitating the SH 16 roadway between SH 254 and the north side of the Brazos River Bridge, as well as from the south end of the Brazos River Bridge to 1,200 feet south of the bridge. As part of the proposed action, a 0.5-mile section of SH 16 would be realigned on new location. Under Section 106 of the NHPA, the proposed action would result in an adverse effect to the NRHP-eligible SH 16 corridor alignment, one contributing masonry culvert, and a contributing rock wall on Kimberlin Mountain. The proposed action constitutes a "use" of a Section 4(f) property under 23 CFR 774. Therefore, in accordance with this regulation, the following Section 4(f) Evaluation documents that there are no feasible and prudent alternatives to the use of the Section 4(f) property, and that the proposed action includes all possible planning measures to minimize harm to the historic property.

The proposed action does not include any work on the NRHP-eligible Brazos River Bridge; therefore, there would not be a "use" of the bridge under Section 4(f) of the DOT Act. Additionally, the proposed project would not pose "use" to the Brazos River Nature Trail as it would not incorporate land from the Brazos River Nature Trail and there is no potential for a constructive use of the trail for the following reasons: (1) access to the trail and trail heads on SH 16 and Red Bluff Drive would remain unchanged, (2) at the existing access point on SH 16, proposed improvements are limited to the addition of 4-foot shoulders within the existing transportation ROW, (3) the new-alignment segment of the road is 0.35 mile

or more from the trail, (4) there would be no substantial increases in noise levels since there is no added capacity associated with the proposed project, and (5) no improvements are proposed that would span the trail or otherwise cause indirect affects to the protected activities, features, or attributes of this public resource.

1.2 Project Location and Setting

The SH 16 roadway is a north-south corridor that extends from North Texas through the Texas Hill Country and San Antonio, south to the Mexican border. The logical termini for this proposed project are from SH 254 (northern terminus) to Cliff Drive (southern terminus) in northwestern Palo Pinto County, on the east side of Possum Kingdom Lake. The northern logical terminus is approximately seven miles west of Graford, Texas, and the southern terminus is approximately 7.6 miles north of Brad, Texas. Within the proposed project limits, SH 16 serves local traffic needs for the western portion of Palo Pinto County, including providing access to recreational areas associated with Possum Kingdom Lake. The road is classified as a rural collector, and it has a posted speed limit of 60 miles per hour (mph).

Within the proposed project limits, SH 16 is currently a two-lane rural highway with a typical 100-foot-wide ROW. The roadway has three different pavement widths as follows:

- The 2-mile section from SH 254 to Park Road (PR) 36 – the roadway is approximately 32 to 36 feet wide and contains two 12-foot-wide travel lanes with 4- to 6-foot-wide shoulders (see Photograph C2).
- The 4-mile section from PR 36 to 1,200 feet south of the Brazos River Bridge – the existing roadway is approximately 22 feet wide and contains two 11-foot-wide travel lanes with no shoulders (see Photograph C7). It should be noted that within this segment are the Brazos River Bridge (see Photograph C27) and the one-mile segment of SH 16 located on Kimberlin Mountain.
- The 1.6-mile section from 1,200 feet south of the Brazos River Bridge to Cliff Drive – the existing roadway is typically 32 feet wide and contains two 12-foot-wide travel lanes with 4-foot-wide shoulders (see Photograph C30). This section was widened under a previous project (CSJ: 0362-02-020).

The typical sections of the existing roadway are included in **Appendix B**. The 1-mile portion of the existing SH 16 alignment on Kimberlin Mountain includes a sharp curve with a radius of 245 feet that is located on a hill with a seven percent grade (see Figure 3.2 in **Appendix A** for the location of Kimberlin Mountain within the proposed project limits). There are signs warning motorists of the curve and the grade at the north end of the mountain (see Photograph C9). On the outside of the sharp curve is a small unofficial pull-off, which is used as an overlook by the public (see Photograph C12). A locally erected marker commemorating Oliver Loving is located at the overlook (see Photograph C13). Several Depression-era masonry culverts are located along the existing roadway, and several of the culverts located north of the Brazos River have been widened during previous maintenance activities. A masonry wall serves as a roadside barrier along Kimberlin Mountain. Photographs included in **Appendix D** show the masonry elements located along the roadway.

The project area is located in the northern Texas Hill Country and is characterized by rocky hills and canyons, with the Brazos River valley crossing through the central portion of the proposed project corridor and a few intermittent and ephemeral tributaries, such as Loving Creek, draining the larger canyons. Because of the rocky terrain, the area is dominated by rangeland with some scattered farmland located in the river valley and in flat areas atop the caprock.

The canyons and hills in and around the project area, particularly south of the Brazos River, support native oak-juniper woodlands that provide potential habitat for two song birds listed as endangered under the Endangered Species Act: the golden-cheeked warbler (*Setophaga chrysoparia*) and the black-capped vireo (*Vireo atricapilla*). These species have been previously recorded along SH 16 south of the Brazos River. In addition, gravelly areas along the Brazos River channel provide potential habitat for the endangered interior least tern (*Sterna antillarum athalassos*), although this species is not known to nest along the Brazos River.

While the project area is primarily rural with ranches surrounding SH 16, housing developments such as “The Cliffs” at the southern end of the proposed project are located on the west side of the road near Possum Kingdom Lake (see **Figures 3.1, 3.2, and 3.3** in **Appendix A**). Additionally, recreational and seasonal residences, facilities, and trails are found in the project area, with concentrations of such properties located near the Brazos River and PR 36. A few businesses and a church property are located near the SH 16 and PR 36 intersection, and a church is located at the intersection of SH 16 and SH 254. These properties appear to serve the seasonal population and the small number of residents who live in the area year-round.

Two infrastructure facilities are located in the project area as well; these include a local water treatment plant on SH 16 approximately 1,700 feet south of the Brazos River (see Photograph C29) and the Possum Kingdom State Fish Hatchery on SH 16 approximately 1,000 feet north of the river (see Photograph C24). A third infrastructure facility, the Morris Sheppard Dam, is located approximately 0.6 mile west of the SH 16 and Red Bluff Drive intersection (see Photograph C23). Maps included in **Appendix A** show where these subdivisions, facilities, and properties are located.

2.0 DESCRIPTION OF SECTION 4(F) PROPERTY

2.1 Physical Description

The Section 4(f) property that would be adversely affected by the proposed action includes the historic SH 16 roadway corridor and associated features (photographs of these features are included in **Appendix D**). The SH 16 roadway, masonry culverts, Brazos River Bridge, and rock wall on Kimberlin Mountain were constructed as part of Works Progress Administration (WPA) project number 16344. The roadway corridor was to provide an all-weather transportation facility between the Morris Sheppard Dam, which was under construction in the early 1940s, and the railroad line in Salesville in eastern Palo Pinto County. Initiated in 1940, the roadway project was 27.75 miles long and was completed in 1942.

Only an 8.4-mile-long segment of the original roadway is eligible for the NRHP and is considered in this Section 4(f) Evaluation, and the majority of the NRHP-eligible section is located within the current limits

of the proposed project. In accordance with TxDOT’s February 2012 determination of eligibility, the eligible roadway extends from approximately 7.4 miles northeast of US 180 in Brad (around Brackeen Drive located just south of Cliff Drive) to the SH 16/SH 254 intersection (see **Figures 3.1, 3.2, and 3.3**). Within this section of roadway, there are a total of 23 masonry elements – 21 masonry culverts, the masonry arch bridge over the Brazos River, and the masonry rock guard wall on Kimberlin Mountain. In addition to the 23 masonry elements within the SH 16 project limits, there is one representative reinforced concrete pipe culvert (Resource No. 1Q). The transportation resources located within the corridor are listed in **Table 1** and mapped on **Figures 3.1, 3.2, and 3.3**. They are listed by the resource numbers that were used in the NHPA Section 106 HRSR.

Table 1: SH 16 Historic Road Corridor Resources

Resource Number	Resource Type	Alterations, if applicable	Contributing or Non-contributing	Location
1A	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1B	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1C	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1D	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1E	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1F	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1G	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1H	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1I	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1J	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1K	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1L	Masonry box culvert	None	Contributing	Between Cliff Drive and the Brazos River
1M	Masonry arch bridge	None	Contributing (and Individually NRHP-eligible)	Crossing the Brazos River
1N	Masonry box culvert	None	Contributing	Between the Brazos River and Red Bluff Drive
1O	Masonry box culvert	None	Contributing	Between the Brazos River and Red Bluff Drive
1P	Masonry box culvert	Widened	Non-contributing	Between Red Bluff Drive and FM 2353
1Q	Representative reinforced concrete pipe culvert	None	Non-contributing	Between Red Bluff Drive and FM 2353
1R	Masonry guard wall	Missing, damaged, unsympathetically repaired sections	Contributing	Between Red Bluff Drive and FM 2353
1S	Masonry box culvert	Widened	Non-contributing	Between FM 2353 and PR 36
1T	Masonry box culvert	Widened	Non-contributing	Between FM 2353 and PR 36
1U	Masonry box culvert	Widened	Non-contributing	Between FM 2353 and PR 36
1V	Masonry box culvert	Widened	Non-contributing	Between FM 2353 and PR 36
1W	Masonry box culvert	None	Contributing	Between PR 36 and SH 254
1X	Masonry box culvert	None	Contributing	Between PR 36 and SH 254

The masonry features were constructed with limestone that was locally quarried. The 21 masonry culverts are box culverts constructed of square-cut limestone blocks. These structures have stone abutments and stone wingwalls. Atop the masonry substructures are reinforced concrete slab decks that serve as the

superstructures. Of the 21 masonry culverts, five have been widened on both sides with concrete. These widened culverts are located north of the Brazos River and are considered non-contributing elements of the corridor (see Photographs D4 and D5). The remaining 16 culverts are in their original condition and have not been widened or otherwise significantly modified (see Photographs D2 and D3). Therefore, they are considered contributing elements of the NRHP-eligible roadway corridor.

Also included in the NRHP-eligible roadway corridor is an approximately 1,800-foot-long masonry wall on Kimberlin Mountain that was inventoried as Resource No. 1R (see Photographs D11, D12, and D13). The masonry wall consists of an approximately 2-foot-high horizontal wall with consistently spaced approximately 4-foot-tall vertical elements or “crenellations.” In the sections where the road is not curved, the horizontal wall section is not present and only the vertical elements are present along the roadway (see Photograph D11). This masonry wall has sustained significant damage due to vehicles hitting it. Of the 129 vertical elements or crenellations that were constructed, 41 have been completely replaced, unsympathetically repaired, or are missing as of May 2011 (see Photographs D14 through D16 for examples of the damaged wall).

The bridge carrying SH 16 over the Brazos River (downstream from the Morris Sheppard Dam) is considered part of the NRHP-eligible corridor and is considered individually eligible for the NRHP. This bridge was inventoried as Resource No. 1M and is an 18-span, closed spandrel, earthen-filled masonry arch bridge with a concrete slab superstructure (see Photographs D6 through D10). The bridge is 433 feet long with a total deck width of 26.5 feet. The bridge has a limestone masonry substructure with a spread footing and masonry bent cap. The arches have voussoir detailing with key stones. A solid panel concrete railing with drainage holes rests atop the concrete deck and flanks the travel lanes. Large masonry wingwalls and retaining walls are found at each corner of the bridge, with an especially long wingwall extending northward from the bridge at the northeast corner. This wall has been damaged, and portions of the wall are missing (see Photograph D9). Other sections of the wingwalls have been covered in concrete.

2.2 Significance of the Section 4(f) Property

In accordance with Section 110 of the NHPA, the Texas SHPO, in cooperation with TxDOT, completed a statewide survey of Depression-era resources in the mid-1990s. At that time, they determined that the SH 16 corridor and masonry structures were collectively eligible for the NRHP and the Brazos River Bridge was individually eligible. As part of Section 106 of the NHPA compliance activities in 2011, TxDOT re-evaluated the corridor and masonry structures and determined that SH 16 and its 18 contributing features (16 box culverts, the Brazos River Bridge, and the masonry wall on Kimberlin Mountain) are still eligible as a historic district under Criterion A (Events) and Criterion C (Engineering). TxDOT also determined that the Brazos River Bridge is individually eligible for inclusion in the NRHP under Criterion A (Events) and C (Engineering). The roadway corridor and the bridge are eligible for the following reasons:

Criterion A

- The road and the bridge are both documented WPA projects that employed hundreds of workers and provided work relief for skilled and unskilled laborers.

- The roadway corridor and bridge provided the main north-south access to the Morris Sheppard Dam, which was a major infrastructure project for the region. As such, the road and bridge played a critical role in the construction of the dam and in the development of the area. The area experienced significant growth due to the construction of the transportation facility and the dam.

Criterion C

- Both the roadway features and the bridge represent the masonry construction that was typical of WPA work relief projects.
- The culverts, bridge, and masonry guard wall exhibit the use of hand-labor workmanship and exhibit a harmonious blending of the transportation resources with the surroundings.
- The bridge is individually significant because it exhibits exceptional workmanship in its design, aesthetics, and it is evident that master masons were required to construct the bridge, which is the largest masonry bridge in the state.

The character-defining features of the SH 16 roadway corridor and the masonry bridge structure are as follows:

Alignment – this refers to the horizontal or vertical movement of the road. The alignment of the roadway was important in providing accessibility to the Morris Sheppard Dam and the east side of the lake. The WPA records regarding SH 16 indicate that the roadway alignment was determined by the best location for the movement of goods and people. As noted in TxDOT’s 1997 Depression-era Registration Requirements, a realignment of the facility may result in the loss of integrity, particularly when contributing elements of the corridor or scenic vistas are bypassed.

Masonry Workmanship – this refers to the elements of a roadway that are integral to the design and function of the road and the Brazos River Bridge. On SH 16, the structures, including the bridge, are representative of the WPA Depression-era program that created work for unemployed skilled and unskilled laborers throughout the U.S. The use of hand-labor in the construction of the cut-stone culverts, the Brazos River Bridge, and the guard wall were important to the design of the road since little steel was available during World War II; the masonry features on the roadway required a limited amount of reinforcing steel bars (also known as rebar). Furthermore, the structures on the roadway illustrate superior construction techniques, particularly in the construction of some of the larger culverts and the Brazos River Bridge. If the masonry workmanship is either covered with concrete, has been removed, or the masonry features are no longer visible due to widening, the affected structures would no longer retain their integrity of design, materials, and workmanship.

TxDOT determined the period of significance for the roadway and the bridge under Criterion A and Criterion C. Under Criterion A, the period of significance is limited to the initial period of use of the roadway and bridge: 1940 to 1967 – from the beginning of the WPA project in 1940 to the end of the historic period in 1967. Under Criterion C, the period of significance was determined to be the initial period of roadway design and construction – from 1940 when the road project was initiated to 1942 when the roadway and bridge were completed.

3.0 NEED AND PURPOSE

3.1 Project Needs

The existing roadway exhibits functional issues relating to its geometric design, including its horizontal alignment, limited sight distance, a constrained clear zone, and narrow roadway width. No major reconstruction or rehabilitation of the roadway has occurred within the construction limits since it was constructed in the 1940s. The 2008 Average Daily Traffic (ADT) for SH 16 within the proposed project limits is 1,300 vehicles per day (VPD), and by 2028, it is anticipated that the ADT will be 2,000 VPD, an increase of 53.8 percent.

To determine what design thresholds should be met to correct problems with the roadway, project engineers referenced the *TxDOT Roadway Design Manual* for design criteria for 3R and 4R projects. Projects classified as 3R are those that call for resurfacing, restoration, and/or rehabilitation. These projects preserve and extend the service life of existing highways and enhance safety. The 3R projects do not involve “substantial” deviation from existing horizontal and/or vertical alignment (*TxDOT Roadway Design Manual*, 4-2). Projects classified as 4R projects are those that are on new location and/or projects that involve reconstruction that substantially changes the horizontal and/or vertical alignment. Throughout this section of the document, these types of projects will be referenced when discussing design criteria.

Designers also reviewed the *TxDOT Roadway Design Manual* to determine the design speed of the proposed project. The design speed is a selected speed used to determine the various geometric design features of the roadway, and “design elements such as sight distance, vertical and horizontal alignment, lane and shoulder widths, roadway clearances, superelevation, etc., are influenced by design speed” (*TxDOT Roadway Design Manual*, 2-5). According to the *Roadway Design Manual*, the proposed project will meet a minimum design speed of 30 mph under the 3R design criteria and 40 mph under the 4R design criteria.¹ Discussions regarding the correction of geometric design provided in the remainder of the document will be based on these design speeds.

Within the proposed project limits, some of the most critical geometric problems on SH 16 exist between the SH 16/Red Bluff Drive intersection and SH 16/FM 2353 intersection (see Photographs C8 through C21 for photographs of SH 16 between these intersections). The first major geometric problem is the SH 16 roadway’s horizontal alignment. The turning radius of the curve on Kimberlin Mountain is 245 feet, which is below the minimum horizontal curvature for roadways in Texas, which is 275 feet for a 30 mph design speed (*TxDOT Roadway Design Manual*, Table 2-6). This tight radial curve causes large recreational vehicles and 18-wheel trucks to cross the center line and/or drive off the pavement on the inside of the curve (see Photograph C15).

¹ The controlling factor in determining the design speed (and other geometric design features) for the 3R criteria is current ADT (*TxDOT Roadway Design Manual*, Table 4-2). The controlling factors for the 4R criteria are the future ADT, the functional classification of the road (SH 16 is considered a collector route), and if the terrain is rolling or level (*TxDOT Roadway Design Manual*, Table 3-6). Table 3-6 of the design manual notes that a future ADT of 1,500 to 2,000 VPD would have a design speed of 40 mph.

These problems with the horizontal alignment are exacerbated by the steep grade of the road. Traveling from the south to north (uphill), the roadway is situated on the eastern slope of Kimberlin Mountain as it climbs out of the Brazos River basin to the top of the hill. In doing so, the roadway’s elevation changes by 135 feet. Although signs warning of the sharp curve and recommending motorists slow to 25 mph are found north, south, and at the curve, the curve is abrupt for vehicles traveling from north to south (downhill), particularly when the posted speed limit on the roadway is 60 mph (see Photograph C9 for the caution signs at the north end of Kimberlin Mountain). The existing stopping sight distance of 145 feet for this curve falls well below the minimum of 200 feet needed for a 30 mph design speed under 3R criteria and the 305 feet needed for a 40 mph design speed under 4R criteria (*TxDOT Roadway Design Manual*, Table 2-1).

In addition to the geometric issues on Kimberlin Mountain, safety issues along the roadway result from the roadway being cut into the side of the hill. As a result, directly adjacent to the inside of the curve is an exposed bedrock wall (see Photograph C14) and on the outside of the curve is a steep cliff (see Photograph C16). The exposed bedrock wall causes sight distance problems, as it prevents motorists from being able to see around the curve, which is particularly dangerous because the tight curvature makes it difficult for downhill-traveling motorists to stay in their lanes. On the outside of the curve is a steep cliff that rises above the Brazos River basin below as shown in Photograph C16. The WPA-built cut-stone rock wall, which is a contributing feature of the NRHP-eligible SH 16 road corridor, serves as a barrier between the roadway and cliff; however, the wall is not an adequate barrier to keep vehicles from going over the cliff into the basin below. Furthermore, the wall has sustained significant damage from past crashes (see Photographs D14 through D16). A June 30, 2003 letter from John Kimberlin, the property owner who owns the land surrounding SH 16 on Kimberlin Mountain, noted that TxDOT maintenance crews had repaired the wall “almost monthly” due to repeated crashes. Additionally, as noted above, approximately one-third of the crenellations on the rock wall have been completely replaced, unsympathetically repaired, or are missing.

Evidence of the problems posed by the geometric deficiencies and topographic challenges on Kimberlin Mountain are found in the crash data for SH 16 within the construction limits. **Table 2** presents the available crash data collected from 1992 to 2010. The data is divided into two main categories – 1) the number of crashes occurring within the constructions limits, except for those on Kimberlin Mountain, and 2) the number of crashes occurring within the 1-mile segment of SH 16 on Kimberlin Mountain. This data is presented by year and includes the number of injuries that were reported by the Texas Department of Public Safety. Please note that the number and location of fatalities occurring between 1992 and 2001 were not available.

Table 2: 1992 – 2010 Crash Data for SH 16 within the Construction Limits

Year	Number of crashes within construction limits NOT on Kimberlin Mountain (5-mile segment)	Number of crashes only on Kimberlin Mountain* (1-mile segment)	Number of injuries within construction limits NOT on Kimberlin Mountain (5-mile segment)	Number of injuries only on Kimberlin Mountain* (1-mile segment)
1992	2	4	2	3
1993	1	2	1	1

Table 2: 1992 – 2010 Crash Data for SH 16 within the Construction Limits

Year	Number of crashes within construction limits NOT on Kimberlin Mountain (5-mile segment)	Number of crashes only on Kimberlin Mountain* (1-mile segment)	Number of injuries within construction limits NOT on Kimberlin Mountain (5-mile segment)	Number of injuries only on Kimberlin Mountain* (1-mile segment)
1994	6	4	4	3
1995	1	1	1	1
1996	4	7	5	9
1997	7	3	6	6
1998	4	3	2	0
1999	1	0	1	0
2000	5	3	5	3
2001	2	4	1	3
2002	7	1	6	1
2003	0	2	0	1 (Fatality)
2004	10	0	0	5
2005	1	0	0	0
2006	3	1	1	0
2007	3	1	1	0
2008	7	3	5	0
2009	2	4	1	3
2010	5	1	0	0
TOTAL	71	44	42	39

*The section of SH 16 characterized as being on Kimberlin Mountain is between the intersections of FM 2353 at the north end of Kimberlin Mountain and Red Bluff Drive on the south end.

The above crash data show that a total of 115 accidents have occurred from 1992 to 2010 within the six miles of SH 16 included in the proposed project construction limits, and nearly 40 percent of those crashes have occurred within the 1-mile segment on Kimberlin Mountain. During the same 19 years, a total of 81 injuries have occurred within the construction limits, and nearly half of them occurred on Kimberlin Mountain, including one fatality in 2003 that occurred when a concrete truck crashed through the rock wall and rolled down the cliff. The disproportionate number of accidents and injuries that has occurred on Kimberlin Mountain in relation to the remainder of the construction limits illustrates the primary need for this safety improvement project.

Although the geometry on Kimberlin Mountain poses the primary safety concern, a secondary need of the proposed project results from the narrow width of the existing roadway. Within the construction limits, 4 miles of SH 16 (from PR 36 to 1,200 feet south of the Brazos River Bridge) has two 11-foot-wide travel lanes and no shoulders. This section of the roadway includes the 1-mile segment of SH 16 that is located on Kimberlin Mountain. The existing lane width and lack of shoulders do not meet current 3R design criteria for rural two-lane highways with an ADT of 1,300 VPD, which calls for 11-foot-wide travel lanes and 1-foot-wide shoulders (*TxDOT Roadway Design Manual*, Table 4-2).

The narrow roadway width poses several problems to the traveling public, particularly when comparing this segment of SH 16 to adjacent segments. There is no other section of SH 16 for several miles north or south of the project area that has no shoulders. As a result, motorists have to adjust to driving on a roadway with very little room for error, particularly on Kimberlin Mountain where vehicles regularly

cross the center stripe and/or drive off the pavement. Furthermore, when passing on a two-lane road such as SH 16, the motorist being passed cannot pull over onto the shoulder to ensure a safer passing maneuver. The crash data presented above revealed that some of the crashes were caused when one vehicle was trying to pass another vehicle. In addition, there is no place for motorists to safely pull over in the event of an emergency.

Another need of the proposed project is to avoid and/or minimize (if possible) impacts to the SH 16 roadway corridor and its contributing features, the Brazos River Nature Trail (the other Section 4(f) property in the project area), and other impacts to the human and natural environment. The highest potential for human impacts would most likely be displacements of residential, recreational, and/or commercial properties. Additionally, consistent accessibility to Red Bluff Drive should be maintained since it provides access to the powerhouse and the downstream side of the Morris Sheppard Dam. As such, maintaining access to Red Bluff Drive is a priority when considering the needs of the proposed project.

Furthermore, a proposed project need is to keep the Brazos River Bridge in service, since the bridge is structurally sound, and although there are no shoulders on the bridge's deck, there have been very few crashes in the vicinity of the bridge since 1992. Additionally, the Brazos River Bridge, which is a contributing feature of the SH 16 corridor and is individually eligible for the NRHP, is a rare stone-arch bridge. Historians who completed the statewide survey of Depression-era resources in Texas noted that the bridge was the largest stone-arch bridge and the only one of its type in the state. Unlike the majority of contributing resources located along the eligible SH 16 corridor, this bridge's workmanship and detailing can be more easily seen by the traveling public. This bridge possesses the most significance relative to the other masonry features within the SH 16 NRHP-eligible corridor due to the exceptional workmanship and engineering prowess. The bridge also possesses more relative significance than the Brazos River Nature Trail, which is a short, 1-mile trail and one of several trails surrounding Possum Kingdom Lake. As such, the Brazos River Bridge is given special consideration, and since keeping historic bridges in continued vehicular use is considered the best preservation option for these structures, impacts to this bridge should be avoided.

Avoiding and/or minimizing potential environmental impacts along SH 16 is also an objective of the proposed project. Identified environmental constraints in and around SH 16 include the following:

- Several species listed at the state and/or federal level as threatened or endangered are found in northwestern Palo Pinto County. According to the U.S. Fish and Wildlife (USFWS), there is the potential for the golden-cheeked warbler and black-capped vireo, both listed as endangered under the Endangered Species Act, to be located within the project area. Both of these species have been recorded along SH 16 within the proposed project limits south of the Brazos River, and potential habitat for these song birds (oak-juniper woodlands) occurs in and around the project area.²

² During 2011, two separate wildfires destroyed potential habitat for golden-cheeked warbler and black-capped vireo. Discussions with the USFWS in December 2011 revealed that they would like TxDOT to conduct a habitat assessment on the recommended alternative to assess regrowth of potential habitat during the nesting season

- The Brazos River provides potential nesting habitat for the interior least tern and is designated as a state mussel sanctuary. Impacting the Brazos River could also trigger coordination with the United States Army Corps of Engineers and the need for permits under Section 404 of the Clean Water Act.
- Riparian vegetation along the Brazos River provides a buffer area to help protect water quality in the river and provides important wildlife habitat.

3.2 Project Purpose

The purpose of the proposed project is to provide safe and efficient travel along SH 16 with the geometric design and adequate roadway width to meet the current and projected traffic requirements. The purpose of the proposed project is also to correct these safety deficiencies while avoiding and/or minimizing impacts to Section 4(f) resources and without causing substantial impacts to the human or natural environment. An additional purpose of the proposed project is to meet the project needs while considering the expenditure of public monies.

4.0 ALTERNATIVES ANALYSIS

The “use” of historic transportation corridors and transportation resources occurs when the proposed action adversely affects the resource by impairing its historic integrity either by rehabilitation or demolition. As noted above, the proposed action poses an adverse effect to the NRHP-eligible SH 16 roadway corridor alignment, one contributing masonry culvert, and the rock wall on Kimberlin Mountain. The purpose of the following alternatives analysis is to determine if there is a feasible and prudent alternative that avoids the “use” of the Section 4(f) property.

Since the proposed project’s inception in 2003, project engineers have considered a range of alternatives – from 13 initial build alternatives to five build alternatives, and further refined to the three build alternatives presented in the Alternatives Analysis below. Originally, engineers considered 13 build alternatives in order to explore all potential options to achieve the purpose of the proposed project. After consideration of these 13 build alternatives, five build alternatives were studied further. Three of these five alternatives called for the replacement of the Brazos River Bridge, which is a contributing feature to the NRHP-eligible historic district and is individually eligible. As noted in **Section 3.1**, a need of the proposed project is to avoid the “use” of the Brazos River Bridge due to its relative significance to the other Section 4(f) resources in the project area. As a result, TxDOT engineers re-evaluated the alternatives that replaced the bridge as discussed below.

There is no indication that the Brazos River Bridge is structurally unsound, and review of accident data indicates that few accidents occurred at the bridge between 1992 and 2010. Therefore, project engineers eliminated or redrew alternatives to avoid replacing or bypassing the bridge for several reasons. First, the proposed project’s purpose centers on improving safety within the project corridor. Since few accidents have occurred at the bridge and no structural deficiencies with the bridge are evident, the existing bridge poses no proven safety hazard to the traveling public. Second, alternatives that replaced or bypassed the

before construction. It should be noted that potential habitat acreage totals included in the Alternatives Analysis below reflect current (post-fire) conditions.

bridge had an additional cost of at least \$2,700,000 for the construction of a new bridge structure. Since a new bridge is not required to meet the Need and Purpose of the proposed project, the alternatives that called for the replacement or bypass of the existing bridge skewed the cost analysis in favor of alternatives that did not call for the construction of a new bridge over the Brazos River. In summary, previously considered alternatives that posed replacing or bypassing the Brazos River Bridge unnecessarily called for adversely affecting a Section 4(f) resource and unnecessarily increased the cost of the proposed project. Therefore, these alternatives were either eliminated or redrawn, and all the build alternatives presented in detail in this Alternatives Analysis call for the continued vehicular service of the existing Brazos River Bridge and tie into the existing alignment north of the bridge.

The following Alternatives Analysis presents three build alternatives and the No-Build Alternative that were identified through the process described above. The discussion first outlines the avoidance alternatives that were identified by project engineers. In accordance with 23 CFR 774.17, these avoidance alternatives consider options that avoid the “use” of any of the Section 4(f) properties or their contributing features. Then the use alternative, which would adversely affect one or more Section 4(f) properties, is presented and evaluated.

The following alternatives were considered by project engineers and are discussed below:

Alternative 1: No-Build

Alternative 2: New alignment bypass east of SH 16

Alternative 3: Partial new alignment east of SH 16

Alternative 4: Realign SH 16 at Kimberlin Mountain

A comparison of the four alternatives is presented in **Table 3** at the end of this section.

4.1 Alternative 1 (No-Build)

Alternative 1 is the No-Build Alternative, which would result in the existing SH 16 roadway remaining in its existing condition and on its existing alignment. Although this alternative would not require the expenditure of public funds for realigning and widening the SH 16 roadway, associated costs would be required for the repair of the rock wall on Kimberlin Mountain, which is routinely damaged. The No-Build Alternative would not result in an adverse effect to any of the Section 4(f) resources within the project area, including the SH 16 roadway corridor, the corridor’s contributing features, the Brazos River Bridge, or the Brazos River Nature Trail. As a result, Alternative 1 would not result in the “use” of a Section 4(f) property.

Although Alternative 1 is feasible, this alternative is not prudent since it does not meet the proposed project’s stated Need and Purpose. If the geometric deficiencies and sight distance problems on Kimberlin Mountain noted in **Section 3.1 Project Needs** were to remain unchanged, it is reasonable to expect that accidents would continue to occur on Kimberlin Mountain at a rate that is disproportionate to other sections of the roadway. As a result, injuries and fatalities in this 1-mile segment of SH 16 would likely persist. If the No-Build Alternative were selected, it is also likely that vehicles would collide with the rock wall on Kimberlin Mountain in the future, and damage to this historic resource would continue.

Also, if the majority of SH 16 within the proposed project limits remained a two-lane facility with no shoulders, the traveling public would still have little room to maneuver and move off of the travel lanes during passing movements or in an emergency situation. The routine maintenance that would occur as a result of choosing this alternative would not address the safety problems that exist on this roadway.

4.2 Alternative 2 (New alignment bypass east of SH 16)

Alternative 2 is an alternative that would not result in the “use” of any Section 4(f) property, and therefore it is considered an avoidance alternative. This alternative involves the construction of a road that is on new alignment east of the existing SH 16 roadway from SH 254 to the north end of the Brazos River Bridge. It would traverse several ranch properties to the east of SH 16. This alternative would require the purchase of a 120-foot-wide to a 200-foot-wide ROW for the length of the new road, which would be 5.23 miles long. The new road would be a two-lane facility with 12-foot-wide travel lanes and 8-foot-wide shoulders per *TxDOT Roadway Design Manual* guidance for 4R construction projects. A 12-foot-wide climbing lane would also be included for northbound traffic as the roadway climbs out of the Brazos River Valley. This alternative would tie into the existing SH 16 alignment immediately north of the Brazos River Bridge. At the existing SH 16 alignment, the roadway would be widened to have 12-foot-wide travel lanes and 4-foot shoulders (see **Figures 3.1** through **3.3** for Alternative 2 alignment in **Appendix A** and Proposed Typical Sections for Alternative 2 in **Appendix B**).

Although construction of Alternative 2 is feasible, it is not prudent for several reasons. First, the impacts to the human and natural environment would be substantially higher than other alternatives, and such impacts are not justifiable in relation to maintaining the historic integrity of the Brazos River Bridge, the historic SH 16 roadway corridor, and its contributing features. Impacts to the human environment include bisecting 17 parcels, which are primarily ranching properties. This would require the displacement of one residence near the intersection of SH 16 and SH 254. Alternative 2 would also result in substantial impacts to the natural environment. There is potential habitat for the golden-cheeked warbler and black-capped vireo within this alignment. If Alternative 2 were selected, an estimated 45.6 acres of potential endangered avian species habitat vegetation would be impacted and converted for use as a transportation facility. Under Alternative 2, there will be no acquisition of or impacts to riparian vegetation, potential interior least tern habitat, state mussel sanctuary, or the other Section 4(f) property (the Brazos River Nature Trail).

This alternative would require the acquisition of 98.13 acres of new ROW from seven property owners, which would cost \$8,560,000. Such costs are extraordinary in relation to meeting the stated safety concerns in **Section 3.1 Project Needs**. Lastly, if this alternative were selected, the existing SH 16 roadway would have to remain open because access would need to be maintained to several facilities (including the Possum Kingdom State Fish Hatchery and the Morris Sheppard Dam powerhouse), residences, and commercial properties. As such, the geometric deficiencies of the roadway would not be remedied, and costs associated with constructing a road on new alignment and maintaining an existing facility would be of an extraordinary magnitude that outweighs the benefits of avoiding the “use” of the Section 4(f) resources along SH 16. The total cost to complete Alternative 2 is estimated to be \$40,300,000, which includes:

- Road construction: \$31,740,000
- Utility relocation: N.A.
- ROW acquisitions: \$8,560,000

4.3 Alternative 3 (Partial new alignment east of SH 16)

Since Alternative 3 is an alternative that would not result in the “use” of any Section 4(f) property, it is considered an avoidance alternative. This alternative involves a combination of upgrading and widening 4.85 miles of the existing facility and constructing 2.58 miles of new-location roadway. Progressing from north to south, this alignment would utilize the existing facility for approximately three miles. The SH 16 existing roadway would be widened to have 12-foot-wide travel lanes and 8-foot-wide shoulders. The intersection of SH 16 and PR 36 would be reconfigured into a T-intersection to improve the turning radius for motorists turning onto the SH 16 southbound lane from PR 36.

Alternative 3 calls for a new alignment roadway to be built east of the existing alignment approximately three miles south of SH 254, so that SH 16 on Kimberlin Mountain would be bypassed. In accordance with 4R criteria, the roadway on new location would have 12-foot-wide travel lanes and 8-foot shoulders, as well as a 12-foot-wide climbing lane for northbound traffic as the roadway climbs out of the Brazos River Valley. South of Kimberlin Mountain, near the southernmost fish hatchery ponds, the roadway would tie back into the existing facility, which would be widened to have 12-foot-wide travel lanes and 4-foot-wide shoulders. This alternative would utilize the existing Brazos River Bridge to cross the river. **Figures 3.1** through **3.3** show the Alternative 3 alignment in **Appendix A**, and the Proposed Typical Sections for Alternative 3 are included in **Appendix B**.

While Alternative 3 is feasible, it is not prudent because it would not meet the Need and Purpose of the proposed project, it would cause impacts to other resources, and its costs are not justifiable for a safety improvement project. First, the existing roadway would have to stay open to provide access to the Possum Kingdom State Fish Hatchery and the downstream side of the Morris Sheppard Dam. In doing so, the geometric deficiencies of the road would not be resolved. This alignment would also require the purchase of a 120-foot-wide to 200-foot-wide ROW for approximately 2.58 miles, and the land for the new-alignment section would require ROW acquisition that would impact seven parcels. Alternative 3 would also result in relatively high impacts to the natural environment. Alternative 3 would remove approximately 0.5 acre of potential endangered avian species habitat that would be converted into a transportation facility. Under Alternative 3, there would be no impacts to riparian vegetation, potential interior least tern habitat, state mussel sanctuary, or the Brazos River Nature Trail. Constructing Alternative 3 would require the acquisition of approximately 38.96 acres of new ROW from one property owner. The total costs are estimated to be \$19,600,000, which includes:

- Road construction: \$16,180,000
- Utility relocation: \$160,000
- ROW acquisitions: \$3,260,000

4.4 Alternative 4 (Realign SH 16 on Kimberlin Mountain)

Alternative 4 consists of realigning SH 16 on Kimberlin Mountain, and would constitute a “use” under Section 4(f). Alternative 4 would consist of utilizing the existing alignment with the exception of a half-mile section of new-location roadway on Kimberlin Mountain. The new alignment section would begin approximately 1,000 feet south of FM 2353, traverse Kimberlin Mountain on new location, and tie into the existing SH 16 roadway approximately 600 feet north of the SH 16/Red Bluff Drive intersection. A climbing lane for northbound traffic would be constructed, which would terminate at the top of Kimberlin Mountain as a left turn lane for turning movements onto FM 2353. Additionally, at the base of Kimberlin Mountain, the SH 16/Red Bluff Drive intersection would be realigned to improve sight distance for motorists turning from Red Bluff Drive onto SH 16. Similar to Alternative 3, Alternative 4 includes the reconfiguration of the SH 16/PR 36 intersection as a T-intersection.

The new-alignment section of the roadway would be designed to 4R criteria because it involves a major horizontal and vertical realignment of the roadway. The vertical alignment of this section of roadway would have a 7.4 percent grade, which is within TxDOT’s design criteria for 4R projects. The SH 16 roadway on new alignment would be a two-lane facility with 12-foot-wide travel lanes, a 12-foot-wide climbing lane, and 8-foot-wide shoulders per *TxDOT Roadway Design Manual* guidance for 4R construction projects (see the proposed typical sections in **Appendix B** to follow this discussion regarding proposed roadway width). To match the width of the new alignment section of the roadway, the existing SH 16 roadway from SH 254 to the new alignment segment would be widened to include two 12-foot travel lanes and 8-foot shoulders. The roadway segment between the new alignment and the NRHP-eligible Brazos River Bridge would include two 12-foot-wide travel lanes and 5-foot-wide shoulders. Narrowing the shoulder width in this section would serve to transition between the new-alignment section (with its 12-foot-wide travel lanes and 8-foot shoulders) and the Brazos River Bridge (with its 11-foot-wide travel lanes and no shoulders). A Share the Road sign would be added to the north and south approaches of the Brazos River Bridge to indicate that bicyclists may use the bridge. The gradual narrowing of the shoulders would also allow for the preservation of Culvert 1N, a contributing feature of the NRHP-eligible roadway (see **Figure 3.1**).

This alternative meets the stated Need and Purpose of the proposed project, as it would address the geometric issues on Kimberlin Mountain. It would not only correct the horizontal alignment issues, but it would also eliminate the hazard posed by the combination of the steep cliff and tight curve. This alternative would also result in the widening of the roadway between SH 254 and the Brazos River. Providing shoulders and widening the travel lanes would allow for safer mobility for the traveling public.

As noted above, this alternative results in a “use” of the Section 4(f) historic roadway corridor and its contributing features. First, realigning the roadway would cause an adverse effect since the road’s alignment is a character-defining feature. Second, the historic corridor would be impacted by completely covering one contributing resource (an un-widened masonry box culvert labeled as Resource No. 10 on **Figure 3.1**) near Red Bluff Drive. Although the culvert to be covered no longer properly functions for drainage, covering the culvert would result in an adverse effect to this contributing resource.

While Alternative 4 would pose a “use” to the Section 4(f) property and its contributing features, the alternative is prudent for several reasons. First, it meets the stated Need and Purpose of the proposed project. Second, with the exception of Alternative 1 (the No-Build Alternative), this alternative requires the least amount of new ROW (9.32 acres), and no residential or business displacements would occur as part of Alternative 4. Furthermore, John Kimberlin, the owner of the land surrounding the SH 16 roadway, has indicated to TxDOT through written correspondence that he would be in favor of the proposed project due to the number of accidents on the roadway. Under this alternative, approximately 0.4 acre of the new ROW would be located within potential endangered species habitat. Under Alternative 4, there would be no impacts to riparian vegetation, potential interior least tern habitat, state mussel sanctuary, or the Brazos River Nature Trail. The total costs associated with Alternative 4 are estimated to be \$10,270,000, which includes:

- Road construction: \$8,855,000
- Utility relocation: \$360,000
- ROW acquisitions: \$1,055,000

Table 3 summarizes Alternatives 1 through 4.

5.0 RECOMMENDED ALTERNATIVE

TxDOT proposes to upgrade and rehabilitate SH 16 within the proposed project’s construction limits - from SH 254 to 1,200 feet south of the Brazos River. This is the only feasible and prudent alternative, and therefore, Alternative 4 is the recommended alternative.

6.0 MEASURES TO MINIMIZE HARM

In addition to evaluating if there is a feasible and prudent avoidance alternative, 23 CFR 774 requires the consideration of all possible planning to minimize harm to the historic Section 4(f) property. Determined on a project-by-project basis, measures to minimize harm to Section 4(f) properties are generally grouped into two categories: Planning Efforts and Mitigation. Planning Efforts occur during the project development phases, prior to the completion of the Section 4(f) process. Mitigation includes actions that will be taken to compensate for residual impacts to the Section 4(f) property. Both types of measures are important to consider and incorporate in projects.

6.1 Planning Efforts

TxDOT has undertaken planning efforts during the project development process to minimize harm to the Section 4(f) resource. In addition to the numerous planning meetings within and between TxDOT and FHWA, planning efforts have involved early coordination with various federal, state, and local agencies (including the Texas SHPO) and affected landowners regarding this project since 2004. Coordination efforts are outlined and described below.

In February 2004, TxDOT Historians presented details of the proposed project to SHPO staff to discuss how to minimize impacts to the NRHP-eligible resources, particularly on Kimberlin Mountain. The result

Table 3: Evaluation Matrix Alternative

Alternative	Does the alternative “use” any of the Section 4(f) properties?	Meets the need and purpose of the project?	Costs (in millions)				New ROW (Acres)/ New Location (Miles)	Human or Natural Environment Impacts?	Constructability/Safety/ Design Issues?
			Road Construction (\$)	Utility Relocation (\$)	New ROW (\$)	Total cost (\$)			
Alternative 1: No-Build	No	No	None	None	None	None	None	None	The existing geometric deficiencies on Kimberlin Mountain would remain in place, and the majority of the existing roadway’s narrow width would still not meet TxDOT’s minimum design standards.
Alternative 2: New alignment bypass east of SH 16	No	No	\$31,740,000	N.A.	\$8,560,000	\$40,300,000	98.13 acres/ 5.23 miles	This alternative would result in ROW acquisition from seven property owners, and result in one residential displacement. It would impact approximately 45.6 acres of potential endangered species habitat.	The existing SH 16 corridor would have to remain open; therefore, the geometric deficiencies on Kimberlin Mountain would remain in place, and the majority of the existing roadway’s narrow width would still not meet TxDOT’s minimum design standards.
Alternative 3: Partial new alignment east of SH 16	No	No	\$16,180,000	\$160,000	\$3,260,000	\$19,600,000	38.96 acres/ 2.58 miles	This alternative would require ROW acquisition from one property owner, and it would require 0.5 acre of potential endangered species habitat.	The existing SH 16 corridor would have to remain open; therefore, the geometric deficiencies on Kimberlin Mountain would remain in place, and the majority of the existing roadway’s narrow width would still not meet TxDOT’s minimum design standards.
Alternative 4: Realign SH 16 on Kimberlin Mountain	Yes (SH 16 alignment, rock wall on Kimberlin Mountain, one masonry culvert near Red Bluff Drive)	Yes	\$8,855,000	\$360,000	\$1,055,000	\$10,270,000	9.32 acres/ 0.53 mile	This alternative would require ROW acquisition from one property owner and would impact approximately 0.4 acre of potential endangered species habitat.	None

of this meeting was a change in the project design in 2004, which involved the reduction of the curve at the bottom of Kimberlin Mountain, from a two-degree curve to a one-degree curve to maintain as much of the original alignment as possible.

In April 2004, TxDOT sent a letter to the Palo Pinto CHC, asking if they would like to participate in the planning of the proposed project. The CHC did not respond to TxDOT's letter. That same month, TxDOT also met with Texas Parks and Wildlife Department (TPWD) staff to discuss the impacts of the proposed action to the Possum Kingdom State Fish Hatchery. At that time, TPWD staff indicated that if any potential hiking trail is constructed as mitigation for the proposed project, TPWD does not want the responsibility of maintaining any trail that would not be on their land.

In March 2005, TxDOT designers, environmental staff, and FHWA met with SHPO staff and John Kimberlin (the property owner who owns the land surrounding SH 16 on Kimberlin Mountain) to discuss proposed project impacts and options for mitigating the bypass of the rock wall on Kimberlin Mountain and the realignment of SH 16. The mitigation options included the creation of a roadside park on the existing SH 16 roadway alignment after the new-location segment of the road was completed. As a result of the meeting, TxDOT commissioned a visualization study for a roadside park on the existing SH 16 alignment.

In April 2005, the SHPO contacted the Palo Pinto CHC regarding the proposed project to involve them in the Section 106 process as a potential consulting party since no response was received following TxDOT's April 2004 letter. The organization did not respond to the SHPO's letter.

In December 2005, TxDOT met with John Kimberlin and discussed the possibility of creating a preservation easement where the existing SH 16 is located on Kimberlin Mountain. The easement would be given to him by quit-claim from Palo Pinto County. Mr. Kimberlin was receptive to the idea, but voiced his opposition regarding public access due to maintenance and concerns of illegal dumping of trash onto his property, which already occurs on SH 16 at Kimberlin Mountain.

In April 2006, TxDOT granted Preservation Texas, a statewide non-profit historic preservation organization, consulting party status for the SH 16 project. In 2006 and 2007, TxDOT discussed a possible land swap with Mr. Kimberlin. This would involve his donation of the 9.32 acres of proposed new ROW in exchange for Palo Pinto County's quit-claim deed of the six acres where the existing SH 16 alignment is located to John Kimberlin. Mr. Kimberlin again indicated that he was unwilling to allow public access once a quit-claim deed is signed, but he would be willing to protect the rock wall through deed restrictions, which include not developing the land on which the roadway now exists, repairing the wall to its current condition, not removing vegetation from what is now the ROW, allowing the Palo Pinto Precinct County Commissioner access to verify compliance with deed restrictions, and giving Palo Pinto County the authority to enforce the covenants.

Between 2008 and 2010, the proposed project was temporarily suspended due to budget constraints. When the proposed project was reinitiated in December 2010, TxDOT re-evaluated the need to construct a new bridge across the Brazos River and determined that the construction of a new bridge would not be

necessary. Since the construction of the replacement of the Brazos River Bridge was a major concern raised by the SHPO prior to 2010, this planning effort avoided adverse effects to the historic bridge.

In the spring of 2011, TxDOT formally began historic resources studies for the proposed project. Around the same time, TxDOT prepared a Public Involvement Plan (PIP), which was sent to SHPO and FHWA to outline how public involvement would be completed for NHPA Section 106 and National Environmental Policy Act (NEPA) compliance. As part of the PIP, TxDOT invited the following groups to be consulting parties on the proposed project:

- Historic Bridge Foundation (HBF) – This national historic preservation advocacy group was invited due to potential impacts to the Brazos River Bridge.
- John Kimberlin – As an affected private property owner, Mr. Kimberlin was invited since the proposed action would require ROW from his land.
- Palo Pinto CHC – As a local preservation organization, the CHC was invited for the third time to participate in the Section 106 process.
- Preservation Texas – TxDOT reconfirmed that this statewide non-profit historic preservation organization was still considered a consulting party under Section 106, and TxDOT informed the organization that the proposed project was reinitiated.

All invited consulting parties, with the exception of the HBF, accepted TxDOT's invitation to be consulting parties. In September 2011, the consulting parties were sent copies of the HRSR and were requested to provide TxDOT comments on the NRHP eligibility and/or assessment of adverse effects included in the report. TxDOT received one comment from the consulting parties on the HRSR, which was sent by the CHC. This comment noted that the CHC agreed that SH 16 would be adversely affected, and they noted an objection to giving the existing SH 16 alignment on Kimberlin Mountain to John Kimberlin.

After informal conversations with the Palo Pinto County Judge and the CHC, TxDOT decided to call a meeting of the pertinent governmental agencies and Section 106 consulting parties to discuss the proposed project, the agencies' construction and post-construction issues, and potential mitigation options. At the December 2011 meeting, the CHC stated that they would like the existing SH 16 alignment on Kimberlin Mountain to be retained by Palo Pinto County after the construction, with the intent of creating a park on the existing alignment of the roadway. The CHC representatives, the County Judge, and Mr. Kimberlin determined they would meet informally to discuss options and present a plan to TxDOT.

On March 15, 2012, the Palo Pinto CHC and the County Judge signed a letter requesting that the existing SH 16 alignment on Kimberlin Mountain be turned over to the County for the creation of an interpretive park.

6.2 Mitigation

In accordance with Section 106 of the NHPA, and the Programmatic Agreement for Transportation Undertakings (PA-TU) between the Texas SHPO, TxDOT, FHWA, and the Advisory Council on Historic Preservation, TxDOT coordinated its mitigation proposal with the SHPO. On August 9, 2012, TxDOT proposed the following mitigation for the adverse effects posed to Resource No. 1 and its 18 contributing features:

- TxDOT will provide the CHC copies of the photographs of Resource No. 1 and its 18 contributing features that were taken during the historic resources survey.
- Palo Pinto County has indicated their interest in establishing an interpretive park in the future on Kimberlin Mountain where the existing SH 16 roadway is currently located. TxDOT will complete a Quit Claim Deed to Palo Pinto County Commissioners' Court releasing all interest in the existing SH 16 alignment on Kimberlin Mountain that will be bypassed. TxDOT will construct a driveway from the edge of pavement to the proposed ROW line for access to a future interpretive park. The location of the driveway will be determined in coordination with Palo Pinto County and will meet TxDOT's Access Management Policy and all other safety-related requirements.
- TxDOT will denote the existing masonry headwalls of the adversely affected contributing culvert (Resource No. 10) to the Palo Pinto CHC, who expressly requested the stone for a future display.

On August 30, 2012, the SHPO concurred with the mitigation proposal that TxDOT set forth. However, the SHPO also requested that TxDOT nominate the SH 16 roadway and its contributing features to the NRHP due to the significance of the resources. TxDOT completed a NRHP nomination for the roadway in March 2013, which was approved by the Texas Historical Commission (THC) State Board of Review in October 2013. The nomination is currently at the THC for final processing prior to submission to the National Park Service for listing on the NRHP.

In the Fall of 2014, TxDOT sent letters to the three consulting parties (Palo Pinto CHC, John Kimberlin, and Preservation Texas) and requested their final concurrence on the mitigation outlined above. All letters stated that the parties had a 30-day review period and if no response was received within 30 days, their concurrence would be assumed. In September and October 2014, the two Palo Pinto CHC chairpersons and John Kimberlin signed their concurrence of TxDOT's mitigation proposal. Preservation Texas did not respond within 30 days of the receipt of their letter and, therefore, their concurrence is assumed (see **Appendix E** for a copy of the aforementioned 2014 letters).

7.0 CONSULTATION EFFORTS

Below is a summary of coordination efforts with agencies and consulting parties completed to date:

- April 2004 – TxDOT contacted the Palo Pinto CHC regarding the proposed project to involve them in the Section 106 review process as a consulting party. TxDOT did not receive a response.

- April 12, 2005 – The SHPO contacted the Palo Pinto CHC regarding the proposed project to involve them in the Section 106 review process as a consulting party. Neither the SHPO nor TxDOT received a response.
- November 8, 2005 – The SHPO copied TxDOT on an inter-office memorandum from the SHPO to the Chairman of the Texas Historical Commission informing him of the proposed project. The memorandum also included the SHPO’s position on the proposed project.
- April 20, 2006 – Preservation Texas, a statewide non-profit historic preservation organization, was granted consulting party status for the SH 16 project.
- July 19, 2011 – TxDOT invited the Palo Pinto CHC to be a consulting party under Section 106 of the NHPA.
- July 19, 2011 – TxDOT invited John Kimberlin to be a consulting party under Section 106 of the NHPA.
- July 25, 2011 – John Kimberlin requested to be a consulting party under Section 106.
- August 14, 2011 – Palo Pinto CHC requested to be a consulting party under Section 106.
- September 2, 2011 – TxDOT sent the HRSR completed as part of the Section 106 process to the Palo Pinto CHC, John Kimberlin, and Preservation Texas (see **Appendix E** for a copy of this letter).
- September 29, 2011 – TxDOT received a letter from the Palo Pinto CHC noting that they agreed with the HRSR’s evaluation of NRHP-eligibility of the inventoried resources and assessment of effects on the proposed project. The Palo Pinto CHC did, however, note that they would like to explore options to create a park on Kimberlin Mountain and have Palo Pinto County retain ownership of the existing ROW on Kimberlin Mountain (see **Appendix E** for a copy of this letter).
- December 6, 2011 – TxDOT conducted a meeting with pertinent agencies and Section 106 consulting parties to discuss the proposed project and potential mitigation options.
- February 15, 2012 – TxDOT sent the HRSR to the SHPO for review and concurrence. In their correspondence, TxDOT determined that the SH 16 roadway corridor is a historic district with 18 contributing features, and the Brazos River Bridge is individually NRHP-eligible. TxDOT also determined these resources were the only NRHP-eligible resources located in the proposed project’s Area of Potential Effect. The SHPO concurred with these determinations on February 24, 2012 (see **Appendix E** for a copy of this coordination letter).
- March 6, 2012 – TxDOT conducted a public meeting on the proposed project. Many members of the public asked that the Brazos River Bridge be retained, and all oral and written comments were favorable towards TxDOT’s recommended alternative.

- March 15, 2012 – TxDOT received a letter from the Palo Pinto CHC and County Judge requesting several actions, including the request that the existing SH 16 alignment on Kimberlin Mountain be retained by the County, with intent of creating an interpretative park (see **Appendix E** for a copy of this letter).
- April 16, 2012 – TxDOT sent a response letter to the County Judge answering the questions posed in the March 16, 2012 letter, and mitigative actions that TxDOT would take per the Palo Pinto CHC and County Judge’s request (see **Appendix E** for a copy of this letter).
- June 8, 2012 – Judge Nicklas concurred with the mitigative actions TxDOT proposed and the responses they provided in their April 16, 2012 letter (see **Appendix E** for a copy of this letter).
- August 9, 2012 – TxDOT proposed mitigation to the SHPO (see **Appendix E** for a copy of this letter).
- August 30, 2012 – The SHPO concurred with TxDOT’s mitigation proposal and requested that TxDOT complete an NRHP nomination for the SH 16 roadway and its contributing features (see **Appendix E** for a copy of this letter).
- August 30, 2012 – The SHPO indicated their concurrence with TxDOT’s draft of the Section 4(f) Evaluation by signing page 3 of TxDOT’s August 9, 2012 letter (see **Appendix E** for a copy of this letter).
- September 16, 2014 – Palo Pinto CHC co-chairperson, Mike Lewis, signed his final concurrence of TxDOT’s mitigation proposal by signing TxDOT’s September 12, 2014 letter.
- September 18, 2014 – Palo Pinto CHC co-chairperson, Ann Reagan, signed her final concurrence of TxDOT’s mitigation proposal by signing TxDOT’s September 12, 2014 letter.
- October 3, 2014 – John Kimberlin signed his final concurrence of TxDOT’s mitigation proposal by signing TxDOT’s September 4, 2014 letter.
- October 14, 2014 – TxDOT requested Preservation Texas’ concurrence of TxDOT’s mitigation proposal by letter. Preservation Texas did not respond within the 30-day comment period; therefore, their concurrence is assumed.

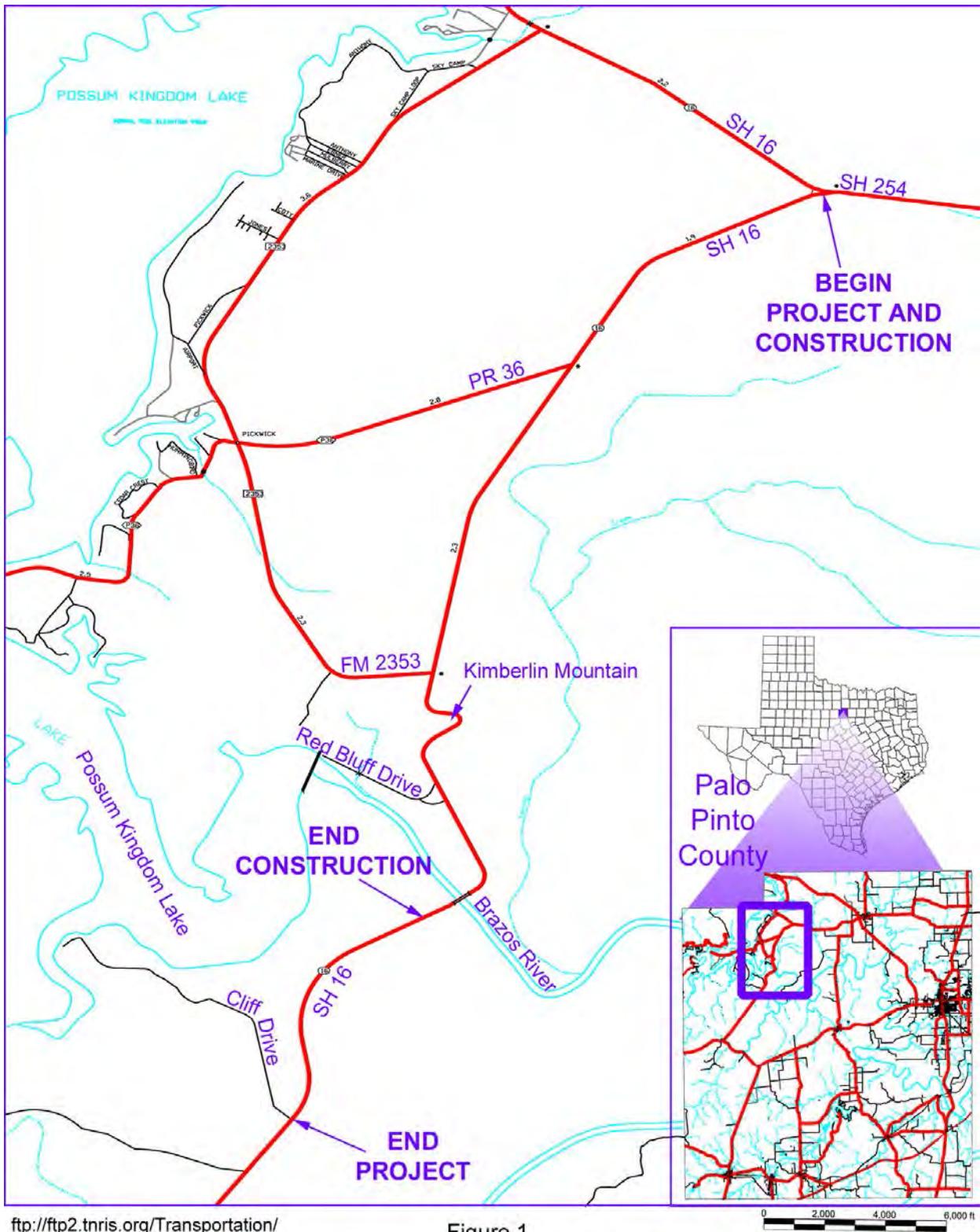
8.0 CONCLUSION

The recommended alternative is Alternative 4, and based on the above considerations, there is no feasible and prudent alternative to the use of the Section 4(f) property, the NRHP-eligible SH 16 roadway. The proposed action includes all possible planning to minimize harm to the property resulting from such use.

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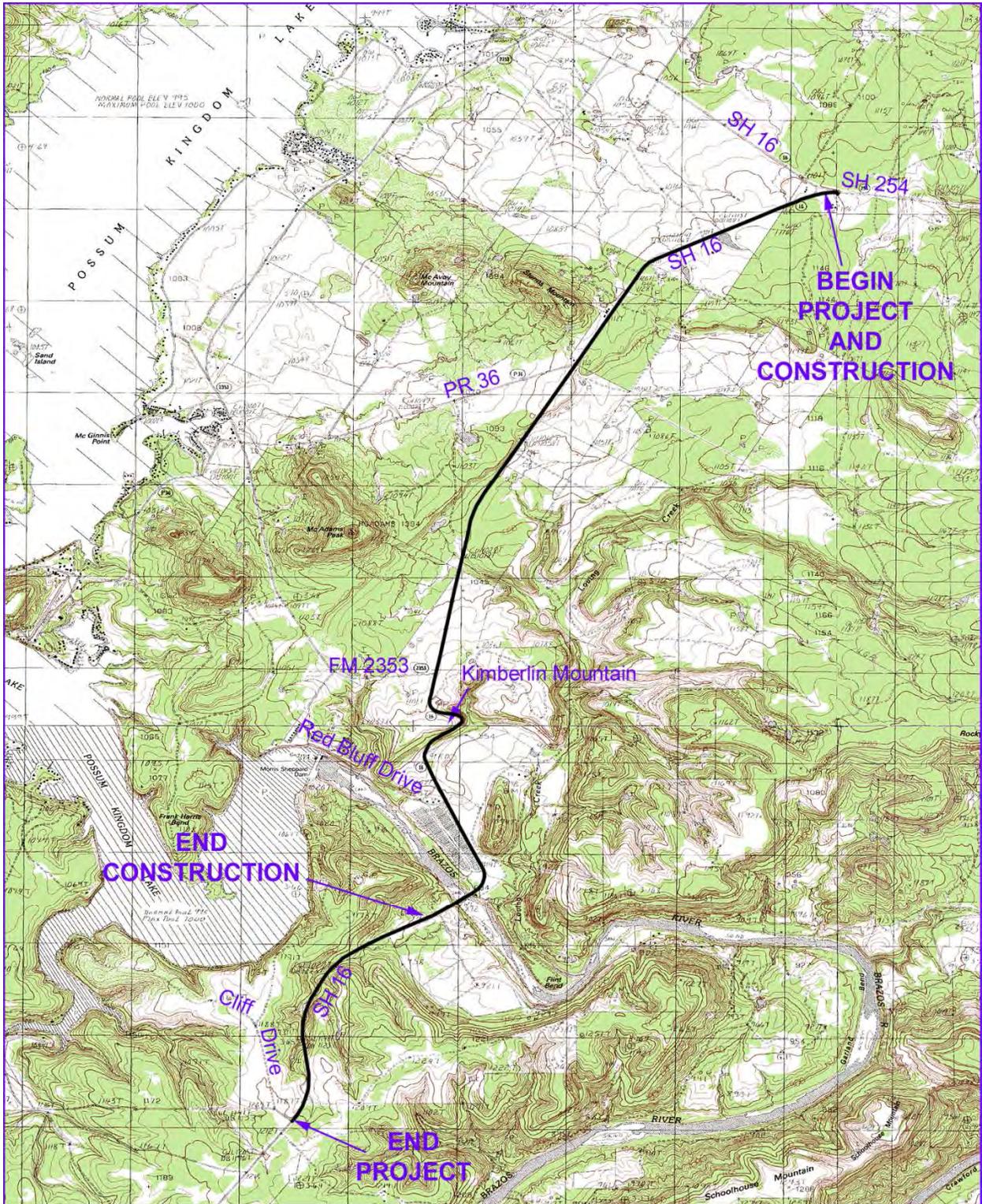
Section 4(f) Appendix A
Project Location and Alternative Maps

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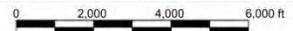
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 Accessed 7/09

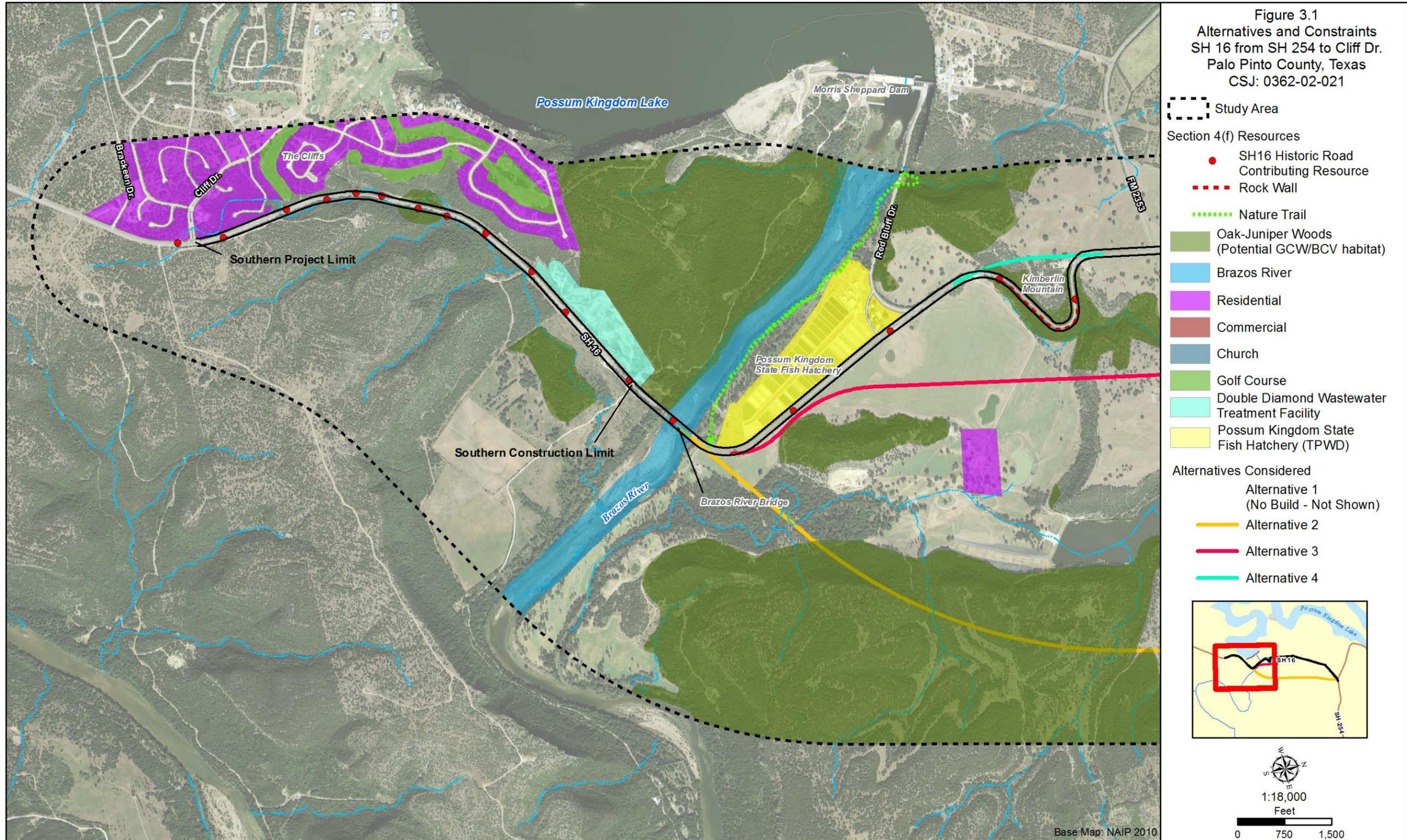
Figure 1
 Project Location on County Base Map
 SH 16 from SH 254 to Cliff Drive
 Palo Pinto County
 CSJ: 0362-02-021



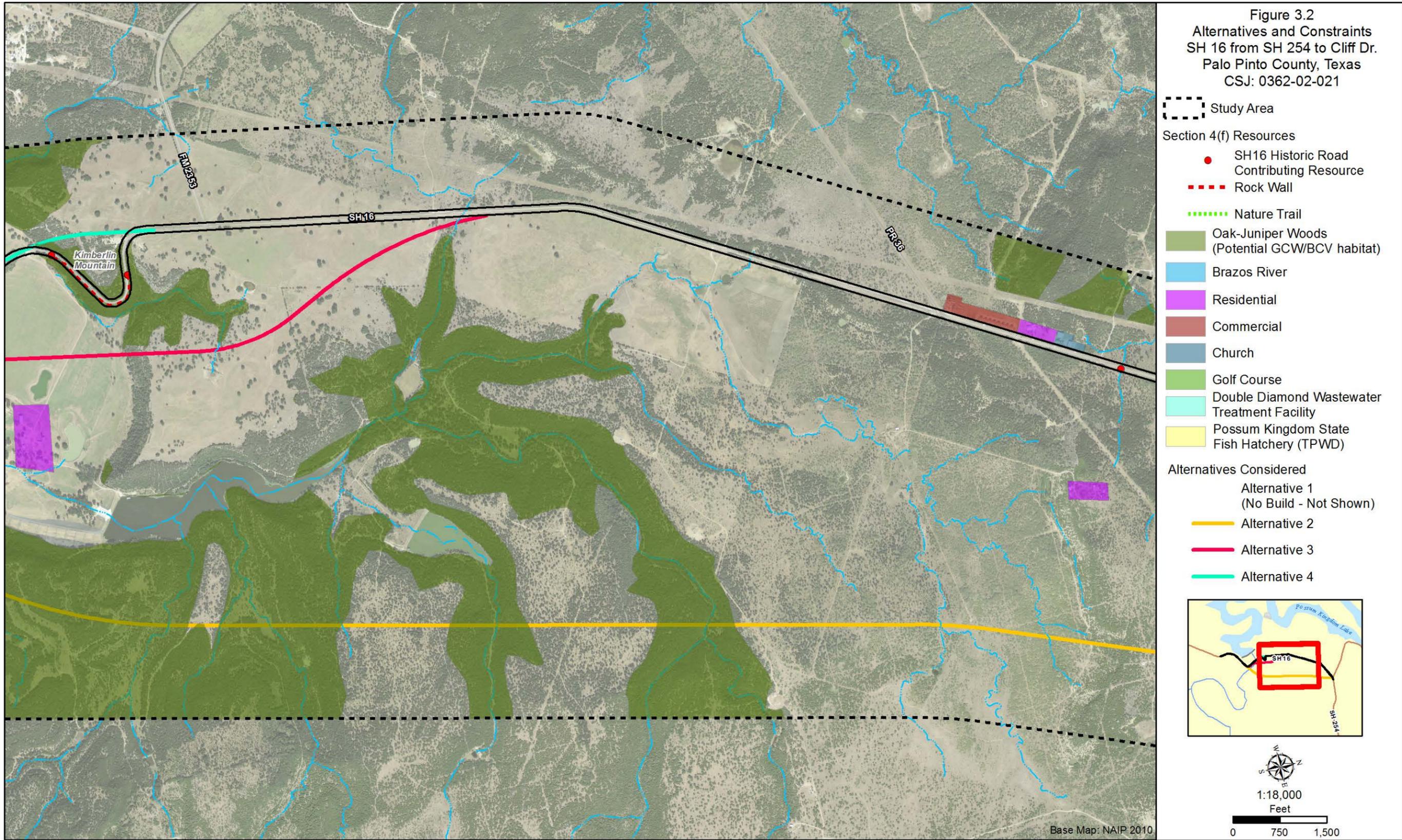
Base map: 7.5' USGS topographic quadrangles, Costello Island, Fortune Bend, Graford West, and Palo Pinto, Texas
<http://www.tnris.state.tx.us/datadownload/download.jsp>
 Accessed 7/09

Figure 2
 Project Location on USGS Base Map
 SH 16 from SH 254 to Cliff Drive
 Palo Pinto County
 CSJ: 0362-02-021

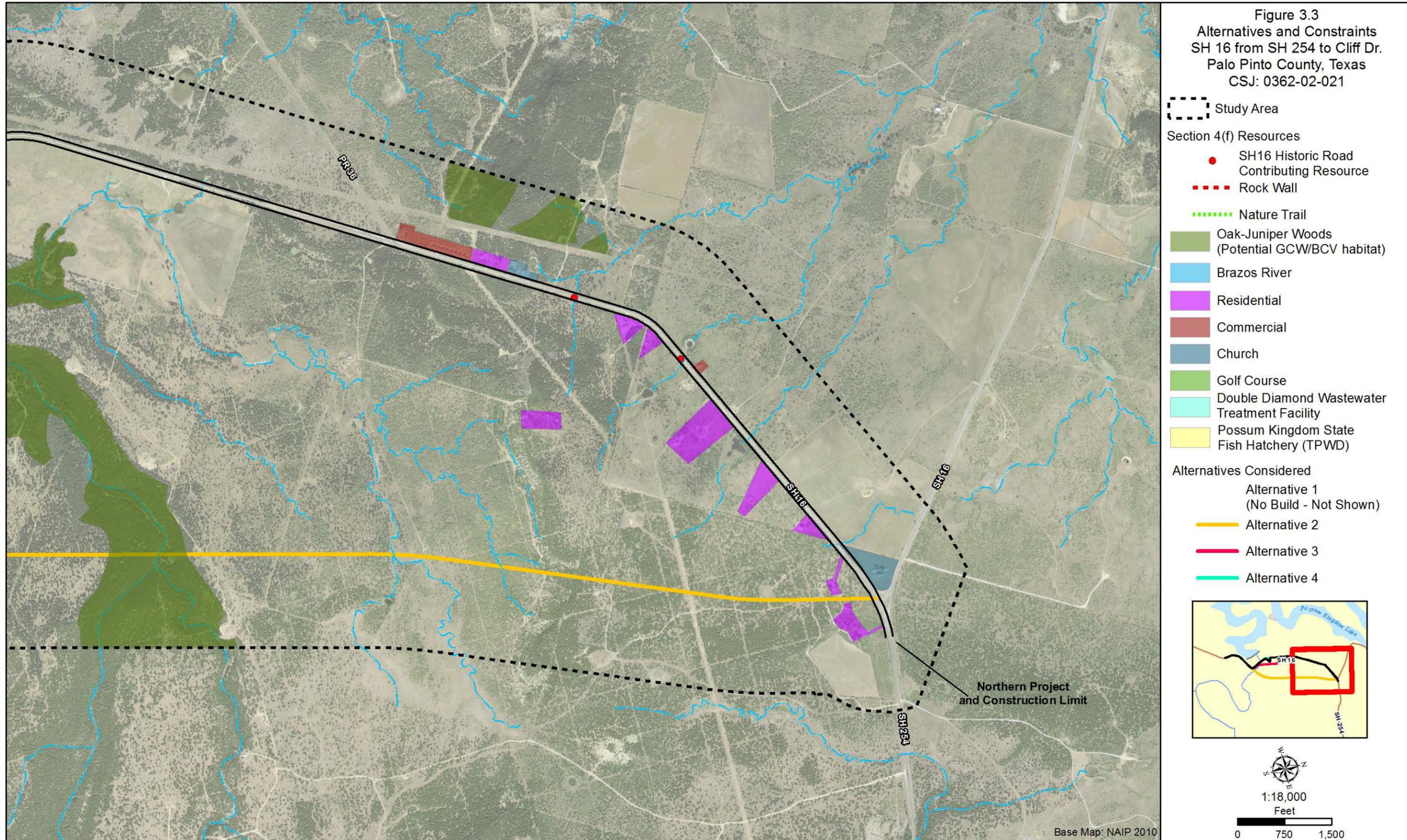




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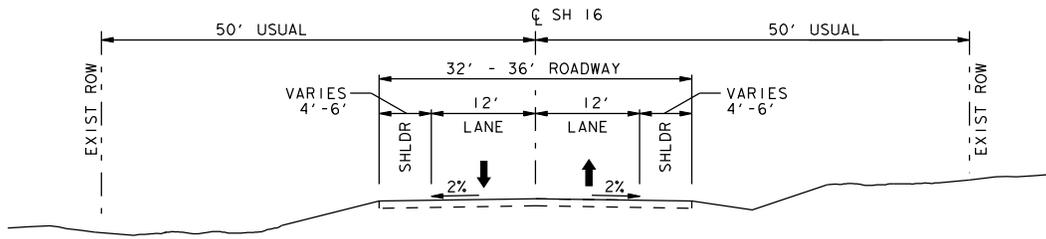
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Section 4(f) Appendix B

Typical Sections

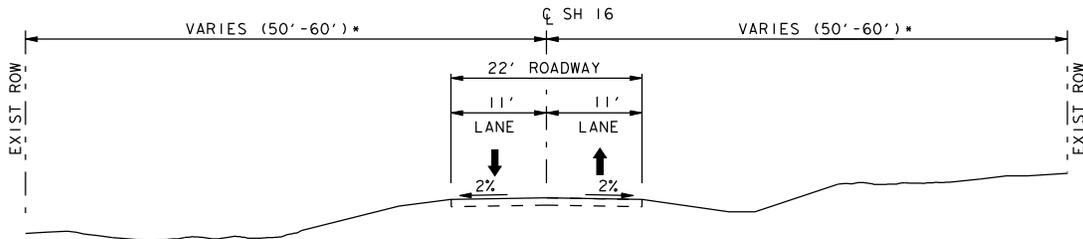
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SH 16 EXISTING TYPICAL SECTIONS



EXISTING TYPICAL SECTION

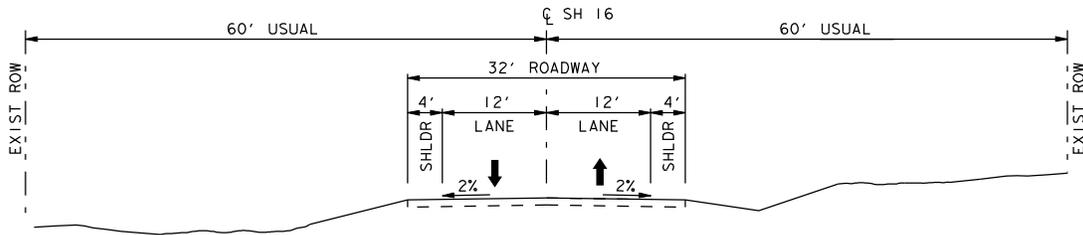
(FROM SH 254 TO PARK ROAD 36)



EXISTING TYPICAL SECTION

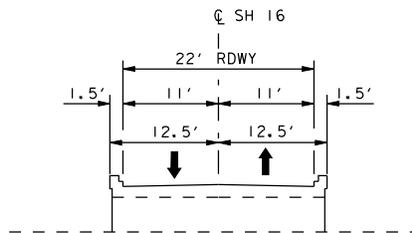
(FROM PARK ROAD 36 TO 1200' SOUTH OF BRAZOS RIVER BRIDGE)

- * - 60' FROM RED BLUFF DRIVE TO CLIFF DRIVE
- 50' FROM SH 254 TO RED BLUFF DRIVE



EXISTING TYPICAL SECTION

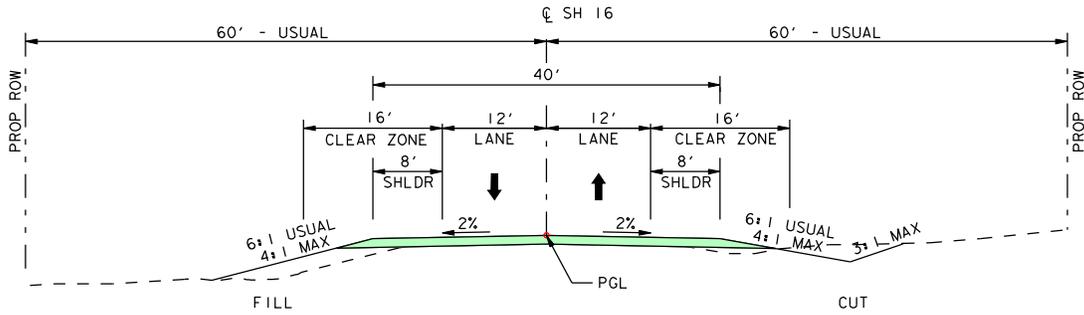
(FROM 1200' SOUTH OF BRAZOS RIVER BRIDGE TO CLIFF DRIVE)



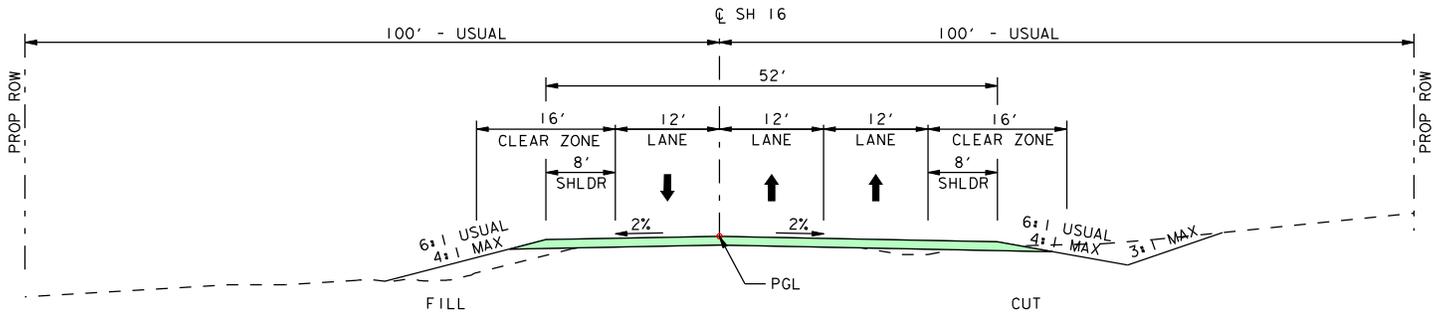
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(BRAZOS RIVER BRIDGE)

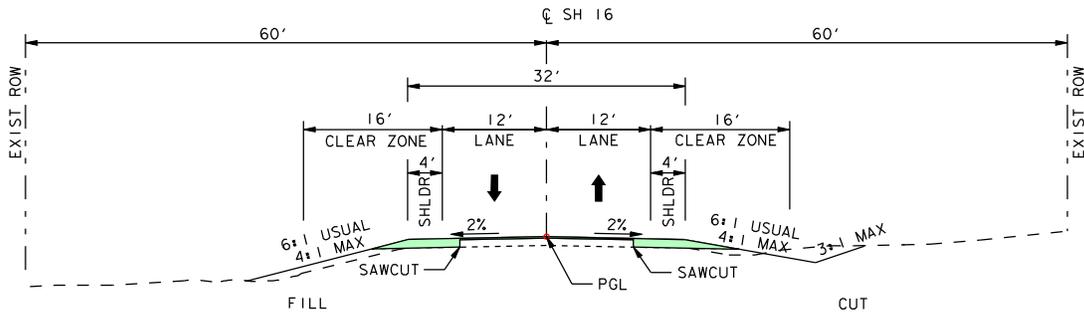
SH 16 ALTERNATIVE 2 PROPOSED TYPICAL SECTIONS



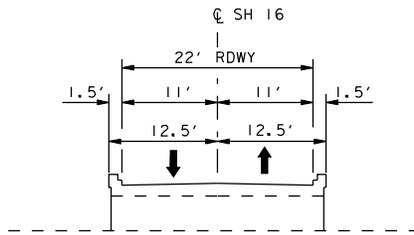
PROPOSED NEW LOCATION TYPICAL SECTION
(WITHOUT CLIMBING LANE)



PROPOSED NEW LOCATION TYPICAL SECTION
(WITH CLIMBING LANE)

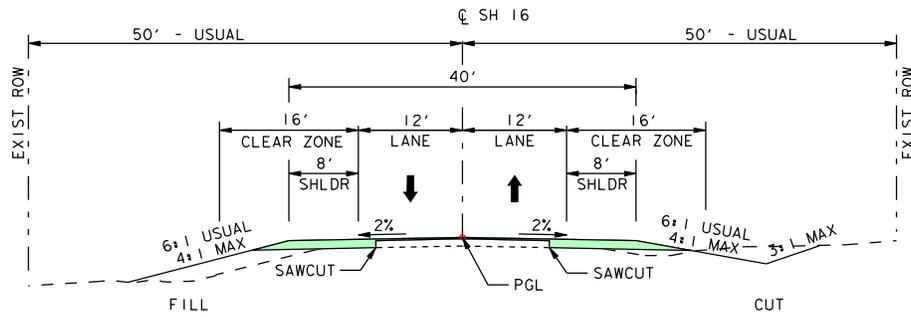


PROPOSED WIDENING TYPICAL SECTION
(FROM NEW ALIGNMENT TO BRAZOS RIVER)

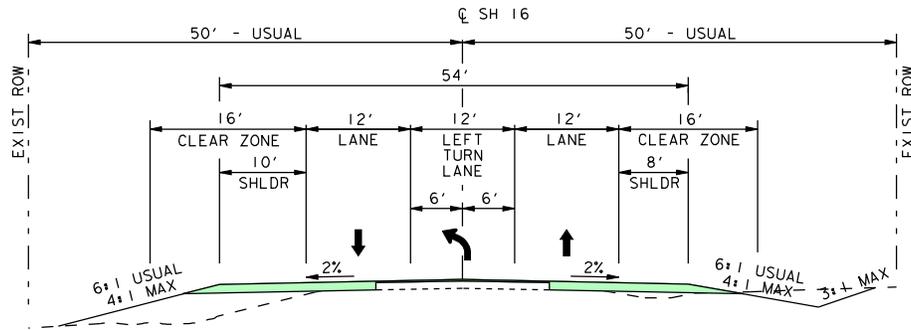


PROPOSED TYPICAL SECTION
(BRAZOS RIVER BRIDGE - NO WORK PROPOSED)

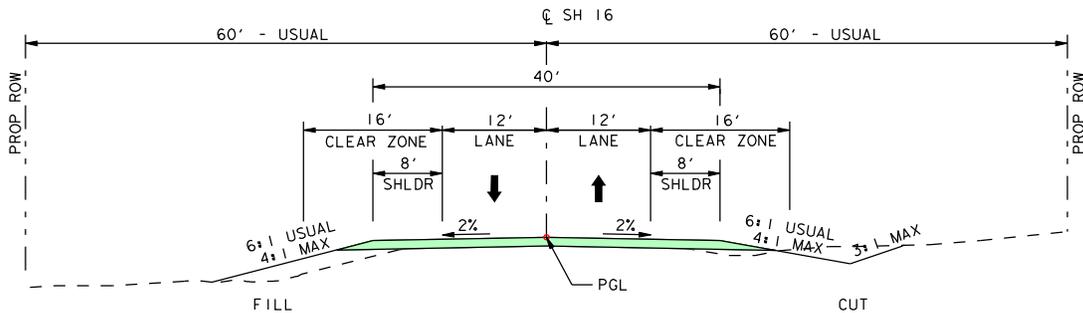
SH 16 ALTERNATIVE 3 PROPOSED TYPICAL SECTIONS



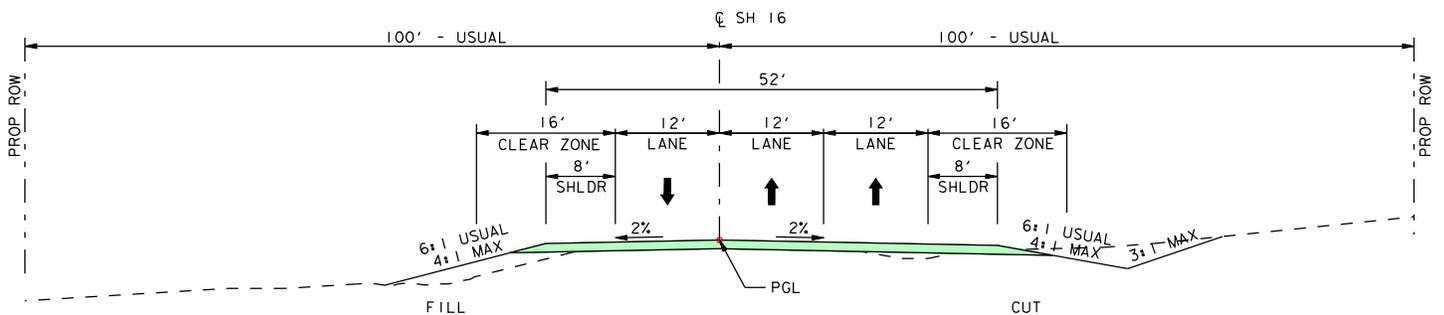
PROPOSED WIDENING TYPICAL SECTION
(FROM SH 254 TO NEW ALIGNMENT)



PROPOSED WIDENING TYPICAL SECTION
(WITH LEFT TURN LANE AT PR 36)

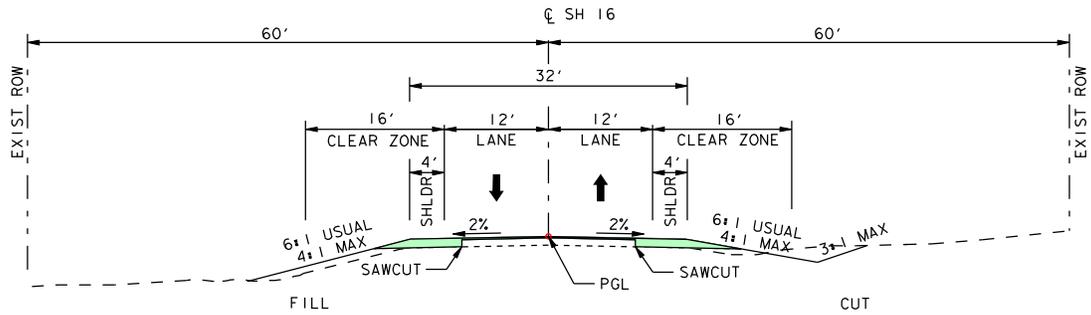


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(WITHOUT CLIMBING LANE)

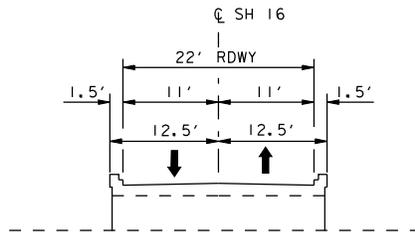


PROPOSED NEW LOCATION TYPICAL SECTION
(WITH CLIMBING LANE)

SH 16 ALTERNATIVE 3 PROPOSED TYPICAL SECTIONS - CONT.

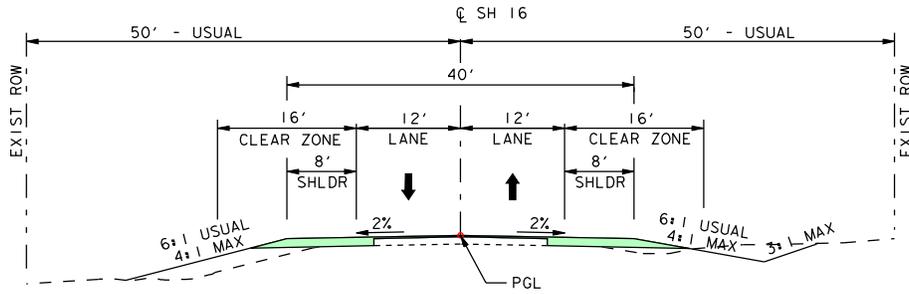


PROPOSED WIDENING TYPICAL SECTION
(FROM NEW ALIGNMENT TO BRAZOS RIVER)



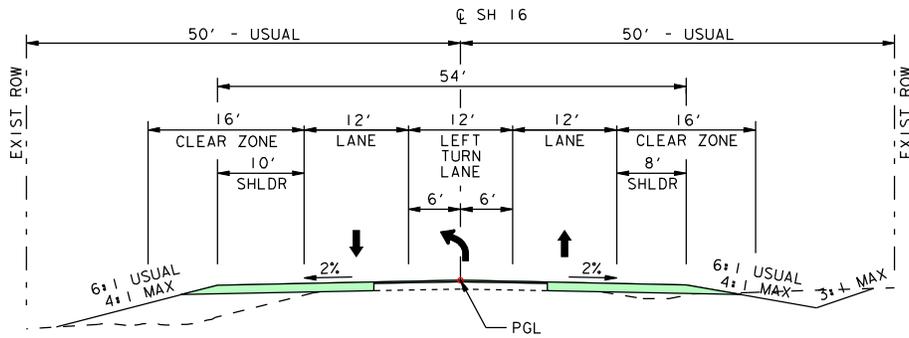
PROPOSED TYPICAL SECTION
(BRAZOS RIVER BRIDGE - NO WORK PROPOSED)

SH 16 ALTERNATIVE 4 PROPOSED TYPICAL SECTIONS



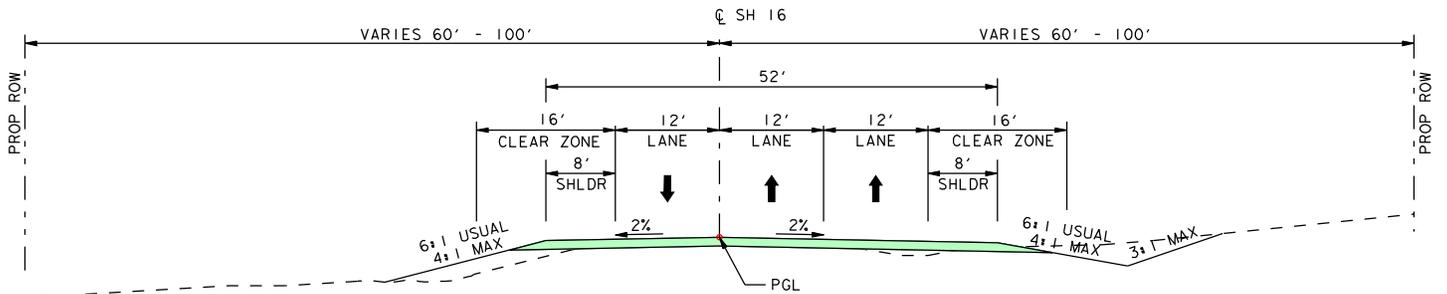
PROPOSED WIDENING TYPICAL SECTION

(FROM SH 254 TO FM 2353)



PROPOSED WIDENING TYPICAL SECTION

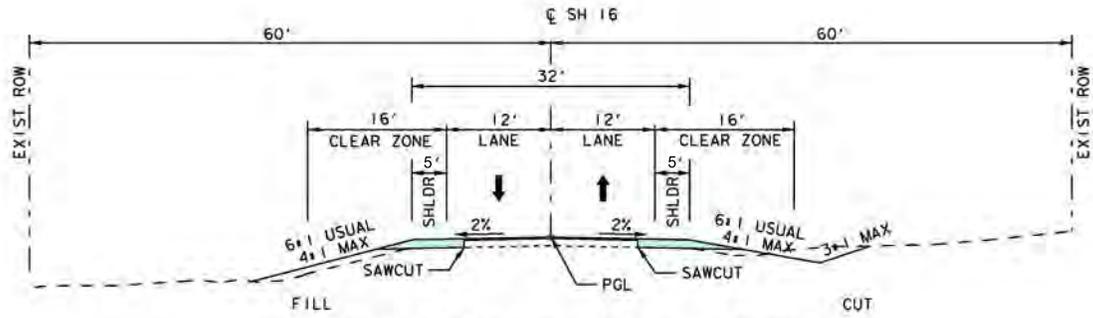
(WITH LEFT TURN LANE AT PR 36)



PROPOSED REALIGNMENT TYPICAL SECTION

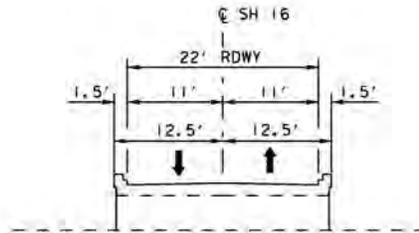
(FROM FM 2353 TO RED BLUFF DRIVE)

SH 16 ALTERNATIVE 4 PROPOSED TYPICAL SECTIONS - CONT.



PROPOSED WIDENING TYPICAL SECTION

(FROM RED BLUFF DRIVE TO 1200' SOUTH OF BRAZOS RIVER)



PROPOSED TYPICAL SECTION

(BRAZOS RIVER BRIDGE - NO WORK PROPOSED)

Section 4(f) Appendix C
Photographs of Project Setting

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Photograph C1: View facing west, showing the intersection of SH 16 and SH 254 (northern project terminus)



Photograph C2: View facing southwest on SH 16 from the SH 254 intersection, showing the existing roadway between SH 254 and PR 36 with 4- to 6-foot-wide shoulders



Photograph C3: View facing west on SH 16 between SH 254 and PR 36, showing an example of a natural gas tank located on a ranch adjacent to the roadway



Photograph C4: View facing south on SH 16 at the intersection with PR 36, showing the transition of the roadway section from 4- to 6-foot-wide shoulders in the foreground to roadway with no shoulders in background



Photograph C5: View facing north along SH 16 at the intersection of PR 36; note a commercial property on the left and a row of vacation cottages in the background on the left



Photograph C6: View facing south on SH 16 between PR 36 and FM 2353, showing transmission line located parallel to SH 16 that leads to the Morris Sheppard Dam



Photograph C7: View facing south on SH 16 between PR 36 and the Brazos River; note no shoulders are located on this section of SH 16



Photograph C8: View facing south at the intersection of SH 16 and FM 2353; note caution signs on the north end of the 1-mile segment on Kimberlin Mountain are in the background



Photograph C9: View facing south on SH 16, showing the caution signs at the top (northern end) of Kimberlin Mountain; the intersection with FM 2353 is on the right in the foreground



Photograph C10: View facing east (downhill) on Kimberlin Mountain at rock wall (mapped as Resource No. 1R on **Figure 3.2**) on the left



Photograph C11: View facing east (downhill) on Kimberlin Mountain in the sharp curve; note the poor sight distance to the right



Photograph C12: View facing southeast (downhill) in the curve on Kimberlin Mountain; note the poor sight distance on the right; the pull-off and locally erected Oliver Loving marker is located on the left



Photograph C13: View facing southeast at the marker erected by the owners of the Kimberlin Ranch adjacent to the pull-off; Kimberlin Ranch is located in the background



Photograph C14: View facing southeast (downhill) on Kimberlin Mountain; note the rock cut on the right and sight distance problems at this location



Photograph C15: View facing southeast (downhill) on Kimberlin Mountain showing an 18-wheeler truck (carrying another vehicle); note back right tires are off the pavement and front left tires are on the center line



Photograph C16: View facing northwest, showing the curve on Kimberlin Mountain and the relationship between the roadway and the Kimberlin Ranch below



Photograph C17: View facing southeast from the pull-off on Kimberlin Mountain, showing the Kimberlin Ranch in the Brazos River Valley basin located below the road



Photograph C18: View facing northeast (uphill) on Kimberlin Mountain showing the sharp curve in the background



Photograph C19: View facing southwest (downhill) on Kimberlin Mountain



Photograph C20: View facing north (uphill) on SH 16 at the base (southern end) of Kimberlin Mountain



Photograph C21: View facing north along SH 16 from the intersection of Red Bluff Drive; new location section in Alternatives 4 and 5 would be located adjacent to the power line on the hill in the background



Photograph C22: View facing southwest showing intersection of SH 16 and Red Bluff Drive, which is to be straightened with Alternatives 4 and 5 (proposed realigned intersection to be located on the left); the Possum Kingdom State Fish Hatchery is on the far left



Photograph C23: View facing west, showing the downstream side of the Morris Sheppard Dam and power plant (on right), which are located 0.6 mile from the project but are accessed from Red Bluff Drive



Photograph C24: View facing southwest on SH 16 near the Red Bluff Drive intersection, showing the Possum Kingdom State Fish Hatchery on the west side of the road



Photograph C25: View facing north along SH 16, showing the Possum Kingdom State Fish Hatchery on the left and SH 16 roadway leading to Kimberlin Mountain (in background)



Photograph C26: View facing west on SH 16, showing the parking area and trail head for the Brazos River Trail, which is located approximately 400 feet north of the Brazos River Bridge



Photograph C27: View facing south at the Brazos River Bridge



Photograph C28: View facing south on SH 16 approximately 1,200 feet south of the Brazos River showing the southern terminus of the construction limits and the section of SH 16 that was widened as part of a previous project south of the river (CSJ: 0362-02-020)



Photograph C29: View facing southwest from SH 16, showing a water treatment plant facility approximately 1,700 feet south of the Brazos River



Photograph C30: SH 16 between the Brazos River and Cliff Drive; note that this section was upgraded as part of a 2003 safety improvement project south of the Brazos River (CSJ: 0362-02-020)



Photograph C31: Intersection of SH 16 and Cliff Drive (southern project terminus) facing north; the entrance to “The Cliffs” subdivision is on the left

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Section 4(f) Appendix D

Photographs of SH 16 Historic Roadway Corridor and Brazos River Bridge

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Photograph D1: Typical view of SH 16 between PR 36 and the Brazos River



Photograph D2: Example of one of the 16 un-widened culverts, which are contributing features of the SH 16 historic road corridor



Photograph D3: Example of one of 16 un-widened culverts, which are contributing features of the SH 16 historic road corridor



Photograph D4: Example of one of the five widened culverts, which are non-contributing features of the SH 16 historic road corridor



Photograph D5: Interior of widened culvert shown in Photograph D4



Photograph D6: Downstream side of the Brazos River Bridge (Resource No. 1M on **Figure 3.1**), which is a contributing feature to the SH 16 historic road corridor and is individually eligible



Photograph D7: Upstream side of the Brazos River Bridge



Photograph D8: Detail of one of the Brazos River Bridge's 18 arch spans



Photograph D9: Brazos River Bridge's northeast wingwall which has been heavily damaged

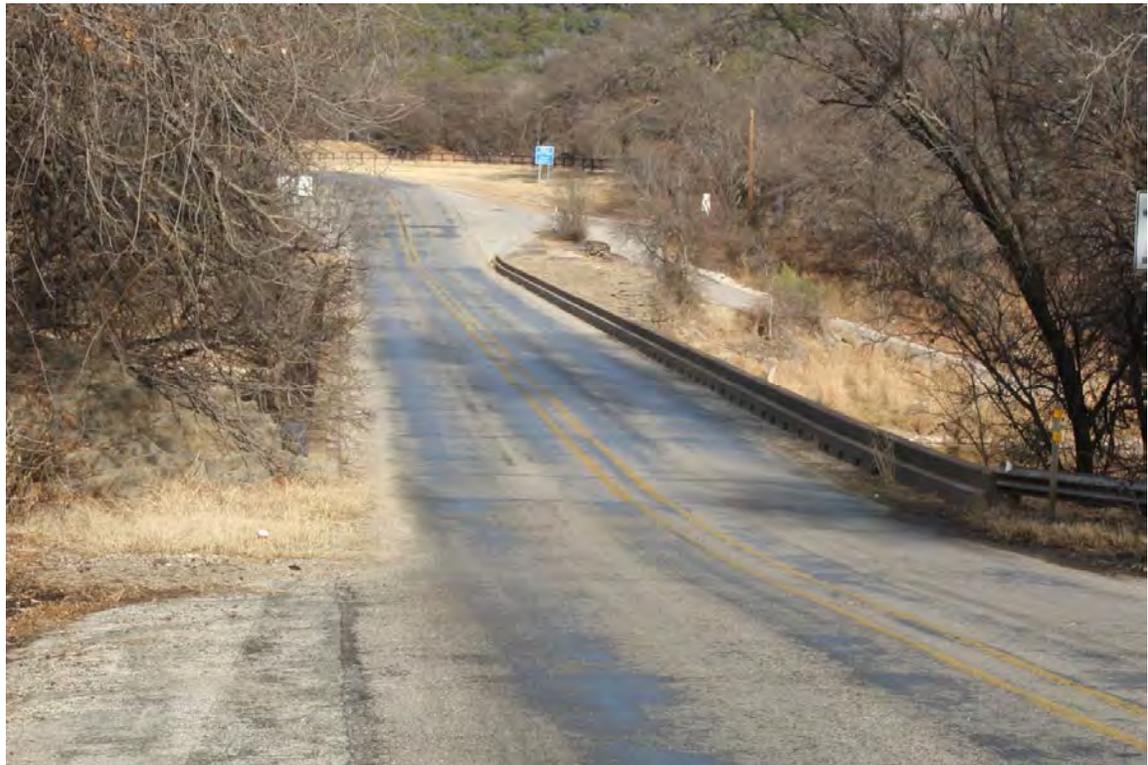


Photo D10: Brazos River Bridge's deck facing north



Photograph D11: Rock wall on Kimberlin Mountain (Resource No. 1R on **Figure 3.2**), which is a contributing feature to the SH 16 historic corridor, showing one of the segments with only the vertical crenellations



Photograph D12: Rock wall on Kimberlin Mountain; note this segment photographed has a horizontal wall and vertical crenellations



Photograph D13: Rock wall on Kimberlin Mountain, showing one of the segments without a horizontal wall (foreground) and with a horizontal wall (background)



Photograph D14: Cut stones on the left were likely part of the crenellation which was located where the small pile of rocks atop the wall is located



Photograph D15: Example of an unsympathetically repaired portion of the rock wall on Kimberlin Mountain



Photograph D16: Example of damaged crenellation on the rock wall on Kimberlin Mountain

Section 4(f) Appendix E

Coordination

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P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

Krista S. Gebbia
Preservation Texas
P.O. Box 12832
Austin, Texas 78711

NHPA SECTION 106 APPROVED CONSULTING PARTY STATUS

Palo Pinto County, TxDOT Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ: 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Ms. Gebbia:

In a letter dated July 19, 2011, we informed you that the above referenced project was reinitiated after a period of being suspended due to budget constraints. A Historic Resources Survey Report (HRSR) has been completed and, as a consulting party, you have the opportunity to review and comment on the attached July 2011 HRSR. The report includes National Register of Historic Places (NRHP) eligibility recommendations of properties located within the Area of Potential Effect and the effects the proposed project may have on properties/districts listed or determined eligible for listing in the NRHP. You will also be provided an opportunity to comment on proposed measures to minimize harm or proposed mitigation options for NRHP-eligible properties/districts that would be adversely affected by the proposed undertaking, which will be provided at a later date.

We request that you review the attached HRSR within 30 days of this letter and provide written comments to our environmental consult, Maryellen Russo at Blanton & Associates. Your comments may be sent to her via email at mrusso@blantonassociates.com or via U.S. Postal Service at 5 Lakeway Center Court, Suite 200, Austin, Texas 78734. Please also feel free to call her at 512-264-1095 if you have any questions or need additional information.

Sincerely,

Elisa F. Garcia
Environmental Coordinator
TxDOT Fort Worth District

THE TEXAS PLAN

REDUCE CONGESTION • ENHANCE SAFETY • EXPAND ECONOMIC OPPORTUNITY • IMPROVE AIR QUALITY
INCREASE THE VALUE OF OUR TRANSPORTATION ASSETS

An Equal Opportunity Employer



P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

John Kimberlin
Kimberlin Ranches
3322 Shorecrest Drive, Suite 200
Dallas, Texas 75235

NHPA SECTION 106 APPROVED CONSULTING PARTY STATUS

Palo Pinto County, TxDOT Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ: 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Mr. Kimberlin:

This letter is to confirm that TxDOT has received your request for consulting party status. As a consulting party, you will be notified of any public meetings and will be provided the opportunity to comment on proposed plans as they may affect historic buildings, structures, sites, objects, and districts located in the project Area of Potential Effect (APE). As a consulting party, you may:

- Review and comment on the attached July 2011 Historic Resources Survey Report, which includes National Register of Historic Places (NRHP) eligibility recommendations of properties located within the APE and the effects the proposed project may have to properties/districts listed or determined eligible for listing in the NRHP.
- Comment on proposed measures to minimize harm or proposed mitigation options for NRHP-eligible properties/districts that would be adversely affected by the proposed undertaking (to be provided at a later date).

TxDOT has contracted with Blanton & Associates, Inc. to conduct historical studies and to assist with the Section 106 public involvement process. Blanton & Associates project staff will be available at the public meetings and via correspondence to answer questions about the Section 106 process. The following key personnel will serve as primary points of contact throughout the project's public involvement process:

- TxDOT Fort Worth District Environmental Coordinator: Elisa Garcia
- Blanton & Associates Senior Historian: Maryellen Russo (formerly Maryellen Ficker)

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INCREASE THE VALUE OF OUR TRANSPORTATION ASSETS

An Equal Opportunity Employer

Page 2
Mr. Kimberlin
September 2, 2011

We request that you review the attached HRSR within 30 days of this letter and provide written comments to our environmental consult, Maryellen Russo at Blanton & Associates. Your comments may be sent to her via email at mrusso@blantonassociates.com or via U.S. Postal Service at 5 Lakeway Center Court, Suite 200, Austin, Texas 78734. Please also feel free to call her at 512-264-1095 if you have any questions or need additional information.

Sincerely,



Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation
Fort Worth District



P.O. BOX 6868 • FORT WORTH, TX 76115-0868 • (817) 370-6500

September 2, 2011

Ann Reagan or Mike Lewis
Palo Pinto County Historical Commission
P. O. Box 105
Palo Pinto, Texas 76484

NHPA SECTION 106 APPROVED CONSULTING PARTY STATUS

Palo Pinto County, TxDOT Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ: 0362-02-021

SH 16 from SH 254 to Cliff Drive

Dear Ms. Reagan or Mr. Lewis:

This letter is to confirm that TxDOT has received your request for consulting party status. As a consulting party, you will be notified of any public meetings and will be provided the opportunity to comment on proposed plans as they may affect historic buildings, structures, sites, objects, and districts located in the project Area of Potential Effect (APE). As a consulting party, you may:

- Review and comment on the attached July 2011 Historic Resources Survey Report, which includes National Register of Historic Places (NRHP) eligibility recommendations of properties located within the APE and the effects the proposed project may have to properties/districts listed or determined eligible for listing in the NRHP.
- Comment on proposed measures to minimize harm or proposed mitigation options for NRHP-eligible properties/districts that would be adversely affected by the proposed undertaking (to be provided at a later date).

TxDOT has contracted with Blanton & Associates, Inc. to conduct historical studies and to assist with the Section 106 public involvement process. Blanton & Associates project staff will be available at the public meetings and via correspondence to answer questions about the Section 106 process. The following key personnel will serve as primary points of contact throughout the project's public involvement process:

- TxDOT Fort Worth District Environmental Coordinator: Elisa Garcia
- Blanton & Associates Senior Historian: Maryellen Russo (formerly Maryellen Ficker)

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We request that you review the attached HRSR within 30 days of this letter and provide written comments to our environmental consult, Maryellen Russo at Blanton & Associates. Your comments may be sent to her via email at mrusso@blantonassociates.com or via U.S. Postal Service at 5 Lakeway Center Court, Suite 200, Austin, Texas 78734. Please also feel free to call her at 512-264-1095 if you have any questions or need additional information.

Sincerely,



Elisa F. Garcia
Environmental Coordinator
Texas Department of Transportation
Fort Worth District

Palo Pinto County Historical Commission (PPCHC)
P O Box 105
Palo Pinto, Texas 76484

9-29-2011

Maryellen Russo
Blanton & Associates
5 Lakeway Center Court
Suite 200
Austin, Texas 78734

Dear Ms Russo:

The Palo Pinto County Historical Commission, (PPCHC), along with County Judge David Nicklas, would like to state our objections on the proposed project - SH16 from SH 254 to Cliff Drive, CSJ: 0362-02-021. The PPCHC agrees under Section 106, that at least 18 structures have the potential of being adversely affected by this project. We support the return of the land to the control of the Palo Pinto County Court and the PPCHC, at the end of straightening the big curve.

To retain the historical integrity of this land, The Palo Pinto County Historical Commission would:

- Pursue the “National Registered Historical Place” NRHP, outlined in your documentation.
- Work with TXDOT to develop a written Educational Historic documentation of the WPA works and other historical events, and publish a brochure outlining this history prior to the proposed reconstruction.
- Establish a “Guide for Tourism” – CD format for visitors to Palo Pinto County. This Guide would have Markers on the roadside pointing out the, “Follow the trail of the WPA”.
- Pursue various Historical markers in the corridor outlined in the mentioned report.
- Explore the opening of a potential interruptive park showing the *NRHP* sections:
 - **Criteria A** – Significant Historical Associations with events, trends, or patterns
 - **Criteria C** – Design/Construction, embody distinctive characteristics of a type, period, or method of construction, representing the work of a master, possess high artistic values.

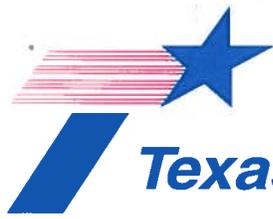
The PPCHC again recognizes the potential ADVERSE effect to the roadway under Section 106 and would like to request the land to be protected for future generations. The Educational and recreational benefit of this area will be treasured by all residents and visitors to our County.

Thank you for allowing time to discuss the Palo Pinto TXDOT project CJS: 0362-02-021, (SH16 from Cliff Drive to SH 254), with me. .

Sincerely:

Mike Lewis

Palo Pinto County Historical Co-Chair



Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

February 15, 2012

SECTION 106: Determination of Eligibility

Palo Pinto County, Fort Worth District
CSJ# 0362-02-021

SH 16, Cliff Drive to SH 254, Palo Pinto County

Mrs. Adrienne Campbell
Division of Architecture
Texas Historical Commission
Austin, Texas 78711

Dear Mrs. Campbell:

In accordance with 36 CFR 800.5 and the First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings (PA-TU), we are initiating Section 106 consultation for the above referenced project, which will be carried out with Federal funding. We request agency review regarding the National Register of Historic Places (NRHP) eligibility of properties located in the project's area of potential effects.

Introduction

The Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration, is proposing to make improvements to State Highway (SH) 16 from Cliff Drive to SH 254 in Palo Pinto County. The proposed improvements consist of: adding shoulders or widening existing shoulders and re-aligning 0.5 mile of the roadway to straighten a sharp curve on Kimberlin Mountain. The recommended alternative new-location section of SH 16 on Kimberlin Mountain would begin approximately 1,000 feet south of FM 2353, traverse Kimberlin Mountain on new location, and tie into the existing SH 16 roadway approximately 600 feet north of the SH 16/Red Bluff Drive intersection. A climbing lane for northbound traffic would be constructed, which would terminate at the top of Kimberlin Mountain as a left turn lane for turning movements at the FM 2353 intersection. Additionally, at the base of Kimberlin Mountain, the SH 16/Red Bluff Drive intersection would be realigned to improve sight distance for motorists turning from Red Bluff Drive on to SH 16. In order to construct the proposed improvements, it would be necessary to acquire approximately 9.66 acres of additional right-of-way. A temporary construction easement of 5.08 acres is also required. No work would take place on the Brazos River bridge.

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Identification Efforts to Identify Historic Properties

The methodology used to identify recorded and potentially eligible sites located within the Area of Potential Effects (APE) included a reconnaissance level historic resources survey. For the reconnaissance survey, background research was conducted using the Texas Historical Commission's (THC) *Texas Historic Sites Atlas*, to identify sites listed on the National Register of Historic places (NRHP) and State Archeological Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL) as well as Official Texas Historical Markers (OTHM). The records search revealed no previously recorded NRHP, SAL or RTHL sites located within the project APE. The APE for the project was determined to be 150-feet from the existing or proposed right-of-way, whichever is greater. Eight properties containing 56 resources were determined to be 45 years or older (constructed before 1967) and were evaluated and photographed. The results of the survey and accompanying documentation are attached.

Determinations of National Register Eligibility

There is one NRHP-eligible historic district, the SH 16 roadway corridor, in the APE. The roadway was completed in 1942 by the Works Progress Administration (WPA) in order to provide a year-round, all-weather transportation facility to and from the Morris Sheppard Dam (outside APE) under construction on the Brazos River. This historic roadway corridor district includes 18 contributing masonry features (culverts and one rock guard wall-resources No. 1A-1O, 1R, and 1W-1X). In addition the contributing Brazos River Bridge (No. 1M) is also individually eligible for NRHP-listing. The roadway contains one contributing rock guard wall (1R) on a sharp curve on a large hill locally known as Kimberlin Mountain. This portion of the roadway would be straightened as a result of the project and likely closed to vehicular traffic. Currently travelers often pull over and stop on the shoulder of this curve to take in the view; however this is not a designated TxDOT roadside park or pullout as it is not large enough to meet safety requirements for a roadside park.

In order to evaluate the historic road corridor, TxDOT consultants used the *Evaluation Criteria- Historic Roads in Texas* draft document produced by TxDOT staff, which has been reviewed by the SHPO, but not yet concurred with, as it is a work in progress. The consultant also used the THC-developed registration requirements for Depression-era road corridors and structures. A document by Paul Marriott – *The Preservation Office Guide to Historic Roads* was also referenced. These helped the consultant focus on integrity considerations made under Criteria A & C and determine the character-defining features of the SH 16 corridor.

The eligible section of the roadway extends approximately 8.4 miles, from Brackeen Drive NE to SH 254. These limits were determined by the southern terminus of the WPA project (around current Brackeen Drive) and a windshield survey of SH 254 to the east towards Graford, the original WPA project alignment. All of the culverts for six miles to the east along SH 254 had been widened, as had the road itself,

therefore the logical northern terminus was the SH 254 intersection. For further information regarding these limits and a map, see attached survey report. The SH 16 road corridor is eligible under Criteria A for events and C for engineering at the state level of significance.

I have evaluated each of the rest of the surveyed properties (consisting of residential, agricultural, religious and government types) through application of the Criteria of Eligibility for listing in the National Register of Historic Places. The properties documented in the survey are not known to be associated with a significant historical event, or associated with a person of transcendent importance; nor do they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master. Therefore, these properties are determined to be **not eligible** for listing in the National Register of Historic Places.

Public Involvement

In accordance with 23 CFR 771, TAC 43, and the National Historic Preservation Act (36 CFR 800.2c), TxDOT conducted several public involvement activities. As part of these activities TxDOT met with a number of civic and preservation groups including the SHPO and private citizens in order to solicit their comments concerning the project. In addition, a representative from your office participated in a stakeholder meeting on 12.6.11 with the local entities (meeting minutes attached). A total of four persons or organizations were identified as consulting parties for the Section 106 process. These parties include the Palo Pinto County Historical Commission, the Historic Bridge Foundation, one affected land owner- Mr. John Kimberlin, and Preservation Texas.

One consulting party (Palo Pinto CHC) responded with written comment or concurrence on the determinations of eligibility. The response is attached. The CHC concurs with the eligibility findings but objects to the closing of the current SH 16 alignment on Kimberlin Mountain in order to straighten the roadway. Several parties (other county officials, TxDOT, and local landowners) are currently working on a mitigation proposal for potential adverse effects to the SH 16 corridor, including possibly leaving the rock walled portion of the alignment on Kimberlin Mountain open to the interested public as a roadside park, and/or publishing an educational brochure about the area's history.

Conclusion

TxDOT historians have determined that there is **one historic district with 18 contributing resources present** in the project APE, the SH 16 roadway corridor (No. 1). In accordance with 36 CFR 800 and the PA-TU, I hereby request your signed concurrence with these findings of eligibility.

Effects to the SH 16 roadway corridor historic district are expected to be adverse and these determinations, with mitigation proposal, will be sent to your office when these issues are closer to resolution. Further, an individual Section 4(f) evaluation is being

Fort Worth, Palo Pinto, SH 16
February 15, 2012

completed and as the official with jurisdiction, your office will be asked to provide comment on that document.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2611.

Sincerely,



Renee Benn
Historic Preservation Specialist,
Environmental Affairs Division
Texas Department of Transportation

Attachments

CONCUR: ELIGIBILITY DETERMINATIONS	
NAME: <u></u>	DATE: <u>2.24.12</u>
for Mark Wolfe, State Historic Preservation Officer	

bcc: DISTRICT: Fort Worth Attn: Elisa Garcia
ENV/PM: Scott Ford Re: 850 file
ENV/CRM: REB Re: CRM File

Palo Pinto County Historical Commission (PPCHC)
 P O Box 105
 Palo Pinto, Texas 76484

TXDOT – FT WORTH

Ms: Elisa Garcia / TO Whom It Concerns:

The Palo Pinto County Historical Commission is voicing concerns and proposed responses/actions for the SH16 corridor project/CSJ: 0362-02-021. These items were reviewed by the PPCHC at our meeting, March 15, 2012 and this letter is forwarded to your office for review.

Concerns:

A. Culvert "O" to be covered permanently by TXDOT during proposed construction.

Response to TXDOT:

A. As stated in the December 6th meeting, TXDOT needs to submit additional alternatives for the WPA culvert destruction.

Concerns:

B. WPA roadway to be turned back to Kimberlin Ranch.

Response to TXDOT:

B. Palo Pinto County Historical Commission to work with the County Commissioners Court in retaining the WPA roadway for Historical preservation.

Area to be preserved as a "Interpretive Park" showing WPA achievements and surrounding area significance.

- o Story of WPA projects in area, including people and construction techniques.
- o Morris Sheppard dam overview/Importance to area
- o "THE FIRE" of 2011
- o Low water bridge and State stocking programs
- o Ranching and Cattle drives
- Gated access under the direction of the PPCHC
- Gated access would allow Mr. Kimberlin passage from North to South.
- The PPCHC would operate and maintain the Park thru the County Commissioners.
- TXDOT will need to negotiate new land agreement directly with Mr. Kimberlin.

Concerns:

C. Northern driveway access to Interpretive Park would be cut off by TXDOT after construction.

Response to TXDOT:

C. TXDOT to reconnect North entrance after completion of project. PPCHC acknowledges the closure of the southern entrance due to construction.

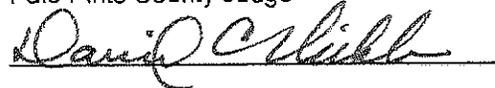
Concern:

D. TXDOT's, "Heavy" use of WPA roadway as construction corridor will future damage rock structures.

Response to TXDOT:

D. TXDOT to repair damaged WPA rock formations back to the condition of period works. Several WPA rock formations have been noted to been repaired not to original standards. *Blanton and Associates report. (Appendix page C-80/ resource No.1R)*

Judge David Nicklas
 Palo Pinto County Judge



Mike Lewis
 Palo Pinto County Historical Commission Co-Chair



Ann Reagan
 Palo Pinto County Historical Commission Co-Chair





Texas Department of Transportation

Parker County Area Office • 1427 West Bankhead • Weatherford, TX 76086

April 16, 2012

The Honorable David Nicklas
Judge of Palo Pinto County
P.O. Box 190
Palo Pinto, Texas 76484

RE: SH 16
0362-02-021
Palo Pinto County

Dear Judge Nicklas:

The Texas Department of Transportation (TxDOT) received your letter dated March 15, 2012 regarding the proposed State Highway (SH) 16 safety improvement project. TxDOT has considered your comments in accordance with Section 106 of the National Historic Preservation Act (NHPA) and has the following responses to your concerns.

Concern A: Culvert "O" Burial

TxDOT's Response to CHC: As outlined in the July 2011 Historic Resources Survey Report (HRSR), the culvert inventoried as Resource No. 1O (numeric character 1, alpha character O) will be buried with the recommended alignment. TxDOT did evaluate several different horizontal alignment options; however, they were determined to be imprudent and costly. Also, the culvert's purpose of conveying water across the right of way is no longer needed due to changes in the adjacent land use. With fifteen other Works Progress Administration constructed masonry culverts nearby, TxDOT feels the prudent course of action is to bury the culvert.

TxDOT will remove the existing masonry headwalls of Culvert "O" and offer the material to the CHC for their use.

Concern B: Ownership of existing SH 16 alignment

TxDOT's Response to CHC: TxDOT will submit to the Palo Pinto County Commissioners Court a Quit Claim Deed releasing all interest in the section of SH 16 no longer needed by TxDOT.

Concern C: Driveway Access to CHC's Interpretative Park

TxDOT's Response to CHC: TxDOT, at its expense, will construct during the safety improvement project's construction, a driveway for access to CHC's Interpretative Park. The driveway will be located in accordance with TxDOT's Access Management policy. The driveway will extend from the edge of pavement to the proposed right of way line. Palo Pinto County will be responsible for connecting the driveway to the abandoned portion of SH 16, if needed.

Concern D: Heavy Use of Roadway and Repair to rockwall

TxDOT's Response to CHC: The use of the existing roadway is an unavoidable condition as the road is public and open to all users.

TxDOT objects to repairing the rockwall. Past instructions involving repairs to historical features directed that no repairs should be attempted as the repairs may affect the historical integrity of the design, materials, and workmanship of the resource. Previous attempts to repair the wall were unsympathetic and TxDOT believes the best mitigation action is preservation of the remaining elements.

Thank you for your participation in the Section 106 of the NHPA consultation process. TxDOT will be sending a mitigation proposal to the Texas State Historic Preservation Officer for review and you will be copied with the correspondence. TxDOT is committed to completing the safety project in a manner sensitive to the historic resources along the roadway corridor.

If you should have any questions concerning this matter, please contact me at 682-229-2800.

Sincerely,

John F. Cordary, Jr., P.E.
Area Engineer
Parker County Area Office

JFC

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 or PO Box No. **P.O. BOX 190**
 City, State, ZIP+4
PALO PINTO, TEXAS 76484
 PS Form 3800, August 2006 See Reverse for Instructions

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1. Article Addressed to:
DAVID MICKLAS, COUNTY JUDGE
P.O. BOX 190
PALO PINTO, TEXAS
76484

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 Linda Huusinger Agent
 Addressee

B. Received by (Printed Name) **Linda Huusinger** C. Date of Delivery **4-17-12**

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

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 PS Form 3800, August 2006 See Reverse for Instructions

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**DAVID C. NICKLAS
COUNTY JUDGE
PALO PINTO COUNTY, TEXAS**



P.O. BOX 190
PALO PINTO, TEXAS 76484-0190

(940) 659-1253
FAX (940) 659-2411

June 8, 2012

Mr. John F. Cordary
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086

Dear Mr. Cordary:

Please accept this letter as our concurrence with your recommendations stated in your letter of 16 April 2012 regarding SH 16, 0362-02-021, Palo Pinto County.

Thanks for your assistance.

Sincerely,

A handwritten signature in cursive script that reads "David C. Nicklas".

David C. Nicklas
Palo Pinto County Judge

DCN:lh



Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

August 9, 2012

SECTION 106: DETERMINATION OF ADVERSE EFFECT WITH MITIGATION

Palo Pinto County
CSJ: 0362-02-021
SH 16 from Cliff Drive to SH 254

RECEIVED

AUG 09 2012

Ms. Linda Henderson
Division of Architecture
Texas Historical Commission
Austin, Texas 78711

History Programs Division

Dear Ms. Henderson:

The above referenced undertaking will be carried out with federal funding. In accordance with the first amended Programmatic Agreement for Transportation Undertakings (PA-TU) between the Texas Department of Transportation (TxDOT) the Federal Highway Administration (FHWA) the Advisory Council for Historic Preservation (ACHP) and the Texas Historical Commission (THC) this letter initiates Section 106 consultation on the effect the proposed undertaking will have on a National Register eligible property located within the project area of potential effects (APE).

Introduction

The Texas Department of Transportation – Fort Worth District, in conjunction with FHWA, is currently proposing improvements to SH 16 in Palo Pinto County. TxDOT proposes to widen and rehabilitate SH 16 from SH 254 (northern terminus) to Cliff Drive (southern terminus), a distance of approximately 7.6 miles. No work is proposed on the Brazos River Bridge. The proposed improvements consist of realigning SH 16 on Kimberlin Mountain, widen or add shoulders, and reconfigure two intersections. The realignment of SH 16 would occur from approximately 1,000 feet south of FM 2353 to Red Bluff Rd, a distance of approximately 0.5 mile. Approximately 9.3 acres of new ROW would be required for the new alignment section.

Determination of National Register Eligibility

Eligibility of historic-age properties in the area of potential effect (APE) was coordinated with your office in February 2012. One NRHP-eligible historic district (SH 16 road corridor, property 1) containing 18 contributing features (masonry culverts and rock wall) is located within the APE.

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Effects

After applying the criteria of *Adverse Effects* as stipulated in 36 CFR 800.4, I have determined that the proposed project would have an **adverse effect** to the NRHP-eligible SH 16 historic road corridor. One contributing feature (rock culvert, 1O) would be covered and another contributing feature, a rock wall (1R), would be bypassed by the proposed project. The realignment near Kimberlin mountain would also pose an **adverse effect** to the historic SH 16 road corridor (1) itself, as integrity of location in the vicinity of Kimberlin mountain would be lost, and the alignment of the roadway is a contributing feature of the historic district. The alignment would be shortened by approximately 1000 feet as it would go over Kimberlin Mountain rather than around it.

Efforts to Minimize Harm and Mitigation

To minimize adverse effects, TxDOT engineers redesigned the project. Originally the shoulders of the new section were proposed to be 8' on either side. In order to retain the width of the contributing culverts, the shoulder width was reduced to 4' on either side. The original project also proposed removal of the contributing masonry arch bridge at the Brazos River. An inspection revealed the bridge could continue to carry traffic. The bridge will remain in vehicular service and not be altered as a result of the project.

In accordance with CFR 800.6, TxDOT proposes to mitigate the above mentioned adverse effects with several actions. TxDOT will deed the ROW on Kimberlin mountain to the county and install a driveway to the property during construction. The county proposes to make the rock wall (1R) and overlook accessible to the public and also put up interpretative signage. This solution allows the property to remain open, otherwise it would be permanently closed to the public and the rock wall could not be viewed.

One contributing feature, a culvert, would be lost as a result of the proposed construction. To mitigate adverse effects of the loss of this resource, TxDOT will donate the rock material of the headwalls of the culvert to the CHC for their use, perhaps in the interpretative park on Kimberlin Mountain. TxDOT will provide the CHC with several hundred digital photos of the SH 16 corridor. TxDOT also updated the survey of road corridor, initially completed in 2002 (HRSR, July 2011). For further information on mitigation efforts, see the attached letters between the county officials and TxDOT.

Responsive consulting parties for this project were directly involved in developing the proposal for mitigation. One of them is the land owner adjacent to Kimberlin Mountain, who agreed to donate the property for public use. One is the county historical commission, who agreed to install interpretative signage and maintain the property for future use by the public.

SH 16
CSJ: 0362-02-021
Fort Worth District, Palo Pinto County

Conclusion

After applying the criteria of *Adverse Effects* as stipulated in 36 CFR 800.4, I have determined the proposed action to widen and realign SH 16 will constitute an **adverse effect** to this National Register eligible property. Please sign in the space provided below indicating your concurrence with this finding and proposed mitigation.

In accordance with 23 CFR 771.135, Section 4(f), attached please find a copy of the draft individual Section 4(f) evaluation. As the official with jurisdiction over the Section 4(f) resource, it is provided for your comment. FHWA will consider this the formal coordination and review in approving the Section 4(f) evaluation.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2611.

Sincerely,



Renee Benn
Historic Preservation Specialist
Historical Studies Branch
Environmental Affairs Division
Attachments

CONCUR -ADVERSE EFFECTS WITH MITIGATION	
NAME: <u>See letter dated 8/30/12</u>	DATE: _____
<u>for State Historic Preservation Officer</u>	

NO COMMENTS TO FINAL DRAFT, SECTION 4(f) EVALUATION	
NAME: <u>[Signature]</u>	DATE: <u>30 August 2012</u>
<u>for State Historic Preservation Officer</u>	

TEXAS HISTORICAL COMMISSION

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30 August 2012

Renée Benn, Historian
Historical Studies Branch
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701

*Re: Project review under Section 106 of the National Historic Preservation Act of 1966
Determination of Adverse Effect with Mitigation, SH 16 from Cliff Drive to SH 254, Palo Pinto County, Texas
(FHWA; TxDOT CSJ # 0362-02-021)*

Dear Ms. Benn,

Thank you for contacting us regarding the above-referenced project. This letter serves as a comment from the State Historic Preservation Officer (SHPO), the Executive Director of the Texas Historical Commission (THC).

THC staff members reviewed the materials submitted and concur with your determination that the project will have an **adverse effect** on historic properties that are eligible for listing in the National Register of Historic Places (NRHP). Regarding your proposed mitigation, we feel that nominating the historic SH 16 corridor to the NRHP is also appropriate. While your office and ours cannot guarantee that the nomination would ultimately be put forward or approved, we feel the significance of the resources warrants the preparation of a nomination that would be made available should the county and local residents wish to move forward with having the corridor designated. We would like to continue the conversation about what mitigation would be most suitable, with clarification about what the Texas Department of Transportation is proposing. Based on the desired mitigation listed in the September 2011 letter from the Palo Pinto County Historical Commission, it seems that additional ideas have included an educational brochure, a tourism guide, and additional historic markers along the corridor. The preparation of NRHP materials could serve as a foundation for these additional components.

Thank you for your consideration of our comments. If you have any questions concerning this review or if we can be of further assistance, please contact Linda Henderson at linda.henderson@thc.state.tx.us or 512/463-5851.

Sincerely,



Linda Henderson

For:

Mark Wolfe, State Historic Preservation Officer



RICK PERRY, GOVERNOR • SHERI S. KRAUSE, CHAIRMAN • MARK WOLFE, EXECUTIVE DIRECTOR

P.O. BOX 12276 • AUSTIN, TEXAS • 78711-2276 • P 512.463.6100 • F 512.475.4872 • TDD 1.800.735.2989 • www.thc.state.tx.us

United States Department of the Interior



OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1001 Indian School Road NW, Suite 348
Albuquerque, New Mexico 87104



ER 13/552
File 9043.1

September 19, 2013

VIA ELECTRONIC MAIL ONLY

Salvador Deocampo
District Engineer
U.S. Department of Transportation
Federal Highway Administration - Texas Division
300 East 8th Street, Room 826
Austin, Texas 78701

Dear Mr. Deocampo:

Thank you for the opportunity to review the Environmental Assessment and Draft Section 4(f) Evaluation for the Widening and Rehabilitation of SH 16 between SH 254 and the North Side of the Brazos River Bridge, Palo Pinto County, Texas. The U.S. Department of the Interior has reviewed the document and submits these comments for your use as you prepare the final document.

SECTION 4(f) EVALUATION COMMENTS

The Department acknowledges that this project will have an adverse effect on one historic property and that the Texas State Historic Preservation Office (SHPO) has concurred with this determination of effect. In lieu of a Memorandum of Agreement (MOA) to minimize the adverse effect, the SHPO has concurred with your measures to minimize harm to the historic property in a letter dated August 9, 2012 "Section 106: Determination of Adverse Effect with Mitigation." We appreciate that you have consulted with the SHPO; however, it is not clear that other consulting parties including the Palo Pinto County Historical Commission (PPCHC) and John Kimberlin, land owner adjacent to Kimberlin Mountain, have concurred.

Following our review of the Section 4(f) Evaluation, we concur that there is no feasible or prudent alternative to the Preferred Alternative selected in the document and that all measures have been taken to minimize harm to these resources. Please note, however, that this concurrence is contingent upon successful completion of the Section 106 process with all consulting parties including the PPCHC and John Kimberlin (i.e., that all consulting parties concur with the measures to minimize harm).

We appreciate the opportunity to review this document. Should you have questions about the Section 4(f) Evaluation comments, please contact Cheryl Eckhardt, National Park Service, Intermountain Regional Office, at 303-969-2851.

Sincerely,

A handwritten signature in blue ink that reads "Stephen R. Spencer". The signature is written in a cursive style with a long horizontal flourish at the end.

Stephen R. Spencer, Ph.D.
Regional Environmental Officer

cc: Texas State Historic Preservation Office
Attn: Mark Wolfe
Texas Department of Transportation
Attn: Renee Benn



Texas Department of Transportation

125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

September 12, 2014

Mike Lewis
Palo Pinto County Historical Commission Chair
2602 N. Lakeview Drive
Palo Pinto, Texas 76484

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Mr. Lewis:

As you may recall, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway.

In 2011, the Palo Pinto County Historical Commission (CHC) became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). Since that time, we consulted with you and your county judge, David Nicklas, regarding the proposed project and the mitigation options for the proposed adverse effects to the SH 16 roadway, which TxDOT historians determined eligible for the National Register of Historic Places (NRHP).

On March 15, 2012, TxDOT received correspondence signed by you, your co-chair (Ann Reagan), and Judge Nicklas regarding the project's possible adverse effects to the historic roadway and its associated masonry features. On April 16, 2012, TxDOT copied you on a letter to Judge Nicklas that addressed those concerns and included several recommendations to mitigate the project's adverse effects. On June 8, 2012, Judge Nicklas concurred with TxDOT's recommendations. On August 9, 2012, TxDOT received written concurrence from the Texas State Historic Preservation Office (SHPO) regarding the TxDOT's proposed mitigation options and recommendations.

Although we know you have been working with Judge Nicklas regarding this project, this letter outlines and documents TxDOT's mitigation proposal, which TxDOT created as a result of our coordination with you and the SHPO. Therefore, we request the Palo Pinto CHC's written concurrence of TxDOT's mitigation efforts as outlined below.

OUR GOALS

MAINTAIN A SAFE SYSTEM ▪ ADDRESS CONGESTION ▪ CONNECT TEXAS COMMUNITIES ▪ BEST IN CLASS STATE AGENCY
An Equal Opportunity Employer

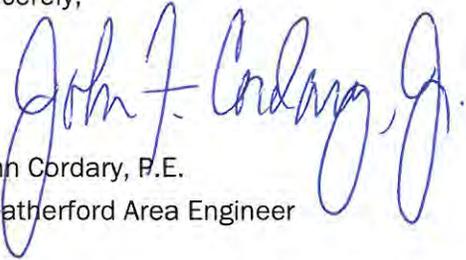
TxDOT proposes to complete or has completed the following mitigation efforts:

- TxDOT owns the SH 16 roadway and its associated historic rock wall (inventoried as Resource No. 1R in the HRSR) on Kimberlin Mountain; however, the existing SH 16 right-of-way (ROW) on Kimberlin Mountain is owned by Palo Pinto County. After the roadway is realigned, TxDOT would recommend that the Texas Transportation Commission remove the existing SH 16 roadway and its associated historic rock wall on Kimberlin Mountain from the state highway system and that control, maintenance and jurisdiction be transferred to Palo Pinto County. Palo Pinto County proposes to make the rock wall and overlook accessible to the public and erect interpretative signage. This mitigation effort would allow the existing SH 16 roadway on Kimberlin Mountain to remain open to the public; otherwise, it would be permanently closed to the public, and the rock wall could not be viewed. TxDOT would also install a driveway to connect the existing ROW to the proposed ROW at the top of Kimberlin Mountain during construction.
- One contributing feature to the NRHP-eligible SH 16 roadway, the culvert inventoried as Resource No. 10 in the HRSR, would be covered by the proposed improvements. To mitigate adverse effects of the loss of this resource, TxDOT would donate the rock material from the culvert headwalls to the Palo Pinto CHC, per your request. It is possible the County may use this rock as part of the interpretative signage noted above.
- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced mitigation efforts, please sign in the space provided below within 30 days, indicating your concurrence. We are also sending this same letter to Ann Reagan; either of you or both of you can sign your respective letters indicating the Palo Pinto CHC's concurrence. If we do not receive correspondence from you or Ms. Reagan within 30 days, we will assume the Palo Pinto CHC's concurrence with the mitigation efforts outlined in this letter.

If you have questions or need additional information about TxDOT's mitigation proposal, please feel free to call me or Gregg Lane at (682) 229-2800.

Sincerely,



John Cordary, P.E.
Weatherford Area Engineer

cc: Judge David C. Nicklas, Palo Pinto County

Concurrence of SH 16 Mitigation Proposal



Signature - Mike Lewis

9/16/2014
Date

Please return this letter within 30 days to:

**Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086**



Texas Department of Transportation

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September 12, 2014

Ann Reagan
Palo Pinto County Historical Commission Chair
P.O. Box 72
Palo Pinto, Texas 76484

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Ms. Reagan:

As you may recall, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway.

In 2011, the Palo Pinto County Historical Commission (CHC) became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). Since that time, we consulted with you and your county judge, David Nicklas, regarding the proposed project and the mitigation options for the proposed adverse effects to the SH 16 roadway, which TxDOT historians determined eligible for the National Register of Historic Places (NRHP).

On March 15, 2012, TxDOT received correspondence signed by you, your co-chair (Mike Lewis), and Judge Nicklas regarding the project's possible adverse effects to the historic roadway and its associated masonry features. On April 16, 2012, TxDOT copied you on a letter to Judge Nicklas that addressed those concerns and included several recommendations to mitigate the project's adverse effects. On June 8, 2012, Judge Nicklas concurred with TxDOT's recommendations. On August 9, 2012, TxDOT received written concurrence from the Texas State Historic Preservation Office (SHPO) regarding the TxDOT's proposed mitigation options and recommendations.

Although we know you have been working with Judge Nicklas regarding this project, this letter outlines and documents TxDOT's mitigation proposal, which TxDOT created as a result of our coordination with you and the SHPO. Therefore, we request the Palo Pinto CHC's written concurrence of TxDOT's mitigation efforts as outlined below.

OUR GOALS

MAINTAIN A SAFE SYSTEM ▪ ADDRESS CONGESTION ▪ CONNECT TEXAS COMMUNITIES ▪ BEST IN CLASS STATE AGENCY

An Equal Opportunity Employer

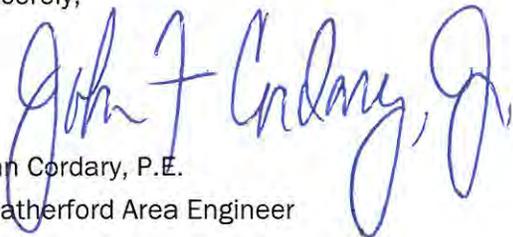
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- TxDOT owns the SH 16 roadway and its associated historic rock wall (inventoried as Resource No. 1R in the HRSR) on Kimberlin Mountain; however, the existing SH 16 right-of-way (ROW) on Kimberlin Mountain is owned by Palo Pinto County. After the roadway is realigned, TxDOT would recommend that the Texas Transportation Commission remove the existing SH 16 roadway and its associated historic rock wall on Kimberlin Mountain from the state highway system and that control, maintenance and jurisdiction be transferred to Palo Pinto County. Palo Pinto County proposes to make the rock wall and overlook accessible to the public and erect interpretative signage. This mitigation effort would allow the existing SH 16 roadway on Kimberlin Mountain to remain open to the public; otherwise, it would be permanently closed to the public, and the rock wall could not be viewed. TxDOT would also install a driveway to connect the existing ROW to the proposed ROW at the top of Kimberlin Mountain during construction.
- One contributing feature to the NRHP-eligible SH 16 roadway, the culvert inventoried as Resource No. 10 in the HRSR, would be covered by the proposed improvements. To mitigate adverse effects of the loss of this resource, TxDOT would donate the rock material from the culvert headwalls to the Palo Pinto CHC, per your request. It is possible the County may use this rock as part of the interpretative signage noted above.
- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced mitigation efforts, please sign in the space provided below within 30 days, indicating your concurrence. We are also sending this same letter to Mike Lewis; either of you or both of you can sign your respective letters indicating the Palo Pinto CHC's concurrence. If we do not receive correspondence from you or Mr. Lewis within 30 days, we will assume the Palo Pinto CHC's concurrence with the mitigation efforts outlined in this letter.

If you have questions or need additional information about this project's mitigation efforts, please feel free to call me or Gregg Lane at (682) 229-2800.

Sincerely,



John Cordary, P.E.
Weatherford Area Engineer

cc: Judge David C. Nicklas, Palo Pinto County

Concurrence of SH 16 Mitigation Proposal



Signature - Ann Reagan

9-18-14

Date

Please return this letter within 30 days to:

**Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086**



125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

September 4, 2014

John Kimberlin
Kimberlin Ranches
3322 Shorecrest Drive, Suite 200
Dallas, Texas 75235

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Mr. Kimberlin:

As you may recall, the Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway.

In 2011, you became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). In September 2011, we sent you a copy of and requested your comments on the Historic Resources Survey Report (HRSR). We also consulted with you regarding mitigation options for the proposed adverse effects to the SH 16 roadway, which TxDOT historians determined eligible for the National Register of Historic Places (NRHP).

To date, TxDOT has received written concurrence from the Texas State Historic Preservation Office (SHPO) and Palo Pinto County regarding the mitigation options. Although you previously provided your verbal agreement regarding TxDOT's proposed mitigation for the adverse effects to the SH 16 roadway, this letter documents the mitigation proposal and requests your written concurrence of these mitigation efforts.

TxDOT proposes to complete or has completed the following mitigation efforts:

- TxDOT owns the SH 16 roadway and its associated historic rock wall (inventoried as Resource No. 1R in the HRSR) on Kimberlin Mountain; however, the existing SH 16 right-of-way (ROW) on Kimberlin Mountain is owned by Palo Pinto County. After the roadway is realigned, TxDOT would recommend that the Texas Transportation Commission remove the existing SH 16 roadway and its associated historic rock wall on Kimberlin Mountain from the state highway system and that control, maintenance and jurisdiction be transferred to Palo Pinto County. Palo Pinto County proposes to make the rock wall and overlook accessible to the public and erect interpretative signage. This mitigation effort would allow the existing SH 16 roadway on Kimberlin Mountain to remain open to the public; otherwise, it would be permanently closed to the public, and the rock wall could not be viewed. TxDOT would also install a driveway to connect the existing ROW to the proposed ROW at the top of Kimberlin Mountain during construction.
- One contributing feature to the NRHP-eligible SH 16 roadway, the culvert inventoried as Resource No. 10 in the HRSR, would be covered by the proposed improvements. To mitigate adverse effects of the loss of this resource, TxDOT would donate the rock material from the culvert headwalls to the Palo Pinto County Historical Commission (CHC) per their request. It is possible the County may use this rock as part of the interpretative signage noted above.
- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced mitigation efforts, please sign in the space provided below within 30 days, indicating your concurrence. If we do not receive correspondence from you within 30 days, we will assume your concurrence with the mitigation efforts outlined in this letter.

Please note that this letter only addresses mitigation efforts associated with adverse effects to historic resources under Section 106 of the NHPA (in accordance with 36 Code of Federal Regulations [CFR] 800.5). This letter does not address proposed ROW or easements on your property. Such ROW matters would be completed after the environmental documentation associated with this undertaking is approved.

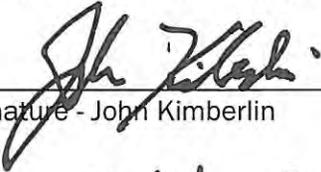
If you have questions or need additional information about this project's mitigation efforts, please feel free to call me or Gregg Lane at (682) 229-2800.

Sincerely,

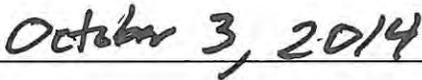


John Cordary, P.E.
Weatherford Area Engineer

Concurrence of SH 16 Mitigation Proposal



Signature - John Kimberlin



Date

Please return this letter within 30 days to:

**Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086**



October 14, 2014

Evan R. Thompson
Preservation Texas
P.O. Box 12832
Austin, Texas 78711

Re: NHPA SECTION 106 MITIGATION PROPOSAL
Palo Pinto County, Fort Worth District, SH 16 from SH 254 to Cliff Drive
CSJ# 0362-02-021

Dear Mr. Thompson:

The Texas Department of Transportation (TxDOT) Fort Worth District, in cooperation with the Federal Highway Administration (FHWA), is proposing to improve State Highway (SH) 16 from SH 254 to Cliff Drive in Palo Pinto County, Texas (CSJ: 0362-02-021). The purpose of the project is to improve safety on SH 16 by adding shoulders and straightening a portion of the roadway. Please note that the proposed project does not include widening or rehabilitating the masonry arch bridge over the Brazos River. As a consulting party on this SH 16 project, we request your concurrence with the mitigation proposal outlined in this letter below.

In 2006, Preservation Texas became a consulting party on this project under Section 106 of the National Historic Preservation Act (NHPA). In July 2011, the Palo Pinto County Historical Commission (CHC) and an impacted landowner, John Kimberlin, became consulting parties. Although TxDOT invited the Historic Bridge Foundation to be a consulting party on this project in July 2011, they declined due to the lack of potential adverse effects to the SH 16 masonry arch bridge at the Brazos River.

In September 2011, TxDOT sent all consulting parties (including Preservation Texas) a copy of and requested comments on the Historic Resources Survey Report (HRSR), which noted that the SH 16 roadway and 18 contributing masonry features were eligible for the National Register of Historic Places (NRHP). The HRSR also noted that the proposed project posed adverse effects to the NRHP-eligible roadway. Preservation Texas did not provide comment on the HRSR or its findings; however, the Palo Pinto CHC provided comments that mainly included possible mitigation options.

To discuss potential mitigation options, TxDOT invited Preservation Texas to a meeting with all consulting parties and numerous agencies (including the Texas Historical Commission [THC]) on

December 6, 2011. This meeting focused on the overall development of the project and possible mitigation options. When Preservation Texas did not reply to this invitation, TxDOT's environmental consultant, Maryellen Russo at Blanton & Associates, Inc., called Krista Gebbia, the previous Preservation Texas Executive Director. Ms. Gebbia indicated that Preservation Texas' primary role as a consulting party would involve providing advice and assistance to the local consulting parties, if required, and she declined the invitation. TxDOT also sent Preservation Texas an invitation to the public meeting that was held on March 6, 2012; however, no representative from Preservation Texas attended the meeting.

Over that last two years, TxDOT has worked with the Palo Pinto CHC, Mr. Kimberlin, the THC, and Palo Pinto County to develop several mitigation measures for the proposed project. To date, TxDOT has received written concurrence regarding these mitigation options from the Palo Pinto CHC, Mr. Kimberlin, and the THC (see the attached correspondence). While your organization has not been involved in creation of these mitigation measures, we request your written concurrence of this mitigation proposal to complete the Section 106 of the NHPA process.

The following information provides mitigation efforts that TxDOT proposes to complete or has completed:

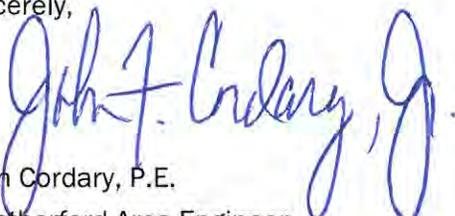
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- Upon the request of the Texas SHPO, TxDOT nominated the SH 16 roadway between Cliff Drive and SH 254 for listing on the NRHP. The nomination received approval from the Texas State Board of Review, and its approval by the National Park Service is pending.

If you agree with TxDOT's above-referenced proposal to mitigate the adverse effects to the historic SH 16 roadway, please sign in the space provided below within 30 days, indicating your concurrence with the proposed mitigation. If we do not receive correspondence from you within 30 days, we will assume your concurrence with the mitigation proposal outlined in this letter.

If you have questions or need additional information about this project's mitigation efforts, please feel free to call me or Gregg Lane at (682) 229-2800.

Sincerely,



John Cordary, P.E.
Weatherford Area Engineer

Concurrence of SH 16 Mitigation Proposal

Signature - Evan R. Thompson, Preservation Texas

Date

Please return this letter within 30 days to:

Mr. John Cordary, P.E.
Weatherford Area Engineer
Texas Department of Transportation
1427 West Bankhead
Weatherford, TX 76086

Appendix F
Applicable Pages from the 2013-2016 STIP

FY 2013-2016 STIP

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM

DALLAS / FORT WORTH DISTRICT

HIGHWAY

AUGUST 2012



**Grouped Project CSJs
TxDOT Dallas, Fort Worth, and Paris Districts**

PROPOSED CSJ	GROUPED PROJECT CATEGORY	DEFINITION
5000-00-950	PE – Preliminary Engineering	Preliminary Engineering for any project that is not added capacity in a non-attainment area. Includes activities which do not involve or lead directly to construction such as planning and technical studies, grants for training and research programs.
5000-00-951	Right of Way Acquisition	Right of Way acquisition for any project that is not added capacity in a non-attainment area. Includes relocation assistance, hardship acquisition, and protective buying.
5000-00-952 5000-00-957 5000-00-958	Preventive Maintenance and Rehabilitation	Projects to include pavement repair to preserve existing pavement to achieve designed loading. Includes seal coats, overlays, resurfacing, restoration and rehabilitation done with existing ROW. Also includes modernization of a highway by reconstruction, adding shoulders or adding auxiliary lanes (e.g., parking, weaving, turning, climbing, non-added capacity).
5000-00-953	Bridge Replacement and Rehabilitation	Projects to replace and/or rehabilitate functionally obsolete or structurally deficient bridges.
5000-00-954	Railroad Grade Separations	Projects to construct or replace existing highway-railroad grade crossings and to rehabilitate and/or replace deficient railroad underpasses, resulting in no added capacity.
5800-00-950	Safety	Projects to include the construction or replacement/rehabilitation of guard rails, median barriers, crash cushions, pavement and markings, skid treatments, medians, lighting improvements, curb ramps, railroad/highway crossing warning devices, fencing, intersection improvements (e.g., turn lanes), signalization projects and interchange modifications. Also includes projects funded via the Federal Hazard Elimination Program and the Federal Railroad Signal Safety Program.
5000-00-956	Landscaping	Project consisting of typical right-of-way landscape development, establishment and aesthetic improvements to include any associated erosion control and environmental mitigation activities.
5800-00-915	Intelligent Transportation Systems Deployment	Highway traffic operation improvement projects included the installation of ramp metering control devices, variable message signs, traffic monitoring equipment, and projects in the Federal ITS/IVHS programs.
5000-00-916	Bicycle and Pedestrian	Construction or rehabilitation of bicycle and pedestrian lanes, paths, and facilities.
5000-00-917	Safety Rest Areas and Truck Weigh Stations	Construction and improvement of rest areas and truck weigh stations.
5000-00-918	Transit Improvements	Projects include the construction and improvement of small passenger shelters and information kiosks. Also includes the construction and improvement of rail storage/maintenance facilities bus transfer facilities where minor amounts of additional land are required and there is not a substantial increase in the number of users.

Appendix G
Farmland Conversion Impact Rating Form NRCS-CPA-106

**FARMLAND CONVERSION IMPACT RATING
FOR CORRIDOR TYPE PROJECTS**

PART I (To be completed by Federal Agency)	3. Date of Land Evaluation Request	4. Sheet 1 of <u>1</u>
---	------------------------------------	------------------------

1. Name of Project SH 16 from Cliff Drive to SH 254	5. Federal Agency Involved Federal Highway Administration
---	---

2. Type of Project Roadway Safety Improvement Project	6. County and State Palo Pinto County, Texas
---	--

PART II (To be completed by NRCS)		1. Date Request Received by NRCS	2. Person Completing Form
--	--	----------------------------------	---------------------------

3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated	Average Farm Size
---	--	--------------------	-------------------

5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: _____ %	7. Amount of Farmland As Defined in FPPA Acres: _____ %
------------------	---	--

8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS
--	---	---

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	9.32 (new ROW)			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	119.90 (total ROW)			

PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				

PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)

PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points				
1. Area in Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	10			
3. Percent Of Corridor Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	0			
5. Size of Present Farm Unit Compared To Average	10	10			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availability Of Farm Support Services	5	0			
8. On-Farm Investments	20	5			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	40	0	0

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	0	40	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS (Total of above 2 lines)	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	---	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part: _____ DATE _____

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?

(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)

As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points
