## SEGMENT ANALYSIS MATRIX

US 380 FROM COIT ROAD TO FM 1827

CSJs: 0135-02-065, 0135-03-053, AND 0135-15-002











<b>*</b>	SCREENING/ EVALUATION CATEGORY	SEGMENT A & SEGMENT A SHIFT*  (MCKINNEY-WEST)  COIT ROAD TO CR 161/RIDGE ROAD  *The Segment A shift provides for an alternative design near University Drive and future US 380 intersection to better accommodate future developments.	SEGMENT B (PROSPER - FURTHEST WEST) COIT ROAD TO CR 161/RIDGE ROAD	SEGMENT E (BLOOMDALE) CR 161/RIDGE ROAD TO SH 5 COMMON TO ALL ALTERNATIVES	SEGMENT C (MCKINNEY FURTHEST EAST) SH 5 TO FM 1827	SEGMENT D (MCKINNEY - EAST) SH 5 TO FM 1827	NO-BUILD ALTERNATIVE (NO FREEWAY) COIT ROAD TO FM 1827	KEY TAKEAWAYS
Environment and Natural Resources	Total Acres of Jurisdictional Wetlands  Total Linear Feet of Rivers/Streams  Total Acres of Forests and Prairies/Grasslands	<ul> <li>1.04 total acres of jurisdictional wetlands</li> <li>5,161 total linear feet of rivers/streams</li> <li>67 total acres of forest/ 41 total acres of prairies and grasslands</li> <li>Would not require an Individual Standard Section 404 Permit</li> </ul>	<ul> <li>0.46 total acres of jurisdictional wetlands</li> <li>2,759 total linear feet of rivers/streams</li> <li>35 total acres of forest/67 total acres of prairies and grasslands</li> <li>Would not require an Individual Standard Permit</li> </ul>	<ul> <li>0.03 total acres of jurisdictional wetlands</li> <li>2,718 total linear feet of rivers/streams</li> <li>62 total acres of forest/47 total acres of prairies and grasslands</li> <li>Would not require an Individual Standard Permit</li> </ul>	<ul> <li>0.03 total acres of jurisdictional wetlands</li> <li>2,833 total linear feet of rivers/streams</li> <li>100 total acres of forest/86 total acres of prairies and grasslands</li> <li>Would not require an Individual Standard Permit</li> </ul>	<ul> <li>0.57 total acres of jurisdictional wetlands</li> <li>1,334 total linear feet of rivers/streams</li> <li>58 total acres of forest/20 total acres of prairies and grasslands</li> <li>Would not require an Individual Standard Permit</li> </ul>	No impact	Based on the 60% schematic design and the current hydraulic analysis, none of the Build Alternatives would require an Individual Standard Permit due to each individual crossing impact being below the threshold.
	Water Features, Section 303(d) Waters, Floodplains (100-year) and Floodways within Proposed Right-of-Way (ROW) in acres	20 acres of floodplain 6 acres of regulatory floodway Impacts of the shift option would need to be investigated further	25 acres of floodplain 1 acre of regulatory floodway	110 acres of floodplain 29 acres of regulatory floodway	without Spur 399 Ext. interchange 36 acres of floodplain 32 acres of regulatory floodway  with Spur 399 Ext. interchange 45 acres of floodplain 58 acres of regulatory floodway	without Spur 399 Ext. interchange 132 acres of floodplain 106 acres of regulatory floodway  with Spur 399 Ext. interchange 138 acres of floodplain 107 acres of regulatory floodway	No impact	2 Impaired Waters for all alternatives (Wilson Creek and East Fork Trinity River above Lake Lavon)
	Protected Species and their Potential Habitats  Potential protected species in the study area include the alligator snapping turtle (Species of Greatest Conservation Need, or SGCN), 3 mussel species (1 proposed threatened and 2 SGCN), monarch butterfly (federal candidate species), 4 bat species (1 proposed endangered and 3 SGCN), 2 bird species (1 listed threatened-Black Rail, and 1 listed endangered-Whooping Crane).	Potential stop-over habitats along Wilson Creek Tributary east of Tucker Hill (Black Rail and Whooping Crane habitat)  6 perennial stream crossings (potential mussel and alligator snapping turtle habitat)  11 crossings of wooded habitats (potential bat species habitat)  Grasslands and pastures would be potential habitats for the monarch butterfly  Shift option has potential to encroach on possible Black Rail stop-over habitat, depending on the alignment.	10 perennial stream crossings (potential mussel and alligator snapping turtle habitat)  12 crossings of wooded habitats (potential bat species habitat)  Grasslands and pastures would be potential habitats for the monarch butterfly	Potential stop-over habitats along Honey Creek (Black Rail and Whooping Crane)  7 perennial stream crossings (potential mussel and alligator snapping turtle habitat) including those near the Collin County Courthouse and Campus  15 crossings of wooded habitats (potential bat species habitat)  Grasslands and pastures would be potential habitats for the monarch butterfly	without Spur 399 Ext. interchange 1 perennial stream crossing (potential mussel species and alligator snapping turtle habitat) including those near the Collin County Courthouse and Campus  6 crossings of wooded habitats (potential bat species habitat)  Potential stop-over habitats along East Fork Trinity River at gore between Segments C & D (Black Rail and Whooping Crane habitat)  Grasslands and pastures would be potential habitats for the monarch butterfly  with Spur 399 Ext. interchange 2 perennial stream crossings (potential mussel species and alligator snapping turtle habitat)  7 crossings of wooded habitats (potential bat species habitat)  Potential stop-over habitats along East Fork Trinity River at gore between C & D (Black Rail and Whooping Crane)  Grasslands and pastures would be potential habitats for the monarch butterfly	·	No impact	Segments A and B have similar impacts. Segment C is less impactful than Segment D as the area near Segment D includes floodplains where more forested and wetland habitats are located.  Coordination is ongoing with the Texas Parks and Wildlife Department (TPWD) to review the project impacts and protect the State's natural resources, including freshwater mussels, migratory birds, and other resident wildlife. Minimization of impacts would be done through design and implementation of TPWD beneficial management practices (BMP).