

## CHAPTER 6

### MITIGATION AND PERMITTING

Practicable efforts have been made in the planning process to avoid impacts to both human and natural environments. When impacts are unavoidable, steps would be taken first to minimize impacts and then to mitigate for impacts, as required under the Texas Department of Transportation (TxDOT) guidelines. In Title 43 Texas Administrative Code, Chapter 2, mitigation efforts may be defined as:

- Avoiding an impact altogether;
- Minimizing the impact by limiting the degree or magnitude of the action;
- Rectifying the impact by repairing, rehabilitating, and restoring the resource;
- Reducing or eliminating the impact over time by preservation and maintenance activities; and
- Compensating for the impact by replacing or providing substitutes to the resource impacted.

Efforts have been made in the development, evaluation, and selection of alternatives to avoid or minimize adverse effects. Where impacts to resources require coordination and permitting, required processes would be followed with the appropriate agency.

As discussed in **Chapters 3 and 4**, several resources either do not occur within the study area or adverse impacts to the resources would not occur as the result of the proposed project. In these cases permitting or mitigation is not proposed for these resources. The following is a list of the resources that would not be adversely impacted based on information available at the time the document was prepared:

- Community cohesion and quality of life
- Disproportionately high and adverse impacts to minority or low-income populations
- Disproportionately high and adverse impacts to Limited English Proficiency populations
- Unique or prime farmlands
- Groundwater
- Waters of the United States (U.S.), including wetlands
- Navigable waters
- Vegetation and Habitat
- Threatened and Endangered Species
- Non-archeological historic resources
- Energy

Therefore, no permitting or mitigation for these issues is proposed.

#### **6.1 SOCIAL ENVIRONMENT**

##### **6.1.1 Relocation**

TxDOT offers relocation and financial assistance to residents and business owners that are affected by the acquisition of right-of-way (ROW) in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act (Uniform Act) of 1970. Once it has been determined that a property or structure must be acquired in order to construct the roadway, the property owner and/or tenant is contacted by a TxDOT relocation counselor who provides

information on exactly what benefits for which the owner/tenant is eligible and who assists the owner/tenant in applying for those benefits. The TxDOT relocation representative would provide listings of comparable housing, transportation to inspect the housing (especially for elderly and handicapped persons), and referrals to other agencies that provide assistance for relocated persons.

Properties presented as comparable would be of similar size in terms of number of rooms, living space, location, and square footage. The properties would be available for purchase and within the financial means of the potentially displaced person. The replacement housing must meet all minimum standards established by TxDOT (decent, safe, and sanitary) and conform to all local building codes. Depending on the difference in prices of properties that are comparable in all other criteria, financial assistance in the form of a purchase supplement, rental assistance payments, or a mortgage down payment may be offered to the potentially displaced person. In any case, a potentially displaced person would not be required to move until comparable replacement dwellings are presented.

In addition to residential relocation assistance, TxDOT also provides assistance to businesses, farms, and nonprofit organizations required to relocate. These benefits may be in the form of reimbursements for reasonable moving expenses and reestablishment expenses.

TxDOT would follow the Uniform Act for any advanced ROW acquisition or for any future proposed temporary and permanent easements.

## 6.2 AIR QUALITY

For nonattainment areas, the 1990 Clean Air Act Amendments required the Metropolitan Planning Organizations (MPO) and the state transportation departments to demonstrate that transportation plans, programs, and projects funded under Title 23 U.S. Code or the FTA conform to state or federal implementation plans. The proposed project is located within the part of El Paso County, which is in moderate nonattainment for particulate matter-10 microns (PM<sub>10</sub>) and in maintenance for the 8-hour carbon monoxide standard; therefore, the transportation conformity rule applies.

The proposed project is included in the current *Mission 2035* Metropolitan Transportation Plan (MTP) and in the *Draft Horizon 2040* (the next MTP under development by the El Paso MPO). It is also approved as a toll project under the local Comprehensive Mobility Plan (CMP) and programmed to be developed by the local toll authority, the Camino Real Regional Mobility Authority (CRRMA), established in March 2007. However, the project is currently not in the 2011-2014 Statewide Transportation Improvement Program (STIP). Refer to **Appendix F** for the CMP and MTP pages containing the project.

The *Draft Horizon 2040* MTP states the proposed project limits as Racetrack Drive to Park Street, with a reported construction cost of approximately \$365 million. The project limits would require an update to include the revised limits from Racetrack Drive to United States Highway (US) 54. The project cost would also need to be updated to approximately \$500 million, pending toll feasibility studies.

During the construction phase of the project, temporary impacts on air quality include additional dust generated from construction activities. Efforts would be made to mitigate for temporary air quality impacts during construction, including minimizing or eliminating unnecessary idling of

construction vehicles, and employing a combination of dust control techniques including watering of unpaved road surfaces, chemical stabilization, and vehicle speed reduction.

### **6.3 NOISE**

A detailed traffic noise analysis, including associated noise abatement measures for the Preferred Alternative, will be included in the Final EIS.

Noise associated with the construction of the project is difficult to predict. Heavy machinery (a major source of noise in construction) is constantly moving in unpredictable patterns. Noise abatement will be considered for impacted receivers, and where noise mitigation would be both feasible and reasonable as defined in TxDOT's *2011 Guidelines for Analysis and Abatement of Roadway Traffic Noise*. When noise is adversely impacting areas, mitigation practices including but not limited to berms, buffers, and walls will be implemented. Provisions would be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise where warranted, through abatement measures such as work-hour controls and proper maintenance of muffler systems.

### **6.4 WATER QUALITY**

Since the project would impact greater than five acres of land, a Notice of Intent would be prepared and filed with the Texas Commission on Environmental Quality (TCEQ) and U.S. Environmental Protection Agency (EPA) (40 Code of Federal Regulations [CFR] 122) prior to the issuance of a Texas Pollution Discharge Elimination System (TPDES) construction stormwater discharge permit as per Section 402 of the Clean Water Act. The TPDES permit requires completion of a Storm Water Pollution Prevention Plan (SW3P) in order to avoid adverse impacts potentially resulting from construction stormwater runoff discharges. TxDOT has its own stormwater management guidelines and BMPs for construction activities that would be used in the development of the SW3P. The project SW3P would be prepared pursuant to the TxDOT manual, *Storm Water Management Guidelines for Construction Activities* (TxDOT 2000). A SW3P would be prepared prior to construction and followed throughout the construction phases to minimize the discharge of sediment laden stormwater to the proposed study area streams. The SW3P may include, but is not limited to, the use of silt fences, erosion control logs, inlet protection barriers, hay bales, and seeding or sodding. As part of the SW3P, TxDOT staff or a designee would be required to inspect both stabilized and destabilized areas of the construction site for evidence of, or the potential for, pollutants entering waters of the U.S. via stormwater runoff through a drainage system. Summary reports of these inspections would be written and retained as part of the SW3P. Once construction has been completed and the disturbed areas achieve 70 percent (%) stabilizing cover, a Notice of Termination would be filed with the TCEQ per permit requirements. No other source discharges that may require additional authorizations under Section 402 of the Clean Water Act are anticipated for the proposed project.

Mitigation for impacts listed previously would incorporate BMPs at appropriate stages during construction. To the extent feasible, temporary erosion control measures would be installed prior to ground disturbing activities and maintained regularly throughout the various phases of construction. The erosion control plan would be phased to coincide with construction activities to ensure maximum protection throughout the construction process. At the completion of construction, the TxDOT *Seeding for Erosion Control* specifications would be followed to restore and reseed all disturbed areas. For erosion control, sod would be utilized and remain in place until the area has been stabilized. For sedimentation control, a combination of silt fencing,

erosion control logs, and hay bale dikes would be utilized and would remain in place until project completion. The existing ditches would be used for retention storage during construction. For post-construction BMPs, a combination of retention and vegetative filter strips would be utilized to control total suspended solids (TSS) after construction. Vegetation within the existing ditches would be reestablished after construction and would act as vegetative filter strips. Other areas of ROW would be seeded with native species of grasses, shrubs, or trees, as needed.

## **6.5 U.S. ARMY CORPS OF ENGINEERS AND U.S. COAST GUARD PERMITTING**

The proposed reasonable alternatives would cross potentially jurisdictional waters of the U.S. Based on conceptual design information, all features would be avoided during construction by placing all piers and pilings outside the jurisdictional limits of these areas. Bridge structures would span these features and no box culverts are proposed. Therefore, a Nationwide Permit 14 for Linear Transportation Crossings without a pre-construction notification would be applicable for each water crossing. Because the proposed project is not anticipated to impact waters of the U.S. or wetlands, compensatory mitigation would not be required. During the next phase of design, if design modifications are needed which have the potential to impact jurisdictional wetlands or waters of the U.S., further coordination with the U.S. Army Corps of Engineers would be conducted.

There is no potential to affect federally-listed species or designated critical habitat, or any historical properties listed or eligible for listing on the National Register of Historic Places (NRHP) which would be potentially impacted by the proposed project. The proposed project does not include a bridge in or over a navigable water of the U.S.; therefore, the General Bridge Act and Section 10 of the Rivers and Harbors Act does not apply.

## **6.6 BIOLOGICAL RESOURCES**

### **6.6.1 Vegetation**

Project landscaping would be limited to seeding and replanting the ROW with native species of grasses, shrubs, and/or trees where applicable and feasible in order to comply with the Executive Memorandum on Environmentally Beneficial Landscaping and Executive Order 13112 on Invasive Species. No invasive or noxious species would be used to revegetate the ROW, and soil disturbance would be minimized to ensure that invasive species do not establish in the ROW.

### **6.6.2 Migratory Bird Treaty Act (MBTA)**

The MBTA of 1918 states it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, or egg in part or in whole, without a federal permit issued in accordance with the Act's policies and regulations. A cursory nest survey was conducted in January 2012 within the areas proposed for clearing under the proposed design changes. No active nests were observed at the time of the site survey, and no evidence of migratory birds was observed within project limits. In accordance with the MBTA, no vegetation would be removed containing nests, eggs, or young should clearing occur during the nesting and breeding season. If a nest, eggs, or young of a ground-dwelling bird is observed before or during construction, the participating agencies and would be notified and the steps would be taken to avoid impacts to the bird and the nest.

### **6.6.3 Threatened and Endangered Species**

Marginal habitat for some of the federal- and state-listed species is present in the proposed study area, but no actual listed species were found or recorded within the project limits. No affect to listed species are anticipated from the proposed project. If listed species are found or suspected during any phase of construction, work would cease in that area and TxDOT personnel would be notified. TxDOT would then immediately notify the U.S. Fish and Wildlife Service (USFWS) and/or Texas Parks and Wildlife Department (TPWD) of the occurrence. Work would not continue at that location until all required coordination is complete and necessary permits/clearances have been obtained.

## **6.7 FLOODPLAINS**

A location hydraulic study would be performed during the final design of the highway. The study would provide detailed hydraulic information necessary to determine the use of culverts or a bridge at each stream crossing. The structures would be designed according to TxDOT standards. The study would be reviewed by local, state, and federal regulatory agencies to confirm that adequate measures have been taken to ensure that floodplain encroachment does not increase the risk of flooding to adjacent properties. Areas sensitive to local flooding would be identified during the final design phase of the project. If areas of severe flooding are identified, design criteria may be more restrictive than those specified in county orders. Any proposed construction within the 100-year floodplain or floodway would be coordinated with the El Paso County floodplain administrators to receive a development permit.

The reasonable alternatives were designed to avoid impacts to floodplains to the maximum extent feasible and practicable. All reasonable alternatives were located to minimize encroachment on regulatory floodways and floodplains and maintain transverse encroachments to the extent possible. The proposed project is not anticipated to create a significant encroachment on any area floodplains as defined in 23 CFR 650. A portion of the proposed project would be a longitudinal encroachment on the Rio Grande floodplain, coordination and possible permitting with the International Boundary and Water Commission (IBWC) will take place. All floodways would be bridged where feasible and practicable, and further avoidance and minimization of floodplain encroachments would be considered during preliminary and final design.

Mitigation measures may include cross drainage structures or long bridge structures to allow sheet flow to be unchanged relative to existing conditions. Hydraulic structures would be designed pursuant to TxDOT standards to accommodate periods of high flows without impacting downstream areas. Adverse impacts to the watershed are expected to be negligible. Mitigation of impacts would include BMPs during construction of drainage ponds to offset increased flows.

Cross drainage and mitigation facilities associated with the proposed roadway and drainage improvements would be designed to handle a 100-year flood event without affecting the 100-year floodplain. The hydraulic design practices of the proposed project would be in accordance with current TxDOT design policies and standards. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations or ordinances.

## **6.8 ARCHEOLOGICAL AND NON-ARCHEOLOGICAL HISTORIC (CULTURAL) RESOURCES**

The proposed ROW for the reasonable alternatives has the potential to contain prehistoric materials buried in some locations within the study area in contexts that retain varying degrees of integrity. If any archeological sites are determined to be eligible for listing in the NRHP or as a State Archeological Landmark and would be affected by the proposed project, appropriate consultation would occur to resolve potential adverse effects. The Antiquities Code of Texas (ACT) review and consultation would proceed in accordance with the Texas Historical Commission's (THC's) Rules of Practice under Procedure for the ACT and would closely follow those of the Secretary of Interior's Standards and Guidelines. Compliance would be conducted in consultation with the State Historic Preservation Offices (SHPO) and/or federally-recognized tribes to determine the project's approved procedures for compliance with federal and state laws. Historic resources would be coordinated under the provisions of the Memorandum of Understanding (MOU) between the SHPO and TxDOT. In the event archeological artifacts are found during project construction, work in the immediate vicinity would cease and TxDOT would be contacted immediately. TxDOT would then initiate any required coordination with the THC.

TxDOT is currently coordinating with the THC on a determination of impacts (none, no adverse, or adverse) to Non-Archeological Historic Resources. If the TxDOT-THC coordination concludes that mitigation is warranted, appropriate mitigation will be determined and discussed in the next phase of the project.

## **6.9 HAZARDOUS MATERIALS**

Construction of the reasonable alternatives could have additional impacts on potential hazardous materials sites. However, risks can be minimized by conducting Phase I and II Environmental Site Assessments according to American Society for Testing and Materials (ASTM) standards to identify, avoid, and mitigate hazardous materials sites. If hazardous materials are found during the construction phase, TxDOT standard guidelines would be followed.

Asbestos and lead-based paint investigations for all structures impacted by the proposed project would be addressed during the ROW acquisition process prior to construction. If suspect material is encountered, a mitigation plan for the removal and disposal of materials containing hazardous materials would be developed according to federal, state, and local regulations. The project's plans specifications and estimates would disclose areas of asbestos and lead-based paint which would be disturbed. Special provisions would be developed in the plans specifications and estimates for asbestos-related activities, notifications, required licenses, and monitoring.

Numerous documented federal- or state-regulated hazardous materials sites, as defined by the ASTM, were identified within the proposed ROW of the reasonable alternatives. The hazardous materials sources identified reflect the results of regulatory database queries provided by Banks Environmental Data, Inc. (2010). The regulatory databases are maintained in electronic storage formats by federal and state agencies and contain geo-coded (geographic information system capable) information pertaining to a variety of hazardous materials releases or potential releases. The databases include EPA, TCEQ and Railroad Commission of Texas listings of sites where hazardous materials are suspected to have been stored, used, and/or released to the environment. The federal and state databases that were reviewed are described in **Chapter 3**. If an undocumented site is encountered during construction, a detailed evaluation

would need to occur. Mitigation, if warranted would depend on the type, size and location of the encountered hazardous materials.

Storage and use of hazardous materials would be necessary during the construction of the project. Temporary above ground storage tanks (ASTs) containing oil and diesel are typically used to provide fuels for the equipment and vehicles used in roadway construction. These ASTs would be regulated and would require control measures for spills and leaks. Potential impacts could occur from small spills and leaks from fueling and maintenance of equipment and vehicles. These impacts should be minimal and would not pose a substantial impact to the environment. Every effort would be taken to reduce these types of impacts during the construction activities. Activities dealing with the use and storage of hazardous materials during roadway construction would be required to conform to TxDOT standards for spill containment and control strategies.

### **6.10 VISUAL AND AESTHETIC**

It is likely that visual changes resulting from the proposed project would occur throughout the study area and near intersections where access to the new roadway would be provided. These developments would likely include streetlights and/or security lighting that would be expected to result in incremental and localized increases in ambient light levels, glare, and nightglow. The proposed project is being coordinated through an interdisciplinary approach called Context Sensitive Solutions. This process includes input from local stakeholders to develop an aesthetics plan for the corridor that incorporates the cultural values of the community. The proposed design would be coordinated with the City of El Paso to comply with the *El Paso City Code* visual ordinance, as appropriate. Where practicable, visual mitigation measures could include naturally vegetated medians, minimized ROW clearing, incorporation of design specifications to blend into the landscape, and promotion of roadside native wildflower planting programs. Native plants would be considered for roadside vegetation, where practicable, to improve the visual aesthetics and to control the introduction and growth of invasive species, landscape planting, and revegetation of natural areas impacted by construction.

### **6.11 CONSTRUCTION IMPACTS**

The contractor would be required to take every possible reasonable step and follow mitigation procedures in accordance with state and local governing regulations to avoid or minimize construction impacts (**Table 6-1**). Further, the contractor would be responsible for ensuring regulatory compliance pertaining to all project specific locations, such as construction staging areas, borrow sites, field office locations, etc.

During construction, short-term impacts to land uses adjacent to an alternative would occur due to the movement of workers and materials through the area, the location of temporary work spaces, and construction activities. The specific locations of the temporary work spaces are not yet known. Any land affected during construction would be restored upon completion of construction to pre-construction conditions.

Traffic delays would be minimized through coordination between TxDOT and affected neighborhoods or landowners (in areas immediately adjacent to the proposed ROW) and by developing a construction schedule that would allow for a minimum delay for movement across the proposed ROW. Also, efforts would be made to provide appropriate construction detours, informative signage and maintenance of access to residences, businesses, and community facilities where practicable.

**Table 6-1: Measures Required to Avoid or Minimize Construction Impacts**

Construction Related Impact	Contractor Mitigation Measure(s)
<b>Air Quality</b>	Implementing dust control measures, such as the use of water sprinklers, and prohibiting open burning, except in accordance with applicable laws and regulations, would minimize impacts to air quality.
<b>Archeological Resources</b>	In the event archeological artifacts are found during project construction, work in the immediate vicinity would cease and TxDOT would be contacted immediately. TxDOT would then initiate any required coordination and mitigation, if required, with the THC.
<b>Non-Archeological Historic Resources</b>	If ongoing coordination with the THC concludes that mitigation is warranted for non-archeological historic resources, mitigation will be discussed in the next phase of the project.
<b>Water Quality</b>	Preparation of SW3P pursuant to TxDOT guidelines (TxDOT 2002) including but not limited to berms, dikes, temporary seeding, sodding, sediment traps, erosion control logs, geotextile fiber mats, silt fences, hay bales, slope drains, mulches, and crushed stone.
<b>Vegetation/Habitat</b>	Landscaping for the proposed project would be in compliance with the Executive Memorandum on Environmentally Beneficial Landscaping and the associated guidelines for environmentally and economically beneficial landscape practices. Project landscaping would be limited to seeding and replanting the ROW with native species of grasses, shrubs, and/or trees where applicable and feasible in order to comply with the Executive Memorandum on Environmentally Beneficial Landscaping and Executive Order 13112 on Invasive Species. No invasive or noxious species would be used to revegetate the ROW, and soil disturbance would be minimized to ensure that invasive species do not establish in the ROW.
<b>Migratory Bird Treaty Act (MBTA)</b>	In accordance with the MBTA, no vegetation would be removed containing nests, eggs, or young should clearing occur during the nesting and breeding season. If a nest, eggs, or young of a ground-dwelling bird is observed before or during construction, the participating agencies and would be notified and the steps would be taken to avoid impacts to the bird and the nest.
<b>Threatened and Endangered Species</b>	If listed species are found or suspected during any phase of construction, work would cease in that area and TxDOT personnel would be notified. TxDOT would then immediately notify the USFWS and/or TPWD of the occurrence. Work would not continue at that location until all required coordination is complete and necessary permits/clearances have been obtained.
<b>Noise</b>	Shifting construction to daylight hours or any other “noise tolerant” period depending on the neighboring properties. Use of mufflers on construction equipment near residential areas. Mitigation would be considered, if feasible and reasonable, where noise receivers are impacted.
<b>Maintenance and Control of Traffic</b>	Construction in a single geographic area would be limited to avoid inundating the adjacent communities with construction zones.
<b>Health and Safety</b>	Contractor would comply with all federal, state and local laws including Occupational Safety and Health Administration regulations governing safety, health and sanitation of construction personnel and general public.
<b>Hazardous Materials</b>	If necessary, Phase I and Phase II Environmental Site Assessments, and lead paint and asbestos testing, would be conducted prior to demolition and construction. Activities dealing with the use and storage of hazardous materials during roadway construction would be required to conform to TxDOT standards for spill containment and control strategies. If hazardous materials are discovered during the construction phase, TxDOT standard guidelines would be followed.
<b>Pollution control on haul roads, borrow/material pits, waste material disposal areas</b>	Contractor to exercise combination of erosion and pollution control measures listed under air and water quality control.

Source: HNTB 2012