



# Draft Environmental Assessment

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## **RM 2222 and RM 620 Austin District**

RM 620 to Bonaventure Drive and  
Steiner Ranch Boulevard to RM 2222  
CSJs: 2100-01-060 and 0683-02-065  
Travis County, Texas  
October 2017

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 Chapter 3 of title 23, United States Code, Section 327 and a Memorandum of Understanding dated December 17, 2014, executed between the FHWA and TxDOT.

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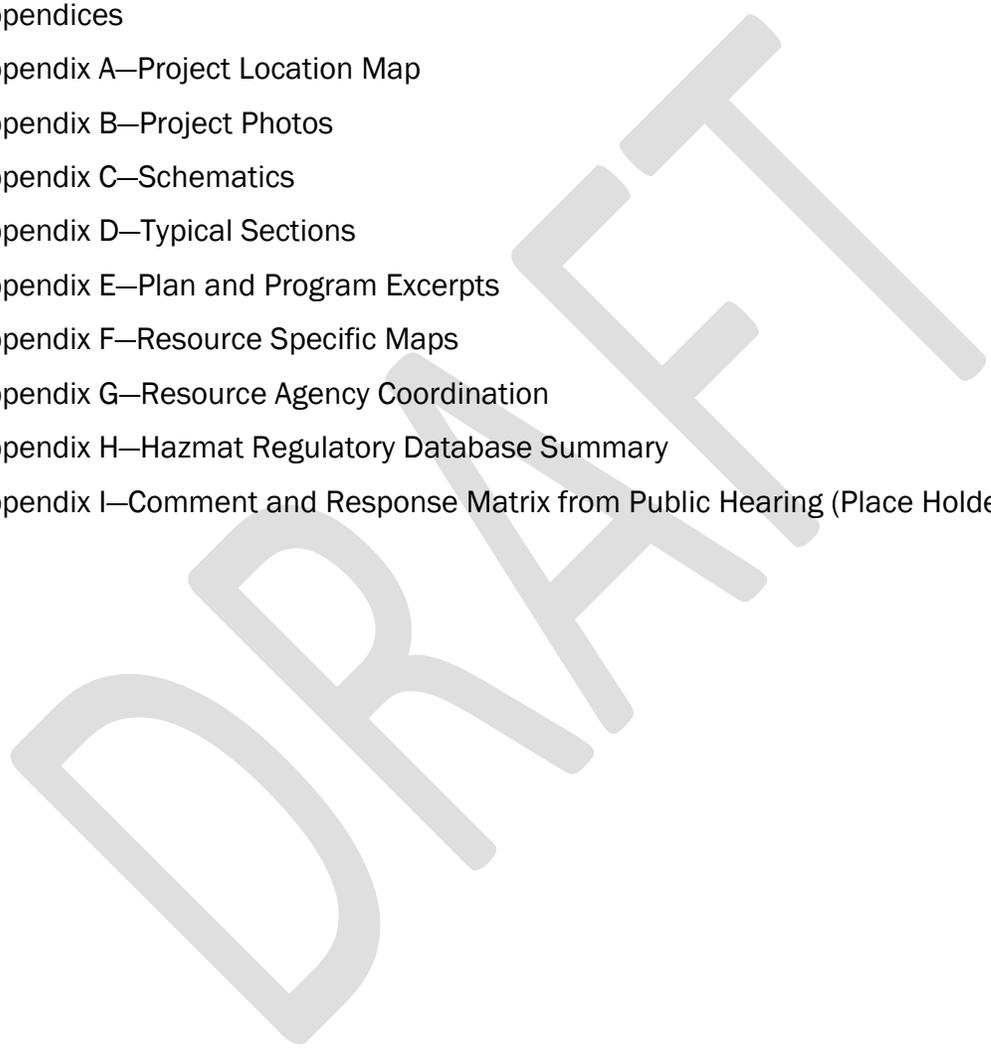
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## List of Acronyms

AADT	average annual daily traffic
APE	area of potential effects
BCCP	Balcones Canyonlands Conservation Plan
BCP	Balcones Canyonlands Preserve
Blvd	Boulevard
BMPs	best management practices
CAAA	Clean Air Act Amendments
CAMPO	Capital Area Metropolitan Planning Organization
CEQ	Council on Environmental Quality
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CGP	construction general permit
CMP	congestion management process
CO	carbon monoxide
COA	City of Austin
dB(A)	A-weighted Decibel
DOT	Department of Transportation
Dr	Drive
EA	environmental assessment
ECS	endangered cave species
EIS	environmental impact statement
EM	Executive Memorandum
EMST	Ecological Mapping Systems of Texas
EPA	U.S. Environmental Protection Agency
ETC	estimated time of completion
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FPPA	Farmland Protection Policy Act
GHG	Greenhouse Gas
HCP	Habitat Conservation Plan
HHS	U.S. Department of Health and Human Services
HEI	Health Effects Institute
IRIS	Integrated Risk Information System
ISA	initial site assessment

LEP	limited english proficiency
LPST	leaking petroleum storage tanks
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
MOVES	Motor Vehicle Emissions Simulator
mph	miles per hour
MSAT	mobile source air toxic
MS4	municipal separate storm sewer system
MSWLF	municipal solid waste landfills
NAAQS	National Ambient Air Quality Standards
NATA	National Air Toxics Assessment
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOI	notice of intent
NPL	National Priorities List
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
PA	programmatic agreement
PFC	permeable friction course
PM	particulate matter
RM	Ranch-to-Market
RCRA	Resource Conservation and Recovery Act
RPST	registered petroleum storage tanks
Rd	Road
RSA	Resource Study Area
ROW	right-of-way
RTP	Regional Transportation Plan
SHPO	State Historic Preservation Officer
SW3P	storm water pollution prevention plan
TCEQ	Texas Commission on Environmental Quality
TERP	Texas Emissions Reduction Plan
THC	Texas Historical Commission
TIP	Transportation Improvement Program
TMDL	total maximum daily load
TPDES	Texas Pollutant Discharge Elimination System

TPWD	Texas Parks and Wildlife Department
TWDB	Texas Water Development Board
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles travelled

DRAFT

## 1.0 Introduction

The Texas Department of Transportation (TxDOT) is proposing mobility improvements to Ranch-to-Market (RM) 2222 and RM 620 in west Austin, Travis County, Texas. Figure 1, located in **Appendix A** shows the location of the proposed RM 2222 project.

The purpose of this environmental assessment (EA) is to study the potential environmental consequences of the proposed project and determine whether such consequences warrant the preparation of an environmental impact statement (EIS).

This EA is prepared to comply with both TxDOT's environmental review rules and the National Environmental Policy Act (NEPA). The Draft EA would be made available for public review, and following the required comment period, TxDOT would consider any comments which are submitted.

## 2.0 Project Description

### 2.1 Existing Facility

As described in the *Project Description and Purpose and Need Statement*, which is included in the project file, RM 620 includes two 12-foot travel lanes in each direction, a 14-foot center turn lane, and 8-foot shoulders within a 120 to 130-foot wide right-of-way (ROW). The existing RM 2222 roadway contains two 11-foot travel lanes in each direction and a 14-foot center turn lane within an existing 80 to 120 foot ROW. With the exception of the areas near the RM 620/RM 2222/Bullick Hollow Rd intersection, these roadways are un-curbed with shoulders.

A signalized 4-way intersection with additional turn lanes on RM 620 occurs at the RM 620/RM 2222/Bullick Hollow Rd intersection. Short stretches of bicycle lanes occur on RM 620 at its intersection with RM 2222 and Bullick Hollow Rd. Figure 2 located in **Appendix A** shows the existing facility. Photos of the project area are included in **Appendix B** and existing typical section are included in **Appendix D**.

### 2.2 Proposed Project

The RM 2222 project area includes sections of RM 2222 and RM 620, and the intersection of these two roadways at Bullick Hollow Rd. The project area encompasses a major focus for the roadway network of northwest Austin. RM 2222 and RM 620 are both heavily travelled, serving as major thoroughfares for commuters travelling between Lakeway, northwest Austin, and central Austin, providing access to recreational points around Lake Travis. Logical termini for the

project is from RM 620 at Steiner Ranch Blvd on the west side of the project, through the intersection of RM 2222/RM 620/Bullick Hollow Rd, then south to the east project terminus on RM 2222 at Bonaventure Drive (Dr). The proposed project would have independent utility as it would connect two existing major transportation corridors to improve mobility in the project area without reliance on other transportation improvements.

The proposed project, as described in the *Project Description and Purpose and Need Statement*, would include a new location three-lane arterial connector approximately 0.4 mile long from RM 2222 to RM 620. The arterial connector would be approximately 0.5 mile south of the RM 620/RM 2222/Bullick Hollow Rd intersection. In addition, a northbound auxiliary lane would be added to a portion of RM 620 by re-striping the existing roadway from Steiner Ranch Blvd north to the new arterial connector, a distance of approximately 0.7 mile. This auxiliary lane would terminate at a right turn lane connection to the new arterial roadway.

The new arterial roadway would provide a direct connection with no other access between RM 620 and RM 2222, improving mobility by affording an additional means to travel between these two main roadways without travelling through the RM 620/RM 2222/Bullick Hollow Rd intersection.

Proposed changes at the RM 620/RM 2222/Bullick Hollow Rd intersection include enhanced pavement markings and improved signal timing. Roadway improvements would be made to RM 2222 from the new arterial roadway north to the RM 620/RM 2222/Bullick Hollow Rd intersection. These improvements include the addition of dedicated center turn lanes, curbed medians, and improved roadway alignment. There are no roadway improvements proposed to RM 620 from the new connector north to the RM 2222/RM 620/Bullick Hollow Rd intersection.

The project would include a construction transition area on RM 620 from Steiner Ranch Blvd to approximately 600 feet west of Comanche Trail. Improvements within this transition construction area includes the addition of a raised median between Comanche Trail and Steiner Ranch Blvd and roadway re-striping. An additional construction transition area would include approximately 150 feet of RM 2222 south of Bonaventure Dr. Construction activities that would occur within this transition area include the addition of curbed medians, adjustment of the roadway alignment to transition to the new arterial connector intersection, and roadway re-striping.

Figure 1, located in **Appendix A** shows the location of the proposed RM 2222 project. **Appendix C** includes the project schematics and **Appendix D** contains typical proposed sections for the project.

The RM 2222 project would be constructed using a combination of state, federal and local funding. The new arterial roadway connecting RM 2222 to RM 620 is included in the 2017-2020 Transportation Improvement Program (TIP). The project listing is described as RM 620 to Bonaventure Dr in TIP.

The project is also included in the Capital Area Metropolitan Planning Organization (CAMPO) 2040 Regional Transportation Plan (RTP), as adopted on May 11, 2015. The project listing is described as the RM 620 bypass in this document. Although the project name is different from the TIP highway listing, the limits of the RTP listing match those of the proposed project. The new arterial roadway is the only segment of the proposed project listed in the RTP because it is the only added capacity segment of the project, and is therefore considered regionally significant.

Copies of pages from the CAMPO 2040 RTP and TIP showing the project specifics are included in **Appendix E**. The TIP lists the estimated construction cost for the proposed project as \$8,108,106 for fiscal year 2019. The project is listed as a grouped project in the TIP and has an estimated letting year for construction of 2019.

### **3.0 Purpose and Need**

#### **3.1 Need**

This project is needed because the existing capacity of RM 2222 and RM 620 at the RM 620/RM 2222/Bullick Hollow Rd intersection is inadequate to meet current and future traffic volumes, resulting in congestion and reduced mobility on these sections of roadway.

#### **3.2 Supporting Facts and Data**

RM 620 and RM 2222 through the project corridor were originally constructed in the 1950s when the population of Travis County was 160,980 (TAC, 2016) and the population of the City of Austin (COA) was 132,459 (COA, 2017a). Since that time, Travis County and the COA have experienced steady population growth with populations now over 599% and 536% greater, respectively. Travis County's population is expected to grow from 1,024,266 in 2010 to 1,955,154 in 2035, which is approximately 91%. The COA's population is expected to grow from 790,390 in 2010 to 1,175,094 in 2035, which is approximately 49% (COA, 2013).

The TxDOT, Austin District traffic maps show average annual daily traffic (AADT) for the portion of RM 620 approaching RM 2222 at 35,000 in 2011 and 36,987 in

2015 (TxDOT, 2017). During the same period RM 2222 AADT increased from 41,000 to 46,382.

The RM 620 and RM 2222 intersection, and the section of RM 2222 located southeast of this intersection experience high levels of congestion and delay during the AM peak and PM peak periods (HDR, 2015). During the AM peak period, congested movements include the northbound right turn and southbound left turn at the intersection of RM 620 and RM 2222. The northbound right turn movement in this area frequently experiences long vehicle queues that extend over two miles along RM 620 to Quinlan Park Rd. In addition, drivers within this area frequently use the shoulder along northbound RM 620 as an extension of the right-turn lane at the RM 620 and RM 2222 intersection. During the PM peak period, westbound RM 2222 experiences long vehicle wait lines which extend to McNeil Dr and northbound RM 620 is also congested (HDR, 2015). A future year “no-build” condition analysis reveals that compared to existing levels, 2020 network travel time per vehicle would increase by 40 percent and 59 percent respectively during the AM and PM peak periods (HDR, 2015).

### **3.3 Purpose**

The purpose of the proposed project is to reduce congestion and improve mobility for RM 620 and RM 2222.

## **4.0 Alternatives**

### **4.1 Build Alternative**

The proposed project includes the addition of a northbound auxiliary lane on RM 620 from Steiner Ranch Blvd to the proposed arterial connector, improved operations at the RM 620/RM 2222/Bullick Hollow Rd intersection, a 0.4 mile new location three-lane arterial connecting RM 620 to RM 2222, and improvements to RM 2222 between the new arterial connector and the RM 620/RM 2222/Bullick Hollow Rd intersection. The new arterial roadway would create a direct connection between RM 620 and RM 2222, and would improve local mobility and efficiency by reducing congestion and travel times. The location for the new arterial roadway was selected because it is the only area between the two connecting roadways south of the RM 620/RM 2222/Bullick Hollow Rd intersection, which is currently undeveloped and includes the acreage required to construct this facility.

## 4.2 No-Build Alternative

The No-Build Alternative would result in no addition of a northbound auxiliary lane on RM 620 from Steiner Ranch Blvd to the proposed arterial connector roadway, no improved operations at the RM 620/RM 2222/Bullick Hollow Rd intersection, and no new location three-lane arterial roadway connecting RM 2222 to RM 620. As the population increases, the capacity of RM 2222 and RM 620 at the RM 620/RM 2222/Bullick Hollow Rd intersection would become increasingly inadequate to meet current and future traffic volumes, resulting in congestion, reduced mobility and a poor Level of Service F on these sections of roadway.

The No-Build Alternative does not meet the need and purpose as previously described; therefore, the build alternative is the preferred alternative. However, the No-Build Alternative is carried forward in this document as a baseline comparison to the Build Alternative.

## 4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

The proposed project would include a new location three-lane arterial connecting RM 2222 to RM 620 approximately 0.5 mile south of the RM 620/RM 2222/Bullick Hollow Rd intersection. The build alternative is situated on the only undeveloped area between the two connecting roadways which contains the acreage necessary to construct this facility. Therefore no other feasible or reasonable alternatives were identified during the planning process.

## 5.0 Affected Environment and Environmental Consequences

### 5.1 Right of Way/Displacements

Approximately 7.7 acres of ROW would be required for construction of the new location three-lane arterial connecting RM 620 to RM 2222 and areas needed for improvements to RM 2222. The majority of the new ROW, approximately 5.4 acres, would occur within an area that is currently primarily undeveloped. Additional new ROW, approximately 2.3 acres, would be required along RM 2222. Project schematics included in **Appendix C** illustrate these new ROW areas.

Two commercial businesses have the potential to be displaced. No residential displacements would occur.

The proposed project would not sever or alter social interaction among groups or individual members of a community, divide or displace a functioning neighborhood,

or displace areas where members of a community assemble and interact, such as a place of worship or community facility. The project would improve mobility and accessibility within and through the project area and access to and from neighborhoods, businesses and community facilities in the proposed project area. Displacements associated with the proposed project would have no significant impact to the project area community. Additional analysis of displacements and associated impacts are provided in the *Community Impacts Assessment Technical Report Form, Indirect and Cumulative Impacts Technical Report* and *Socioeconomic Resources Technical Memorandum* produced for this project.

Any ROW acquisition and relocation activities necessary for the project would be conducted in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 (Uniform Act), which provides uniform, fair and equitable treatment of persons whose real property is acquired or who are displaced in connection with federally funded projects. No other activities or developments would be impacted, relocated or displaced by the project.

No new ROW would be required and no displacements would occur with the No-Build Alternative.

## 5.2 Land Use

Based on current aerial photography and project area site visits, land uses in the study area include undeveloped land, commercial, retail, and scattered residential areas (**Appendix B**, Photos 1-8, **Appendix A**, Figure 1). The area adjacent to the additional lane on RM 620 is undeveloped, as is the majority of the property to be used for the new location arterial with the exception of the intersection with RM 2222. The area surrounding the intersection of RM 620 and RM 2222 is well developed on all four corners and includes a number of shops, restaurants, grocery stores, banks and other businesses. Land use in the project area would only be modified within the new location arterial from the current undeveloped use to roadway use.

The No-Build Alternative would not result in any changes to area land use.

## 5.3 Farmlands

No prime farmland soil types are mapped within the project area. Project area soils include Tarrant soils, 5 to 18 percent slopes (TaD) which include very stony clay and bedrock, well drained, found on low stony hills, and Tarrant and Speck soils, 0 to 2 percent slopes (TcA) which includes residuum weathered from limestone with a very

low profile (**Appendix F**, Figure 1). Because the project area does not include any soil types that are considered to be prime farmlands, the proposed project would not be subject to the provision of the Farmland Protection Policy Act (FPPA).

The No-Build Alternative would not result in the use of any prime farmland areas.

#### **5.4 Utilities/Emergency Services**

It is anticipated that overhead utilities located at the RM 620 and RM 2222 connections with the new location three-lane arterial would be relocated as a result of the proposed project. The *Project Description and Purpose and Need Statement* includes a future year “no-build” condition analysis which reveals that compared to existing levels, 2020 network travel time per vehicle within the project area will increase by 40 percent and 59 percent respectively during the AM and PM peak periods. Therefore, with the Build Alternative, it would be expected that emergency services response times for the area would be reduced due to the reduction of traffic congestion and wait times on RM 620 and RM 2222, and the provision of an additional arterial roadway connecting these two roads.

No changes to utilities would occur as a result of the No-Build Alternative; however, response time for emergency services within the area would slow as traffic increases along the current roadways.

#### **5.5 Bicycle and Pedestrian Facilities**

The proposed project would connect to an area with limited existing bicycle and pedestrian facilities present along RM 620 at its intersection with RM 2222. The north side of the new location arterial connector would include a five foot sidewalk which could accommodate pedestrian and bicycle travel. No existing bicycle and pedestrian facilities would be impacted by the proposed project.

No new bicycle or pedestrian facilities would be provided with the No-Build Alternative.

#### **5.6 Community Impacts**

The proposed project would benefit the surrounding community by providing an alternate route between RM 620 and RM 2222, thereby alleviating the current delays caused by traffic backups at the RM 620/RM 2222/Bullick Hollow Rd intersection. Travel times and patterns, and accessibility of traffic would be improved for the community.

The construction of this project does not sever or alter social interaction among groups or individual members of the community, divide or displace a functioning neighborhood, or displace areas where members of a community assemble and interact, such as a place of worship or community facility. Community cohesion would benefit from the proposed project by allowing a more timely and safer means of traveling between RM 620 and RM 2222 and a reduction in wait times at the intersection of RM 620/RM 2222/Bullick Hollow Rd. Additional information regarding community impacts is included in the *Community Impacts Assessment Technical Report Form* and *Socioeconomic Resources Technical Memorandum* produced for this project.

The No-Build Alternative would result in impacts on the local and regional economies, access, travel, and traffic patterns in the community by not resolving the current high level of congestion occurring at the RM 620/RM 2222/Bullick Hollow Rd intersection by providing an additional means of travel between RM 620 and RM 2222.

#### 5.6.1 Environmental Justice

The population in the socioeconomic resources study area is comprised of a 73.7 percent non-minority population (white non-Hispanic or non-Latino). The remaining 26.3 percent of the population is comprised of racial and ethnic minorities. No census geographies in the study area include over a 50% minority population, and the percentage of minorities in the study area is not meaningfully greater than the minority population percentage in the COA or Travis County.

A block group is considered to include an Environmental Justice area if the median household income was below the 2017 U.S. Department of Health and Human Services (HHS) poverty guideline for a four-person household (\$24,600). The 2014 median household income in the block groups of the socioeconomic resources study area ranged between \$60,915 and \$122,335. This was a greater median household income level than that for the COA or the County.

Household income data were also used to identify the presence of low-income populations. According to the HHS 2017 poverty guidelines (HHS, 2017), a household is considered low income if they earn less than \$20,420 for a three-person household or \$24,600 for a four-person household. In the socioeconomic resources study area, 7.6 percent of the households earn less than \$24,999 per year. In comparison, 21.8 percent of households in the COA, and 20.3 percent of households in the County earn less than \$24,999 per year.

The socioeconomic resources study area includes a comparable share of households with school-aged children (17 years old and younger), with 28.4 percent, than the COA (22.2 percent), and Travis County (23.9 percent). The percentage of elderly population (65 years and older) is highest in Travis County (7.3 percent), when compared to 5.6 percent in the study area and 7.0 percent within the COA. The percentage of people with a disability within the overall study area (5.1 percent) is below the percentage found in Travis County (8.6 percent) or the COA (8.7 percent).

No impacts to any minority or low-income populations or concentrations of the elderly, children, or persons with disabilities would be affected by the project in compliance with Federal Highway Administration (FHWA)'s Title VI program and Executive Order 12898.

The No-Build Alternative would not result in impacts to any EJ communities.

#### 5.6.2 Limited English Proficiency

The majority of people in the proposed project study area (85.3 percent) speak only English, and 1.4 percent are limited English proficiency (LEP) speakers. More than half of the LEP speakers that live in the proposed project study area speak Spanish. No indications of an LEP population such as signs in a language other than English, or places of worship, businesses, or services that target or serve specific minority groups were observed during environmental field investigations.

A public hearing will be held for the proposed project, during which accommodations will be made for communication in languages other than English if requested, in compliance with Executive Order 13166.

No impacts to LEP individuals would occur from the No-Build alternative.

### 5.7 Visual/Aesthetics Impacts

Improvements to RM 620 and RM 2222 would primarily occur within areas of existing ROW. However, the new location arterial would be located within an area that is primarily undeveloped, with connections to RM 620 and RM 2222 occurring in the respective existing ROWs.

Current sight lines would not be affected along RM 620 as the area surrounding the new arterial includes the Balcones Canyonlands Preserve (BCP) on the south and undeveloped lands to the north, east and west. However, the eastern portion of the new arterial roadway occurs within a much more developed area. The Alicante Town Homes occur north of this portion of the arterial connector and would be relatively

close to the roadway. A large apartment complex (Bell Four Points) is located to the east of the arterial intersection with RM 2222. In addition offices and businesses are situated on both sides of RM 2222 near this intersection.

Roadway lighting and traffic signals would be installed at each roadway intersection with the arterial connector and would be similar to other intersections in the area. Limited impacts to visual or aesthetic resources would be anticipated from the proposed project.

No visual or aesthetics impacts would occur with the No-Build Alternative.

## **5.8 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, NEPA and the National Historic Preservation Act (NHPA) of 1966, 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)/State Historic Preservation Officer (SHPO) and/or federally recognized tribes to determine the projects effects on cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

### **5.8.1 Archaeology**

An archaeological background study was conducted to evaluate the potential for the proposed undertaking to affect archaeological resources in the area of potential effects (APE). One previously recorded archaeological site, 41TV2210, was identified within the area of the proposed ROW. Two additional sites, 41TV2296 and 41TV2297 are located within the APE. All three have been previously recommended ineligible for inclusion in the National Register of Historic Places. TxDOT recommended and the SHPO concurred that no survey or further work is required for the project. Since that consultation, the project design has changed to include 4.4 acres of additional existing right-of-way that extends westward on RM 620 from Steiner Ranch Boulevard. There are no archaeological sites within the design change area. The Section 106/Antiquities Code of Texas consultation addressing this design change was conducted via TxDOT internal memo as allowed under Appendix 3 of the Section 106 Programmatic Agreement (PA). No further archaeological work is required for the proposed project. A copy of the SHPO letter and TxDOT memo are included in Appendix G.

No impacts to archaeological historic properties would occur under the No-Build Alternative.

## 5.8.2 Historic Properties

In compliance with the Section 106 PA, TxDOT historians determined project activities will not affect/have no adverse effect to historic properties. In compliance with the Antiquities Code of Texas and the MOU, TxDOT historians determined project activities have no potential for adverse effects. Individual project coordination with SHPO is not required.

No impacts to historic properties would occur under the No-Build alternative.

## 5.9 Department of Transportation (DOT) Act Section 4(f), LWCF Act Section 6(f) and PWC Chapter 26

There are no Section 4(f), Section 6(f) or Chapter 26 of the Parks and Wildlife Code properties present in the project area.

## 5.10 Water Resources

The project area occurs within the Colorado River drainage basin in the Lower Colorado River Authority service area. Waters of the U.S. which occur within 0.5 mile of the project area and could potentially receive runoff from the project area include Bull Creek [Texas Commission on Environmental Quality (TCEQ) Segment 1403A], West Bull Creek (Segment 1403B), Cow Fork Bull Creek (Segment 1403C), and Panther Hollow Creek (Segment 1403N). Bull Creek (Segment 1403A) is the only stream listed as impaired that has the potential to receive runoff from the project area.

The proposed project would not cross any streams or rivers, and does not occur completely or partially within the Edwards Aquifer recharge or contributing zones (TCEQ, 2017a).

No wetland sites were identified by the National Wetland Inventory (NWI) near the proposed project area (USFWS, 2017), and no wetland sites were observed adjacent to or within the project area during the project field visit.

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps show that the proposed project area occurs within Zone X (unshaded) areas (FEMA, 2017). Zone X areas are referred to as areas determined to be outside of the 100-year

floodplains. No floodplains occur within or adjacent to the project area. The Texas Water Development Board (TWDB) state well inventory registers the location of 14 water wells within one mile of the proposed project area.

The following Best Management Practices (BMPs) and Voluntary Conservation Measures are being proposed for the project to protect water quality, specifically stormwater runoff. The entire project is designed to minimize excavation and maximize the use of fill within the project area, thereby minimizing impacts to subsurface limestone, karst invertebrates and listed aquatic species.

The following measures will be included in project design:

- The use of permeable friction course (PFC) pavement to treat stormwater runoff, and vegetated filter strips
- Design elements to accommodate natural drainage patterns to improve water quality, including three pipes under the new location roadway to mimic current drainage patterns, and to accommodate proposed adjacent land development, and
- Rock rip rap is proposed downslope of the culverts to dissipate flows.

Indirect impacts due to future degradation of groundwater quality resulting from roadway runoff contaminated with increased sediment and hazardous materials from accidental spills and vehicle collisions may also impact subsurface karst invertebrate habitat. Temporary and permanent BMPs such as the use of PFC pavement, silt fences, rock berms, and revegetation of disturbed areas would be implemented in accordance with the project's Stormwater Pollution Prevention Plan (SW3P) and Municipal Separate Storm Sewer System (MS4) compliance documents and are intended to mitigate for these impacts both during and post construction. If all required water quality BMPs are implemented, no significant impact to the quality or quantity of surface or groundwater is expected to result from the construction or operation of the proposed project.

#### 5.10.1 Clean Water Act Section 404

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact on this resource category or subject matter.

#### 5.10.2 Clean Water Act Section 401

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact on this resource category or subject matter.

#### 5.10.3 Executive Order 11990 Wetlands

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact on this resource category or subject matter.

#### 5.10.4 Rivers and Harbors Act

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact on this resource category or subject matter.

#### 5.10.5 Clean Water Act Section 303(d)

Bull Creek (Segment 1403A), which occurs within five linear miles of the eastern portion of the project area, was listed in the 2014 Texas Integrated Report 303(d) (TCEQ, 2016a) as an impaired assessment unit, and could receive drainage from the project area. This segment is contained within the COA-Colorado River Watershed, and the Bull Creek-Lake Austin Subwatershed (TPWD, 2017). Segment 1403A was listed for depressed levels of dissolved oxygen and is considered a Category 5c assessment unit, which means that additional data or information will be collected and/or evaluated for one or more parameters before a management strategy is selected. This impaired assessment unit does not have an U. S. Environmental Protection Agency (EPA) approved total maximum daily load (TMDL) project. The RM 2222 project has been coordinated under TxDOT's MOU with TCEQ, and any written coordination exchanges produced are included in **Appendix G**.

The portion of the proposed project which occurs within the Bull Creek-Lake Austin Subwatershed includes a small portion of the eastern section of the arterial connector, and improvements to RM 2222. All work for the RM 2222 project would occur within the boundaries of the COA MS4 (Texas Pollutant Discharge Elimination System Permit # WQ0004705000). Stormwater within the project area would be received by this system.

Because these areas would be connected to an existing stormwater system, it is not anticipated that any impacts to Bull Creek resulting from future runoff would contribute a constituent of concern to this impaired water. Measures taken to

prevent such contribution include appropriate BMPs which would be in place before construction begins and remain until construction is completed. BMPs that would be incorporated to minimize impacts to water resources within the project area include sediment control fences, baled hay, rock filter dams and construction exits.

No impacts to any impaired waters would occur with the No-Build Alternative.

#### 5.10.6 Clean Water Act Section 402

Construction activities associated with this project are required to comply with TCEQ's Texas Pollutant Discharge Elimination System (TPDES) 2013 General Permit for Construction Storm Water Discharges. This project would include five or more acres of earth disturbance and would be considered a "large construction activity" under the general construction permit. A SW3P would be implemented, and a construction site notice would be posted. In addition, a notice of intent (NOI) would be submitted along with any associated fee to TCEQ. The NOI would also be submitted to the City of Austin MS4, the operator of the system into which the stormwater would be directly discharged. The project would comply with all the construction general permit (CGP) terms.

No earth disturbance would occur with the No-Build Alternative, consequently no CGP would be required.

#### 5.10.7 Floodplains

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact on this resource category or subject matter.

#### 5.10.8 Wild and Scenic Rivers

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

#### 5.10.9 Trinity River Corridor Development Certification

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

#### 5.10.10 Coastal Barrier Resources

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

#### 5.10.11 Coastal Zone Management

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

#### 5.10.12 Edwards Aquifer

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

#### 5.10.13 International Boundary and Water Commission

Based on a project scoping analysis, it was determined that neither the Build nor the No-Build Alternative would have an impact on this resource category or subject matter.

#### 5.10.14 Drinking Water Systems

The TWDB state well inventory registers the location of 16 water wells within one mile of the proposed project area. If all required water quality BMPs, and the stormwater management plan are implemented, no significant impact to the quality or quantity of surface or groundwater is expected to result from the construction or operation of the project.

### **5.11 Biological Resources**

A Biological Resources Technical Report and a Karst Hydrogeological and Biological Technical Report were prepared for the proposed Project. More detailed information can be found in these documents than what is presented in the sections below.

#### 5.11.1 Vegetation

Approximately 13.61 acres or 64 percent of the project area has been designated as urban vegetation type according to the Ecological Mapping Systems of Texas (EMST).

Other mapped vegetation units include approximately 7.6 acres or 36 percent Edwards Plateau Savannah, Woodland, and Shrubland.

Per Section §2.205 of the Revised Texas Parks and Wildlife Department (TPWD)-TxDOT MOU, a Tier I Assessment was completed. The proposed project would disturb 7.6 acres of the Edwards Plateau Savannah, Woodland, and Shrubland vegetation type, which is an area greater than the three acre area of disturbance indicated in the threshold table programmatic agreement (PA), therefore TPWD coordination has been initiated.

The RM 620 and RM 2222 portions of the project would occur wholly within existing roadway or maintained ROW areas, therefore limited impacts to vegetation would occur from activities within these areas.

The majority of the new location arterial connector would be constructed within an area that is currently undeveloped. This area includes generally flat to gently rolling terrain immediately adjacent to a maintained transmission line corridor. Woody vegetation within this area is dominated by small- to medium-sized Ashe juniper (*Juniperus asheii*) trees with a mixture of oak species (*Quercus* sp.), persimmon (*Diospyros texana*), agarita (*Mahonia trifoliolata*), opuntia (*Opuntia* sp.), Chinaberry (*Melia azedarach*), and cedar elm (*Ulmus crassifolia*), and includes a generally open canopy.

During the construction of this portion of the project efforts would be taken to avoid and minimize disturbance of vegetation and soils. Removal of native vegetation, particularly mature native trees and shrubs, would be avoided to the greatest extent practicable. Wherever practicable, impacted vegetation would be replaced with in-kind on-site replacement/restoration of native vegetation.

Areas within the existing and proposed ROW, but outside the limits of construction would not be disturbed. No unusual vegetation features were identified during field investigations. No COA protected size trees are expected to require removal or trimming as part of this project.

All areas disturbed during construction, would be revegetated, according to TxDOT specifications, as soon as practicable. In accordance with Executive Order 13112 on Invasive Species, and the Executive Memorandum (EM) on Environmentally and Economically Beneficial Landscaping, only non-invasive species would be utilized within the project ROW.

No impacts to vegetation would occur with the No-Build Alternative.

### 5.11.2 Wildlife

Wildlife species typical to the project area include mammals such as the eastern cottontail (*Sylvilagus floridanus*), white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), and nine-banded armadillo (*Dasypus novemcinctus*) (Schmidly, 2004). Birds common to the area include the wild turkey (*Meleagris gallopavo*), cattle egret (*Bubulcus ibis*), red-tailed hawk (*Buteo jamaicensis*), and northern mockingbird (*Mimus polyglottos*) (Lockwood, 2001). Reptiles and amphibians are represented by the eastern collared lizard (*Crotaphytus collaris collaris*), Texas spiny lizard (*Sceloporus olivaceus*), Texas rat snake (*Elaphe obsoleta lindheimeri*), bullfrog (*Rana catesbeiana*), and western diamondback rattlesnake (*Crotalus atrox*) (Dixon, 2000). The majority of the project area located along RM 620 and RM 2222 occurs within the limits of the existing roadway and associated ROW. However, existing undeveloped habitat would be removed and replaced with the proposed roadway within the new arterial connector area.

The terms of the Migratory Bird Treaty Act (MBTA) of 1918 apply to the proposed project. The MBTA prohibits all negative impacts to birds, young, eggs, or occupied nests in part or whole for all birds on the migratory birds list, except as authorized by federal permit. In the event that migratory birds are encountered on-site during project construction, every effort would be made to avoid adverse impacts to protected birds, active nests, eggs, and/or young.

In addition, the following MBTA Voluntary Conservation Measures would be followed during project activities.

- Vegetation removal would occur outside of the breeding season (Feb 15 to September 1) and would be limited to that necessary for constructing the proposed action in the Project Area.
- TxDOT will provide information to the contractors on how to recognize habitat for Black-capped vireo and Golden-cheeked Warbler and would advise the contractors to avoid impacting habitat areas outside of the project area.
- Prior to construction, daytime surveys for nests including under bridges and in culverts will be performed to determine if there are active nests. Nests that are active should not be disturbed.
- Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season.
- Avoid the removal of unoccupied, inactive nests, as practicable.

- Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
- Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.

No impacts to wildlife would occur as a result of the No-Build Alternative.

### 5.11.3 Threatened and Endangered Species

Recent data received from the TPWD Natural Diversity Database (TXNDD) includes documented occurrences of the GCWA and BCVI within 1.5 miles of the project area, both federally listed endangered species. Potential habitat has been mapped within the project area for both of these avian species. In addition, the project area contains Zone 1 Karst Habitat which are karst areas that are known to contain six endangered cave species. The project also occurs within the vicinity of the Jollyville Plateau salamander.

The proposed project may result in potential impacts to these species and/or their habitats. Currently, effects to the two bird species and the six karst invertebrates are classified as may affect, likely to adversely affect for the proposed build alternative. Additionally, the effect to the JPS is classified as may affect, not likely to adversely affect for the proposed build alternative. Consultation under Section 7 of the Endangered Species Act has been initiated with the U.S. Fish and Wildlife Service (USFWS) for potential impacts to these federally listed species within the project area.

No threatened or endangered species would be affected with the No-Build Alternative.

## 5.12 Air Quality

### 5.12.1 Conformity

The project is located in an area in attainment or unclassifiable for all National Ambient Air Quality Standards (NAAQS); therefore, the transportation conformity rules do not apply. The proposed project is not located within a carbon monoxide (CO) or particulate matter (PM) nonattainment or maintenance area; therefore, a project level hot-spot analysis is not required.

### 5.12.2 CO TAQA

Traffic data for the estimated time of completion (ETC) year of 2020 and design year 2038 is 24,950 vehicles per day and 37,350 vehicles per day, respectively. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that the carbon monoxide standard would ever be exceeded as a result of any project with an AADT below 140,000. The AADT projections for the project do not exceed 140,000 vehicles per day; therefore a Traffic Air Quality Analysis was not required.

### 5.12.3 Qualitative MSAT Analysis

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the EPA regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS) (<http://www.epa.gov/iris/>). In addition, EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers or contributors and non-cancer hazard contributors from the 2011 National Air Toxics Assessment (NATA) (<https://www.epa.gov/national-air-toxics-assessment>). These are 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules.

#### *Motor Vehicle Emissions Simulator (MOVES)*

According to EPA, MOVES2014 is a major revision to MOVES2010 and improves upon it in many respects. MOVES2014 includes new data, new emissions standards, and new functional improvements and features. It incorporates substantial new data for emissions, fleet, and activity developed since the release of MOVES2010.

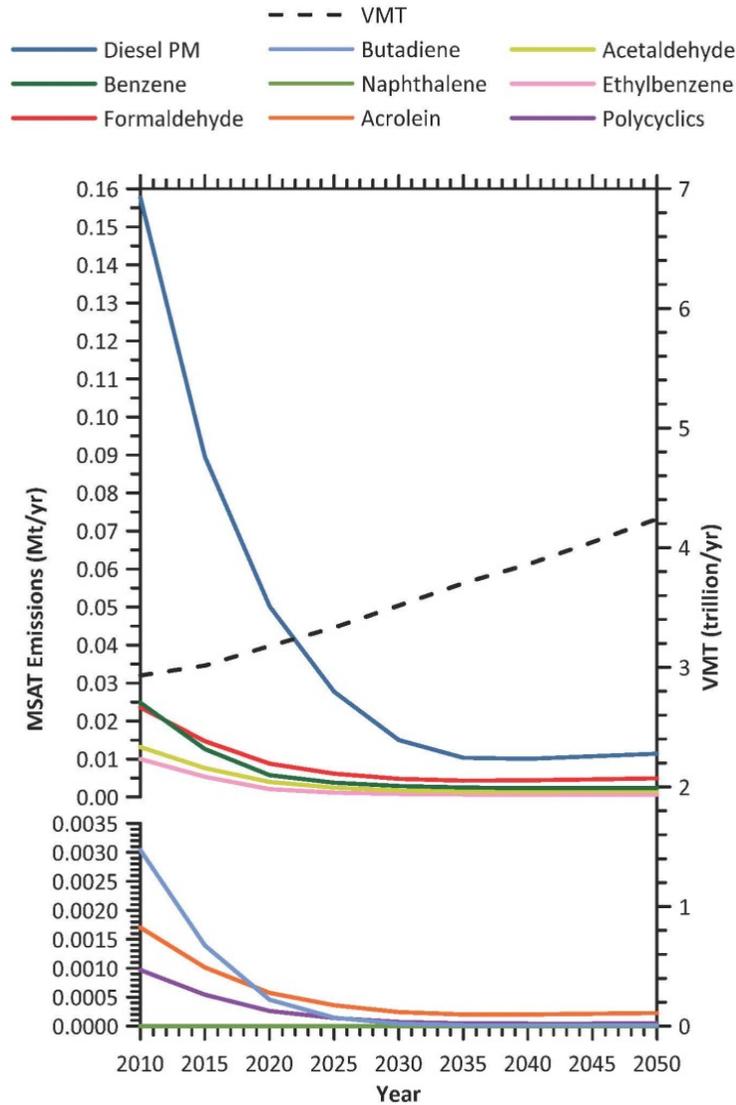
These new emissions data are for light- and heavy-duty vehicles, exhaust and evaporative emissions, and fuel effects. MOVES2014 also adds updated vehicle sales, population, age distribution, and vehicle miles travelled (VMT) data. MOVES2014 incorporates the effects of three new Federal emissions standard rules not included in MOVES2010.

These new standards are all expected to impact mobile source air toxic (MSAT) emissions and include Tier 3 emissions and fuel standards starting in 2017 (79 FR 60344), heavy-duty greenhouse gas regulations that phase in during model years 2014-2018 (79 FR 60344), and the second phase of light duty greenhouse gas regulations that phase in during model years 2017-2025 (79 FR 60344).

Since the release of MOVES2014, EPA has released MOVES2014a. In the November 2015 MOVES2014a Questions and Answers Guide (<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100NNR0.txt>), EPA states that for on-road emissions, MOVES2014a adds new options requested by users for the input of local VMT, includes minor updates to the default fuel tables, and corrects an error in MOVES2014 brake wear emissions. The change in brake wear emissions results in small decreases in PM emissions, while emissions for other criteria pollutants remain essentially the same as MOVES2014.

Using EPA's MOVES2014a model, as shown in Figure 1, FHWA estimates that even if VMT increases by 45 percent from 2010 to 2050 as forecast, a combined reduction of 91 percent in the total annual emissions for the priority MSAT is projected for the same time period.

**Figure 1:  
PROJECTED NATIONAL MSAT EMISSION TRENDS 2010 – 2050  
FOR VEHICLES OPERATING ON ROADWAYS  
USING EPA’s Moves2014a Model**



Source: EPA MOVES2014a model runs conducted by FHWA, September 2016.

Note: Trends for specific locations may be different, depending on locally derived information representing vehicle-miles travelled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorological, and other factors.

Diesel PM is the dominant component of MSAT emissions, making up 50 to 70 percent of all priority MSAT pollutants by mass, depending on calendar year. Users of MOVES2014a will notice some differences in emissions compared with MOVES2010b. MOVES2014a is based on updated data on some emissions and pollutant processes compared to MOVES2010b, and also reflects the latest Federal emissions standards in place at the time of its release. In addition, MOVES2014a emissions forecasts are based on lower VMT projections than MOVES2010b, consistent with recent trends suggesting reduced nationwide VMT growth compared to historical trends.

#### *MSAT Research*

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These limitations impede the ability to evaluate how potential public health risks posed by MSAT exposure should be factored into project-level decision-making within the context of NEPA. The FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this field.

#### **Project Specific MSAT Information**

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by FHWA entitled *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*, found at:

[https://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/research\\_and\\_analyses/mobile\\_source\\_air\\_toxics/msatemissions.cfm](https://www.fhwa.dot.gov/environment/air_quality/air_toxics/research_and_analyses/mobile_source_air_toxics/msatemissions.cfm).

For each alternative in this document, the amount of MSAT emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for each of the Build Alternatives is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the preferred action alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due

to increased speeds; according to EPA's MOVES2014 model, emissions of all of the priority MSAT decrease as speed increases. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 90 percent between 2010 and 2050 (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016 – [http://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/policy\\_and\\_guidance/msat/index.cfm](http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm)). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes contemplated as part of the project alternatives will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under certain Build Alternatives than the No Build Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the new arterial connector between RM 2222 and RM 620. However, the magnitude and the duration of these potential increases compared to the No Build alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region- wide MSAT levels to be significantly lower than today.

### **Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis**

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual

health impacts directly attributable to MSAT exposure associated with a proposed action.

The EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is “a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects” (EPA, <http://www.epa.gov/iris/>). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). A number of HEI studies are summarized in Appendix D of FHWA’s Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents ([http://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/policy\\_and\\_guidance/msat/index.cfm](http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/index.cfm)). Among the adverse health effects linked to MSAT compounds at high exposures are; cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI Special Report 16, <https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposure-and-health-effects>) or in the future as vehicle emissions substantially decrease.

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts – each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (Special Report 16, <https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposure-and-health-effects>). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA states that with respect to diesel engine exhaust, “[t]he absence of adequate data to develop a sufficiently confident dose-response relationship from the epidemiologic studies has prevented the estimation of inhalation carcinogenic risk (EPA IRIS database, Diesel Engine Exhaust, Section II.C. [https://cfpub.epa.gov/ncea/iris/iris\\_documents/documents/subst/0642.htm#quainhal](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0642.htm#quainhal)).”

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an “acceptable” level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA’s approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable ([https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/\\$file/07-1053-1120274.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/$file/07-1053-1120274.pdf)).

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

#### 5.12.4 Congestion Management Process

This project is within an attainment or unclassifiable area for ozone and CO; therefore a project level congestion management process (CMP) analysis is not required.

#### 5.12.5 Construction Emissions

During the construction phase of this project, temporary increases in PM and MSAT emissions may occur from construction activities. The primary construction-related emissions of PM are fugitive dust from site preparation, and the primary construction-related emissions of MSAT are diesel particulate matter from diesel powered construction equipment and vehicles.

The potential impacts of particulate matter emissions would be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. The Texas Emissions Reduction Plan (TERP) provides financial incentives to reduce emissions from vehicles and equipment. TxDOT encourages construction contractors to use this and other local and federal incentive programs 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, the use of fugitive dust control measures, the encouragement of the use of TERP, and compliance with applicable regulatory requirements; it is not anticipated that emissions from construction of this project would have any significant impact on air quality in the area.

### 5.13 Hazardous Materials

An initial site assessment including a visual survey of the project limits and surrounding area, research of existing and previous land use, and limited review of federal and state regulatory databases/lists was performed by HDR. The purpose of the initial site assessment is to identify possible hazardous materials within the

project limits. Documentation of the initial site assessment is maintained in the Austin District project files.

The project area is fully developed along RM 2222 within the project limits. Land use along RM 2222 is primarily commercial businesses, multi-family residential and office buildings. The adjacent commercial land use on RM 2222 includes gas stations, large retail stores, a welding business, automotive repair and body shops, a car wash, dry cleaner and assorted restaurants and small retail stores. The intersection of RM 2222 and RM 620 is the most densely developed segment of the project area. A grocery store, gas station, restaurants and retail businesses surround the RM 2222 and RM 620 intersection. Proposed improvements at this intersection would be limited to operation improvements.

RM 620 from the proposed new location connector south to the project limits at Steiner Ranch Blvd is primarily undeveloped along the roadway. Two recently constructed commercial businesses are located to the south of the existing ROW near Steiner Ranch Blvd. The COA Water Treatment Plant 4 is located north of the proposed new location tie-in and across RM 620 on the west side of the ROW.

A regulatory database search was performed by GeoSearch. The regulatory database lists reviewed include the National Priorities List (NPL), Texas State Superfund, Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS), Resource Conservation and Recovery Act (RCRA) facilities, municipal solid waste landfills (MSWLF), registered petroleum storage tanks (RPST) and leaking petroleum storage tanks (LPST) facilities. A list of the regulatory databases reviewed, brief summary and a map identifying the regulated sites adjacent and within the proposed and existing right-of-way is provided in **Appendix H**.

The list search revealed a RCRA property that is proposed to be demolished for the proposed project. The site is an inactive generator since 2004, and is currently an auto body repair shop. Listed waste included ignitable waste and spent non-halogen solvents. Two MSWLF sites were identified within the search radius. Both of these sites were beyond 0.3 mile from the proposed project and at a lower elevation.

A review of TCEQ's LPST on-line database query indicated 1 LPST site (3M Austin Center) in the vicinity of the proposed project. According to the priority and status indicated in the list search, only minor soil contamination was indicated in this LPST listing. TCEQ issued the final concurrence for this listing and the case is closed. Right-of-way acquisition or easements are not required in this area of the proposed project, only rehabilitation of the existing roadway with no significant lowering of the vertical alignment. Therefore, it is not anticipated that petroleum contamination would be

encountered during construction. A summary table and map showing the location of this site is provided in **Appendix H**.

At this time, utility adjustment requirements have not been determined. There is a potential for contamination to be encountered during utility adjustments. Coordination with utility companies concerning this contamination would be addressed during the ROW stage of project development. It is anticipated that all utility adjustments or relocation would be completed prior to construction.

The proposed project would include the acquisition of Heritage Body and Frame which was listed as an inactive RCRA generator and inactive in the industrial and hazardous waste database. There was one violation listed for this facility that resulted in a written informal enforcement. The proposed project would require demolition of building structures which may contain asbestos containing materials. Asbestos inspections, specification, notification, license, accreditation, abatement and disposal, as applicable, would comply with federal and state regulations. Asbestos issues would be addressed during the ROW process prior to construction.

No surface evidence of contamination or possible sources was observed within the project limits or from adjacent and surrounding properties. Based on the results of the ISA, the likelihood of hazardous materials impacts to the proposed project is low. Any unanticipated hazardous materials encountered during construction would be handled according to applicable federal and state regulations per TxDOT Standard Specifications.

No impacts to hazardous materials impacts would occur from the No-Build Alternative.

#### **5.14 Traffic Noise**

A *Noise Analysis Technical Report* was produced for the RM 2222 Project. This analysis was accomplished in accordance with TxDOT's (FHWA approved) Guidelines for Analysis and Abatement of Roadway Traffic Noise (2011).

The predominant land uses in the vicinity of the study area are a mix of rural and urban development that includes commercial, multi-family residential and transportation. The FHWA has established Noise Abatement Criteria (NAC) for various land use activity areas that are used as one of two means to determine when a traffic noise impact would occur. A noise impact occurs when either the absolute or relative criterion is met.

Absolute criterion is met if the predicted noise level at a receiver approaches

(defined as 1 dB(A) below the NAC), equals, or exceeds the NAC.

Relative criterion is met if the predicted noise level substantially exceeds [(defined as more than 10 dB(A)], the existing noise level at a receiver even though the predicted noise level does not approach, equal, or exceed the NAC.

When a traffic noise impact occurs, noise-abatement measures must be considered. A noise-abatement measure is any positive action taken to reduce the impact of traffic noise on an activity area.

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

Existing and predicted traffic noise levels were modeled at receiver locations (Table 1 below, and Figures 5 and 6 in Appendix F) that represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

**Table 1: Traffic Noise Levels dB(A) Leq**

Representative Receiver (description)(represents)	NAC Category	NAC Level	Existing 2018	Build Alternative		
				Predicted 2038	Change (+/-)	Noise Impact
R1 (Townhomes) (59)	B	67	58	64	6	NO
R2 (Apartments - 1st Floor) (4)	B	67	66	66	0	YES
R3 (Apartments - 2nd Floor) (4)	B	67	68	68	0	YES
R4 (Apartments - 1st Floor) (4)	B	67	62	63	1	NO
R5 (Apartments - 2nd Floor) (4)	B	67	65	65	0	NO
R6 (Apartments - Pool) (1)	B	67	49	50	1	NO

Representative Receiver (description)(represents)	NAC Category	NAC Level	Existing 2018	Build Alternative		
				Predicted 2038	Change (+/-)	Noise Impact
R7 (Apartments - 1st Floor) (6)	B	67	60	62	2	NO
R8 (Apartments - 2nd Floor) (6)	B	67	63	64	1	NO
R9 (Apartments - 3rd Floor) (6)	B	67	64	65	1	NO
R10 (Apartments - 1st Floor) (6)	B	67	47	48	1	NO
R11 (Apartments - 2nd Floor) (6)	B	67	47	49	2	NO
R12 (Apartments - 3rd Floor) (6)	B	67	52	54	2	NO
R13 (Apartments - 1st Floor) (4)	B	67	56	58	2	NO
R14 (Apartments - 2nd Floor) (4)	B	67	60	61	1	NO
R15 (Apartments - 3rd Floor) (4)	B	67	61	63	2	NO
R16 (Apartments - 1st Floor) (3)	B	67	68	69	1	YES
R17 (Apartments - 2nd Floor) (3)	B	67	70	71	1	YES
R18 (Apartments - 1st Floor) (3)	B	67	55	56	1	NO
R19 (Apartments - 2nd Floor) (3)	B	67	58	59	1	NO

The proposed project would result in traffic noise impacts and the following noise abatement measures were considered: traffic management, alteration of horizontal and/or vertical alignments, acquisition of undeveloped property to act as a buffer

zone and the construction of noise barriers.

Any abatement measure proposed for incorporation into the project must be both feasible and reasonable. In order to be "feasible," the abatement measure must be able to reduce the noise level at greater than 50% of impacted, first row receivers by at least five dB(A); and to be "reasonable," it must not exceed the cost-effectiveness criterion of \$25,000 for each receiver that would benefit by a reduction of at least five dB(A) and the abatement measure must be able to reduce the noise level of at least one impacted, first row receiver by at least seven dB(A).

An evaluation of the noise abatement measures is included below:

- *Traffic management:* control devices could be used to reduce the speed of the traffic; however, the minor benefit of one A-weighted decibel [dB(A)] per five miles per hour (mph) reduction in speed does not outweigh the associated increase in congestion and air pollution. Other measures such as time or use restrictions for certain vehicles are prohibited on state highways.
- *Alteration of horizontal and/or vertical alignments:* Any alteration of the existing alignment would displace existing businesses and residences, require additional ROW and not be cost effective or reasonable.
- *Buffer zone:* The acquisition of undeveloped property to act as a buffer zone is designed to avoid rather than abate traffic noise impacts and, therefore, is not feasible.
- *Noise barriers:* Noise barriers were evaluated for each of the impacted receiver locations and were determined to not be feasible and reasonable for any of the impacted receivers and therefore are not proposed for incorporation into the project. Noise Barriers were evaluated for each of the impacted receiver locations. For the apartments represented by R2 and R3, a noise barrier up to 20 feet in height would not be sufficient to meet the acoustic reduction criteria. For the apartments represented by R16 and R17, noise walls that would achieve the minimum five dB(A) reduction and the seven dB(A) noise reduction design goal would exceed the cost effectiveness criterion of \$25,000 per benefited receiver.

No abatement measures identified as both feasible and reasonable were identified for any of the impacted receivers, or proposed for incorporation into the project.

In addition, to avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, no new activities are

planned or constructed along or within the following predicted (2038) noise impact contours (Table 2). Due to the geometry and changes in alignment throughout the project area, these distances are approximate.

**Table 2: Predicted Noise Impact Contours**

Land Use	Impact Contour	Distance from ROW		
		RM 2222	RM 620	Connector Road
NAC category B & C	66 dB(A)	≈ 170 feet	≈ 185 feet	≈ 55 feet
NAC category E	71 dB(A)	≈ 65 feet	≈ 50 feet	≈ ROW feet

An increase in area traffic noise would not be expected from the No-Build Alternative.

A copy of this traffic noise analysis would be available to local officials. On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.

### 5.15 Induced Growth

The project would not be expected to result in significant induced growth impacts. The estimation of possible impacts was based on a qualitative analysis of planning documents, and population forecasts included in the Indirect and Cumulative Impacts Technical Report. The proposed project would not be expected to influence land use because current conditions for development in the study area and surrounding areas are favorable and the area is already undergoing rapid development.

No induced growth impacts would occur from the No-Build Alternative.

### 5.16 Cumulative Impacts

The evaluation of cumulative impacts is based on guidance titled TxDOT's Cumulative Impacts Analysis Guidelines (TxDOT, 2016).

The Council on Environmental Quality (CEQ) defines cumulative impact 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.

An *Indirect and Cumulative Impacts Technical Report* was completed that defined a project Resource Study Area (RSA) and study timeframe. Sensitive species and habitats has been identified as a resource that has the potential for cumulative impacts. No other resources were determined to qualify as substantially directly or indirectly effected, and no additional resources in the area were determined to be in poor or declining health.

The RSA for the sensitive species and habitats resource is defined as the BCP. This RSA was selected because it represents a defined area of sensitive species habitat and has available GIS map layers of Golden-cheeked Warbler, Black-capped Vireo and endangered karst species. The RSA is comprised of 78.9 percent confirmed Golden-cheeked Warbler habitat, 14.9 percent un-confirmed habitat, and 6.2 percent is not known to be habitat. Known habitat for Black-capped Vireo comprises 13.9 percent of the RSA. Approximately 79.6 percent of the RSA is classified as karst area by the USFWS. Karst Zones within the RSA include approximately 7 percent known to include endangered cave species (ECS), none of the area has high probability of including ECS, 7 percent of the area has a low probability of including ECS, and approximately 65.6 percent of the area does not include ECS (USFWS, 2016).

Eight species within the RSA are listed as endangered by the USFWS, two neotropical migratory songbirds and six karst invertebrates. Urban development activities have resulted in loss of habitat, and are considered to be the primary reason for the decline of these listed species. The changing patterns of land use and urban expansion have fragmented area habitats and populations of sensitive species, which then declined (BCP, 2017a).

The RSA occurs wholly within the BCP, which was established by the Balcones Canyonlands Conservation Plan (BCCP). The BCCP protects 31,785 acres that is actively managed and monitored in order to protect and preserve threatened and endangered species and their habitat (Travis Co., 2017). A portion of the RSA is also located within the COA which includes protection of critical environmental features such as caves and other karst related features in its Land Development Code (COA, 2017a), and has made a commitment through the *Imagine Austin Comprehensive Plan* to conserve the COA's natural resources by limiting development in sensitive environmental areas. Development in the RSA is controlled by the BCP and COA's programs which provide multiple levels of regulatory environmental protection.

The Sensitive Species and Habitats Resource would be primarily protected in the future by the utilization of the BCCP and its requirements, which would apply to any further development within the BCP. Additional protection for karst features considered to be critical environmental features would be by the COA designation within the *Imagine Austin Comprehensive Plan* as an Activity Center for Redevelopment in a Sensitive Environmental Area, and LDC. The conditions of this resource are anticipated to be maintained or improved through the presence of large protected habitat areas, and the management activities of the BCP and COA.

No cumulative impacts would occur from the No-Build Alternative.

### **5.17 Construction Phase Impacts**

As presented in the *Noise Analysis Technical Report*, 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. None of the receivers are expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions would be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

Construction activities would temporarily affect traffic on RM 2222 and RM 620. A traffic control plan would be developed to minimize traffic disruption. Access to adjacent residences and businesses would remain open through all phases of construction. No detours would be anticipated to be required during the construction of the proposed project. If a detour is determined to be necessary, approval from TxDOT and the COA would be obtained prior to the re-routing of traffic.

No construction phase impacts would occur from the No-Build Alternative.

## **6.0 Agency Coordination**

TxDOT has initiated coordination with TPWD and TCEQ in accordance with TxDOT's respective MOUs with those agencies. TxDOT has completed coordination with the THC. In addition, TxDOT is consulting with the USFWS under Section 7 of the Endangered Species Act. Completed agency coordination will be documented in the final EA.

## 7.0 Public Involvement

A public hearing will be conducted to provide the public with information regarding the proposed project, to formally involve the public in the project development process, and to solicit public comments. The public hearing, including all notifications, hearing format and documentation will be conducted pursuant to 23 U.S.C. 327 and a MOU dated December 16, 2014, and executed by FHWA and TxDOT.

Notice of impending construction would be provided to owners of adjoining property and affected local governments and public officials. This notice may be provided via a sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website when the recipient has previously been informed of the relevant website address. This notice would be provided after the environmental decision but before earthmoving or other activities requiring the use of heavy equipment begin.

## 8.0 Environmental Permits, Issues and Commitments

The following sections identify environmental permits, issues and commitments that would be required for the implementation of the Build Alternative.

### *Construction Management*

- A traffic control plan would be developed to minimize traffic disruption. Access to adjacent residences and businesses would remain open through all phases of construction.
- If a detour is determined to be necessary, approval from TxDOT and the COA would be obtained prior to the re-routing of traffic.
- A notice of impending construction would be provided via a sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website when the recipient has previously been informed of the relevant website address prior to earthmoving activities.

### *Archaeological Resources*

- In the event that archaeological materials are discovered during construction, construction in the immediate area shall cease, and the SHPO would be contacted to initiate accidental discovery procedures in accordance with the terms of the PA between the THC, the FHWA, the Advisory Council on Historic Preservation, and TxDOT.

### *Water Quality*

- A SW3P would be in place prior to the start of construction and would be maintained until the site is stabilized.
- A NOI stating that a SW3P has been developed would be filed with the TCEQ prior to the beginning of construction.

#### *Vegetation and Habitat*

- Efforts during construction would be taken to avoid and minimize disturbance of vegetation and soils.
- Removal of native vegetation, particularly mature native trees and shrubs would be avoided to the greatest extent practicable.
- Wherever practicable, impacted vegetation would be replaced with in-kind on-site replacement/restoration of native vegetation.
- Areas within the existing and proposed ROW, but outside the limits of construction would not be disturbed.
- Post-construction site monitoring would continue for a period of one year after construction is complete. A single report describing post-construction conditions as they relate to the listed species would be submitted to USFWS at the conclusion of this monitoring period.

#### *Karst Species*

- All fill material would be inspected for tawny crazy-ants before being deployed to the project site. A qualified karst monitor would be on-call throughout the duration of the construction phase.
- A qualified scientist holding a 10(a)(1)(A) permit for karst invertebrates would be on-call throughout the duration of the geotech and construction phase.
- All discovered voids would be investigated. Impacts to discovered voids would be minimized.
- All karst void discovery protocols found in the Biological Assessment submitted to the USFWS would be followed.

#### *Migratory Birds*

- In the event that migratory birds are encountered on-site during project construction, every effort would be made to avoid adverse impacts to protected birds, active nests, eggs, and/or young.

- Vegetation removal would occur outside of the breeding season (Feb 15 to September 1) and would be limited to that necessary for constructing the proposed action in the Project Area.
- TxDOT would provide information to the contractors on how to recognize habitat for Black-capped Vireo and Golden-cheeked Warbler and would advise the contractors to avoid impacting habitat areas outside of the project area.
- Prior to construction, daytime surveys for nests including under bridges and in culverts would be performed to determine if there are active. Nests that are active should not be disturbed.
- Active nests, including ground nesting birds, would not be disturbed, destroyed, or removed during the nesting season.
- Removal of unoccupied, inactive nests, would be avoided as practicable.
- Establishment of active nests would be prevented during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
- No collection, capture, relocation, or transport of birds, eggs, young, or active nests would occur without a permit.

#### *Hazardous Materials*

- If hazardous materials are unexpectedly encountered during construction, appropriate measures would be taken to assess, contain and remediate the site in accordance with applicable federal, state, and local regulations.
- The contractor would take appropriate measures to prevent, minimize, and control the spill of fuels, lubricants, and hazardous materials in the construction staging areas.
- Asbestos inspections, specification, notification, license, accreditation, abatement and disposal, as applicable, would comply with federal and state regulations. Asbestos issues would be addressed during the ROW process prior to construction.
- All spills would be cleaned immediately and any contaminated soil would be immediately removed from the site and be disposed of properly.
- Designated areas would be identified for spoils disposal and materials storage and be protected from inflow or runoff.

- All materials being removed and/or disposed of by the contractor would be done so in accordance with state and federal laws and by the approval of TxDOT.

#### *Construction Noise*

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

## **9.0 Conclusion**

The engineering, social, economic, and environmental investigations conducted thus far indicate that the proposed project would result in no significant impacts to the human or natural environment. A finding of no significant impact is recommended for the proposed project.

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APPENDIX A  
Project Location Map

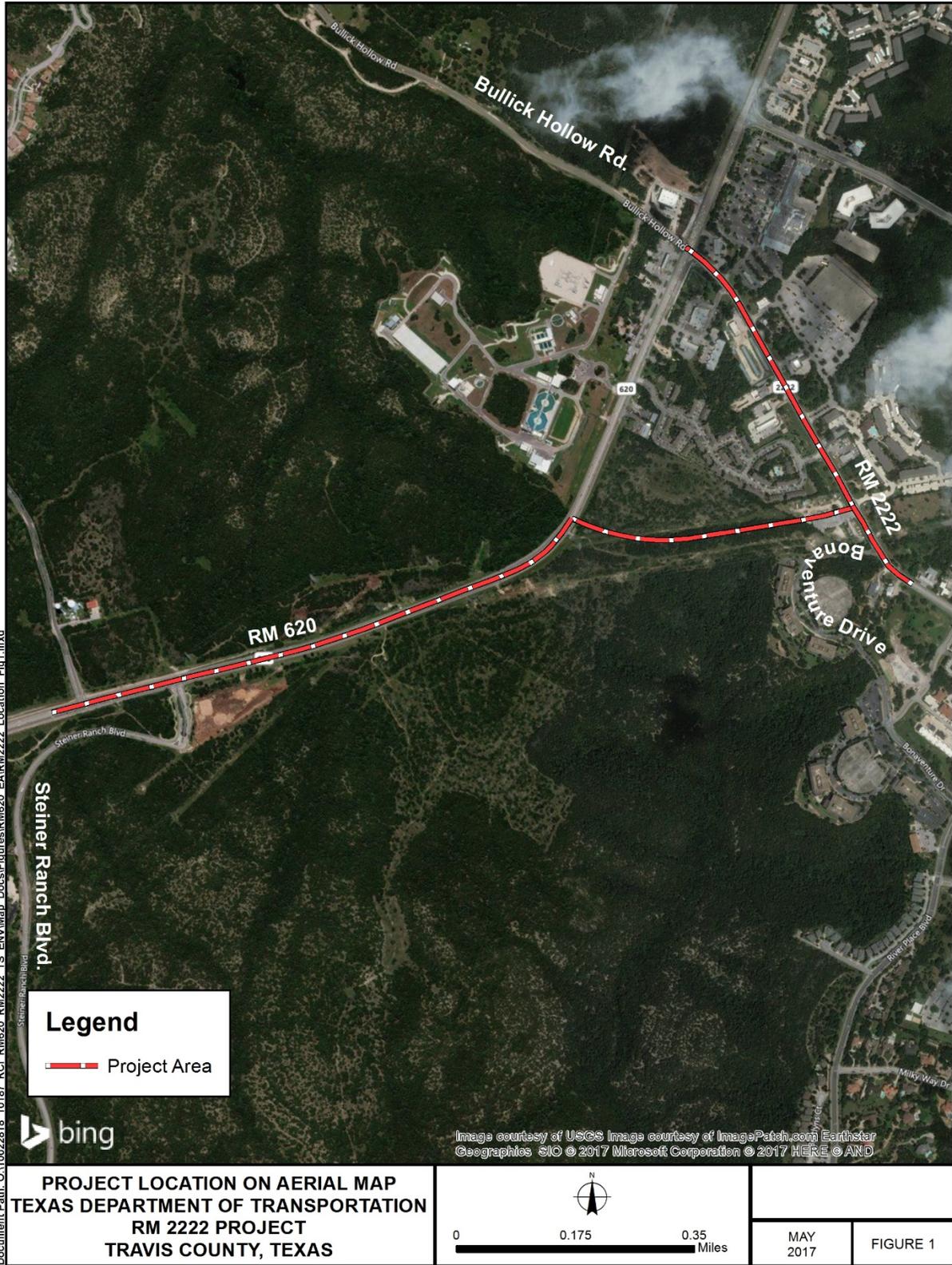


Figure 1. Project Location



Figure 2. Existing Facility

## APPENDIX B

### Project Photos



Photo 1: RM 620 showing area of new auxiliary lane facing southeast.



Photo 2: RM 620 at end of existing sidewalk and bike path facing northeast.



Photo 3: RM 620 showing sidewalk to intersection with RM 2222 facing northeast.



Photo 4: Gas station and convenience store on southwest side of RM 620 facing southwest.



Photo 5: Intersection of RM 620 and RM 2222 facing northwest.



Photo 6: Intersection of RM 620 with RM 2222 showing bike lane between turn lanes and traffic lanes facing southwest.



Photo 7: Intersection of RM 2222 with RM 620 showing congestion at light, facing southeast.



Photo 8: Northeast corner of RM 620 and RM 2222 facing east.



Photo 9: RM 2222 facing intersection with RM 620 showing traffic. Facing northwest.



Photo 10: Jack Brown Cleaners on RM 2222 southwest side. Facing southwest.



Photo 11: North side of Heritage Body and Frame showing RV and Boat storage area looking south.



Photo 12: Heritage Body and Frame southwest side of RM 2222 facing southwest.



Photo 13: RM 2222 at location of new arterial roadway facing southwest.



Photo 14: RM 2222 at transmission line crossing facing southwest.

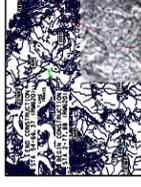
## APPENDIX C

### Schematics



**Texas Department of Transportation**  
 Austin District Design Schematic  
 Terry Mcay P.E., District Engineer  
 STATE OF TEXAS  
 Preliminary Design Schematic For:  
 RM 620

Improvements Locations:  
 RM 620: STEINER RANCH RD.  
 TO RM 2222  
 LENGTH: 0.983 MI

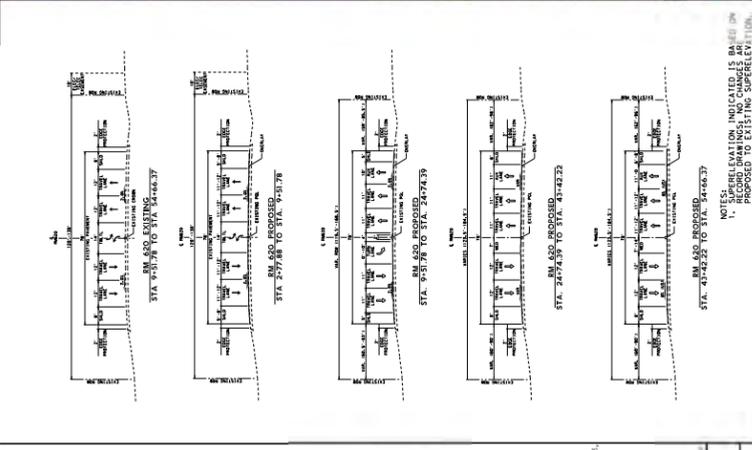


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 PROJECT LOCATION: RM 620

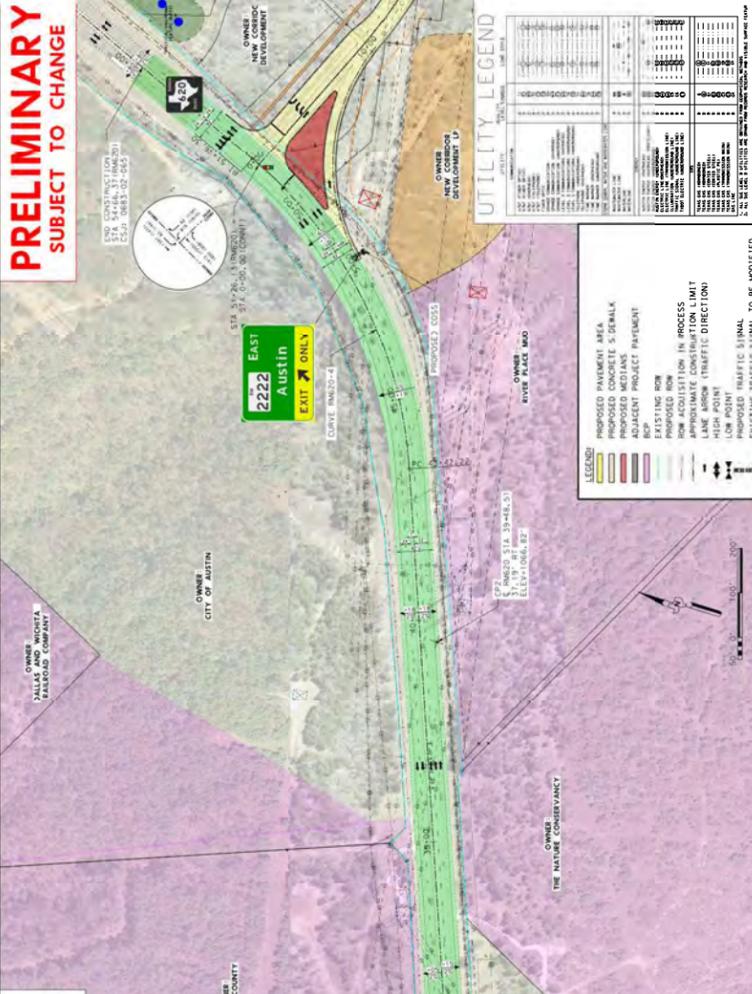
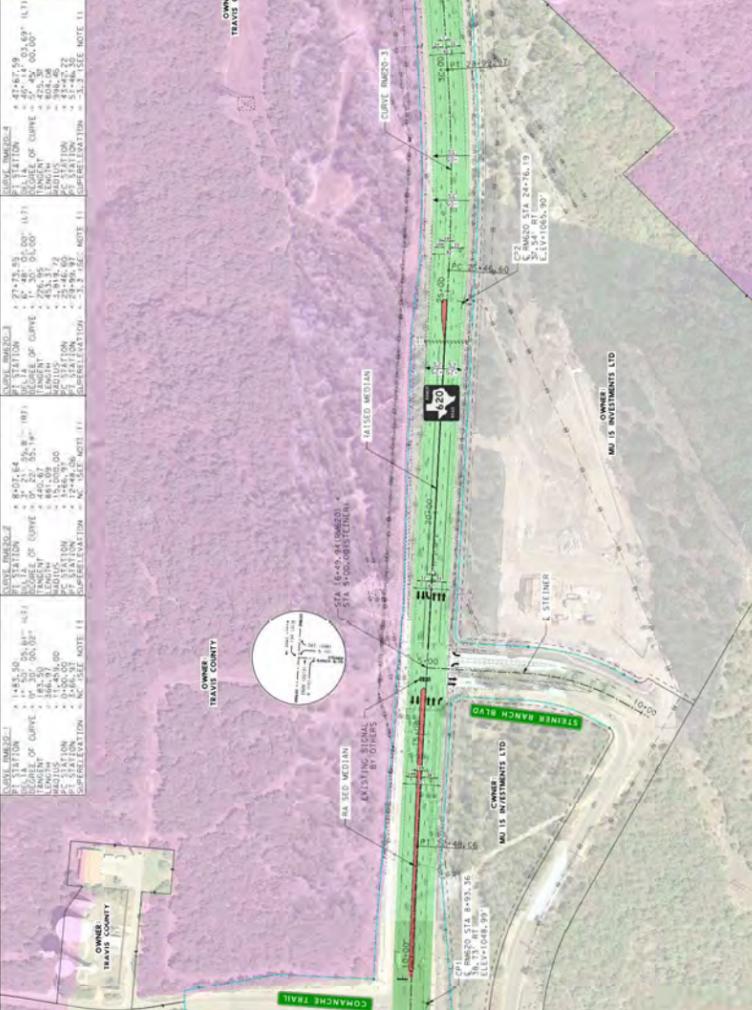
DESIGNED BY: [ ]  
 CHECKED BY: [ ]  
 APPROVED BY: [ ]

FUNCTIONAL CLASS: URBAN ARTERIAL  
 DESIGN SPEED: 60 MPH (A - EXISTING)  
 ROADWAY DESIGN MANUAL CHAPTER 3:  
 TYPICAL & APPLICABLE  
 2018 ITR-205  
 2018 ITR-205  
 70, 100  
 1-2021

PROPOSED ALIGNMENT: RM 620 STATE PLANE ZONE 14-2021  
 SURFACE ADJUSTMENT FOR SET EXHIBIT 14-2021  
 100' WIDE PLAZA ADJACENT TO RM 620



NOTES:  
 1- REVISION INDICATED IS BASED ON PROPOSED TO EXISTING SUPERELEVATION.  
 2- RECORD DIMENSIONS CHANGES ARE PROPOSED TO EXISTING SUPERELEVATION.



**PRELIMINARY**  
 SUBJECT TO CHANGE

**PRELIMINARY**  
 SUBJECT TO CHANGE

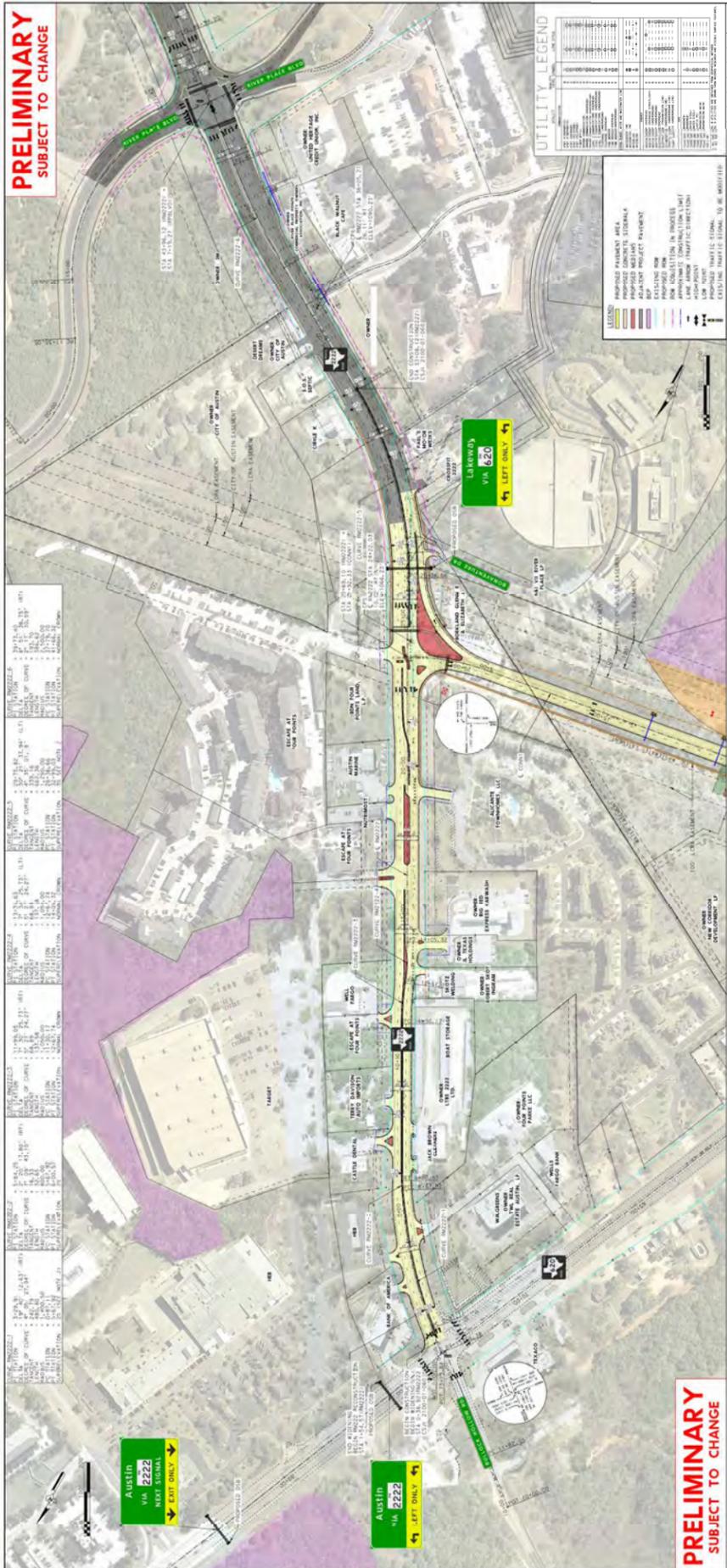
**LEGEND**

- PROPOSED PAYMENT AREA
- PROPOSED CONCRETE SIDEWALK
- PROPOSED MEDIAN
- PROPOSED PROJECT PAYMENT
- BCP
- EXISTING ROW
- ROW ACQUISITION IN PROCESS
- APPROXIMATE CONSTRUCTION LIMIT
- LINE BROW (TRAFFIC DIRECTION)
- LOW POINT
- PROPOSED TRAFFIC SIGNAL TO BE MODIFIED
- EXISTING TRAFFIC SIGNAL

**UTILITY LEGEND**

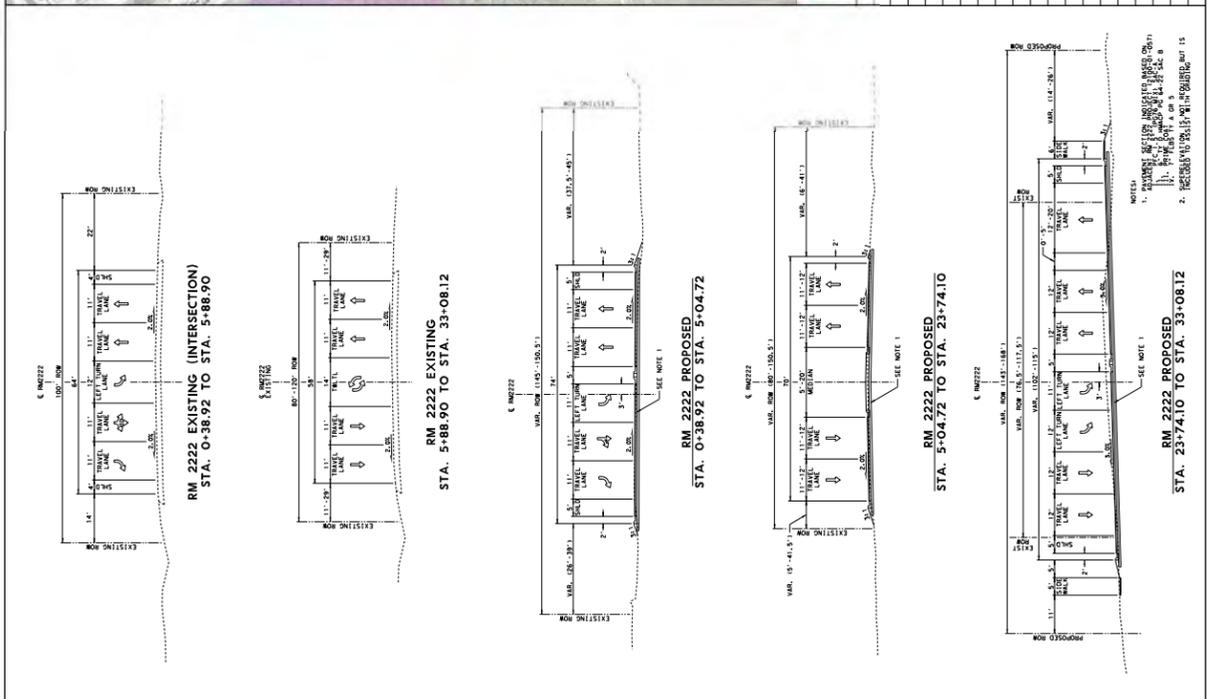
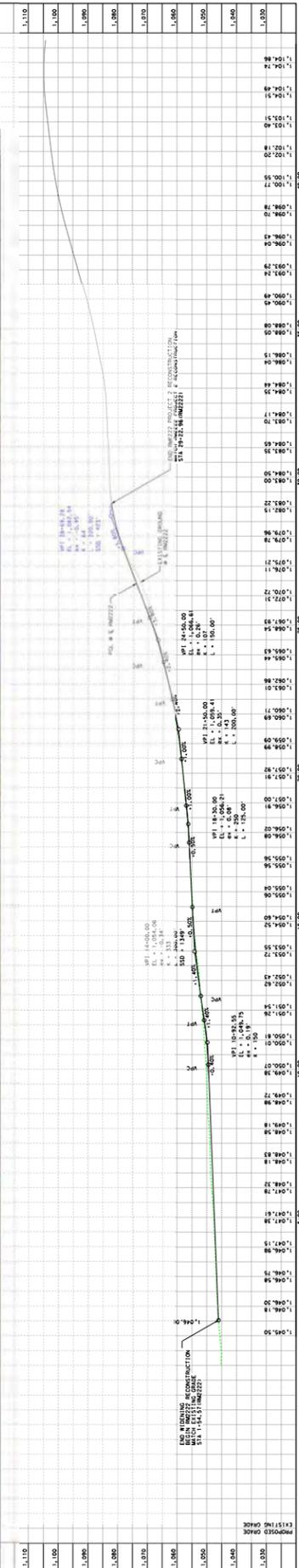
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**PRELIMINARY**  
SUBJECT TO CHANGE



**UTILITY LEGEND**

SYMBOL	DESCRIPTION
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[Symbol]	EXISTING ROAD
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[Symbol]	PROPOSED TRAFFIC SIGNAL TO BE MAINTAINED
[Symbol]	EXISTING TRAFFIC SIGNAL



**Texas Department of Transportation**  
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Austin District Design Schematic  
Terry McCoy P.E., District Engineer  
STATE OF TEXAS

Preliminary Design Schematic For:  
RM 2222  
Travis County  
IMPROVEMENTS LOCATIONS:  
RM 2222: RM 620 TO  
BONAVENTURE DR.  
CSJ: 2100-01-060  
LENGTH: 0.619 MI

NOT A BIDDING DOCUMENT  
DATE: \_\_\_\_\_

SCHEMATIC PREPARED BY:  
MATTIE A. WENCK, P.E.  
PROJECT MANAGER

APPROVED BY: \_\_\_\_\_  
DISTRICT DESIGN ENGINEER

APPROVED BY: \_\_\_\_\_  
DIRECTOR, TRANSPORTATION PLANNING & DEVELOPMENT

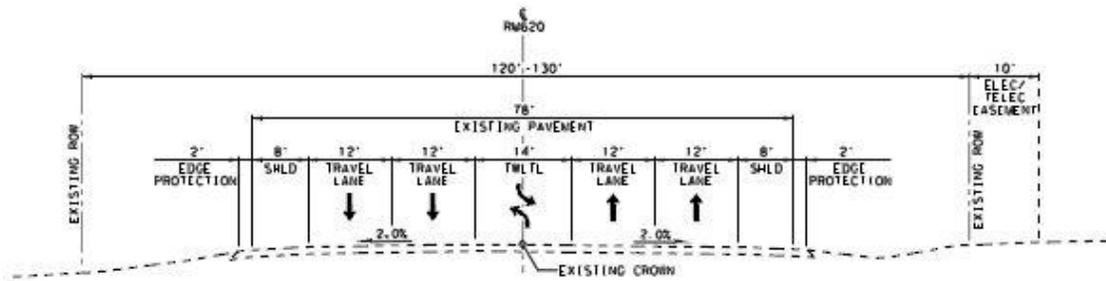
FUNCTIONAL CLASS: URBAN ARTERIAL  
DESIGN SPEED: RM 2222 45 M.P.H. (LOW SPEED)  
4% ROADWAY DESIGN MANUAL CHAPTER 3, SECTION 21.4B URBAN STREETS  
STANDARDS (ROADWAY)  
PROPOSED DESIGN: TMUTCD & APPLICABLE TRAFFIC STANDARDS  
ADT: 2018 36,150  
2038 54,200  
TRUCK % OF ADT: 4.0 (BASE YEAR)

SCALE: 1"=100'

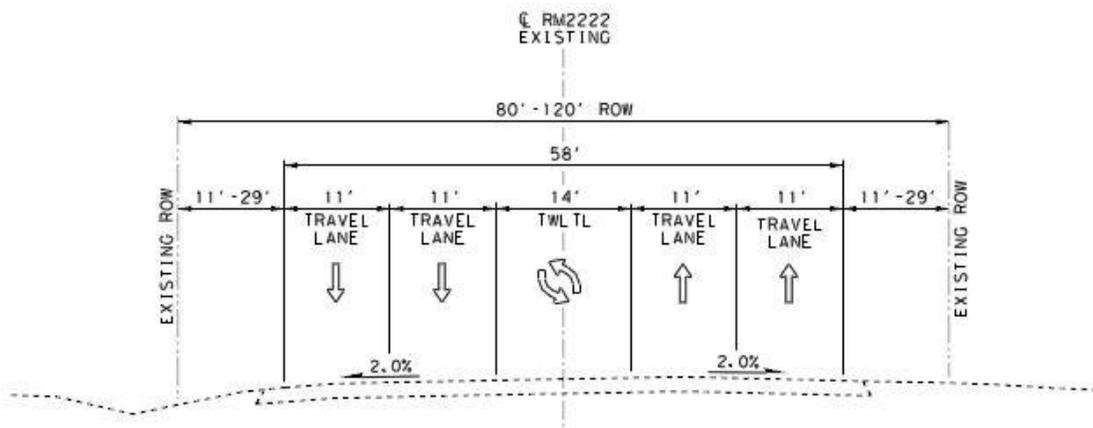
PRELIMINARY DESIGN SCHEMATIC FOR: RM 2222

## APPENDIX D

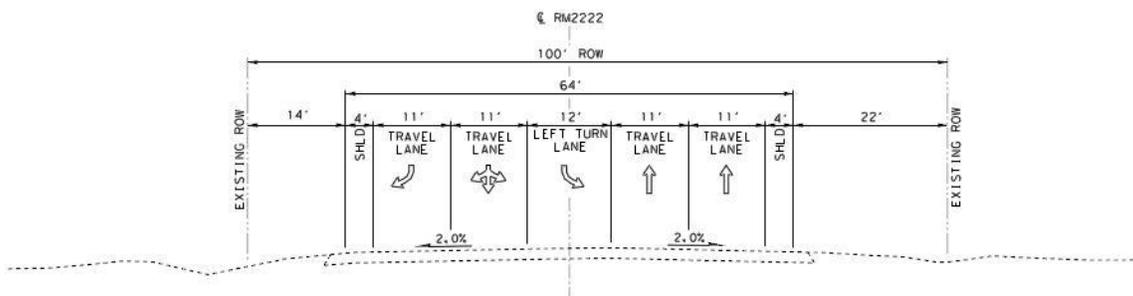
### Typical Sections



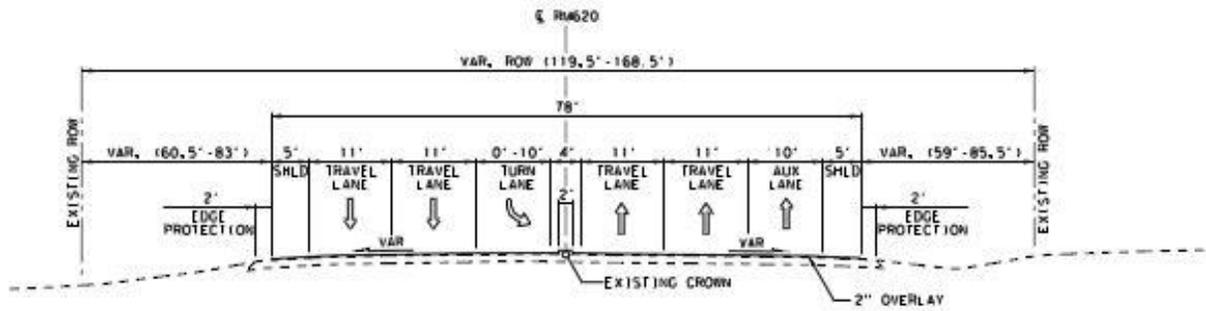
**RM 620 EXISTING  
BEGIN TO END**



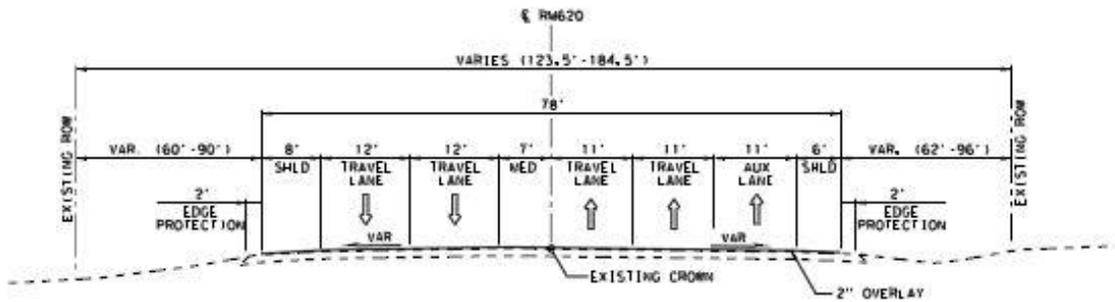
**RM 2222 EXISTING**



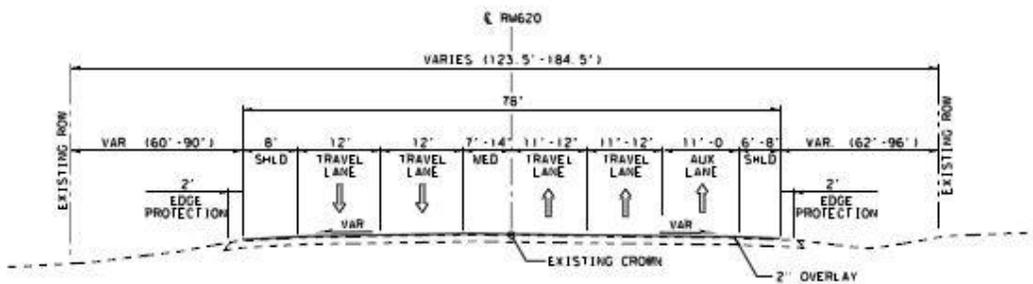
**RM 2222 EXISTING (INTERSECTION)**



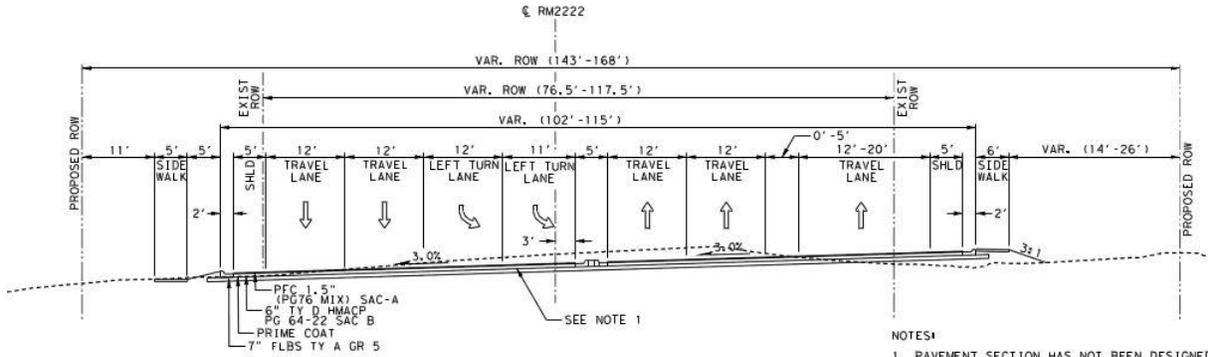
**RM 620 PROPOSED**  
**STA. 9+51.78 TO STA. 24+74.39**



**RM 620 PROPOSED**  
**STA. 24+74.39 TO STA. 43+42.22**

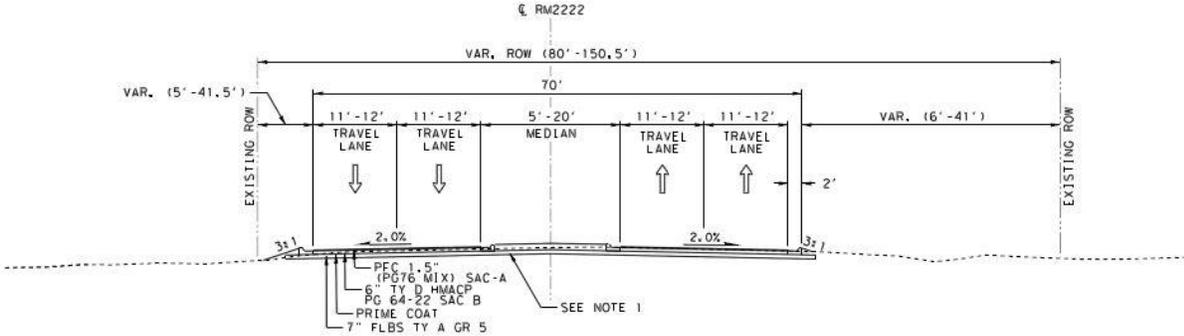


**RM 620 PROPOSED**  
**STA. 43+42.22 TO STA. 54+66.37**

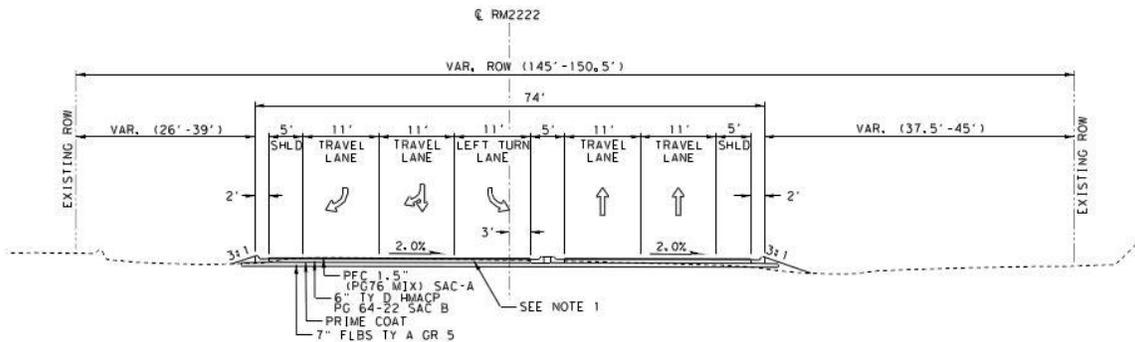


**RM 2222 PROPOSED**  
**STA. 23+74.10 TO STA. 33+08.12**

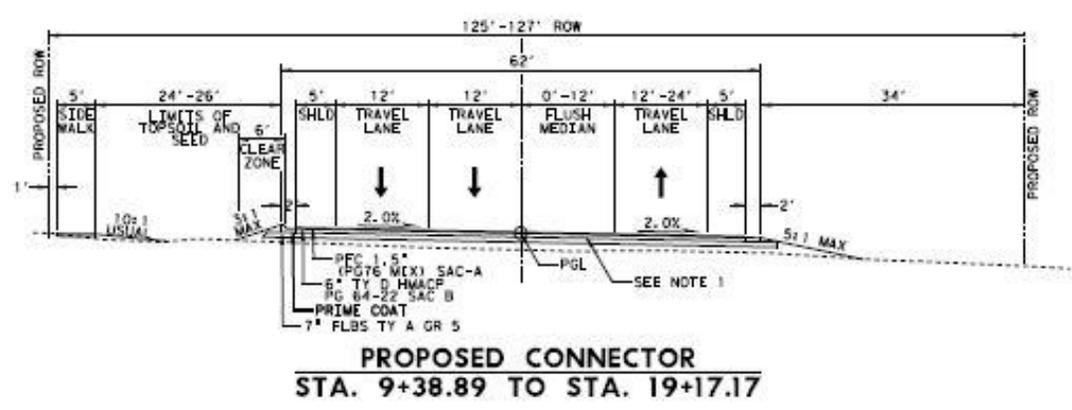
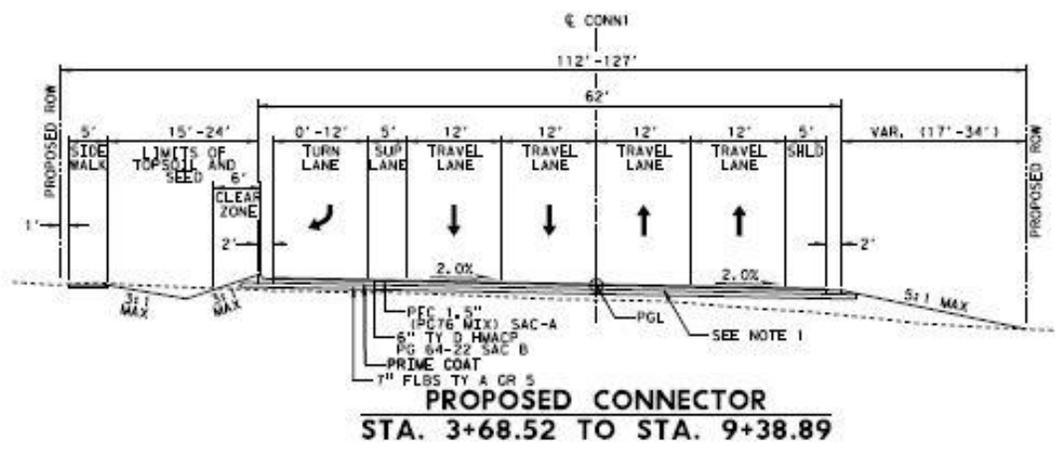
- NOTES:
1. PAVEMENT SECTION HAS NOT BEEN DESIGNED. PAVEMENT SECTION FROM PREVIOUS RM 2222 PROJECT (CSJ: 2100-01-057) WAS USED.
  2. SUPERELEVATION IS NOT REQUIRED BUT IS INCLUDED TO ASSIST WITH GRADING.



**RM 2222 PROPOSED**  
**STA. 4+67.73 TO STA. 23+74.10**



**RM 2222 PROPOSED**  
**STA. 1+53.86 TO STA. 4+67.73**



## APPENDIX E

Plan and Program Excerpts

FYs 2017-2020 Transportation Improvement Program  
Grouped Projects

WEDNESDAY, JUNE 29, 2016

CSJ COUNTY	Highway RTP Reference	LIMITS FROM DESCRIPTION	LIMITS TO	Construction Cost FY
3413-01-006 Burnet	FM 1980 1026	3.694 MI. NORTH OF RM 1431 Profile Edgeline & Centerline Markings	RM 1431	\$62,443 2019
3417-01-024 Travis	FM 374 1096	Williamson C/L Pavement Repair, Underseal & Overlay	IH 35 SB Frontage Rd.	\$3,025,581 2017
3417-02-024 Williamson	FM 734 1148	SH 45 WBFR Depth Repair, Underseal & Thin Overlay	Travis County Line	\$2,653,326 2017
3417-02-027 Williamson	FM 734 1149	Brushy Creek Bridge Upgrade Bridge and Approach Railings	0.01 MI N of SH 45	\$1,660,000 2018
2100-01-060 TRAVIS	RM 2222	RM 620 Operational Improvements & New Connector Road	BONAVENTURE DR.	\$7,669,830 2019
0683-02-065 TRAVIS	RM 620	Steiner Ranch Road Restripe road to add auxiliary lane	RM 2222	\$438,276 2019

5. Action Plan  
and Projects

Road Projects (continued)

ID	Sponsor	Cosponsor	County	Project	Limits/Location	Description	Let Year	YOE Cost (Millions)	Funding Source
179	Buda		Hays	FM 2001	IH 35 - SH 21	Widen to 4-lane divided	2017	\$15.6	Local
180	Lockhart		Caldwell	FM 2001 Expansion / Silent Valley Rd	.14 Miles south of SH 142 - Silent Valley Rd	Northward extension of City Line Road from a point .14 miles south of SH 143 to intersect Silent Valley Road	2040	\$1.2	Local
181	Travis		Travis	FM 2304 (Manchara Rd)	FM 1626 - Ravenscroft Drive	Improve to MAD-4	2020	\$12.0	Regional
182	Hays	San Marcos	Hays	FM 2439 / Hunter Rd	Bishop - RM 12 / Wonder World Dr	MAD-2	2020	\$3.6	Local
183	San Marcos		Hays	FM 2439 / Hunter Rd	SH 80 - Bishop	MNR-2	2020	\$4.4	Local
184	Hays		Hays	FM 2439 / Hunter Rd	Centerpoint Rd - Comal County Line	MAD-4	2025	\$5.2	Local
185	Buda		Hays	FM 2770	FM 1626 - Main St	Widen to 4-lane undivided	2024	\$20.4	Local
186	Kyle		Hays	FM 2770	FM 1626 - FM 150	MAD-4	2025	\$20.5	Local
187	Travis		Travis	FM 3238 (Hamilton Pool Rd)	east side of Pedernales River - RM 12	Improve to MAD-2	2018	\$23.1	Local
188	Travis		Travis	FM 3238 (Hamilton Pool Rd)	RM 12 - SH 71 W	Improve to MAD-2	2025	\$40.0	Local
189	Williamson		Williamson	FM 3405	US 183 - RM 2338	Widen from 2 lanes to 4 lanes	2015	\$24.8	Local
190	Hays		Hays	RM 12	FM 150 W - Winters Mill Pkwy	MAD-2	2025	\$61.0	Local
191	Hays		Hays	RM 12	FM 3237 - RM 32	MAD-2	2025	\$24.5	Local
192	Hays		Hays	RM 12	Fitzhugh Rd - FM 150 W	MAD-4	2025	\$5.8	Local
193	Hays		Hays	RM 12	FM 2439/Hunter Rd - SH 123	MAD-6	2025	\$4.5	Local
194	Hays		Hays / Travis	RM 12	FM 3238 - Fitzhugh Rd	MAD-2	2025	\$11.6	Local
195	Hays		Hays	RM 12	Winters Mill - FM 3237	MAD-2; designate as BR 12	2025	\$11.7	Local
196	Hays		Hays	RM 12	RM 32 - Old RR 12/SH 80	PKWY-4	2025	\$96.2	Local
197	Wimberley		Hays	RM 12 and FM 3237 Intersection Improvement	RM 12 - north and south of FM 3237 - FM 3237 - east of RM 12	Engineering, design and right-of-way purchase to add turn lanes and pedestrian crossings	2016	\$0.4	Regional
198	Hays		Hays	RM 32	Comal County Line - RM 12	MAD-2	2030	\$25.9	Local
199	Cedar Park	TxDOT	Williamson	RM 620	Pecan Park Blvd - Anderson Mill Road	Improve to MAD-6	2025	\$25.0	Regional
200	Travis		Travis	RM 620	Anderson Mill Rd. - SH 71 W	Widen to MAD-6	2025	\$52.0	Regional
201	Travis		Travis	RM 620 Bypass	620 - RR 2222	3 lanes, 2-lane west, 1 east	2020	\$8.0	Local
202	Buda	TxDOT	Hays	RM 967	Goforth Rd - IH 35	Widen to 4-lane undivided	2017	\$17.3	Local
203	Williamson		Williamson	RM 1431	Som Bass - IH 35	Reconstruct and widen to 6 lane divided	2025	\$39.8	Regional

CSJ District TRAVIS MPO City SH 130 Letting FY  
0640-06-016 AUSTIN COUNTY CAMPO 2019

Limits From AT FM 812

Limits To .

Ranking Tier 2

Project Description INSTALL INTERSECTION FLASHING BEACON

Total Project Cost Information		Programmed Funding					
<b>INFORMATIONAL PURPOSES ONLY</b>		Category	Description	Authorized	Other	Local	Total
Preliminary Engineering	\$6,592	8	SAFETY	\$122,400	\$0	\$0	\$122,400
ROW & Utilities	\$0						
Construction	\$134,534		<b>Total</b>	\$122,400	\$0	\$0	\$122,400
Construction Engineering	\$6,014						
Contingencies	\$0						
Indirect Costs	\$0						
Potential Change Orders	\$4,184						
<b>Total Project Cost</b>	<b>\$151,324</b>						

CSJ District TRAVIS MPO City RM 620 Letting FY  
0683-02-065 AUSTIN COUNTY CAMPO 2019

Limits From STEINER RANCH ROAD

Limits To RM 2222

Ranking Tier 2

Project Description RESTRIPE ROAD TO ADD AUXILIARY LANE

Total Project Cost Information		Programmed Funding					
<b>INFORMATIONAL PURPOSES ONLY</b>		Category	Description	Authorized	Other	Local	Total
Preliminary Engineering	\$21,408	7	STP-MM/REHABILITATION	\$400,000	\$0	\$0	\$400,000
ROW & Utilities	\$0						
Construction	\$436,903		<b>Total</b>	\$400,000	\$0	\$0	\$400,000
Construction Engineering	\$27,874						
Contingencies	\$5,636						
Indirect Costs	\$0						
Potential Change Orders	\$25,253						
<b>Total Project Cost</b>	<b>\$517,075</b>						

CSJ District TRAVIS MPO City SH 71 Letting FY  
0700-03-141 AUSTIN COUNTY CAMPO 2019

Limits From AT FALL CREEK ROAD

Limits To .

Ranking Tier 2

Project Description INSTALL INTERSECTION FLASHING BEACON AND SAFETY LIGHTING AT INTERSECTION

Total Project Cost Information		Programmed Funding					
<b>INFORMATIONAL PURPOSES ONLY</b>		Category	Description	Authorized	Other	Local	Total
Preliminary Engineering	\$3,297	8	SAFETY	\$61,220	\$0	\$0	\$61,220
ROW & Utilities	\$0						
Construction	\$67,289		<b>Total</b>	\$61,220	\$0	\$0	\$61,220
Construction Engineering	\$3,008						
Contingencies	\$0						
Indirect Costs	\$0						
Potential Change Orders	\$2,093						
<b>Total Project Cost</b>	<b>\$75,687</b>						

CSJ District TRAVIS MPO City VA Letting FY  
0914-00-399 AUSTIN COUNTY 2019

Limits From VARIOUS LOCATIONS DISTRICTWIDE

Limits To .

Ranking Tier 2

Project Description FY 2019 NON-SITE SPECIFIC SIGNALS

Total Project Cost Information		Programmed Funding					
<b>INFORMATIONAL PURPOSES ONLY</b>		Category	Description	Authorized	Other	Local	Total
Preliminary Engineering	\$138,663	11	DISTRIC DISCRETIONARY	\$2,500,000	\$0	\$0	\$2,500,000
ROW & Utilities	\$0						
Construction	\$2,829,863		<b>Total</b>	\$2,500,000	\$0	\$0	\$2,500,000
Construction Engineering	\$442,025						
Contingencies	\$58,578						
Indirect Costs	\$0						
Potential Change Orders	\$190,450						
<b>Total Project Cost</b>	<b>\$3,659,578</b>						

Note: As passed by the 84th Legislature funding allocations and project listings identified in the UTP that generally involve allocations in Categories 2, 4, 11 and 12 may be subject to further consideration by the Texas Transportation Commission to ensure that the Texas Department of Transportation and HB 20 designated Planning Organizations (TxDOT Districts and Metropolitan Planning Organizations) have complied with the requirements of HB 20. Any proposed revisions to funding allocations or project listings will be addressed in future updates to the UTP.

APPENDIX F  
Resource-Specific Maps

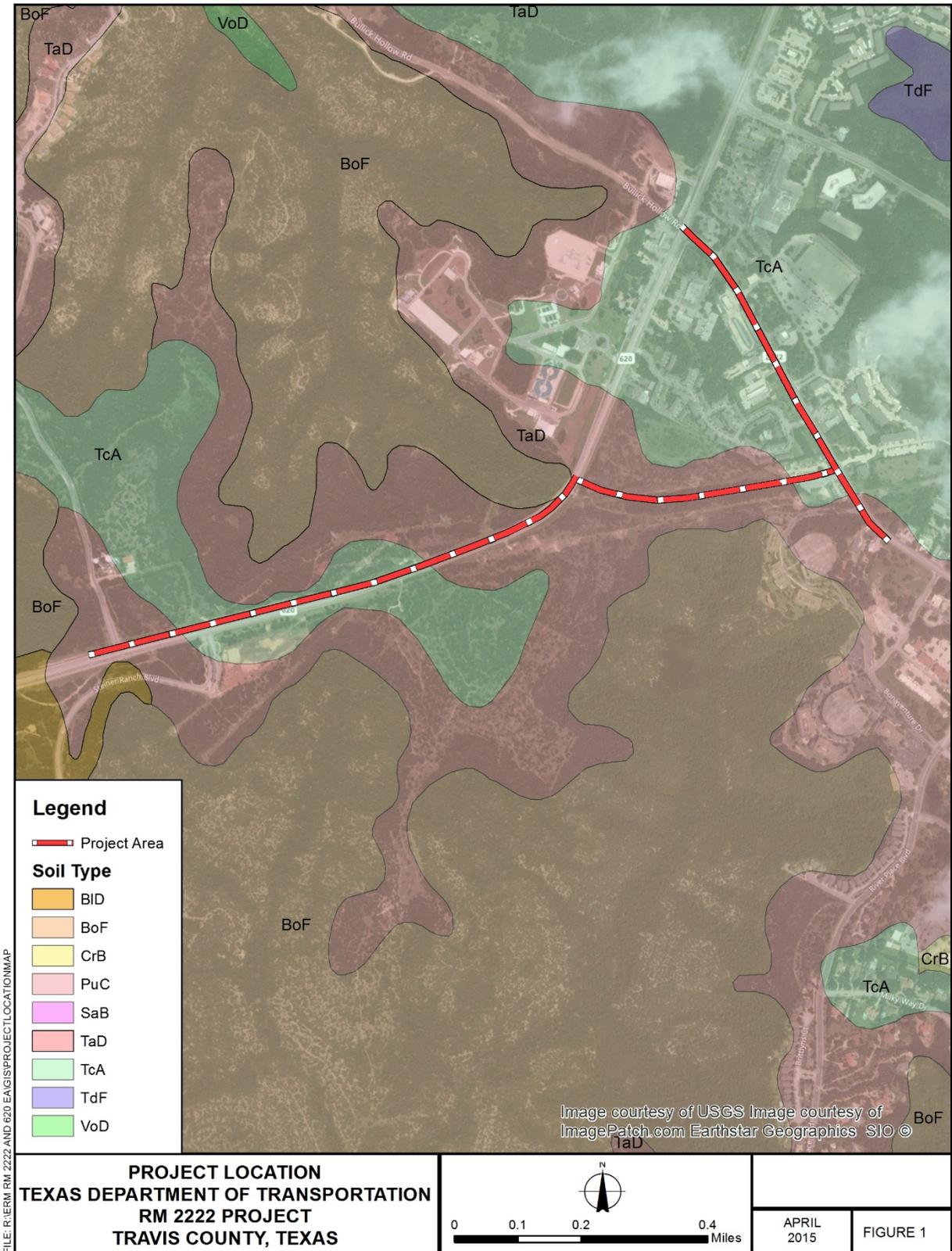


Figure 1. RM 2222 Project Soil Map

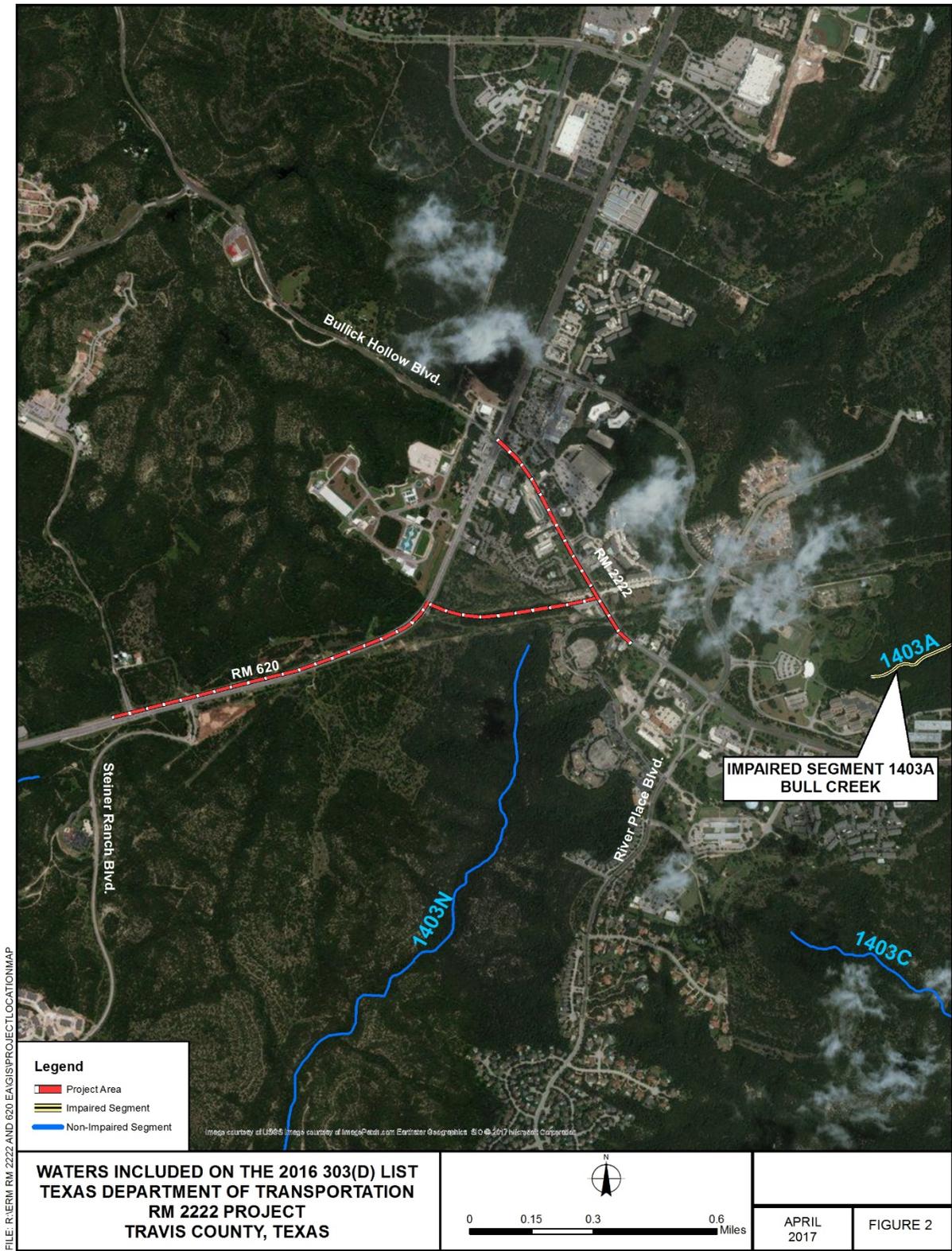
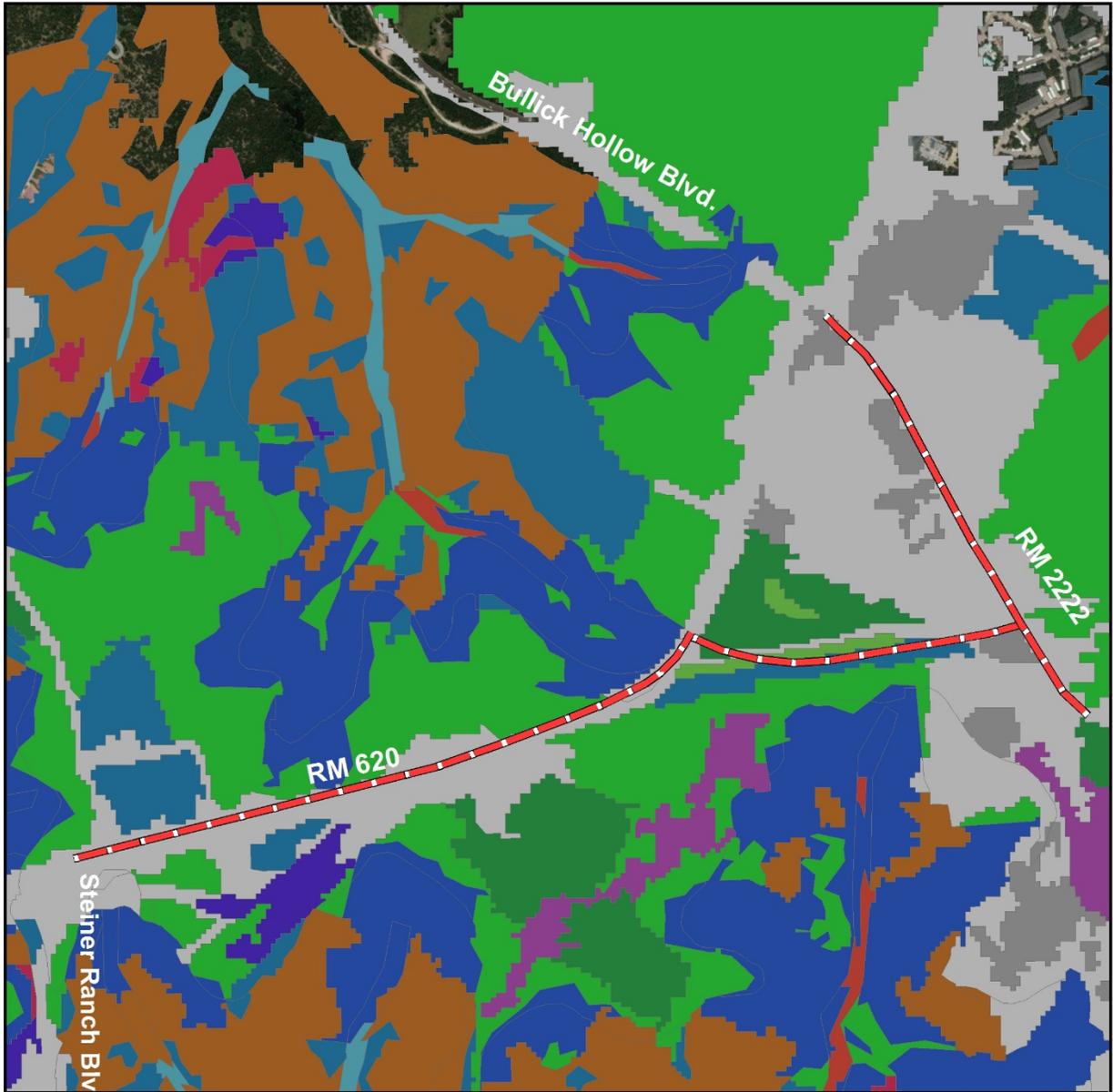


Figure 2. Impaired Waters within 5 Miles of the Project Area



FILE: R:\ERM RM 2222 AND 620 EA\GIS\PROJECT\LOCATION\MAP

**Legend**

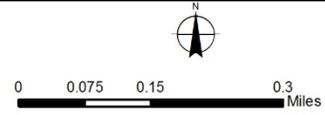
Project Area

**EMST Veg. Types**

**CommonName**

Barren	Edwards Plateau: Deciduous Oak / Evergreen Motte and Woodland	Edwards Plateau: Riparian Hardwood / Ashe Juniper Forest
Edwards Plateau: Ashe Juniper / Live Oak Shrubland	Edwards Plateau: Floodplain Hardwood Forest	Edwards Plateau: Savanna Grassland
Edwards Plateau: Ashe Juniper / Live Oak Slope Shrubland	Edwards Plateau: Live Oak Motte and Woodland	Edwards Plateau: Shin Oak Shrubland
Edwards Plateau: Ashe Juniper Motte and Woodland	Edwards Plateau: Oak / Ashe Juniper Slope Forest	Native Invasive: Juniper Woodland
Edwards Plateau: Ashe Juniper Slope Forest	Edwards Plateau: Oak / Hardwood Motte and Woodland	Native Invasive: Mesquite Shrubland
	Edwards Plateau: Oak / Hardwood Slope Forest	Open Water
	Edwards Plateau: Post Oak Motte and Woodland	Urban High Intensity
	Edwards Plateau: Riparian Ashe Juniper Forest	Urban Low Intensity
	Edwards Plateau: Riparian Ashe Juniper Shrubland	

**EMST VEGETATION TYPES**  
**TEXAS DEPARTMENT OF TRANSPORTATION**  
**RM 2222 PROJECT**  
**TRAVIS COUNTY, TEXAS**



APRIL 2017	FIGURE 3
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Figure 3. EMST Vegetation Types

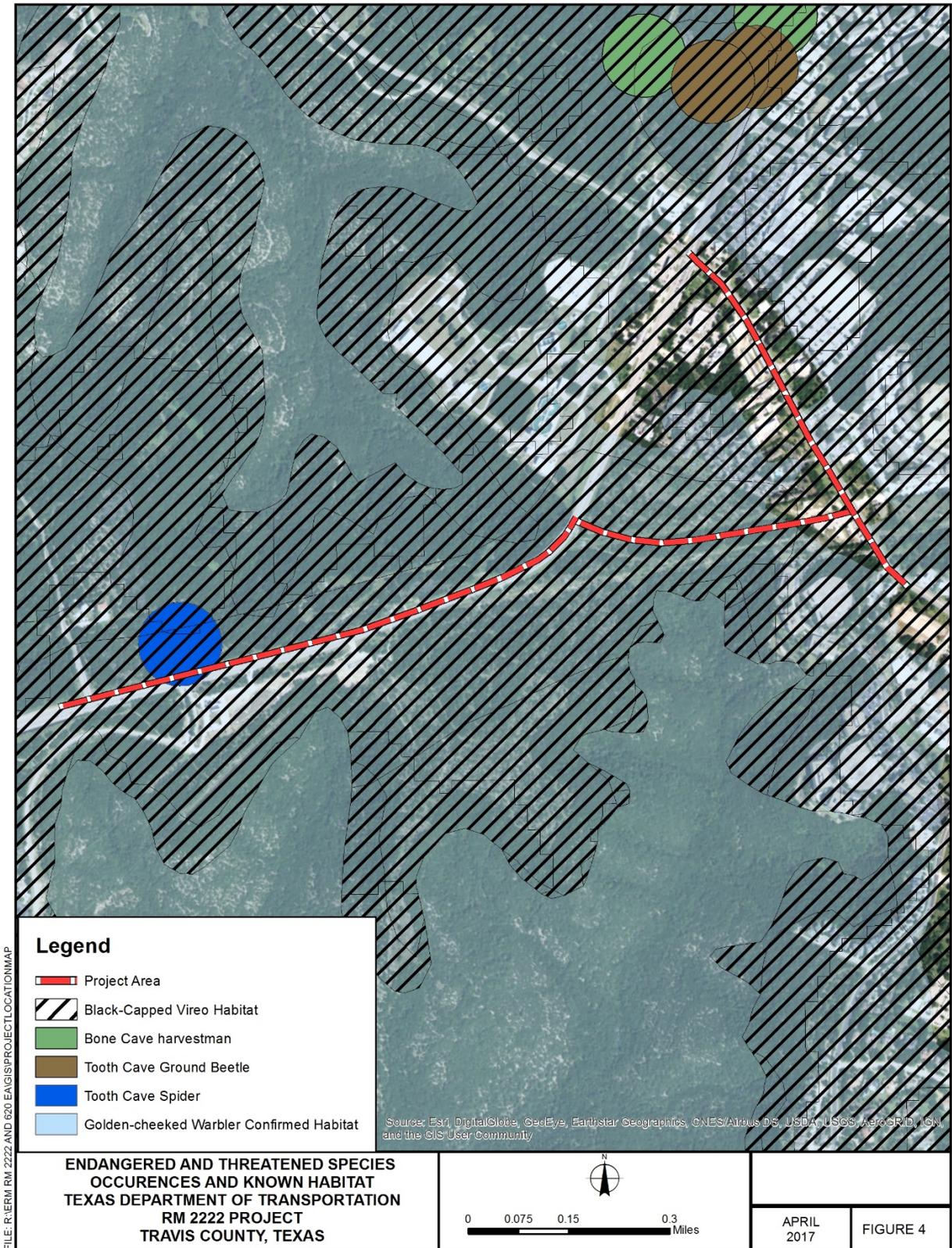
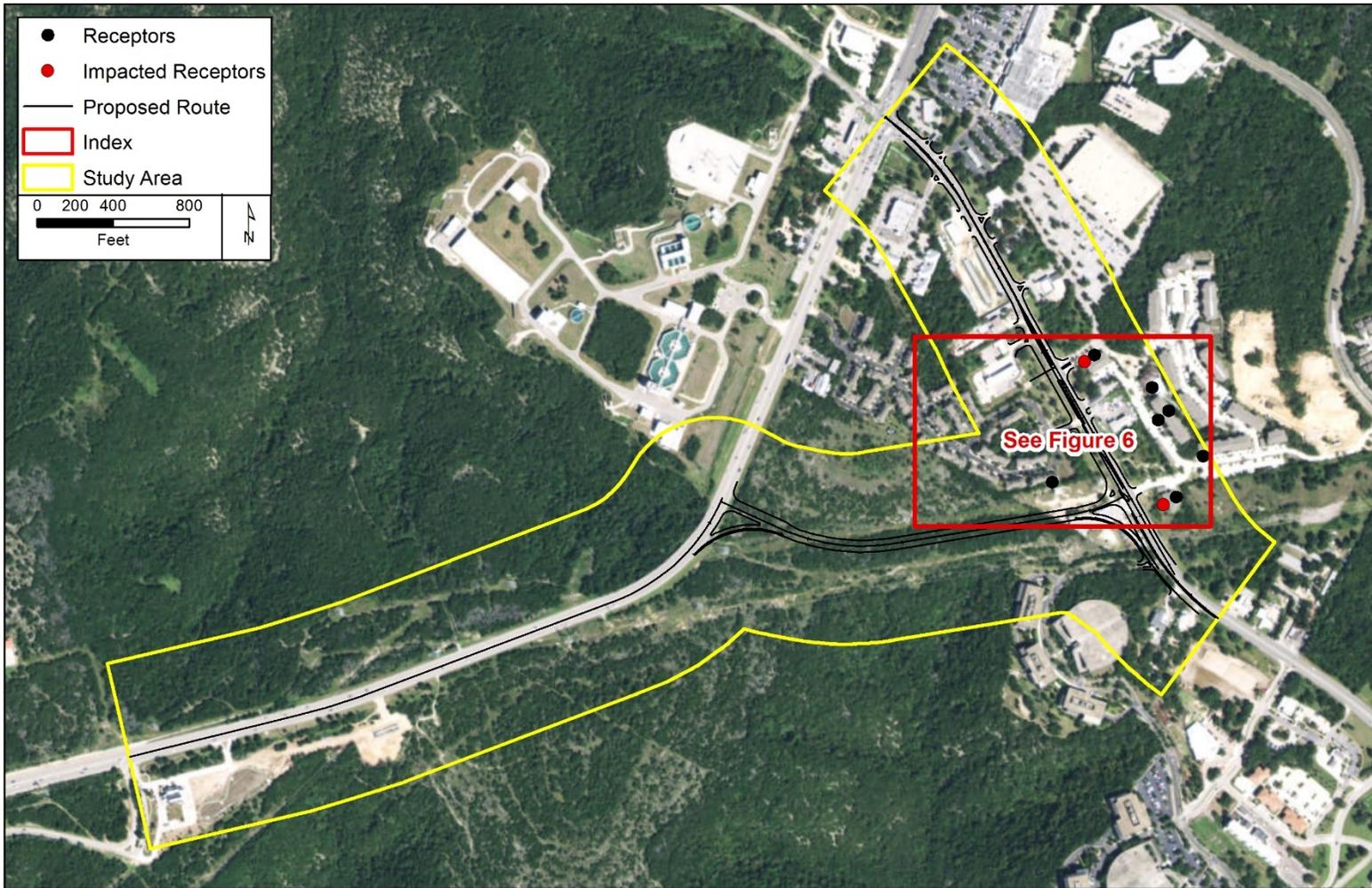


Figure 4. Endangered and Threatened Species Occurrences and Known Habitat Areas



**FIGURE 5 - NOISE RECEIVER LOCATION MAP OF PROJECT AREA**  
 RM 620 AT STEINER RANCH BOULEVARD TO  
 RM 2222 AT BONAVENTURE DRIVE

PATH: C:\USERS\PJONES\DOCUMENTS\TEMP\2222 AND 620\NOISE SHAPEFILES\FIGURE\_5\_APPENDIX\MXD - USER: PJONES - DATE: 8/24/2017

Figure 5. Noise Receiver Location Map of Project Area



**FIGURE 6 - NOISE RECEIVER LOCATION MAP-CLOSEUP**  
 RM 620 AT STEINER RANCH BOULEVARD TO  
 RM 2222 AT BONAVENTURE DRIVE

PATH: C:\USERS\PJONES\DOCUMENTS\TEMP\2222 AND 620\NOISE SHAPEFILES\FIGURE\_6\_APPF.MXD - USER: PJONES - DATE: 8/24/2017

Figure 6. Noise Receiver Location Map—Close-up

## APPENDIX G

### Resource Agency Coordination



125 EAST 11TH STREET, AUSTIN, TEXAS 78701-2483 | 512.463.8588 | WWW.TXDOT.GOV

April 19, 2017

RE: Section 106 and Antiquities Code of Texas Consultation: PA-TU and MOU: RM 620 at RM 2222 and at Bonaventure Drive: Install New Roadway on New Location and Improve Existing Roadways: Travis County, Austin District: CSJ: 2100-01-060/0683-02-065: TxDOT Recommendation for No Survey and No Further Archeological Work Required. Recommendations for No Further work Includes Portions of 41TV2110, 2296 and 2297

Patricia A. Mercado-Allinger  
Division of Archeology/Texas Historical Commission  
P.O. Box 12276  
Austin, Texas 78711

Dear Ms. Mercado-Allinger:

In accord with the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer (TSHPO), and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), as well as the Memorandum of Understanding (MOU) between the Texas State Historic Preservation Officer and TxDOT, we are initiating Section 106 and Antiquities Code of Texas consultation for the proposed undertaking.

TxDOT is proposing improvements to existing sections of RM 620 and RM 2222. Improvements include the addition of a new 0.4-mile, four lane arterial connecting RM 2222 to RM 620 through the High Pointe Village Development tract. In addition, a northbound auxiliary lane will be added to RM 620 from Steiner Ranch Boulevard north to the new RM 2222 connector. Finally, the RM 620/RM 2222/Bullick Hollow Road intersection would be improved. Approximately 7.7 acres of proposed new right of way (ROW) would be required.

The undertakings area of potential effects (APE) is defined as approximately 2.0 miles of Ranch to Market Roads (RM) 620 and 2222 that are depicted on the maps and project plans embedded in the attached HDR Environmental Consultants (HDR) archeological background study (BGS). The width of the APE is 80 to 450 feet. Depth of impacts are estimated to be up to 16 feet below the current ground surface for storm sewer installations and up to six feet for the remainder of the project. Approximately 7.7 acres of proposed new ROW would be required for the new, four lane, arterial roadway. Coupled with the 28.7 acres of existing ROW, the total APE is comprised of 36.4 acres. No new permanent or temporary easements are required. The existing and proposed new ROW is depicted on the maps and plans embedded in the attached HDR BGS.

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TxDOT's Austin District contracted HDR to conduct an archeological background study of the APE. That background study resulted with the HDR investigators recommending further work in the form of an intensive archeological survey in the 7.7 acres of proposed new ROW. They also recommended that no survey and no further work is warranted for the remainder of the project. A copy of the HDR archeological background study is attached for your review.

TxDOT has reviewed the HDR archeological background study and disagrees with the recommendations for intensive archeological survey within the proposed new ROW. TxDOT does agree with the HDR recommendations for no further work for the remainder of the project. Based upon the geology, sediments, previous surveys conducted in the APE, and the assessments of the three archeological sites previously recorded in the APE, TxDOT recommends that no survey or further work is warranted for the entire project. A discussion of the rationale supporting TxDOT's recommendations is provided below. In addition, please refer to TxDOT's Archeological Background Study Supporting documentation attached to this letter.

According to the Austin Sheet of the Geologic Atlas of Texas TxDOT, the APE is underlain with Cretaceous aged formations with formation periods significantly predating the generally accepted arrival time of human beings into Travis County (12,000 years ago). Therefore, the APE possesses minimal potential for the presence of naturally buried, intact, archeological deposits. Archeological features and artifacts would be expected to be limited to near surface contexts and likely weathered, eroded, temporally mixed, and overprinted, severely limiting their potential to yield information important to history or prehistory. TxDOT recommends that survey is not warranted in these contexts.

According to the United States Department of Agriculture and the Soil Conservation Service Soil Survey of Travis County, shallow sediments underlie the APE with limestone bedrock within 0 to 20 inches of the ground surface. The presence of shallow bedrock precludes the possibility of deeply buried, intact archeological deposits. Just as discussed in the geology section above, any archeological features and artifacts would be expected to be limited to near surface contexts and likely weathered, eroded, temporally mixed, and overprinted severely limiting their potential to yield information important to history or prehistory. TxDOT recommends that survey is not warranted in these contexts.

According to the Mansfield Dam (3097-233) quadrangle of the online version Texas Archeological Sites Atlas, there are a total of eleven archeological sites (41TV171, 1769, 1897, 2110, 2240, 2241, 2257, 2262, 2383, 2296, and 2297) located within 1 kilometer (0.625 miles) of the APE. However, with the exception of 41TV2110, 2296, and 2297, all of these sites are located more than 100 meters away from the APE and will not be impacted. Approximately, 40% of the APE has been previously surveyed.

41TV2110 has been recorded as a low density lithic scatter with one probable Paleoindian point and one possible Ensor point. 41TV2296 has been recorded as seven historic structures including a house and a historic artifact scatter which included metal, plastic, glass, ceramics, and other trash debris. 41TV2297 has been recorded as a lithic scatter including

debitage, utilized flakes, and a hammer stone fragment. According to the online version of the Texas Archeological Sites Atlas, the THC has previously determined that 41TV2110, 2296, and 2297 are not eligible for listing on the National Register of Historic Places and do not warrant designations as State Archeological Landmarks (see attached TxDOT Archeological BGS Supporting Documentation). TxDOT recommends that any further work is not warranted in relation to these sites.

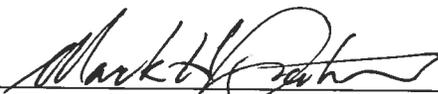
Based upon the above discussion, TxDOT and seeks your concurrence with recommendations that any portions of 41TV2110, 2296, and 2297 overlapping onto the APE are not contributing elements to the sites' eligibility for listing on the National Register of Historic Places and do not warrant designations as State Archeological Landmarks. Finally, TxDOT seeks your concurrence that the inventory of the APE is complete, for a finding of "no archeological historic properties affected", no State Archeological Landmarks affected, and no survey, further work or consultation is required. Please signify your concurrence by signing on the signature line provided below.

In the unlikely event that archeological materials are discovered during construction, construction in the immediate area shall cease, and the TSHPO will be contacted to initiate accidental discovery procedures in accordance of the terms of the Programmatic Agreement among the Texas Historical Commission, the Federal Highway Administration, and the Texas Department of Transportation. If you have any questions, please contact me at 416-2640. Thank you for your consideration in this matter.

Sincerely,



Jon Budd, TxDOT Staff Archeologist

Concurrence by:  Date: 4-20-17  
 For Mark Wolfe, State Historic Preservation Officer and Executive Director

Attachments

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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# MEMO

October 9, 2017

**To:** FILE - 2100-01-060  
RM 2222

**From:** Shelly Eason *SE*  
Environmental Specialist, Austin District

**Subject:** Archeology

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An archaeological background study was conducted to evaluate the potential for the proposed undertaking to affect archaeological resources in the area of potential effects (APE). One previously recorded archaeological site, 41TV2210, was identified within the area of the proposed ROW. Two additional sites, 41TV2296 and 41TV2297 are located within the APE. All three have been previously recommended ineligible for inclusion in the National Register of Historic Places. TxDOT recommended and the Texas State Historic Preservation Officer concurred that no survey or further work is required for the project. See the file "CSJ 2100-01-060\_0683-02-065\_RM2222\_RM 620\_Archeological Background Study\_20170207.pdf"

Since that consultation, the project design has changed to include 4.4 acres of additional existing right-of-way that extends westward on RM 620 from Steiner Ranch Boulevard and is part of a construction transition area. See the file "TransitionAreaArchMemoMap.pdf". Improvements to RM 620 within this transition construction area include the addition of a raised median between Comanche Trail and Steiner Ranch Blvd and roadway re-striping. These actions would occur within the existing paved area. There are no archeological sites within the construction transition area.

Pursuant to 36 CFR § 800.3(a)(1), certain routine projects constitute undertakings with no potential to cause effects on archeological historic properties. In addition, Appendix 3 of the 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 identifies several categories of undertakings that have minimal potential to cause effects. The construction transition would meet Appendix 3 condition M: All work between the flowlines of the ditches and channels and above the original line and grade. No further archeological work is proposed for the project.

Please note that in the original map for the Background Study, the existing right-of-way between the intersection of RM 620/RM 2222 and the proposed connector road was included in the APE. See first map in file "TransitionAreaArchMemoMap.pdf". There is no construction proposed within this area; therefore, the second map in the file "TransitionAreaArchMemoMap.pdf" does not show this area as part of the APE.

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## APPENDIX H

### Hazmat Regulatory Database Summary



# Hazmat Regulatory Database Summary

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RM 2222 and RM 620

Austin District

RM 620 to Bonaventure Drive and Steiner  
Ranch Road to RM 2222

CSJs: 2100-01-060 and 0683-02-065

Travis County, Texas

## 1.0 Regulatory Database Summary

A regulatory records review was conducted through the contracted service of GeoSearch to obtain and review standard sources of environmental information from government agency records to help identify potential hazardous material issues within the project limits and surrounding properties. The list of databases that were searched is provided below:

- Federal Active NPL or Not NPL list (CERCLIS or SEMS Sites)
- Federal Archived NPL or Not NPL list (CERCLIS or SEMS Sites)
- EPA Brownfield Properties
- Federal RCRA Corrective Action (CORRACTS) list
- Federal RCRA non-CORRACTS Treatment Storage Disposal (TSD) facilities list
- Federal RCRA generators
- Federal ERNS (or Responses)
- TCEQ Industrial Hazardous Waste (IHW) Corrective Action sites
- TCEQ Superfund sites
- Closed and abandoned municipal solid waste landfill sites
- TCEQ leaking petroleum storage tank remediation lists (LPST)
- TCEQ registered petroleum storage tank lists (PST)
- TCEQ voluntary cleanup program (VCP) sites
- TCEQ Innocent Owner/ Operator (IOP) sites
- TCEQ Dry Cleaners Remediation Database
- Texas Railroad Commission VCP sites
- Industrial and Hazardous Waste Sites

A site survey was conducted on March 9, 2017 to identify potential hazardous materials concerns. An existing transmission line corridor was observed in an undeveloped area adjacent to the proposed new location connector. The proposed project would require the demolition of Heritage Body and Frame, an auto body and paint shop. This property was surveyed and an interview was conducted with the current owner. **Table 1** below summarizes the database list search and site visit concerns. **Figure 1** shows the location of potential hazardous materials concerns in the project area.

**Table 1: Summary of Regulatory Databases List Search and Site Visit Concerns**

Site Information	Database	Location Relative to Project
<p>2222 Service Center (Currently Heritage Body and Frame)</p> <p>11111 Ranch Road 2222, Austin, TX 78730</p> <p>Site ID#: TXD981597016, 74035, 70889</p>	<p>RCRA G, IHW – This facility was listed as inactive in both databases. One violations was noted in 1991 resulting in a written informal enforcement.</p> <p>Site Visit Concerns: The structure was constructed between 1980 and 1988, an asbestos survey would be required to identify any asbestos containing materials prior to demolition. Paint room for automotive painting, stored solvents and lubricants and minor staining on the floor of the structure were observed during the site visit.</p>	<p>Adjacent to existing RM 2222 ROW and within proposed ROW at RM 2222 and the proposed new location connector intersection. The proposed project would require this structure be acquired and demolished.</p>
<p>CVS PHARMACY # 10139</p> <p>7300 N FM 620 Austin, Tx 78726</p> <p>Site ID#: TXR000083453</p>	<p>RCRA G - No violations were reported.</p> <p>Site Visit Concerns: No concerns</p>	<p>Adjacent to existing ROW at RM 2222/RM 620 intersection, no proposed ROW or easements at this location. No below grade improvements are proposed at this location.</p>
<p>Un-locatable</p>	<p>Federal ERNS</p> <p>Site Visit Concerns: No concerns</p>	<p>Unknown</p>
<p>Kretschmarr Landfill</p> <p>At intersection of RM 620 and RM 2222 behind BBQ restaurant and Circle K, Tx</p> <p>Site ID#: 902</p>	<p>CALF</p> <p>Site Visit Concerns: No concerns</p>	<p>Not adjacent to existing or proposed ROW. 0.32 mile NW of project area. This CALF is downgradient of the proposed project.</p>

**Table 1: Summary of Regulatory Databases List Search and Site Visit Concerns**

<p>Steiner Ranch</p> <p>Buck Steiner Ranch Defeat Hollow, TX</p> <p>Site ID#: 1606</p>	<p>CALF</p> <p>Site Visit Concerns: No concerns</p>	<p>Not adjacent to existing or proposed ROW. 0.35 mile W of project area. This CALF is downgradient of the proposed project.</p>
<p>3M Austin Center</p> <p>6801 River Place Blvd, Austin, TX 78726</p> <p>Site ID#: 098749</p>	<p>LPST – report indicated off-site contamination was unlikely.</p> <p>Site Visit Concerns: No concerns</p>	<p>Not adjacent to existing or proposed ROW within project limits. Approximately 0.21 miles SE and downgradient of project, on 3M property.</p>
<p>* RCRA G: Resource Conservation and Recovery Act Generators          IHW: Industrial and Hazardous Waste Sites          Federal ERNS: Federal Emergency Response Notification System          CALF: Closed and Abandoned Landfill Inventory          LPST: Leaking Petroleum Storage Tanks</p>		

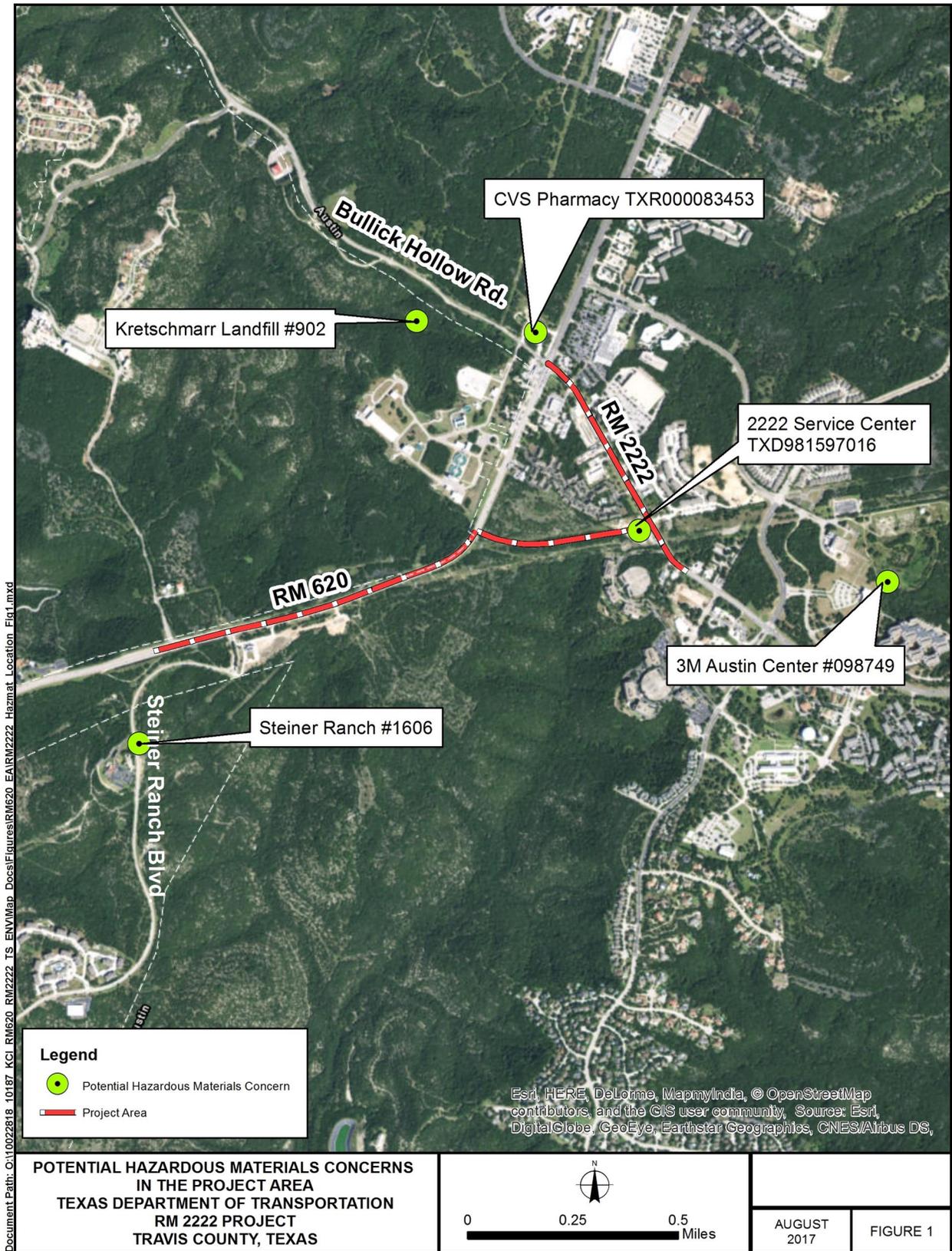


Figure 1. Potential Hazardous Materials Concerns in the Project Area

## APPENDIX I

Comment and Response Matrix from Public Meeting/Public Hearing