



**Austin Transit  
Partnership**

# **Austin Transit Partnership**

Austin Light Rail Phase 1 Project

*Draft Archaeological Survey Report*

*Austin, TX*

January 2025

## Management Summary

The Federal Transit Administration has initiated a National Environmental Policy Act (NEPA) evaluation of Austin Transit Partnership's (ATP's) proposal for the Austin Light Rail Phase 1 Project (Project) in Austin, Travis County, Texas. In accordance with the NEPA, Project development involves completing a Draft and a Final Environmental Impact Statement. The investigations for archaeological resources described in this report were conducted in support of the Environmental Impact Statement as well as to assist in meeting applicable Project requirements in accordance with the National Environmental Policy Act; federal surface transportation statutes as defined in 23 Code of Federal Regulations Part 771; and Section 106 of the National Historic Preservation Act of 1966, as amended. A related investigation conducted for built environment resources is documented in a separate report.

The Project is a 9.8-mile (mi; 15.8-kilometer [km]) light rail transit branched line extending north, south, and east of Downtown Austin. Portions of the Project that would occur away from the proposed corridor include lane restriping as well as curb and sidewalk improvements. An operations and maintenance facility (OMF) is proposed near the U.S. Highway 183 and State Highway 71 interchange near Airport Commerce Drive. The OMF would include maintenance of way shops and associated light rail equipment storage functions. The maintenance of way locations are adjacent to the main OMF site. The Project would include three park-and-rides located near the system termini at 38th Street, Oltorf Street, and Yellow Jacket Lane. The Project would also include traction power substations spaced approximately 1 mi (1.6 km) apart, train control and communications bungalows, and train control and communications cabinets.

The proposed Project has the potential for effects on archaeological resources eligible or potentially eligible for listing in the National Register of Historic Places (NRHP). The proposed archaeological area of potential effects (APE) comprises the limits of Project construction represented by the maximum possible area of disturbance as listed above, including a 9.8-mi (15.8-km) corridor, ranging on average from 60 to 90 feet (ft; 18 to 27 meters [m]) wide within the existing right-of-way, with some areas of expanded right-of-way. Depths of disturbance for most of the archaeological APE average 1 to 2 ft (0.3 to 0.6 m) below surface, with the exception of the following:

- Proposed detention pond locations would average 6 to 10 ft (1.8 to 3 m) deep;
- Bridge pier depths are yet to be determined; however, they would generally be deep enough to penetrate the underlying bedrock by at least 10 ft (3 m); and
- Depths for utility relocation would be coordinated later, when design plans are more advanced.

Because ATP is a political subdivision of the State of Texas, this Project also falls under the purview of the Texas Natural Resource Code, Title 9, Chapter 191, also known as the Antiquities Code of Texas, and its accompanying Rules of Practice and Procedure (13 Texas Administrative Code [TAC] 26).

Based on previous desktop analysis, the project team recommended cultural resource investigations, including intensive archaeological and built environment surveys, of portions of

the APE. The purpose of the archaeological survey is to determine the presence or absence of cultural resources within the APE per the Antiquities Code of Texas (13 TAC 26) and to evaluate identified resources for their eligibility for listing in the NRHP or as a designated State Antiquities Landmark (SAL). The investigations conducted for the built environment are recorded in a separate report (HDR 2024).

Based on previous desktop analysis, the project team recommended an archaeological survey area encompassing portions of the APE along East Riverside Drive with moderate or high probability for containing archaeological deposits as defined by the Texas Department of Transportation Potential Archeological Liability Maps. The project team also proposed archaeological monitoring of areas potentially containing historic features and areas of high probability for containing archaeological deposits that are currently inaccessible for survey due to existing structures or pavement.

Because the proposed Project includes portions of two previously separate transit proposals (i.e., Blue Line and Orange Line), the current investigation incorporates findings from the previous investigations. Specifically, Project review under Section 106 of the National Historic Preservation Act was completed for certain sections of the current Project under the previous Blue Line and Orange Line projects:

- The Blue Line intensive archaeological survey was completed by HNTB; however, the report was not submitted for review to the Texas Historical Commission (THC).
- The Orange Line intensive archaeological survey, completed by AECOM, received concurrence, with comments, on May 16, 2022 (**Appendix B**; THC #202209153).

These projects have been superseded by a single Phase 1 project that includes portions of the Blue and Orange Lines plus additional proposed construction that combines the two into a single whole. The current Project alignment mostly occupies the same footprint as the Blue and Orange Lines, though somewhat abbreviated. Specifically, the portion of the alignment previously encompassed by the Blue Line now terminates at Yellow Jacket Station instead of continuing to Austin-Bergstrom International Airport and includes the proposed OMF location. The portion of the alignment previously encompassed by the Orange Line is now limited to the alignment between the 38th Street and Oltorf Stations. Additional changes include the routing of the Project alignment along 3rd Street instead of 4th Street in Downtown Austin and the elimination of the Auditorium Shores Station, which would be replaced by the Congress Station as well as the potential Cesar Chavez and Waterfront Stations.

Subsequent to the issuance of Texas Antiquities Permit 31726, changes in design led to the adjustment of the proposed limits of construction and APE. The changes include several minor adjustments in areas not previously recommended for survey, and one significant change along Grove Boulevard south of East Riverside Drive. Approximately 10.7 acres (4.3 hectares [ha]) were added and approximately 1.5 acres (0.6 ha) were removed from the previous APE. The current APE totals 307.31 acres (124.36 ha). A permit amendment detailing these changes was submitted to the THC on September 12, 2024, and was approved on September 17, 2024.

Obtaining right-of-entry for parcels within the survey area is ongoing; therefore, the archaeological survey has taken a phased approach. A preliminary survey was completed for all accessible parcels. Fieldwork was completed under Texas Antiquities Permit 31726 by Project Archaeologist Kelsey Radican, MSc, Registered Professional Archaeologist (RPA), with the support of Evelyn Whitworth and Gwen Olivier, MS from June 3 through November 6, 2024. All work was completed under the supervision of Principal Investigator Nadya Prociuk, PhD, RPA.

The archaeological survey included systematic shovel testing and mechanical trenching of accessible parcels within the survey area, totaling 42.1 acres (17.04 ha) in area. The project team excavated a total of 70 shovel tests, one of which was positive for cultural materials, and two mechanical trenches, both of which were negative for cultural materials.

The survey resulted in the identification of one post-contact site (41TV2620) and a revisit to site 41TV2562. Site 41TV2620 consists of a small brick and limestone foundation feature, a push pile, a surficial concentration of twentieth century glass, and a large brick scatter. The project team recommends site 41TV2620 **Not Eligible** for listing in the NRHP under Criteria A through D or as a SAL due to lack of historical significance. Additionally, the project team recommends no further work at this site. Further, the project team recommends that the surveyed portion of site 41TV2562 is **non-contributing** to the site's overall eligibility due to lack of cultural deposits within the survey area.

In accordance with 13 TAC 26, the project team recommends no further archaeological investigations associated with the Project as currently proposed within the surveyed areas. As a result of the present survey, it is recommended that the proposed Project would not have any effect on cultural resources listed in or eligible for listing in the NRHP or as a SAL within the surveyed areas. However, if archaeological deposits are encountered during construction, work should cease, and THC should be notified.

Archaeological survey will continue in previously recommended areas as right-of-entry is obtained. Archaeological monitoring will take place during construction in recommended areas where survey is not currently feasible. A final report detailing the results of the archaeological survey and monitoring will be submitted to the Federal Transit Administration and State Historic Preservation Office for review after all surveys and monitoring are completed.

All records generated by this Project will be permanently curated at the Center for Archaeological Research at the University of Texas at San Antonio.

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## Acronyms and Abbreviations

Term/Acronym	Definition
ac	acre
APE	area of potential effects
Atlas	Texas Historic Sites Atlas
ATP	Austin Transit Partnership
BCE	Before Common Era
CE	Common Era
CFR	Code of Federal Regulations
cm	centimeter
cmbs	centimeter below surface
ft	foot
ft <sup>2</sup>	square foot
ha	hectare
I-35	Interstate 35
in	inch
inbs	inches below surface
km	kilometer
m	meter
m <sup>2</sup>	square meter
mi	mile
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
OMF	operations and maintenance facility
PALM	Potential Archeological Liability Map
Project	Austin Light Rail Phase 1 Project
ROW	right-of-way
RPA	Register of Professional Archaeologists
SAL	State Antiquities Landmark
SF	surface find
ST	shovel test
TAC	Texas Administrative Code
THC	Texas Historical Commission
TxDOT	Texas Department of Transportation
US 183	U.S. Highway 183
USGS	U.S. Geological Survey



# 1 Introduction

The Federal Transit Administration has initiated a National Environmental Policy Act (NEPA) evaluation of Austin Transit Partnership's (ATP's) proposal for the Austin Light Rail Phase 1 Project (Project) in Austin, Travis County, Texas. In accordance with the NEPA, Project development involves completing a Draft and a Final Environmental Impact Statement. The investigations for archaeological resources described in this report were conducted in support of the Environmental Impact Statement as well as to assist in meeting applicable Project requirements in accordance with the National Environmental Policy Act; federal surface transportation statutes as defined in 23 Code of Federal Regulations (CFR) Part 771; and Section 106 of the National Historic Preservation Act of 1966, as amended.

## 1.1 Project Description

The Project is a 9.8-mile (mi; 15.8-kilometer [km]) light rail transit branched line extending north, south, and east of Downtown Austin. Beginning at the intersection of Guadalupe Street and 38th Street, the center-running at-grade alignment would extend in the middle of the street south to the University of Texas at Austin. Guadalupe Street between 29th and 27th Streets would function as a light rail transit and pedestrian corridor, with vehicular access restricted by signage, traffic control devices, and/or curbs. Emergency access would be accommodated through design. On Guadalupe Street between 27th and 21st Streets, a transit/pedestrian-focused corridor would be established due to a high level of pedestrian activity on Guadalupe Street and the constrained right-of-way (ROW). This segment of Guadalupe Street would include the light rail guideway, bicycle and pedestrian facilities, and one travel lane in each direction outside the guideway that is intended for bus access but would not preclude local access. Cars traveling through the area would be rerouted to surrounding roadways and thoroughfares, which could include San Antonio Street, Whitis Avenue, or Nueces Street. Between Congress Avenue and Colorado Street, vehicular traffic would be redirected to surrounding roadways and nearby thoroughfares. The existing protected bikeway along 3rd Street would be relocated to 4th Street. The light rail alignment would turn southward on Trinity Street and cross Lady Bird Lake on a new light rail bridge. Dedicated bicycle and pedestrian facilities would be provided as part of the new bridge crossing of Lady Bird Lake, with connections to existing and planned bicycle and pedestrian paths on each shore.

On the southern shore of Lady Bird Lake, the alignment would split into two branches. The southern branch would cross East Bouldin Creek and extend southward on South Congress Avenue, with a terminus at the intersection of South Congress Avenue and Oltorf Street. The eastern branch would continue southeastward along East Riverside Drive with a terminus just west of State Highway 71 at Yellow Jacket Station.

Portions of the Project that occur away from the proposed corridor include lane restriping, as well as curb and sidewalk improvements, including the following:

- The 1st Street bridge would be restriped to accommodate a northbound left-turn lane for buses to access northbound Guadalupe Street. Additionally, bicycle traffic would be relocated from the existing on-street bike lanes to the existing side paths on the bridge.

At the northwestern corner of West Riverside Drive and South 1st Street, a new sidewalk connection would be constructed to connect the intersection north to the western side path of the bridge, with the existing sidewalk on that corner repurposed as a dedicated bikeway to connect the intersection north to the western side path of the bridge. Additionally, the West Riverside Drive and South 1st Street traffic signal would be modified to install a northbound bus queue jump. This would facilitate the movement of northbound buses from the outer traffic lane to the innermost traffic lane to access the northbound left-turn lane and turn onto northbound Guadalupe Street.

- 4th Street would be modified between Trinity and Nueces Streets to include protected bike lanes in each direction of travel. The existing parking would be modified or removed as necessary to accommodate the bike lanes while maintaining one lane of vehicular travel in each direction. Sidewalk modifications may be necessary to accommodate the new bike lanes while maintaining the existing loading docks in the block between Lavaca and Colorado Streets.
- Lavaca Street would be restriped between Cesar Chavez Street and East Martin Luther King, Jr. Boulevard. The new lane configuration would allow for two-way vehicular traffic from West 2nd Street to East Martin Luther King, Jr. Boulevard. The roadway would include two northbound and two southbound travel lanes, with left-turn lanes at some intersections. Existing curbs and sidewalks would be maintained for much of the corridor. In some locations, the curb would be reconstructed to accommodate the roadway width necessary for two-way traffic, and corner radii would be modified to accommodate new turning movements. A northbound bike lane would be provided between Cesar Chavez and 4th Streets. All traffic signals would be modified to facilitate two-way traffic.

An operations and maintenance facility (OMF) is proposed near the U.S. Highway 183 (US 183) and State Highway 71 interchange near Airport Commerce Drive, within a light industrial use area occupied by active businesses. The proposed site would include space for administration, operations and maintenance staff, a light rail control center, and light rail vehicle maintenance. The OMF would also serve as a light rail vehicle storage yard with the capacity to support both light rail vehicle operations and fleet storage. The OMF would include maintenance of way shops and associated light rail equipment storage functions. The maintenance of way locations are adjacent to the main OMF site.

The Project would include three park-and-rides located near the system termini at 38th Street, Oltorf Street, and Yellow Jacket Lane. The Project would also include traction power substations spaced approximately 1 mi (1.6 km) apart, train control and communications bungalows, and train control and communications cabinets. **Appendix A, Figure A-1** shows the Project location.

## 1.2 Design Options

ATP is evaluating the following Design Options, which are within the limits of Project Construction:

- **Wooldridge Square Station Design Option.** ATP is evaluating the addition of a station at Wooldridge Square in response to public support for improved access to light rail in Downtown Austin.
- **Cesar Chavez Station Design Option.** In the base design, the station would be on Trinity Street between Cesar Chavez and 2nd Streets. ATP is evaluating a Design Option to explore the potential for a joint development opportunity with a private developer at the corner property of Trinity and 2nd Streets, which is proposed for transit-oriented development. Under this Design Option, the station would be off-street on a diagonal through the private property, which would eliminate the 90-degree curve of the Build Alternative alignment.
- **Lady Bird Lake Bridge Extension Design Option.** This Design Option would include an elevated Waterfront Station and the extension of the elevated structure south of the station toward South Congress Avenue and in the median of East Riverside Drive to Travis Heights Boulevard. This Design Option considers surrounding topography as well as both vehicular and light rail operational challenges associated with an at-grade alignment of the junction connecting all three branches of the light rail system. This Design Option would require vertical circulation elements to access the elevated light rail station.
- **Travis Heights Station Design Option.** Under the Build Alternative, the station would be located on East Riverside Drive north of Travis Heights Boulevard. ATP is evaluating the Project with and without a Travis Heights Station due to the identification of potential ROW effects on surrounding parkland and adjacent infrastructure projects.
- **Center-Running Bike/Ped. and Shade Tree Facilities on East Riverside Design Option.** This Design Option would include center-running bicycle and pedestrian lanes next to the light rail east of Interstate 35 (I-35) on East Riverside Drive. ATP recognizes unique characteristics in this segment that include wider ROW, along with limited parallel transportation facilities that create an opportunity to optimize first/last mile connections to the light rail systems, along with improving mobility options and user experience across all modes of travel in the corridor.
- **Grove Station Design Option.** This Design Option was initially proposed to combine the Montopolis and Faro Stations into a single station at Grove Boulevard in order to improve bus connectivity to a nearby Austin Community College campus and provide direct access to planned affordable housing. This Design Option was presented during scoping meetings in February 2024. In response to public feedback, a **Variation to the Grove Station Design Option** was developed. The variation retains two stations in this area but would locate the Faro Station 800 feet to the east, closer to Grove Boulevard.

### 1.3 Area of Potential Effects

Per 36 CFR 800.16(d), the area of potential effects (APE) for federal undertakings encompasses “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The [APE] is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” The proposed Project has the potential for effects on built environment and archaeological resources eligible or potentially eligible for inclusion in the National Register of Historic Places (NRHP).

The APE (**Appendix A, Figure A-2 through Figure A-6**) was shaped by the characteristics and scale of the Project, which includes, but is not limited to, components of archaeological consideration, including certain ground-disturbing activities, and components of built-environment consideration, including construction of transit shelters and platforms, a new bridge over Lady Bird Lake, roadway restriping, curb reconstruction, and accessibility features. In general, larger scale components follow the light rail route shown in **Appendix A, Figure A-2 through Figure A-6**.

The APE comprises the limits of Project construction represented by the maximum possible area of disturbance as listed above, including a 9.8-mi (15.8-km) corridor, ranging on average from 60 to 90 feet (ft; 18 to 27 meters [m]) wide within the existing ROW, with some areas of expanded ROW, for a total of 307.31 acres (124.36 ha). Depths of disturbance for most of the archaeological APE average 1 to 2 ft (0.3 to 0.6 m) below surface, with the exception of the following:

- Proposed detention pond locations would average 6 to 10 ft (1.8 to 3 m) deep;
- Bridge pier depths are yet to be determined; however, they would generally be deep enough to penetrate the underlying bedrock by at least 10 ft (3 m); and
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Archeological Liability Maps (PALMs). The project team also proposed archaeological monitoring of areas potentially containing historic features and areas of high probability for containing archaeological deposits that are currently inaccessible for survey due to existing structures or pavement.

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Subsequent to the issuance of Texas Antiquities Permit 31726, changes in design led to the adjustment of the proposed limits of construction and APE. The changes include several minor adjustments in areas not previously recommended for survey, and one significant change along Grove Boulevard south of East Riverside Drive (**Appendix A, Figure A-8**). Approximately 10.7 acres (4.3 ha) were added and approximately 1.5 acres (0.6 ha) were removed from the previous APE. The current APE totals 307.31 acres (124.36 ha). A permit amendment detailing these changes was submitted to the THC on September 12, 2024, and was approved on September 17, 2024 (See **Appendix C**).

## 2 Environmental Setting

The Project is in Travis County, located on the U.S. Geological Survey (USGS) Austin West, Austin East, Oak Hill, and Montopolis topographic quadrangles (**Appendix A, Figure A-1**).

## 2.1 Physiography

The APE sits within the Blackland Prairie subprovince of the Gulf Coastal Plains region of Texas (Bureau of Economic Geology 1996; Texas Parks and Wildlife Department 2024). The Blackland Prairie comprises chalks and marls that weather to deep, black, fertile clay soils. The Blackland Prairies have a gently sloping surface, cleared of most natural vegetation and cultivated for crops (Bureau of Economic Geology 1996; Texas Parks and Wildlife Department 2024).

## 2.2 Geology and Soils

The APE is underlain by five geologic units: Austin Chalk, Ozan Formation, Eagle Ford Group and Buda Limestone undivided, Terrace deposits, and High Gravel deposits (Stoeser et al. 2005) (see **Appendix A, Figure A-13**). Austin chalk consists of Cretaceous chalk and calcareous clay over thin-bedded marl and hard lime mudstone to soft chalk. The Ozan Formation comprises Cretaceous clay, which consists of glauconite, phosphate pellets, and hematite and pyrite nodules, as well as silt-size quartz and calcite fragments. Eagle Ford Group and Buda Limestone undivided comprises Cretaceous shale, siltstone, and limestone as well as fine-grained sandstone and marine fossils. Terrace deposits consist of Pleistocene sand, gravel, silt, clay, or mud and are located on terraces and associated with remnants of ancient floodplains. High Gravel deposits are composed of Pleistocene caliche-cemented gravel, formed of chert cobbles, pebbles of variegated quartzite, limestone, and quartz.

A total of 43 mapped soil units occur within the APE (**Appendix A, Figure A-14**). Details for all 43 soil units are provided in **Appendix D, Table D-1**.

The Altoga series consists of very deep, moderately permeable soils formed in calcareous clayey alluvium from mudstone. Soils are gently to strongly sloping on risers on stream terraces, with slopes ranging from 1 to 12 percent (Soil Survey Staff 2024).

The Austin series consists of moderately deep, well-drained, moderately slowly permeable soils that formed in residuum weathered from chalk. These soils are on nearly level to sloping erosional uplands, with slopes ranging from 0 to 8 percent (Soil Survey Staff 2024).

The Bergstrom series consists of very deep, well-drained, moderately permeable soils that formed in calcareous silty alluvial sediments. These soils are on nearly level to very gently sloping bottomlands and terraces of major streams, with slopes ranging from 0 to 3 percent (Soil Survey Staff 2024).

The Brackett series consists of shallow to paralithic bedrock and well-drained soils formed in residuum weathered from Cretaceous limestone, mainly from the Glen Rose formation. These nearly level to very steep soils are located on backslopes of ridges on dissected plateaus of the Edwards Plateau, with slopes ranging from 1 to 60 percent (Soil Survey Staff 2024).

The Burlinson series consists of very deep to clayey alluvium and moderately well-drained soils that formed in Pleistocene calcareous clayey alluvium derived from mixed sources. These nearly level to gently sloping soils are on treads of Pleistocene stream terraces, with slopes ranging from 0 to 5 percent (Soil Survey Staff 2024).

The Chaney series consists of moderately well-drained, slowly permeable, deep soils over claystone bedrock or dense clay that formed in sandy and clayey residuum from claystone and sandstone. These soils are on nearly level to sloping plains, with slopes ranging from 0 to 8 percent (Soil Survey Staff 2024).

The Crockett series consists of Cretaceous soils that are deep to weathered shale. They are moderately well drained and very slowly permeable. These nearly level to moderately sloping soils are on broad ridges on the dissected plains formed in alkaline residuum derived from interbedded shale and clay. Slopes are dominantly 1 to 5 percent but range from 0 to 10 percent (Soil Survey Staff 2024).

The Eddy series consists of soils that are shallow to very shallow, well-drained, moderately permeable soils that formed in residuum from chalky limestone. These soils are on gently sloping to moderately steep uplands, with slopes ranging from 1 to 20 percent (Soil Survey Staff 2024).

The Ferris series consists of deep to mudstone, well-drained, very slowly permeable soils that formed in clayey residuum weathered from calcareous mudstone. These gently sloping to moderately steep soils occur on backslopes of side slopes of ridges on dissected plains, with slopes ranging from 1 to 20 percent (Soil Survey Staff 2024).

The Heaton series consists of very deep, well-drained, moderately permeable soils that formed in locally reworked eolian sands over sandy and loamy alluvium. These nearly level to moderately sloping soils occur on stream terraces on river valleys with slopes ranging from 0 to 8 percent (Soil Survey Staff 2024).

The Heiden series consists of deep and very deep, well-drained, very slowly permeable soils that formed in clayey residuum weathered from mudstone. These nearly level to moderately steep soils occur on footslopes of base slopes, shoulders of interfluves, and backslopes of side slopes of ridges on dissected plains, with slopes ranging from 0.5 to 20 percent (Soil Survey Staff 2024).

The Houston Black series consists of very deep, moderately well-drained, very slowly permeable soils that formed in clayey residuum derived from Cretaceous calcareous mudstone. These nearly level to moderately sloping soils occur on interfluves and side slopes on upland ridges and plains on dissected plains. Slopes are mainly 1 to 3 percent but range from 0 to 8 percent (Soil Survey Staff 2024).

The Gaddy series consists of very deep, somewhat excessively drained soils that formed in sandy alluvium of Holocene age. These soils are on nearly level or very gently sloping floodplains, with slopes ranging from 0 to 3 percent (Soil Survey Staff 2024).

The Lewisville series consists of very deep, well-drained, moderately permeable soils that formed in ancient loamy and clayey calcareous sediments. These upland soils have slopes of 0 to 10 percent (Soil Survey Staff 2024).

The Oakalla series consists of soils that are very deep. These well-drained soils formed in loamy alluvium derived from Cretaceous limestone. These soils are on nearly level to gently sloping floodplains on perennial streams in river valleys. They are subject to flooding by

overflow from streams for short periods after heavy rains and have slopes ranging from 0 to 2 percent (Soil Survey Staff 2024).

The Patrick series consists of moderately deep to gravelly alluvium. These well-drained soils formed in clayey over gravelly Cretaceous alluvium derived from shale, claystone, or siltstone. These nearly level to strongly sloping soils are on treads of stream terraces on dissected plains, with slopes ranging from 0 to approximately 10 percent (Soil Survey Staff 2024).

The Tarrant series consists of soils that are very shallow to indurated limestone bedrock, interbedded with marl and chalk. These well-drained soils formed in residuum derived from Cretaceous limestone. These nearly level to very steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus with slopes ranging from 1 to 50 percent (Soil Survey Staff 2024).

The Travis series consists of very deep, well-drained, slowly permeable soils that formed in clayey and loamy sediments of ancient terraces. These soils are on nearly level to sloping uplands, with slopes ranging from 0 to 8 percent (Soil Survey Staff 2024).

The Tinn series consists of very deep, moderately well-drained, very slowly permeable soils that formed in calcareous clayey alluvium. These soils are on floodplains of dissected plains that drain the Blackland Prairies. Slopes are predominantly less than 1 percent but range from 0 to 2 percent (Soil Survey Staff 2024).

The Volente series consists of deep, well-drained, moderately slowly permeable soils that formed in calcareous clayey sediments. These soils are on nearly level to sloping uplands, with slopes varying from 0 to 8 percent (Soil Survey Staff 2024).

The Wilson series consists of very deep, moderately well-drained, very slowly permeable soils that formed in calcareous clayey Pleistocene alluvium derived from mudstone. These nearly level to gently sloping soils are on treads of Pleistocene stream terraces. Slopes are mainly less than 1 percent but range from 0 to 5 percent (Soil Survey Staff 2024).

The term “urban soil” or “urban land” refers to a matrix of high to low disturbance due to high population, land use, and land development. These soils can range from being substantially changed by human-transported materials, human-altered materials, or minimally altered (still intact “native” soils). Slopes range from 0 to 6 percent (Soil Survey Staff 2024).

## 2.3 Hydrology

The APE is within the Town Lake-Colorado River and Carson Creek-Colorado River subwatersheds of the Texas-Gulf Region (USGS 2024). The central portion of the proposed route between the Caesar Chavez and Travis Heights Stations crosses Lady Bird Lake, an impoundment of the Colorado River, as well as East Bouldin Creek and Blunn Creek. The southern portion of the proposed route between the Lakeshore and Montopolis Stations crosses an unnamed tributary of the Colorado River as well as four branches of Country Club Creek. The northern portion of the OMF site west of US 183 is adjacent to Carson Creek. The Colorado River, East Bouldin Creek, Blunn Creek, Carson Creek, and Country Club Creek are all historically reliable water sources (USGS 2024).



## 2.4 Climate

The following climate data were obtained from the climate station based in Austin (National Oceanic and Atmospheric Administration 2024). The local climate is moderate, with an average annual high temperature of 74 degrees Fahrenheit (26 degrees Celsius) and an average annual low temperature of 52 degrees Fahrenheit (12 degrees Celsius). The average annual precipitation in the area is 36.09 inches (in; 89.13 centimeters [cm]) (National Oceanic and Atmospheric Administration 2024).

## 2.5 Flora and Fauna

According to Griffith et al. (2007), the APE is located in the Texas Blackland Prairie Level III Ecoregions of the United States. The APE specifically sits along the edge of the Northern Blackland Prairie within the Texas Blackland Prairie ecosystem (Griffith et al. 2007). The dominant vegetation of this area includes yellow Indiangrass (*Sorghastrum nutans*), little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), tall dropseed (*Sporobolus asper*), eastern gamagrass (*Tripsacum dactyloides*), and switchgrass (*Panicum virgatum*) (Griffith et al. 2007). Historically, the Northern Blackland Prairies had low soil erosion rates due to grasses stabilizing the soil. Agricultural development has increased soil erosion rates for this region because of consistent periods of little plant cover and fewer gilgai (i.e., irregular or round, shallow basins found on level, heavy clay soils) due to plowing.

Before Anglo-American settlement, the area's fauna included bison (*Bison bison*), pronghorn antelope (*Antilocapra americana*), mountain lion (*Puma concolor*), bobcat (*Lynx rufus*), and black bear (*Ursus americanus*) (Griffith et al. 2007). Today, area fauna include mourning doves (*Zenaidura macroura*), northern bobwhite (*Colinus virginianus*), and eastern fox squirrel (*Sciurus niger*).

## 2.6 Potential Archeological Liability Maps Review

TxDOT's (2024a) PALMs are probability models that identify the potential for deposits of cultural materials within the APE (**Appendix A, Figure A-15**). As mapped, most of the APE appears within areas of low to moderate potential to contain buried archaeological deposits. The portions of the route crossing Lady Bird Lake and Country Club Creek contain areas of moderate shallow potential and high deep potential for containing archaeological deposits (TxDOT 2024a).

# 3 Cultural Context

This section presents the results of the literature review conducted as part of the Phase I archaeological investigation. The APE falls within the Central Texas precontact region. Several current regional chronologies (Black 1989; Collins 1995; Johnson and Goode 1994) are used in the following discussion of the Central Texas precontact period. The regional chronology is divided into four basic periods: Paleoindian, Archaic, prehistoric (or precontact), and post-contact (**Table 1**); The post-contact period includes contact and early settlement as well as recent settlement.

**Table 1: General Cultural Chronology for Central Texas**

Period	Age
Paleoindian	ca. 10,000–6800 BCE
Archaic	6800 BCE–750 CE
Prehistoric	750–1540 CE
Post-contact	1540–1990 CE

Sources: Black 1989; Collins 1995; Johnson and Goode 1994  
 BCE = Before Common Era; CE = Common Era

### 3.1 Paleoindian (10,000–6800 BCE)

Human occupation in Central Texas is generally agreed to have begun during the terminal Pleistocene. This initial Paleoindian cultural period is dated to approximately 10,000 to 6800 Before Common Era (BCE) (Black 1989; Collins 1995; Johnson and Goode 1994). In Central Texas, the Paleoindian period is divided into the Early (10,000–8900 BCE) and Late (8900–6800 BCE) subperiods.

#### 3.1.1 Early Paleoindian (10,000–8900 BCE)

The Early Paleoindian subperiod is characterized by fluted Clovis projectile points and prismatic blade manufacture. Subsistence during this subperiod appears to have been diverse and consisted of both megafauna (e.g., mammoth, extinct large bison) and smaller taxa (e.g., badger, alligator, moles) (Collins et al. 1989). Within the region, prominent sites with Early Paleoindian components include the Kincaid Rockshelter, Wilson-Leonard, and Gault sites.

#### 3.1.2 Late Paleoindian (8900–6800 BCE)

The Late Paleoindian subperiod continued with a mixed hunting-gathering tradition and is characterized by the Folsom and Plainview point types (Collins 1998). Burned rock features made their first appearance within Central Texas during the Late Paleoindian period (Masson and Collins 1995). Within this region, sites of note with Late Paleoindian components include Wilson-Leonard, Golondrina-Barber, and St. Mary’s Hall.

### 3.2 Archaic (6800 BCE–750 CE)

Johnson and Goode’s (1994) formulation of the Central Texas Archaic uses three subdivisions: Early Archaic (6800–4000 BCE), Middle Archaic (4000–2000 BCE), and Late Archaic (2000 BCE–750 Common Era [CE]) based on point typologies.

#### 3.2.1 Early Archaic (6800–4000 BCE)

The Early Archaic in Central Texas is most known for its large, burned rock midden sites that commonly constitute multiple tons of fire-cracked rock. Although burned rock middens are first noted during the Late Paleoindian period for Central Texas, they became a prominent site type by the Early Archaic. The Early Archaic is generally defined by three projectile point style intervals: Angostura, Early Split-stem, and Martindale-Uvalde (Johnson and Goode 1994). In

addition to burned rock middens, site types include open campsites (Loeve-Fox, Wilson-Leonard, and Richard-Beene) and caves (Hall's Cave).

Subsistence evidence for the Early Archaic is varied, with deer, small animals, fish, and plant bulbs being common taxa. Pollen and fluvial geological evidence suggest that environmental conditions during this subperiod fluctuated between mesic and xeric (Collins 2004).

### 3.2.2 Middle Archaic (4000–2000 BCE)

Bell/Andice/Calf Creek, Taylor, and Nolan/Travis constitute the three projectile point styles indicative of the Middle Archaic period (Johnson and Goode 1994). Collins (1995) saw the Bell/Andice/Calf Creek point technology along with environmental data suggesting mesic conditions as evidence for a focus on bison hunting. However, by the later portion of the Middle Archaic, environmental conditions appear to have shifted again to being more xeric. The xeric conditions of the Middle Archaic have been correlated with an increase in burned rock midden deposits, and this association is believed to have been due to a greater reliance on tuberous plants such as iris (Johnson and Goode 1994).

### 3.2.3 Late Archaic (2000 BCE–750 CE)

According to Johnson and Goode (1994), the Late Archaic for Central Texas can be subdivided into six style intervals (in ascending chronological order): Bulverde, Pedernales/Kinney, Lange/Marshall/Williams, Marcos/Montell/Castroville, Ensor/Frio/Fairland, and Darl. The Late Archaic in Central Texas began with xeric conditions and progressively became more mesic. Burned rock midden deposits continue to be a significant part of many site assemblages and actually peak in density during the Pedernales/Kinney interval (Collins 2004). Dart points, corner-tanged knives, and cylindrical stone pipes are associated with Late Archaic site assemblages from Central Texas.

A mixed hunting-gathering economy of large and small animals as well as various reliable plants of the region (e.g., iris, pecan) became well developed by the end of the Late Archaic and continued largely unchanged into the beginning of the prehistoric (or precontact) period.

## 3.3 Prehistoric (750–1540 CE)

The Prehistoric period of the region is divided into Early (Austin interval) and Late (Toyah interval) subperiods (Collins 2004; Johnson and Goode 1994). The evolution to the Prehistoric period in Central Texas is signaled by the introduction of bow and arrow technology that occurred during the Early (Austin) interval. Although the arrow point debuted during the Prehistoric period, it is initially underrepresented when compared to dart points.

The Late (Toyah) interval of the precontact period is characterized by the dominance of the arrow point, specifically the Perdiz type. The constellation of Perdiz arrow points, locally manufactured ceramics, end scrapers, and prismatic blades is seen as indicating a focus on large game animals (e.g., bison, deer, antelope). Researchers currently disagree whether this artifact assemblage represents a techno-complex (Ricklis 1994) or an actual cultural group (Johnson and Goode 1994).

## 3.4 Post-Contact (1540–1990 CE)

### 3.4.1 Contact Period and Early Settlement (1540–1849 CE)

All Native American tribes were severely impacted, either directly or indirectly, by the arrival of European colonists and later settlers in Texas. European goods, guns, diseases, attempted missionization, introduction of horses, and forced resettlement directly impacted tribal lifeways, economies, and culture. The encroachment of European settlers on tribal land forced tribes to migrate into other existing tribal territories, which resulted in new alliances, trade, and warfare. Furthermore, the introduction of horses altered tribes' hunting capabilities and often expanded their range and territory.

Six tribes express interest in Travis County according to the Tribal Directory Assessment Tool (U.S. Department of Housing and Urban Development 2024): Apache Tribe of Oklahoma, Comanche Nation of Oklahoma, Wichita and Affiliated Tribes (Wichita, Keechi, Waco, and Tawakonie) of Oklahoma, Tonkawa Tribe of Indians of Oklahoma, Coushatta Tribe of Louisiana, and Alabama-Coushatta Tribe of Texas (U.S. Department of Housing and Urban Development 2024). The following sections reference reports from TxDOT's tribal history project to describe the histories of these Native American tribes.

#### 3.4.1.1 The Apache

Juan de Oñate was the first European to mention the Apache in 1598; however, Francisco Vázquez de Coronado met the Querechos, who comprised several different Apache groups, in 1541 (TxDOT 2020). During the sixteenth century, Apache Tribes were living in present-day northwestern Texas, and the name "Apache" was in common use by the 1630s (TxDOT 2020). During the early seventeenth century, Lipan Apache began appropriating horses from the Spanish (TxDOT 2020). Throughout the seventeenth century, Mescalero Apache were conducting raids against Navajos, Pueblos, and the Spanish; the Lipan ancestors moved southeastward and established territory beginning at the headwaters of the upper Colorado River and extending along the Concho, San Sabá, Llano, and Pedernales Rivers (TxDOT 2020). By 1689, the Apache were living in the hills northwest of present-day San Antonio, which was the heart of Apacheria or Apache territory (TxDOT 2020). However, by the end of the seventeenth century, incoming Comanche from the Llano Estacado were limiting Apache activities (TxDOT 2020). During the early eighteenth century, the Spanish settlers and local Apache Tribes executed a series of raids against each other. Apache settlements were well established north of San Antonio, and raiding between the Spanish and Apache continued throughout the nineteenth century (TxDOT 2020).

#### 3.4.1.2 The Comanche

The Comanche began ranging south through Texas during the early eighteenth century and first encountered the Spanish as early as the 1730s (TxDOT 2021a). Throughout the early eighteenth century, many attacks on Spanish-Apache missions occurred from the allied Comanche, Caddo, Wichita, Taovaya, Tonkawa, and other tribes (known as the Norteños to the Spanish) (TxDOT 2021a). By the mid-eighteenth century, the armed and mounted Comanche were a formidable force in Texas, and the Spanish were forced to pursue peace (TxDOT

2021a). This peace, however, ended in 1766, when fierce raids against Spanish missions began again (TxDOT 2021a). Comanche territory continued to grow throughout the eighteenth century, and after 80 years of Spanish presence in the region, the only territory the Spanish could claim included the immediate areas around the towns of San Antonio de Bexar and La Bahia (TxDOT 2021a). Times of peace between the Spanish and Comanche never lasted, and they shifted between times of peaceful trade and hostility (TxDOT 2021a). By 1779, the Comanche opened its communities to new trade markets, exposing the Tribe to new diseases that claimed thousands of Comanche lives (TxDOT 2021a). After 1800, Comanche territory shrank considerably due to rival tribes and early European settlement (TxDOT 2021a).

#### 3.4.1.3 The Wichita

Before European contact, the Wichita primarily resided in present-day Oklahoma and Kansas (TxDOT 2021b). However, by the eighteenth century, the Wichita people had suffered severe population decrease due to warfare and disease and were forced to move southward as far as Central Texas (TxDOT 2021b). The Wichita allied with the Comanche, Taovaya, Caddo, and other northern Tribes; during the mid-eighteenth century, the Wichita participated in raids and attacks on the Spanish in present-day Central Texas (TxDOT 2021b). Most of the Wichita population in Texas remained along the Red River to facilitate trade between the Comanche and French (TxDOT 2021b).

#### 3.4.1.4 The Tonkawa

Early Spanish explorers were likely the first Europeans to encounter the Tonkawa in present-day Texas, as long ago as the mid-sixteenth century, with the first confirmed reference to the Tonkawa in present-day Central Texas in 1687 (TxDOT 2021c). During the sixteenth and seventeenth centuries, the Tonkawa mainly occupied the central reaches of the Trinity, Brazos, and Colorado Rivers, often traveling outside this area for hunting, trade, and warfare (TxDOT 2021c). At this time, Tonkawa groups included the Mayeye, Yojuane, Erviame, and Tonkawa (TxDOT 2021c). Spanish missions began to appear around 1690; although the Tonkawa preferred their traditional nomadic lifeway, the Tribe took advantage of the mission system for food and security during hard times (TxDOT 2021c). By the 1760s, the Tonkawa became dependent on the Spanish and French for manufactured goods, guns, and cloth, among other things (TxDOT 2021c). This dependency resulted in a cycle of civility and hostility, but gifts and goods from the Europeans to the tribes prevented all-out war and decreased raids against them (TxDOT 2021c). The Tonkawa had many failed attempts at gaining permanent land and lasting peace with the Spanish (TxDOT 2021c). By 1785, the Tonkawa settled along the Navasota River before returning to their homelands in Central Texas, where they first encountered Anglo-American settlers, during the beginning of the nineteenth century (TxDOT 2021c).

#### 3.4.1.5 The Alabama-Coushatta and Coushatta

The Alabama-Coushatta Tribe of Texas is a single federally recognized tribe composed of two historically distinct Muskogean-speaking tribes, the Alabama and Coushatta, who have remained closely related throughout their history (TxDOT 2021d). In 1541, Spanish explorer Hernando DeSoto was the first European to visit the Alabama in present-day northeastern

Mississippi and the Coushatta in present-day northern Alabama (TxDOT 2021d). By the end of the 1600s, increased European encroachment and diseases decimated the Native American population in the southeastern United States, forcing many tribes to move westward (TxDOT 2021d). Throughout the 1700s, alliances with Europeans were established for trade, protection, and help with wars against other tribes (TxDOT 2021d).

Louisiana came under the control of the United States in 1803 with the Louisiana Purchase, causing an influx of white settlement on the Alabama's and Coushatta's new territory and forcing them further westward into the Spanish province of Texas (TxDOT 2021d). By 1830, Texas was under Mexican rule, and the Alabama and Coushatta managed to keep the same land allowances granted to them by the Spanish (TxDOT 2021d). Neither Tribe played an active role in the Revolutionary War of Texas against Mexico, but they did provide aid to white settler refugees fleeing Texas and served as spies for General Sam Houston in hopes that their loyalty to Texas would be repaid (TxDOT 2021d).

By the mid-1830s, white settlers continued to encroach on their land, however, and neither Tribe was given the land they were promised, forcing both Tribes to move south (TxDOT 2021d). In 1854, the Alabama were granted 1,280 acres (ac; 518.0 ha) of vacant land in Polk County, Texas, in what is known as the Big Thicket, and the Coushatta joined them on this land soon after (TxDOT 2021d). Both Tribes played minor roles in the Civil War by aiding Confederate forces along the Texas Gulf Coast; however, by 1865, both Tribes faced abject poverty because they had been abandoned by the state and federal government (TxDOT 2021d).

After 1880, a railway cut through Polk County, which began to provide steady income to the Tribes (TxDOT 2021d). Further, because the Alabama and Coushatta reservation land had been donated by the State of Texas, the federal government could not force the Tribes to comply with the Dawes Act of 1887, which authorized the federal government to break up tribal land into individual allotments to give this land to non-natives and force assimilation by destroying Indigenous cultural and social traditions (TxDOT 2021d). The Alabama and Coushatta's avoidance of allotment helped them not only retain their land but also their culture (TxDOT 2021d). The Alabama-Coushatta Indian Tribe of Texas now occupies a 4,593.7-ac (1,859.0-ha) reservation on U.S. Highway 190, approximately 17 miles east of Livingston in Polk County (TxDOT 2021d).

### 3.4.2 Recent Settlement (CE 1730–1990 CE)

#### 3.4.2.1 Early Development (1730–1861 CE)

The Spanish, led by Domingo Teran de los Rios, were the first Europeans to arrive in the present-day Travis County area during an inspection tour of east Texas in 1691 (Smyrl 2022). In 1821, Mexico gained independence from Spain and took control of the region, granting Stephen F. Austin his third colony in the present-day Austin vicinity east of the Colorado River (Smyrl 2022). By 1833, settlers began moving south of the Colorado River, unofficially extending the limits of Austin's colony (McGraw Marburger & Associates 2022).

The Republic of Texas gained independence from Mexico in 1836 and, under the direction of President Mirabeau B. Lamar, selected a small settlement near the Colorado River named

Waterloo as the state capital (Humphrey 2022). Soon after the selection of the capital's location, Lamar appointed Edwin Waller—a signer of the Texas Declaration of Independence—to survey and lay out the streets, lots, and blocks of the new capital, which was renamed Austin in honor of Stephen F. Austin (Hardy-Heck-Moore, Inc. 2016). Austin was incorporated on December 27, 1839; in January 1840, Edwin Waller was elected as the first mayor (Smyrl 2022).

In 1842, President Sam Houston (successor to Lamar) moved the capital from Austin to Houston and then moved it again to Washington-on-the-Brazos, where it remained until 1845 (Humphrey 2022). Texas was annexed to the United States in 1845, and Austin was named the temporary state capital (Humphrey 2022). In 1850, Texas voted to make Austin the state capital for the next 20 years; in 1872, another vote made Austin the permanent state capital (Humphrey 2022).

During the mid-nineteenth century, land use north of Austin remained predominantly undeveloped with the establishment of the Texas State Lunatic Asylum, now known as the Austin State Hospital (Freeman and Moore 1990). In 1856, land for the hospital was purchased on Guadalupe Street, approximately 1 mi (1.6 km) north of the Colorado River (Freeman and Moore 1990). The hospital included an Italianate-influenced administration building constructed in 1857, with additions in 1875, 1879, 1893, and 1904 (Freeman and Moore 1990).

#### 3.4.2.2 Civil War and After (1861–1920 CE)

The population of Austin had grown to 3,546 by 1861 (City of Austin 2022). However, further development of Austin was stalled by the onset of the Civil War in 1861 (City of Austin 2022). Travis County voted against secession, but Texas voters across the state supported leaving the Union by more than three to one (City of Austin 2022). In early 1861, Texas seceded from the Union, and approximately 600 men from Travis County joined the Confederate Army.

After the Civil War, the African American population dramatically increased. Between the late 1860s and early 1870s, African American residential communities were developed in or near Austin, including Masontown in what is now East Austin, Wheatville at the western edge of Austin, Pleasant Hill located 5 mi (8.0 km) southwest of Austin, and Clarksville in what is now West Austin (Humphrey 2022). By 1870, African Americans comprised 36 percent of the total 4,428 residents in Austin (Humphrey 2022).

Austin's population and economic growth increased during the Reconstruction period and through the end of the nineteenth century because of railroad construction (City of Austin 2022). The arrival of rail service during the 1870s contributed to the development of Austin as a regional trade center and increased economic prosperity for Austin. From 1870 to 1880, Austin's population nearly tripled to 11,013 (City of Austin 2022).

The late-nineteenth century saw municipal improvements, including gas streetlights, a bridge across the Colorado River, and construction of a dam across the Colorado River and a power plant to provide reliable electricity and flood protection (McGraw Marburger & Associates 2022). An electrical power plant was constructed in 1896, leading to the installation of a citywide street lighting system consisting of 31 "Moonlight Towers," many of which are still extant (McGraw Marburger & Associates 2022).

The University of Texas' main building (now demolished) was completed in 1884 (Freeman and Moore 1990). The university was established to provide a liberal arts education in contrast to the Agricultural and Mechanical College (Texas A&M), which opened in 1871 (Freeman and Moore 1990). A private university, St. Edwards College, was chartered and established in 1885 between present Oltorf Road and Ben White Boulevard (Freeman and Moore 1990).

### 3.4.2.3 Twentieth Century Development (1920–1990 CE)

Austin experienced rapid growth during the 1910s and 1920s, with new municipal projects such as the construction of the Congress Avenue bridge (still extant) and an expansion of the electric streetcar route that was established during the 1890s (Freeman and Moore 1990). The streetcar system was in operation from 1891 to 1940 with an extensive network of 20 streetcars spanning 15 miles of track (Freeman and Moore 1990). The route ran from Hyde Park in the north to Travis Heights in the south and from Lake Austin in the west to East Austin. Further, Austin suburbs such as Hyde Park and Aldridge Place saw rapid growth and development (Freeman and Moore 1990). Austin also saw increased segregation with Austin's Black and Hispanic populations confined to Austin's east side, while affluent neighborhoods were developed west of Austin (Freeman and Moore 1990).

Austin's economy was primarily based on the state government, the university, retail trade, and manufacturing at this time. However, with trends of automobile affordability and road improvements, including the construction of I-35, tourism also began to play a large role in Austin's economy (Freeman and Moore 1990). From 1940 to 1990, Austin's population grew at an average rate of 40 percent per decade, from 87,930 to 472,020 (Freeman and Moore 1990). The increase was largely due to the university, government officials, the music industry, and the recruitment of businesses in the technology industry to relocate to Austin (Freeman and Moore 1990).

## 4 Background Research

The project team conducted a desktop review for the Project APE by accessing THC's Texas Historic and Archeological Sites Atlas (Atlas; THC 2024) for information regarding previous cultural resource surveys and known cultural resources. The project team also consulted historical maps and aerial imagery to determine whether historic-age structures may have been present in the APE.

### 4.1 Related Investigations

To streamline the documentation process, the project team incorporated certain findings from the following related investigations:

- *Non-Archeological Historic Resources Survey Report Blue Line Project* (Cox | McLean Environmental Consulting, Inc. 2022)
- *Historic Resources Survey for the Orange Line Project, Austin, Travis County, Texas* (AECOM 2022a)
- *Archeological Survey for the Capital Metropolitan Transportation Authority Orange Line Project, City of Austin, Travis County, Texas* (AECOM 2022b)



## 4.2 Site File Search

The project team reviewed the Atlas (THC 2024) to identify known cultural resources recorded and previous cultural resources surveys conducted within the study area, a 0.5-mi (0.8-km) buffer around the APE (**Appendix A, Figure A-16** through **Figure A-29**). The Atlas review indicated that within the 0.5-mi (0.8-km) study area, 56 cultural resources surveys have been conducted, and 79 archaeological sites have been recorded (THC 2024). Additionally, 6 cemeteries, 180 Official Texas Historical Markers, 109 Recorded Texas Historic Landmarks, 96 NRHP-listed properties, 22 historic districts, 5 Texas Freedom Colonies, and one National Historic Trail have been recorded in the study area (**Appendix A, Figure A-16** through **Figure A-29**) (THC 2024).

Of the 56 recorded cultural resources surveys, 19 intersect with the APE. Details for all 56 cultural resources surveys are provided in **Appendix D, Table D-2**.

Of the 79 archaeological sites recorded in the study area, 14 have been determined to be eligible for listing in the NRHP, 23 were deemed ineligible, and 42 have unknown NRHP status (THC 2024). Details for all 79 archaeological sites located in the study area are provided in **Appendix D, Table D-3** (THC 2024). Six archaeological sites intersect the APE: 41TV7, 41TV181, 41TV1374, 41TV1497, 41TV1790, and 41TV2562. The Atlas (THC 2024) contains no information for sites 41TV7 and 41TV181.

Site 41TV1374 intersects the APE on Lavaca Street between West 13th and West 14th Streets. The site comprises the remains of a cistern and privy from two periods of construction. Associated artifacts, including glass and metal fragments, were found within the privy. All features within the site have been destroyed by construction (THC 2024).

Site 41TV1497 intersects the APE on the eastern side of Trinity Street, within the boundary of the Austin Convention Center. The site area is one city block—Block 15 from the original Austin townsite—and comprises limestone foundations, brick piers, a limestone retaining wall, cisterns, a probable stone-lined well, privies, and dump areas. Further, one standing, historic-period, wood-frame home—the Crowell House—was moved prior to excavation. The site was considered eligible for NRHP listing; however, most of the site has been destroyed by construction of a parking lot followed by construction of the Austin Convention Center (Brown et al. 2006; THC 2024).

Site 41TV1790 intersects the APE at the southeastern corner of East Cesar Chavez and Trinity Streets. The site area is one city block—Block 183 from the original Austin townsite—and comprises a nineteenth and twentieth century residential and commercial area. The site contained a shallow pit feature and associated castor and metal objects, as well as whiteware, glass, wire nails, iron pipe, a ceramic castor of an insulator, ceramic tile, yellow coarse-grained brick fragments, and limestone cobbles. The site area is now covered by a hotel (THC 2024).

Site 41TV2562 intersects the APE along Guadalupe Street from West 41st to West 38th Streets. The site comprises the Austin State Hospital, a large mental healthcare institution dating to 1856 that remains in operation. Contained within the site are various original extant buildings as well as the foundations and associated artifacts of other structures, including dormitories, a tuberculosis hospital, and industrial activity buildings. Artifacts found within this

site include building materials, glass, ceramics, metal artifacts, personal items, coinage, lithics, and woven objects (THC 2024).

A total of 180 Official Texas Historical Markers, 109 of which are Recorded Texas Historic Landmarks, are located within the study area, three of which intersect the APE. Details for all 180 historical markers are provided in **Appendix D, Table D-4**.

Six cemeteries are located within the study area, none of which overlap the APE. Due to their distance from the APE, the cemeteries would not be impacted by construction activities. Details for the five cemeteries within the study area are provided in **Appendix D, Table D-5**.

Ninety-six NRHP-listed properties are located within the study area, one of which overlaps the APE. Moonlight Towers #2 (ID 76002071) overlaps the APE on the southeast corner of the Guadalupe Street and West 9th Street intersection. Details for all 96 NRHP-listed properties are provided in **Appendix D, Table D-6**.

Details for the 22 historic districts within the study area are provided in **Appendix D, Table D-7**. Six of the 22 NRHP districts intersect the APE: Congress Avenue Historic District, Bremond Block Historic District, Sixth Street Historic District, Wooldridge Park, Cambridge Tower, and Travis Heights-Fairview Park Historic District.

The El Camino Real de Los Tejas National Historic Trail (El Camino Real) intersects the southern portion of the APE within the OMF. The trail was the primary overland route for Spanish colonization of what later became Texas and Louisiana (NPS 2024).

The Texas Freedom Colonies Atlas (2024) was also consulted, and five Freedom Colonies were found within the study area, none of which overlap the study area (Texas Freedom Colonies Project 2024). The Texas Freedom Colonies Project is dedicated to preserving the heritage of Texas' historical African American settlements. Details about the Texas Freedom Colonies are provided in **Appendix D, Table D-8**.

In addition to previous studies identified in the Atlas (THC 2024), the project team consulted TxDOT's Historic Resources Aggregator (TxDOT 2024b) to identify resources determined eligible for listing in the NRHP. NRHP-eligible resources that received THC concurrence from the related investigations indicated above are included in the built environment report (HDR 2024).

### 4.3 Historical Map Review

The APE is situated in urban Downtown Austin, which has exhibited an urban setting since the 1890s, as evidenced through the earliest available documentation. North of Lady Bird Lake, the Project runs along Guadalupe and Trinity Streets, both of which are recorded streets dating as far back as 1896. A small portion of the Project would follow 3rd Street (between Guadalupe and Trinity Streets), which was previously the Missouri Pacific Railroad and then the Union Pacific Railroad until the 1990s. South of Lady Bird Lake, the Project runs along South Congress Avenue and East Riverside Drive, both of which are recorded streets dating as far back as 1896 (Nationwide Environmental Title Research, LLC 2024; USGS 1896, 1954, 1956, 1965).

## 5 Methods

This section details the research, survey, monitoring, laboratory, and NRHP and SAL eligibility evaluation methodology that the project team employed for the Project.

### 5.1 Research Methods

The project team conducted a desktop review prior to the field survey, which consisted of a review of the Atlas (THC 2024), the USGS (2024) Texas Geology Map Viewer, and SoilWeb (Soil Survey Staff 2024). Desktop research included a review of documents, maps, and aerial photography from the Travis County Clerk (2024), the Texas General Land Office (2024), Nationwide Environmental Title Research, LLC (2024), and USGS (1896, 1954, 1956, 1965, 2024).

### 5.2 Survey Methods

Based on the analysis presented above, the project team recommended an archaeological survey area comprising the portions of the APE shown in **Figure 1** through **Figure 5**. Obtaining right-of-entry for private landowners within the survey area is ongoing. A preliminary survey was completed for all accessible parcels. Survey of the remaining parcels will be completed later as right-of-entry is obtained.

The preliminary survey area, totaling 32.5 ac (13.1 ha), was subject to an archaeological survey. The project team shovel tested areas of expanded ROW with expected shallow impacts that have moderate or high probability for containing cultural resources, as indicated by the TxDOT (2024) PALM data. These areas include south of the Lady Bird Lake crossing and along East Riverside Drive, including part of the proposed OMF location (see **Appendix A, Figure A-15**). The project team also shovel tested the area of expanded ROW within site 41TV2562 to determine whether cultural deposits related to the Austin State Hospital are present within the APE. Additionally, the project team completed mechanical trenching at two of the proposed detention pond locations along East Riverside where deep impacts are proposed:

- 2015 East Riverside Drive, Austin, TX 78741 and
- 2425 East Riverside Drive, Austin, TX 78741.

The project team will complete mechanical trenching in the proposed detention pond location at 7106 East Riverside Drive, Austin, TX 78741 when right-of-entry is obtained.

Additionally, the project team proposed construction monitoring for areas potentially containing historic features and areas of high probability for containing archaeological deposits that are currently inaccessible for survey due to existing structures or pavement. The project team proposed monitoring within the areas previously recommended by AECOM for the Orange Line, which include the following (see **Figure 1** through **Figure 5**):

- 422 Guadalupe Street, Austin, TX 78701 (AECOM HF4);
- 510 Guadalupe Street, Austin, TX 78701 (AECOM HF5);
- 810 Guadalupe Street, Austin, TX 78701 (AECOM HF6);

- 1305 Guadalupe Street, Austin, TX 78701 (AECOM HF7);
- 411 West Martin Luther King Jr. Boulevard, Austin, TX 78701 (AECOM HF8);
- 2825 Guadalupe Street, Austin, TX 78705 (AECOM HF9);
- 3402 Guadalupe Street, Austin, TX 78705 (AECOM HF10); and
- 517 West 39th Street, Austin, TX 78751 (AECOM HF11).

The project team also proposed construction monitoring at the proposed Cesar Chavez Station location on Trinity Street, adjacent to sites 41TV1493 and 41TV1497, as well as at the areas of proposed grade changes on either side of the Lady Bird Lake crossing, which are currently covered in concrete and therefore inaccessible for shovel testing or mechanical trenching.

Additionally, the project team conducted a site visit for five proposed trenching locations and found that trenching cannot occur at this time due to existing development, utilities, and creek channelization (see Section 6, Results). Therefore, the five trench locations below have been recommended for monitoring:

- Two trenches at the proposed spanning of Country Club Creek, which have existing utilities;
- North of the Lady Bird Lake crossing adjacent to the Waller Creek outlet, which has existing utilities and irrigation systems;
- The proposed spanning of East Bouldin Creek because the creek is heavily channelized and the surrounding locations covered by asphalt parking lots; and
- 5107 East Riverside Drive, Austin, TX 78741, which is an active construction site.

### 5.2.1 Shovel Testing

Each shovel test (ST) was approximately 12 in (30 cm) in diameter, and the project team excavated STs in 8-in (20-cm) arbitrary levels to a depth of 32 in (80 cm) below surface or until sterile subsoil or bedrock was encountered. The project team screened the soil removed from STs through 0.25-in (0.635-cm) mesh screen. Archaeologists verified disturbed areas with at least one ST. Additionally, the field team photo-documented all slope disturbance of otherwise untestable areas of the APE. The project team visually inspected and photographed areas with slope greater than 20 percent but did not excavate STs. An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards led the archaeological survey.

Soil descriptions followed the guidelines and terminology established by the National Soil Survey Center (Schoeneberger et al. 2012). The project team recorded soil colors using a Munsell Soil Color Chart. Archaeologists recorded all excavated STs on forms that note depth, soil matrix descriptions, and cultural materials recovered. The project team used digital photographs to document survey conditions, disturbances, and any cultural features observed and recorded details of each photograph on standardized forms. The field team recorded all ST locations using a Global Navigation Satellite Systems unit paired with a mobile phone running ESRI Field Maps software.

## 5.2.2 Trenching

The project team conducted deep testing using a mini excavator in areas likely to contain deep archaeological deposits for a total of 2 trenches. Trenching was conducted by a mini excavator fitted with a 2-ft (0.6-m) wide smooth-blade bucket and excavated by slowly peeling back thin layers of soil while monitoring for cultural materials. Each trench was approximately 4 ft (1.2 m) wide and 10 to 12 ft (3 to 4 m) long. The depth of the trenches was determined by the deposits in the location of the excavation, up to a depth of 39 inches below surface (inbs; 100 centimeters below surface [cmb]). The project team screened a 5-gallon-bucket soil sample from every third excavator bucket load for cultural material, using a 0.25-in (0.635-cm) mesh screen, and soil descriptions followed the guidelines and terminology established by the National Soil Survey Center (Schoeneberger et al. 2012). Soil colors were recorded using a Munsell Soil Color Chart. The project team recorded all excavated trenches on trenching forms that note depth and soil matrix descriptions.

## 5.2.3 Site Designation

During the survey, the project team recorded one new archaeological site (41TV2620) and revisited previously recorded site 41TV2562. The project team took digital photographs and notes to identify the deposits and completed a site form recording location information, vegetative cover, contextual integrity, estimated temporal period, and artifactual material for each site. The project team submitted site forms to the Texas Archeological Research Laboratory for official recordation of both sites and obtained a trinomial for site 41TV2620.

THC differentiates between archaeological sites and isolated finds. Sites are evaluated and recommended eligible or ineligible for inclusion in the NRHP. Isolated finds are ineligible for listing in the NRHP because they do not meet the requirements to be designated as a site. The project team standards for defining archaeological sites and isolated finds involve the temporal period and number of artifacts or features present within an area of pre-determined size. A precontact site designation is applied when five or more precontact artifacts, or one or more features, are present within a 215-square-foot (ft<sup>2</sup>) (20-square-meter [m<sup>2</sup>]) area. A post-contact site designation is applied when 10 or more artifacts of two or more artifacts classes, or one or more features, are present within a 215 ft<sup>2</sup> (20 m<sup>2</sup>) area. Isolated finds are defined as the presence of four precontact artifacts or fewer, fewer than 10 post-contact artifacts, or post-contact artifacts from only one artifact class within a 215 ft<sup>2</sup> (20 m<sup>2</sup>) area.

The project team defined site boundaries by the presence of surficial materials and excavated judgmental STs near features and concentrations of surface artifacts to determine whether underground deposits of cultural materials were present. The project team placed STs inside site boundaries to adequately sample the site's deposits.

As part of the identification and documentation of sites, the project team recorded sites on a site form. This form records a variety of data, including location, setting, and artifactual materials recovered. All sites were recorded using an iPhone running ArcGIS Online software paired with a Global Navigation Satellite System receiver and photo-documented. After the form was completed, the project team submitted it to the Texas Archeological Research Laboratory for official trinomial designation. All records and materials generated by this Project will be

permanently curated at the Center for Archaeological Research at the University of Texas at San Antonio.

Before trinomial designation, the project team identified the site using the identifier HDR-01. This number was a temporary field number used only until the project team obtained the formal site trinomial. The project team applied site designations only to clusters of artifacts (whether surface or subsurface) that meet the requirements for site designation, as defined above. The project team archaeologist maintained field notes concerning sites that document survey conditions, vegetative cover, and initial interpretations of the cultural properties.

The project team collected one potentially diagnostic artifact during the survey. Artifact collection of post-contact and precontact materials involved only temporally diagnostic artifacts. For precontact material, this includes all ceramics, projectile points, or finished tools. For post-contact artifacts, this includes ceramics with decoration, rims, or other formal diagnostic attributes; decorated or embossed glass; and pieces with maker's marks or indications of manufacturing technology. The project team photographed all sides of diagnostic artifacts with scales.

The project team recorded and analyzed in the field artifacts not collected and photographed a representative sample with scales. The project team recorded quantities or estimates of materials for the site and plotted the locations of artifact concentrations on the site map. In-field analysis included determining appropriate regional, temporal, and stylistic elements.

The project team kept a complete digital photographic record and used it to document identified cultural remains, the general topography and condition of the area at the time of the survey, and the field techniques and methodology that the surveyors employed. Archaeologists captured photographs of all cultural features and other representative natural features of interest for each site recorded. The field team photographed all archaeological sites from a minimum of two angles with the most consistent lighting that site conditions allow. Archaeologists documented all photographs on a photograph log that details the date, location, direction, and description of the photograph.

#### 5.2.4 Laboratory Methods

The project team collected cultural materials deemed potentially diagnostic; these artifacts are being temporarily housed in HDR's Austin, Texas, office.

The project team washed all artifacts. After the artifacts were dry, staff placed them in 4-millimeter archival bags and labeled them with bag tags printed on archival cardstock with the following information: project name, site number, ST number or field specimen number, depth, material, description, and count.

The project team identified, counted, cataloged, and labeled cultural materials. Analytical methods were dependent on the material type. After analysis, the project team will coordinate with the THC regarding curation or discard of artifacts. Project records will be permanently curated at the Center for Archaeological Research at the University of Texas at San Antonio.

## 5.3 State Antiquities Landmark and National Register of Historic Places Eligibility

As part of this review process, cultural resources investigations are undertaken with the purpose of identifying resources that are listed in or eligible for listing in the NRHP or as SALs. The assessment of the significance of cultural resources is based on state and federal guidelines and regulations. The Antiquities Code of Texas defines all cultural resources on non-federal public lands within Texas as eligible for designation as a SAL (13 TAC 26).

Any cultural resource that is listed in or eligible for listing in the NRHP is known as a “historic property,” and the phrase “eligible for listing in the NRHP” includes both properties formally determined as such by the Secretary of the Interior and all other properties that meet NRHP listing criteria (36 CFR 800.2).

### 5.3.1 Criteria for SAL Listing

The Antiquities Code of Texas states that sites, objects, buildings, artifacts, implements, and locations of historical archaeological, scientific, or educational interest located on lands belonging to the state or any political subdivision of the state are eligible to become SALs (Natural Resources Code Title 9 Chapter 191). The criteria for evaluating archaeological sites include the following (13 TAC 26.10(a)):

1. The site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;
2. The site’s archaeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation interests of the site;
3. The site possesses unique or rare attributes concerning Texas prehistory and/or history;
4. The study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge; and
5. There is a high likelihood that vandalism and relic collecting have occurred or could occur, and official landmark designation is needed to ensure maximum legal protection; alternatively, further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected.

### 5.3.2 Criteria for Evaluation of NRHP Eligibility

The criteria for evaluating properties for listing in the NRHP (36 CFR 60.4(a–d)) are codified under the authority of the National Historic Preservation Act of 1966, as amended, and the Advisory Council on Historic Preservation has set forth guidelines to use in determining site eligibility. Subsequent to the identification of relevant historical themes and related research questions, the following criteria for eligibility are applied:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or
- (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that have yielded, or may be likely to yield, information important in prehistory or history. (36 CFR 60.4)

Note that the application of Criterion D presupposes that the information imparted by the site is significant in history or prehistory.

The physical characteristics and historic significance of the overall property are examined when conducting NRHP evaluations. Although a property in its entirety may be considered eligible based on Criteria A, B, C, and/or D, specific data are also required for individual components therein based on date, function, history, physical characteristics, and other information. Resources that do not relate in a significant way to the overall property may contribute if they independently meet the NRHP criteria.

For a historic resource, district, or landscape to be determined eligible for listing in the NRHP, it must retain enough of its historic integrity to convey its significance. For the NRHP, there are seven aspects of integrity:

1. Location;
2. Design;
3. Setting;
4. Materials;
5. Workmanship;
6. Feeling; and
7. Association.



Occasionally, certain resources fall into categories in which they must be evaluated further using one or more of the following Criterion Considerations. If a resource identified during the reconnaissance-level survey falls into one of these categories, the following Criterion Considerations will be applied in conjunction with one or more of the four NRHP criteria (A–D) listed above:

- (a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- (b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- (c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his [or her] productive life; or
- (d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- (e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- (f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
- (g) A property achieving significance within the past 50 years if it is of exceptional importance. (36 CFR 60.4)

The scientific value of archaeological sites is assessed under Criterion D. With regard specifically to this criterion, the goal of prehistoric archaeological research and management is to fill gaps in the knowledge about specific research domains. Scientific importance is driven, in part, by the research paradigms of the time and by the amount of information available about a particular research topic in a specific geographic area. The most robust forms of scientific importance should honor diverse and occasionally competing schools of research interests and their attendant approaches. To fulfill Criterion D, a site must possess certain attributes (e.g., intact buried cultural strata with functionally and temporally diagnostic materials, and datable cultural features) such that further intensive research at the site could be expected to add additional information to relevant research questions.

The research domains are addressed through testing and excavation programs. Over time, data required for addressing specific questions are collected, analyzed, and compiled. Eventually, the potential importance, or significance, of sites that contain only the types of data already collected may diminish. This suggests that the identification criteria of important historic properties are tied to both a specific geographic area reflecting a cultural adaptation or cultural region and a state of accumulated knowledge about a research domain topic. The criteria and

priorities of important sites are apt to shift as accepted research paradigms change or as data accumulations approach redundancy. Archaeological sites that retain contextual integrity, as well as contain artifacts and features capable of contributing information toward addressing relevant research issues, are significant and should therefore be considered eligible for listing in the NRHP.

## 6 Survey Results

The Project includes portions of two previously separate transit proposals (i.e., Blue Line and Orange Line), both of which were previously surveyed. The Blue Line survey was completed by HNTB in 2022; however, the report was not submitted for review to the THC. This survey included shovel testing in all accessible parcels for a total of 24 shovel tests. The Orange Line intensive archaeological survey, completed by AECOM in 2022, received concurrence, with comments, on May 16, 2022 (**Appendix B**; THC #202209153). This survey included shovel testing in all accessible parcels for a total of 34 shovel tests. All shovel tests for both surveys were negative for archaeological materials, and the majority of shovel tests contained disturbed soils. No further investigations were recommended for either survey within the surveyed areas.

The current project team conducted an intensive archaeological survey for the proposed Project between June 3 and November 6, 2024. The APE comprises the limits of Project construction including a 9.8-mi (15.8-km) corridor ranging on average from 60 to 90 ft (18 to 27 m) in width within the existing ROW, with some areas of expanded ROW. Obtaining right-of-entry for parcels within the survey area is ongoing; therefore, the archaeological survey has been phased. A preliminary survey was completed for all accessible parcels. The remaining survey areas will be completed later as right-of-entry is obtained.

The preliminary survey area, totaling 42.1 acres (17.04 ha), was subject to an archaeological survey using systematic shovel testing, mechanical trenching, and pedestrian survey (**Figure 1** through **Figure 5**). The survey resulted in the identification of one post-contact site, 41TV2620, and a revisit to site 41TV2562. The APE is situated within an urban setting consisting mostly of roadways and small unimproved wooded areas at the OMF site (**Figure 6** through **Figure 9**). Vegetation in the APE included artificial landscaping and small hardwoods (**Figure 10**).

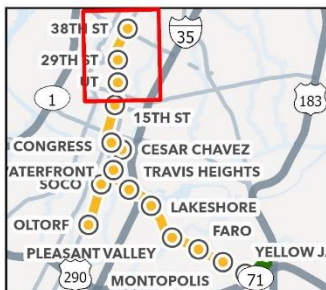
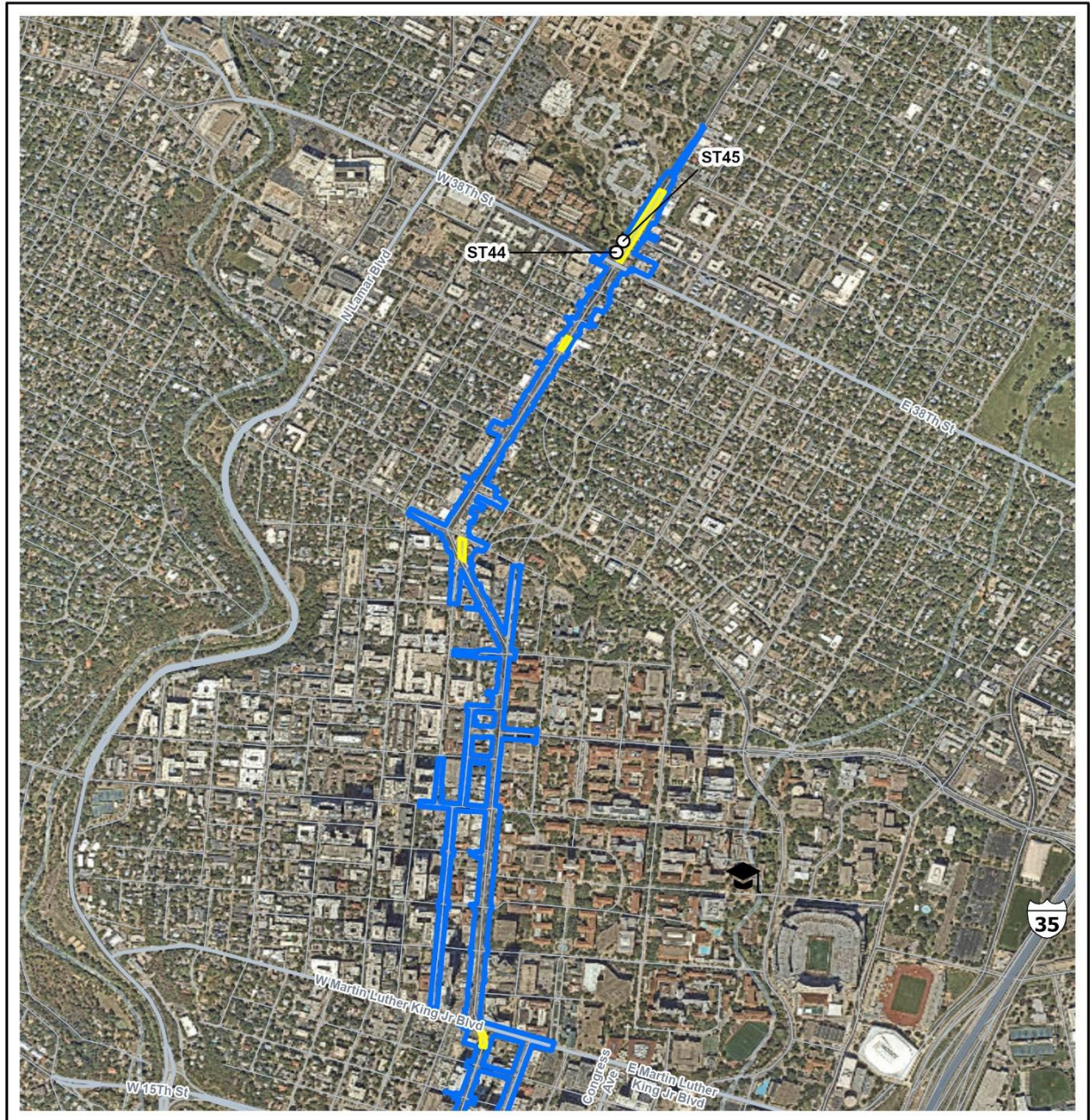
No evidence of historic resources related to the El Camino Real trail were found during the survey. While listed as a Historic Trail, the majority of El Camino Real's route through this portion of Texas has been subject to development throughout the twentieth century and it is unlikely that significant elements of the original El Camino Real route have been preserved within this area.

The project team excavated or attempted to excavate 70 STs within the APE, one of which was positive for cultural materials (ST 32). ST 32 uncovered a concrete foundation likely associated with a now-demolished house or structure. Eighteen of the planned STs were not dug due to slope and previous disturbances, such as utilities and the stormwater facility at the OMF site (**Figure 11**).

The typical soil profile for STs adjacent to East Riverside Drive consisted of 0 to 4 inches below surface (inbs; 0 to 10 centimeters below surface [cmbs]) very dark grayish-brown (10YR 3/2) clay over 4 to 10 inbs (10 to 25 cmbs) black (10YR 2/1) loamy clay with gravels and pedogenic carbonates over 10 to 14 inbs (25 to 35 cmbs) construction fill (ST 42; **Figure 12**). The typical soil profile within the OMF site consisted of 0 to 6 inbs (0 to 15 cmbs) very dark grayish-brown (10YR 3/2) loamy clay over 6 to 10 inbs (15 to 25 cmbs) very dark grayish-brown (10YR 3/2) clay over construction fill (ST 2; **Figure 13**). Details for all STs are provided in **Appendix E, Table E-1**.

The project team completed two mechanical trenches in proposed detention pond locations along East Riverside Drive, both of which were negative for cultural materials (see Section 6.1). The project team also completed site visits to five of the proposed trenching locations to determine whether trenching could be completed. The proposed trench at the spanning of Bouldin Creek was confirmed to be heavily channelized, and the surrounding locations are covered by asphalt parking lots (**Figure 14** and **Figure 15**). The proposed trench at 5107 East Riverside Drive is located in an active construction site (**Figure 16** and **Figure 17**). The two proposed trenching locations spanning Country Club Creek have existing disturbances including fiber optic, power, and sewage lines (**Figure 18** and **Figure 19**). Additionally, property owners informed the project team that the proposed trench north of the Lady Bird Lake crossing adjacent to the Waller Creek outlet has an existing electrical conduit and irrigation system at the proposed trench location (**Figure 20** to **Figure 23**).

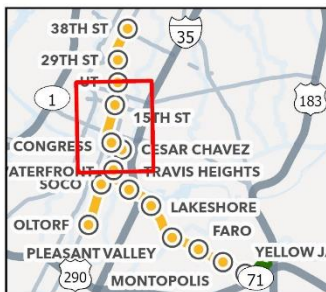
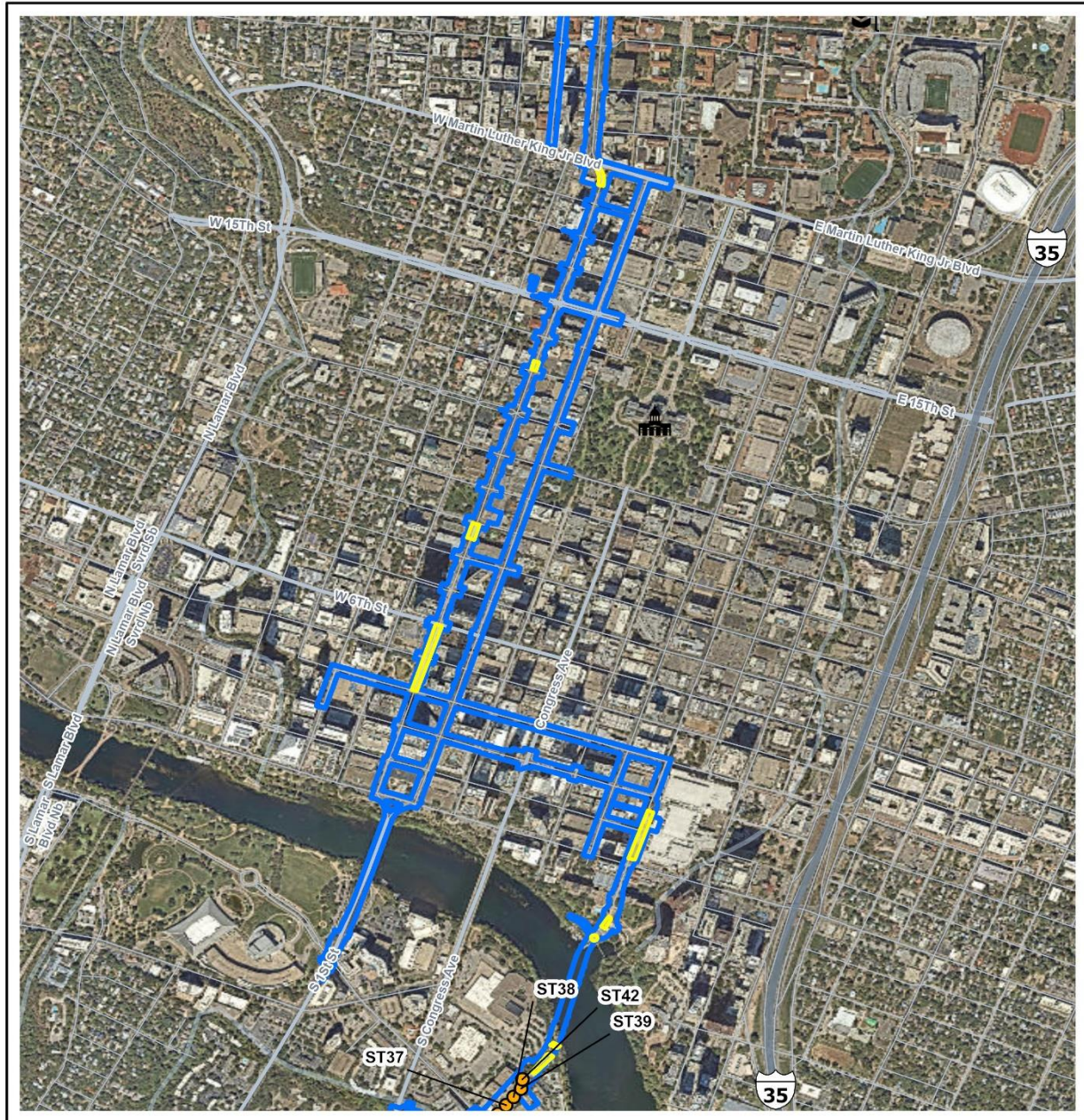
Figure 1: Results of the archaeological survey (page 1 of 5)



<ul style="list-style-type: none"> <li><span style="color: blue;">—</span> Area of Potential Effect</li> <li><span style="color: green;">●</span> Proposed Work Location</li> <li><span style="color: red;">●</span> Shovel Testing</li> <li><span style="color: red;">○</span> Trenching</li> <li><span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span> Monitoring Area</li> </ul>	<ul style="list-style-type: none"> <li><span style="color: red;">●</span> Completed Shovel Test</li> <li><span style="color: red;">○</span> Positive</li> <li><span style="color: black;">○</span> Negative</li> <li><span style="color: orange;">●</span> Disturbed</li> <li><span style="color: yellow;">●</span> Slope</li> <li><span style="color: blue;">●</span> Wet</li> </ul>	<ul style="list-style-type: none"> <li>No Dig Site</li> <li><span style="color: orange;">⊗</span> Disturbed</li> <li><span style="color: yellow;">⊗</span> Slope</li> <li><span style="color: blue;">⊗</span> Wet</li> <li><span style="color: black;">⊗</span> Other</li> </ul>	
<p>0      1,000      2,000              Feet</p>			

Source: Austin Transit Partnership 2024, Travis County, Texas

Figure 2: Results of the archaeological survey (page 2 of 5)

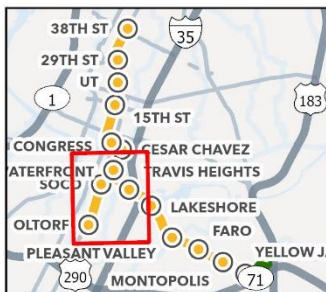
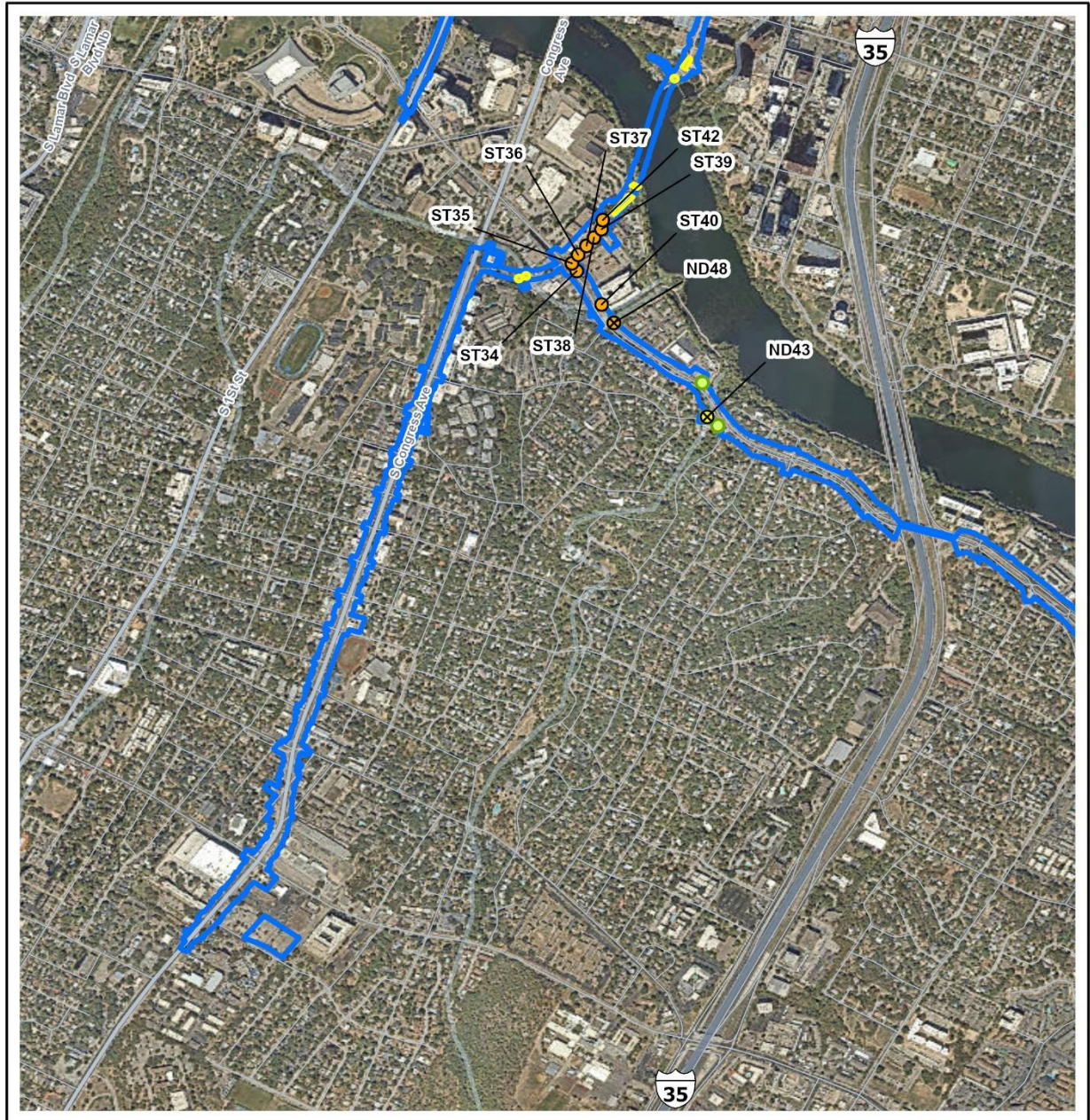


Area of Potential Effect	Completed Shovel Test	No Dig Site
Proposed Work Location	Positive	Disturbed
Shovel Testing	Negative	Slope
Trenching	Disturbed	Wet
Monitoring Area	Slope	Other
	Wet	

N  
 0 1,000 2,000 Feet

Source: Austin Transit Partnership 2024, Travis County, Texas

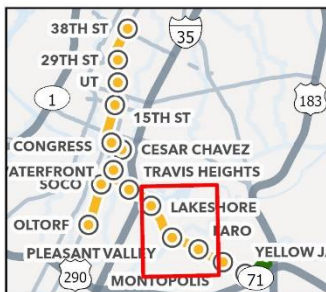
Figure 3: Results of the archaeological survey (page 3 of 5)



<ul style="list-style-type: none"> <li><span style="color: blue;">—</span> Area of Potential Effect</li> <li><span style="color: yellow;">■</span> Proposed Work Location</li> <li><span style="color: green;">●</span> Shovel Testing</li> <li><span style="color: red;">●</span> Trenching</li> <li><span style="color: yellow;">■</span> Monitoring Area</li> </ul>	<p>Completed Shovel Test</p> <ul style="list-style-type: none"> <li><span style="color: red;">●</span> Positive</li> <li><span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> Negative</li> <li><span style="color: orange;">●</span> Disturbed</li> <li><span style="color: yellow;">●</span> Slope</li> <li><span style="color: blue;">●</span> Wet</li> </ul>	<p>No Dig Site</p> <ul style="list-style-type: none"> <li><span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block; background-color: orange;"></span> Disturbed</li> <li><span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block; background-color: yellow;"></span> Slope</li> <li><span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block; background-color: blue;"></span> Wet</li> <li><span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block; background-color: white;"></span> Other</li> </ul>	
<p>0      1,000      2,000              Feet</p>			

Source: Austin Transit Partnership 2024, Travis County, Texas

Figure 4: Results of the archaeological survey (page 4 of 5)

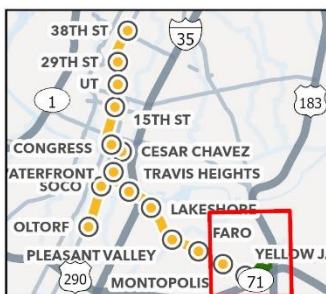
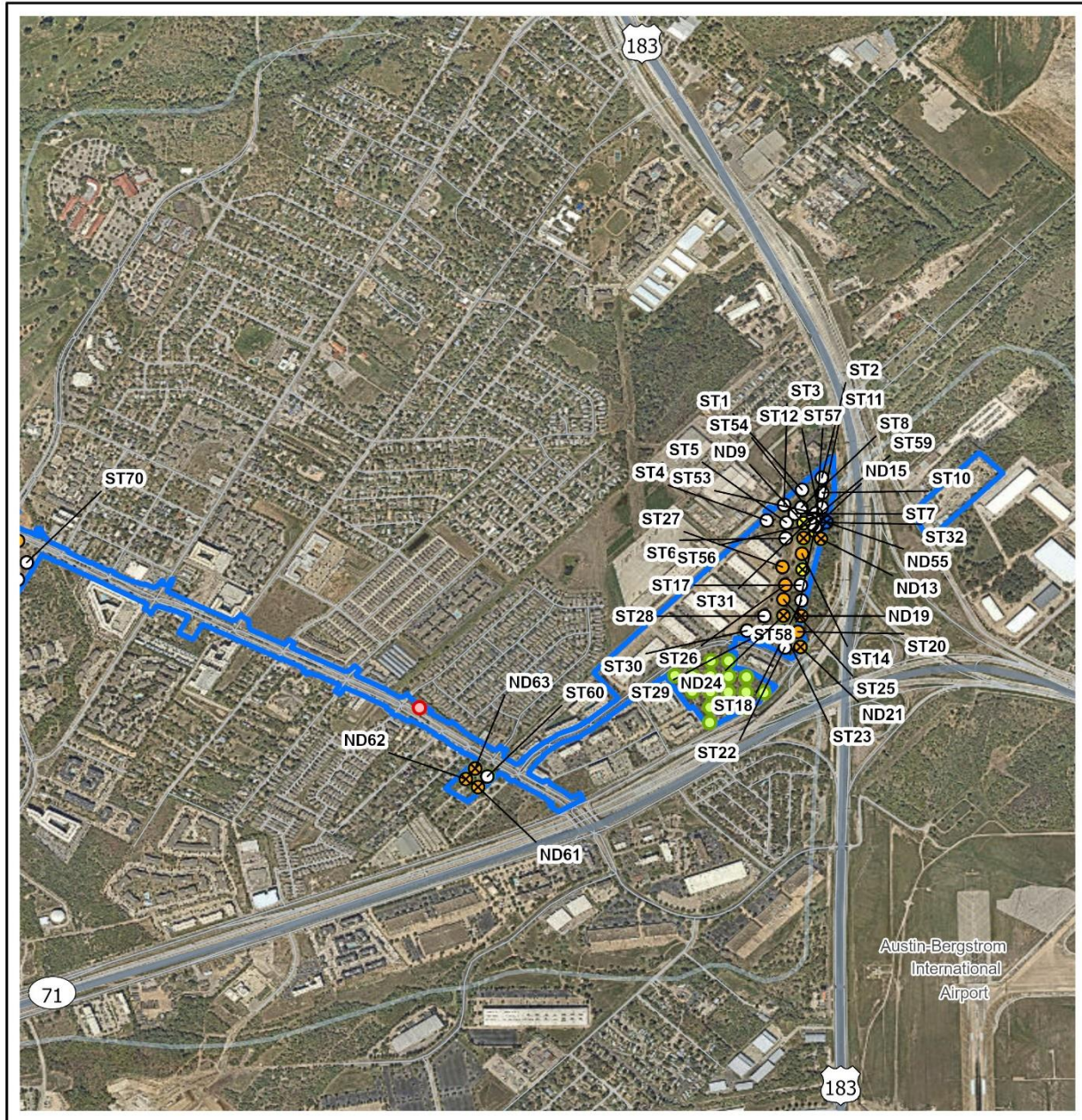


Area of Potential Effect	Completed Shovel Test	Trenches
Proposed Work Location	Positive	No Dig Site
Trenching	Negative	Disturbed
Monitoring Area	Disturbed	Slope
	Slope	Wet
	Wet	Other

N  
 0 1,000 2,000 Feet

Source: Austin Transit Partnership 2024, Travis County, Texas

Figure 5: Results of the archaeological survey (page 5 of 5)



- Area of Potential Effect
- Proposed Work Location
- Shovel Testing
- Trenching
- Monitoring Area

- Completed Shovel Test
- Positive
  - Negative
  - Disturbed
  - Slope
  - Wet

- No Dig Site
- Disturbed
  - Slope
  - Wet
  - Other



Source: Austin Transit Partnership 2024, Travis County, Texas



Figure 6: Overview of the Area of Potential Effects on East Riverside Drive, facing southwest



Figure 7: Overview of the Area of Potential Effects on East Riverside Drive, facing north



Figure 8: Overview of stormwater facility at OMF site, facing southeast



Figure 9: Overview of stormwater facility at OMF site, facing north



Figure 10: Overview of wooded area and unhoused encampment at OMF site, facing southeast



Figure 11: Overview of drainage canal at OMF site, facing south



Figure 12: Representative soil profile adjacent to East Riverside Drive (ST 42)



Figure 13: Representative soil profile within OMF site (ST 2)



Figure 14: Steep embankment and channeling at Bouldin Creek, facing northeast

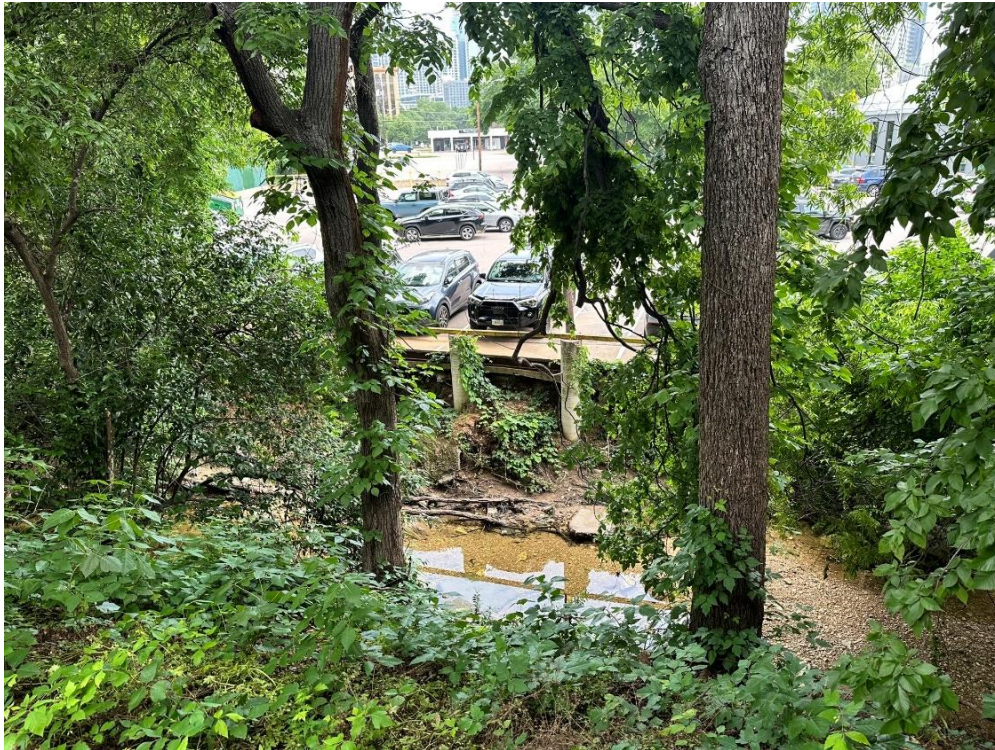


Figure 15: Steep embankment and channeling at Bouldin Creek, facing southwest

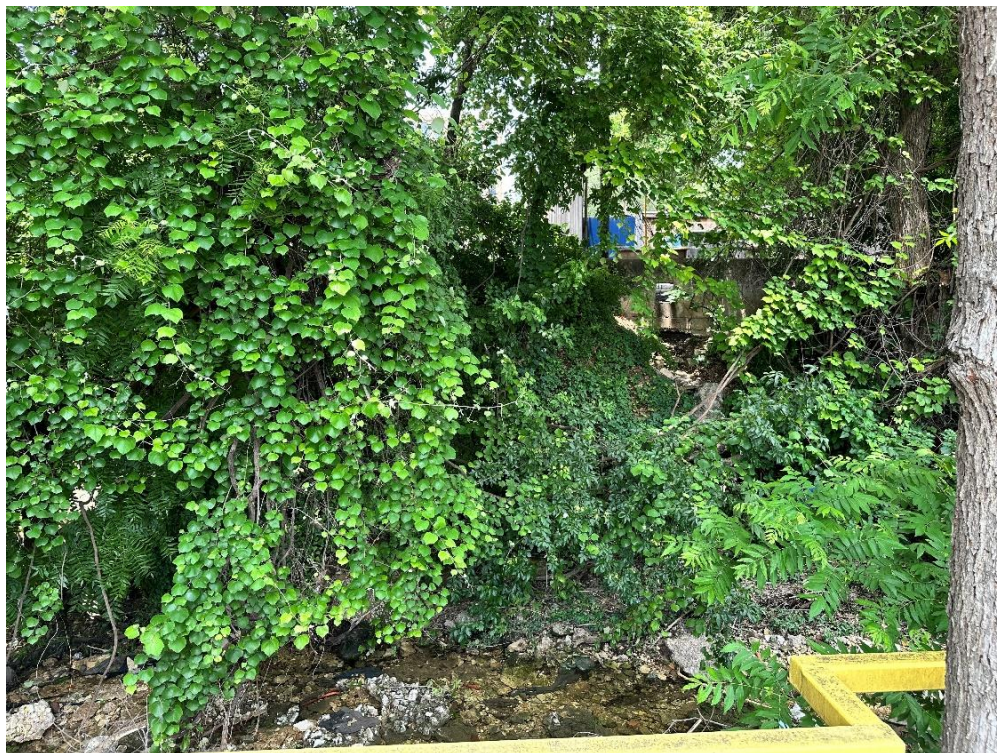


Figure 16: Active construction site at 5107 East Riverside Drive trenching location, facing southeast



Figure 17: Active construction site at 5107 East Riverside Drive trenching location, facing south



**Figure 18: Overview of marked utilities at the western Country Club Creek crossing trenching location, facing northeast**



**Figure 19: Overview of marked utilities at the eastern Country Club Creek crossing trenching location, facing northeast**



Figure 20: Overview of Lady Bird Lake crossing trenching location, facing northeast



Figure 21: Overview of Lady Bird Lake crossing trenching location, facing east





Figure 22: Extant irrigation system at Lady Bird Lake crossing trenching location (shown in yellow)

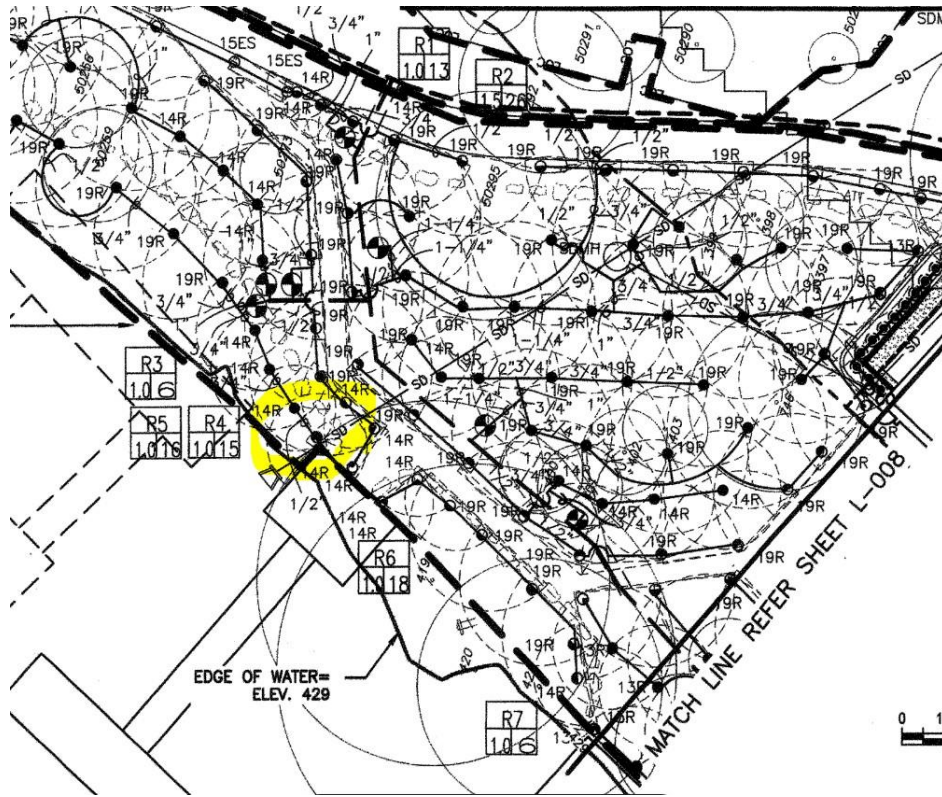


Figure 23: Proposed trenching location at Lady Bird Lake with indication of extant utilities



## 6.1 Preliminary Geoarchaeological Analysis

The APE sits within the Vertisol soil taxonomic group. Vertisols within this region of Texas experience hot summers, mild winters, and moderate rainfall. They have high amounts of organic matter, and alluvial depositional environments (i.e., stream terraces, foot slopes, floodplains) define the relief. The parent material ranges in dates, generally Cretaceous chalk, clay, and shale, as well as Pleistocene clay and gravel are the most present. Vertisols form faster than soils in dry climates due to the hot and humid summers. Older soils have more defined stratigraphy than younger soils, and a mixing of soil occurs within the top horizon(s) due to the shrinking and swelling of the smectite clays. This may affect artifact taphonomy due to the downward movement of artifacts. Pedogenic carbonate processes indicate older soils because of the length of time (hundreds to thousands of years) it takes for carbonates, such as  $\text{CaCO}_3$ , to form. The Vertisols transition to sandy soils deposited on top of thick clays along the ecotone of the Blackland Prairies and Gulf Coastal Plains ecoregions.

Due to the alluvial depositional environments, the soil depth varies across the landscape of the entire APE based on discharge rates, relief, and natural events. The parent material ranges in dates, generally Cretaceous chalk, clay, and shale, as well as Pleistocene clay and gravel are the most present. The project team completed two trenches in proposed detention pond locations, both of which were negative for cultural materials (**Figure 4**). Details for all trench soil profiles are provided in **Appendix F, Trench Table**.

Trench 1 is located on a stream terrace within a floodplain. It is approximately 11 ft (3.4 m) in length, 39 in (100 cm) deep, and oriented northwest to southeast. The project team identified four strata (**Figure 25**). Zone 1 (Ap horizon) measured 0 to 10 inbs (0 to 25 cmbs) and was recorded as a light olive brown (2.5Y 5/3) sandy clay mottled with light yellowish brown (2.5Y 6/4) sandy clay with subangular structure containing approximately 25% gravel. The consistency is friable and the grade is weak/moderate indicating young soils. Zone 2 measured 10 to 12 inbs (25 to 30 cmbs) and was recorded as a lens of mottled construction fill. Zone 3 (Abk horizon) measures 12 to 30 inbs (30 to 75 cmbs) and was recorded as a very dark grayish brown (2.5Y 3/2) firm, clay with angular structure. The consistency is firm indicating an older, more developed soil than the friable soils deposited above. Zone 4 (Bk horizon) measures 30 to 40 inbs (75 to 100 cmbs) and was recorded as a light olive brown (2.5Y 5/3) firm, clay with angular structure. Trench 1 strata display prior disturbance from construction activities where the preexisting top soils were likely removed.

Trench 2 is located on an artificially created berm (**Figure 26**). It is approximately 9.5 ft (2.9 m) in length, 31 in (80 cm) deep, and oriented northwest to southeast. The project team identified two strata (**Figure 27**). Zone 1 (A horizon) measured 0 to 10 inbs (0 to 25 cmbs) and was recorded as a brown (7.5YR 5/4) sandy clay loam mottled with 7.5 YR 4/4 clay loam with subangular block structure and approximately 50% gravels. There is a diffused boundary between strata 1 and 2. Zone 2 (artificial horizon) measured 10 to 31 inbs (25 to 80 cmbs) and was recorded as a strong brown (7.5YR 5/6) very friable coarse sand with subangular structure. Trench 2 was terminated due to strata displaying heavy prior construction disturbance with no evidence of natural soil horizons present.

Figure 24: Trench 1 overview, facing southwest



Figure 25: Trench 1 profile, northeast profile



Figure 26: Trench 2 overview, facing northwest



Figure 27: Trench 2 profile, northeast profile



## 6.2 41TV2620

Site 41TV2620 is a post-contact site located at the southern terminus of the APE within the proposed OMF site area, approximately 0.28 mi (0.46 km) north of the intersection of Airport Commerce Drive and East Ben White Boulevard (**Figure 28**). The site measures approximately 145 by 120 ft (44 by 36 m), for a total area of 0.29 ac (0.19 ha), and is situated in a small wooded area adjacent to a large stormwater facility (**Figure 29** and **Figure 30**). The site consists of a small brick and limestone foundation feature, a push pile, a surficial concentration of twentieth century glass and building materials, and a large brick scatter.

The project team excavated nine STs to delineate the site, one of which was positive for cultural materials. ST 32 uncovered part of a foundation likely associated with a demolished house or other structure. ST 32 consisted of 0 to 4 inbs (0 to 10 cmbs) very dark gray (10YR 3/1) clay loam over concrete or limestone foundation (**Figure 31**). The representative soil profile within the site consisted of 0 to 4 inbs (0 to 10 cmbs) brown (10YR 4/3) silty loam over 4 to 12 inbs (10 to 30 cmbs) brown (10YR 4/3) silty loam with 50% compact limestone pieces likely from previous demolition work (ST 59; **Figure 32**).

The project team recorded seven surface find (SF) loci within the site. Artifact types include amber bottle glass, window glass, “hobbleskirt” Coca-Cola bottle glass (1960s to present), charcoal grey architectural glass, ceramic and metal pipe fragments, tile sherds, roofing material, and machine-made red bricks (**Table 2**; **Figure 33** to **Figure 38**). A large brick scatter was recorded in the western portion of the site that included hundreds of red and extruded machine-made bricks with no maker’s marks (**Figure 39**: and **Figure 40**). The eastern portion of the site contained a push pile with concrete and limestone foundation fragments as well as metal piping (**Figure 41**). Additionally, a small brick and limestone foundation was recorded in the southern portion of the site. The foundation was largely buried or covered in foliage, so its total area could not be determined (**Figure 42** and **Figure 43**).

### 6.2.1 Archival Research

Site 41TV2620 is located near the intersection of US 183 and East Ben White Boulevard, just north of Austin-Bergstrom International Airport. The surrounding area was generally undeveloped and used as agricultural land until the mid-twentieth century, when the current US 183 and State Highway 71 interchange was built. The land is currently used commercially and owned by Airport Commerce Park Owners Associated (Travis County Clerk 2024).

Using archival deed records available at the Travis County Clerk’s office (2024) and land grant records available on the Texas General Land Office website (2024), the project team traced property ownership of the parcel 41TV2620 back to 1826, with the original empresario contract granted to Benjamin R. Milam by the State of Coahuila and Texas (**Table 3**; Texas General Land Office 2024; Travis County Clerk 2024). The State of Coahuila and Texas then granted the land—as identified on a historical 1861 land grant map from the Texas General Land Office (2024)—to Santiago del Valle, though he never lived on the land himself (**Figure 44**). The land was divided up among smaller property owners through the nineteenth and twentieth centuries until it was sold to Dunsmuir Properties in 1980 (see **Table 3**; Travis County Clerk 2024). Historical aerial images show buildings present at the approximate location of site 41TV2620

beginning in 1937 through most of the twentieth century. Desktop research indicates that the foundation and associated artifacts recorded at 41TV2620 are not associated with historic events or the lives of persons of historical significance.

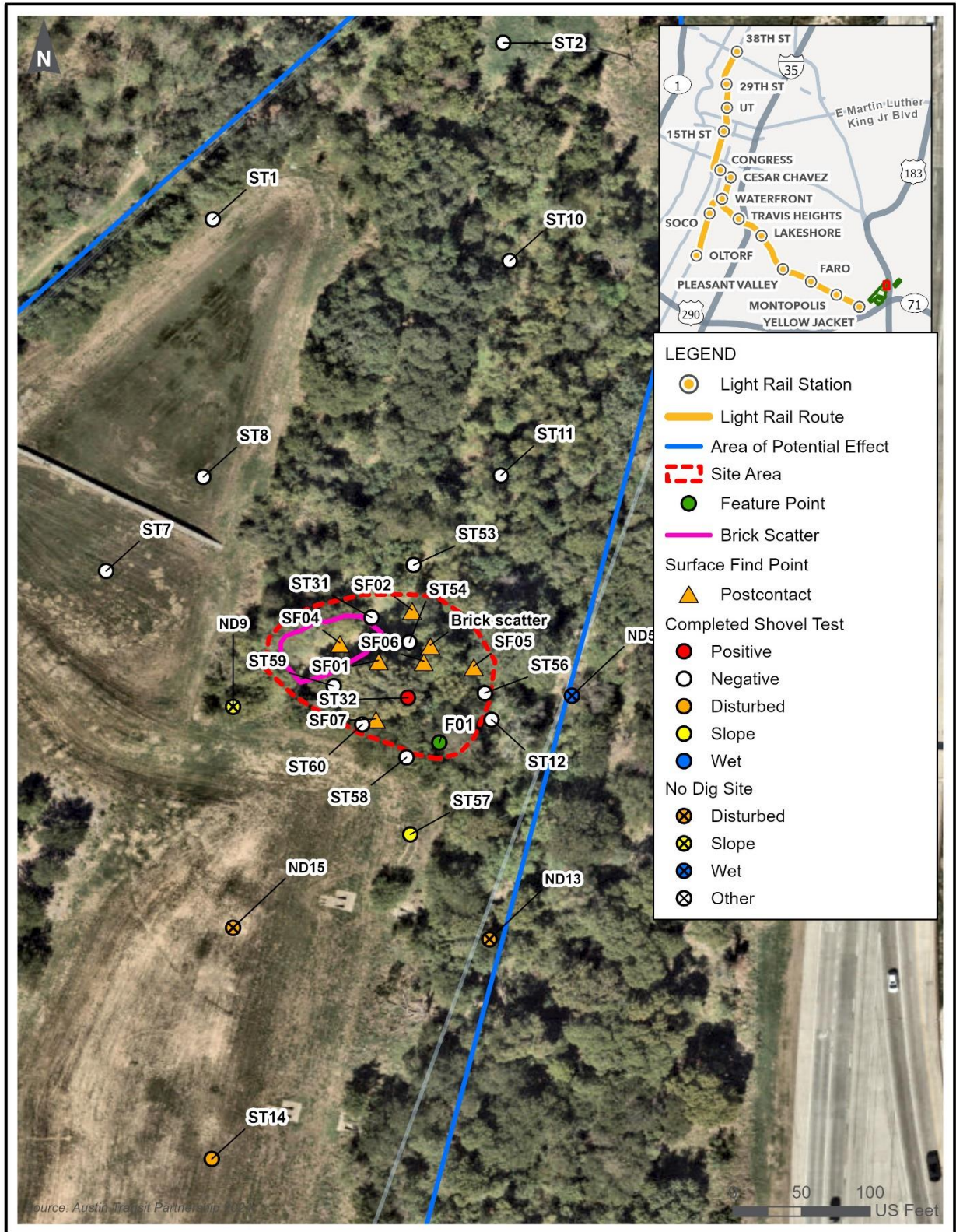
### 6.2.2 Discussion of Site

Site 41TV2620 is a post-contact site that contains the remains of a mid-twentieth-century domestic complex. The mid-twentieth-century component is represented by one small brick and limestone foundation (Feature 1) and “hobbleskirt” Coca-Cola bottle remains dating from the 1960s to the present. A house and associated small structure within the site boundary can be seen on historical aerial images beginning during the 1930s and are no longer seen after 1981 (**Figure 45**; Nationwide Environmental Title Research, LLC 2024). This is consistent with archival research that states the property passed from an individual, John Joseph, to Dunsmuir Properties in 1980 (see **Table 3**); it is likely the house was demolished for development. The brick scatter as well as push piles of foundation slabs and building materials are likely associated with the demolition of the house and small structure.

### 6.2.3 Eligibility Evaluation

Site 41TV2620 comprises post-contact structural remains and associated artifacts that appear to date to the mid-twentieth century. The site is highly disturbed and does not appear to be associated with persons or events significant to local, state, or national historic events (NRHP Criteria A and B). The building materials at the site are common and do not exhibit the potential to interpret distinctive architecture or engineering patterns, styles, or types (Criterion C). The site has largely been destroyed; therefore, the site possesses very little research potential (Criterion D). The project team recommends site 41TV2620 **Not Eligible** for listing in the NRHP under Criteria A through D or as a SAL due to lack of significance. The project team recommends no further work at this site.

Figure 28: 41TV2620 site map



**Figure 29: Site 41TV2620 overview, facing north**



**Figure 30: Site 41TV2620 overview, facing south**





Figure 31: Positive ST 32



Figure 32: Representative soil profile (ST 59)



Figure 33: Artifacts recorded on the surface at ST 32



Figure 34: Coca-Cola bottle fragments (SF 01)



Figure 35: Artifact sample (SF 01)



Figure 36: Charcoal grey architectural glass and roofing material (SF 06)



Figure 37: Tile (SF 07)



Figure 38: Machine-made red and extruded bricks (SF 02)



Figure 39: Brick scatter (SF 04), facing northwest



Figure 40: Brick scatter (SF 05), facing northeast



**Figure 41: Push pile (SF 05), facing north**



**Figure 42: Foundation (F01), facing northwest**



Figure 43: Foundation (F01) close up, facing northwest



Table 2: Artifacts identified at 41TV2620

Surface Find Number	Count	Material	Color	Artifact Description
SF 1	7	Glass	Aqua	<ul style="list-style-type: none"> <li>• Five “hobbleskirt” Coca-Cola body fragments dating from 1960s–present</li> <li>• Two base fragments</li> </ul>
	1	Ceramic	Red	<ul style="list-style-type: none"> <li>• One pipe fragment</li> </ul>
	3	Glass	Amber	<ul style="list-style-type: none"> <li>• One base fragment</li> <li>• Two body fragments</li> </ul>
	3	Brick	Red and tan	<ul style="list-style-type: none"> <li>• One fragment of machine-made brick</li> </ul>
	1	Glass	Clear	<ul style="list-style-type: none"> <li>• One fragment</li> </ul>
SF 2	50+	Brick	Red and tan	<ul style="list-style-type: none"> <li>• Fragments of machine-made brick</li> </ul>
SF 3	50+	Brick	Red and tan	<ul style="list-style-type: none"> <li>• Fragments of machine-made brick</li> </ul>
SF 4	100+	Brick	Red and tan	<ul style="list-style-type: none"> <li>• Fragments of machine-made brick</li> </ul>
SF 5	—	Limestone/ concrete foundation	White	<ul style="list-style-type: none"> <li>• Large fragments of concrete/limestone foundation</li> </ul>
	—	Metal	Silver	<ul style="list-style-type: none"> <li>• Metal pipe fragments</li> </ul>
SF 6	6	Glass	Charcoal grey	<ul style="list-style-type: none"> <li>• Architectural glass</li> </ul>
	1	Asphalt	Black	<ul style="list-style-type: none"> <li>• Roofing material</li> </ul>
SF 7	2	Ceramic	Beige	<ul style="list-style-type: none"> <li>• Tile</li> </ul>

Note: “—” indicates an unknown number of artifacts.  
 SF = surface find



**Table 3: Record of property ownership at 41TV2620**

Deed Date	Grantor	Grantee	Acreage	Sale Price	Volume/ Page or Document	Notes
1/12/1826	State of Coahuila and Texas	Benjamin R. Milam	—	—	GLO File Number: SC 000117:22	Milam was granted an empresario contract to settle 300 families between the Guadalupe and Colorado Rivers north of San Antonio Road
06/12/1832	State of Coahuila and Texas	Santiago del Valle	44,284	—	GLO File Number: SC 000022:15	Patent Number: 1; Volume: 29
03/11/1890	John E. Campbell	Carl Shuberg	334	\$8,000	92/287–289	
8/23/1929	Joe Shuberg and Nellie May Shuberg (wife)	Bettie Hemphill	64.14	\$7,376.10	441/380	
6/14/1948	L.A. Hemphill (widower)	Lois Hemphill Housen	64.14	Gift	912/213	
10/29/1978	Lois Hemphill Housen and Frank Housen (husband)	John Joseph	46.16	\$200,000.00	6370/1779	
10/28/1980	John Joseph	Dunsmuir Properties, Inc.	46.822	\$425,000.00	0717601686	
02/17/1983	Dunsmuir Properties, Inc.	Southeast Austin Associates	109.105	\$1,579,115.21	0799700262	
11/29/2006	Southeast Austin Associates	SFSV Hill Airport Commerce Limited Partnership	44.324	—	2006230449	

Deed Date	Grantor	Grantee	Acreage	Sale Price	Volume/ Page or Document	Notes
12/29/2011	SFSV Hill Airport Commerce Limited Partnership	Airport Commerce Park Owners Association	37.33	—	2014140262	

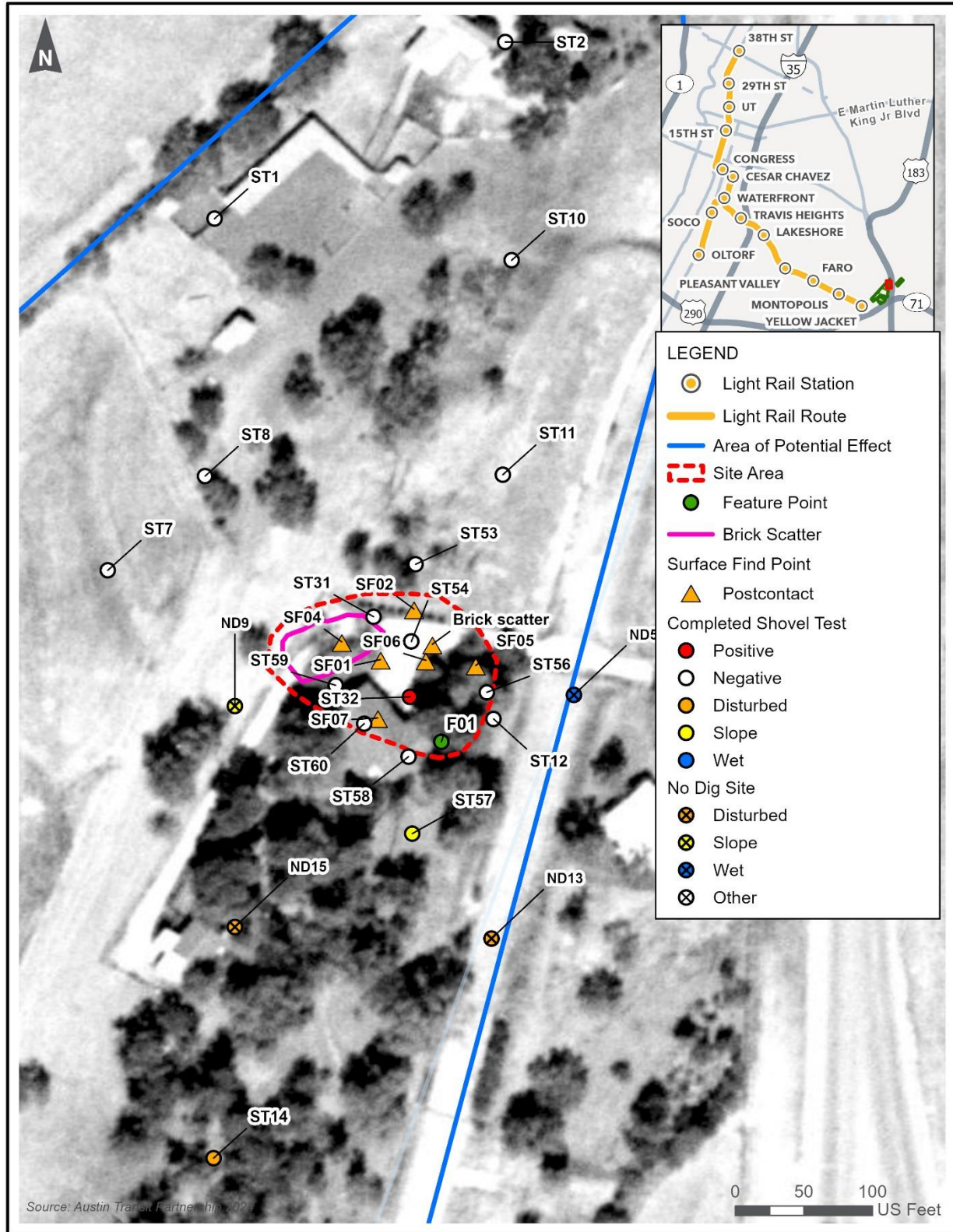
Sources: Records of Santiago del Valle and Benjamin R. Milam available via search of Texas General Land Office Land Grant Database (2024). All other records available via official public records search of Travis County Clerk files (2024).

GLO = Texas General Land Office

**Figure 44: 1871 Texas General Land Office map of Travis County, detail showing site 41TV2620 location within Santiago del Valle land grant (Unknown 1861)**



Figure 45: Aerial image from 1965 showing location of house in site 41TV2620



## 6.3 41TV2562

Site 41TV2562 is a previously recorded post-contact site overlapping the APE along the west side of Guadalupe Street near the intersection of Guadalupe Street and West 38th Street (**Figure 46**). Approximately 0.8 ac (0.3 ha) of the site overlaps the APE (**Figure 47**). Site 41TV2562 comprises the original footprint of the Austin State Hospital, previously named the Texas State Lunatic Asylum, that was constructed beginning in 1857.

The project team excavated two STs within the site, both of which were negative for cultural materials. The representative soil profile consisted of 0 to 8 inbs (0 to 20 cmbs) black (10YR 1/1) loamy clay with pedogenic carbonates (ST 44; **Figure 47** and **Figure 48**). The surveyed area was previously disturbed from construction including the adjacent road and sidewalk, overhead transmission lines, and manholes. No subsurface deposits were located during shovel testing.

### 6.3.1 Eligibility Evaluation

Previously recorded site 41TV2562 comprises the original footprint of the Austin State Hospital and associated post-contact artifacts. The portion of the site overlapping the APE is highly disturbed, and no cultural resources were identified during the survey. Therefore, the area surveyed possesses very little research potential (Criterion D). The project team recommends the surveyed portion of site 41TV2562 overlapping the APE as non-contributing to the site's overall eligibility due to disturbance and lack of archaeological deposits or features. However, the project team plans to provide archaeological construction monitoring in areas where the site overlaps the APE during the construction phase of the Project.

Figure 46: 41TV2562 site map

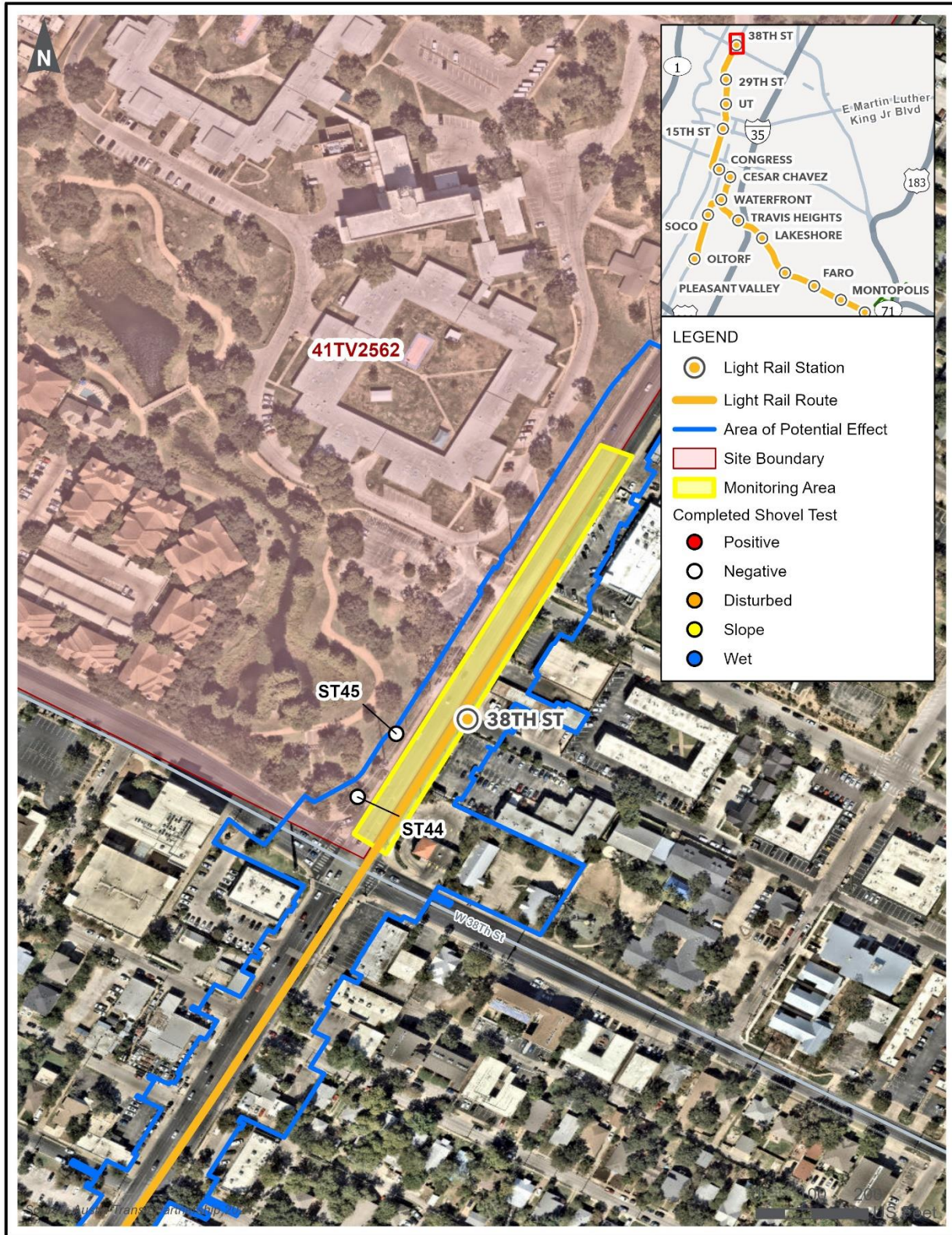


Figure 47: Site 41TV2562 overview, facing northeast



Figure 48: ST 44



## 7 Summary and Recommendations

The project team conducted an intensive archaeological survey on behalf of ATP in advance of the Austin Light Rail Phase 1 Project in Travis County, Texas, from June 3 through August 15, 2024. The Project is a 9.8-mi (15.8-km) light rail transit branched line extending north, south, and east of Downtown Austin. The proposed area of archaeological consideration comprised the limits of Project construction, including a 9.8-mi (15.8-km) corridor ranging on average from 60 to 90 ft (18 to 27 m) wide within the existing ROW, with some areas of expanded ROW.

Due to issues obtaining right-of-entry from private landowners, the project team is conducting a phased approach to the archaeological survey and has completed a preliminary survey of all accessible areas. The remaining survey areas will be completed later as right-of-entry is obtained. The preliminary survey area, totaling 42.1 acres (17.04 ha), was subject to an archaeological survey using systematic shovel testing, pedestrian survey, and mechanical trenching between June 3 and November 6, 2024. During the survey, the project team excavated 70 STs, one of which was positive for cultural materials (ST 32), as well as two mechanical trenches, both of which were negative for cultural materials.

The survey resulted in the identification of one post-contact site, 41TV2620 and a revisit to site 41TV2562. Site 41TV2620 consists of a brick and limestone foundation feature, a push pile, a surficial concentration of twentieth century glass and building materials, and a large brick scatter. The project team recommends site 41TV2620 **Not Eligible** for listing in the NRHP under Criteria A through D or as a SAL due to lack of significance. Further, the project team recommends the surveyed portion of site 41TV2562 as **non-contributing** to the site's overall eligibility due to lack of cultural deposits within the survey area.

Artifacts, field forms, and photographs will be temporarily stored at the project team's office in Austin, Texas. All records generated by this Project will be permanently curated at the Center for Archaeological Research at the University of Texas at San Antonio.

In accordance with 13 TAC 26, the project team recommends no further archaeological investigations associated with the Project as currently proposed within the surveyed areas. As a result of the present survey, it is recommended that the proposed Project would not have any effect on archaeological resources listed in or eligible for listing in the NRHP or as a SAL within the surveyed areas. However, if archaeological deposits are encountered during construction, work should cease, and THC should be notified.

Archaeological survey will continue in previously recommended areas as right-of-entry is obtained. Archaeological monitoring will take place during construction in previously recommended areas.

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## Appendix A. Figures

Figure A-1: General Project location

Figure A-2: Area of Potential Effects (page 1 of 5)

Figure A-3: Area of Potential Effects (page 2 of 5)

Figure A-4: Area of Potential Effects (page 3 of 5)

Figure A-5: Area of Potential Effects (page 4 of 5)

Figure A-6: Area of Potential Effects (page 5 of 5)

Figure A-7: Previous and current route comparisons

Figure A-8: Area of Potential Effect comparison

Figure A-9: Area of Potential Effect comparison

Figure A-10: Area of Potential Effect comparison

Figure A-11: Area of Potential Effect comparison

Figure A-12: Area of Potential Effect comparison

Figure A-13: Site-specific geology

Figure A-14: Site-specific soils

Figure A-15: Texas Department of Transportation (TxDOT 2024) Potential Archaeological Liability Map (PALM)

Figure A-16: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 1 of 7)

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Figure A-20: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 5 of 7)

Figure A-21: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 6 of 7)

Figure A-22: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 7 of 7)

Figure A-23: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 1 of 7)

Figure A-24: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 2 of 7)

Figure A-25: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 3 of 7)

Figure A-26: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 4 of 7)

Figure A-27: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 5 of 7)

Figure A-28: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 6 of 7)

Figure A-29: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 7 of 7)

Figure A-1: General Project location

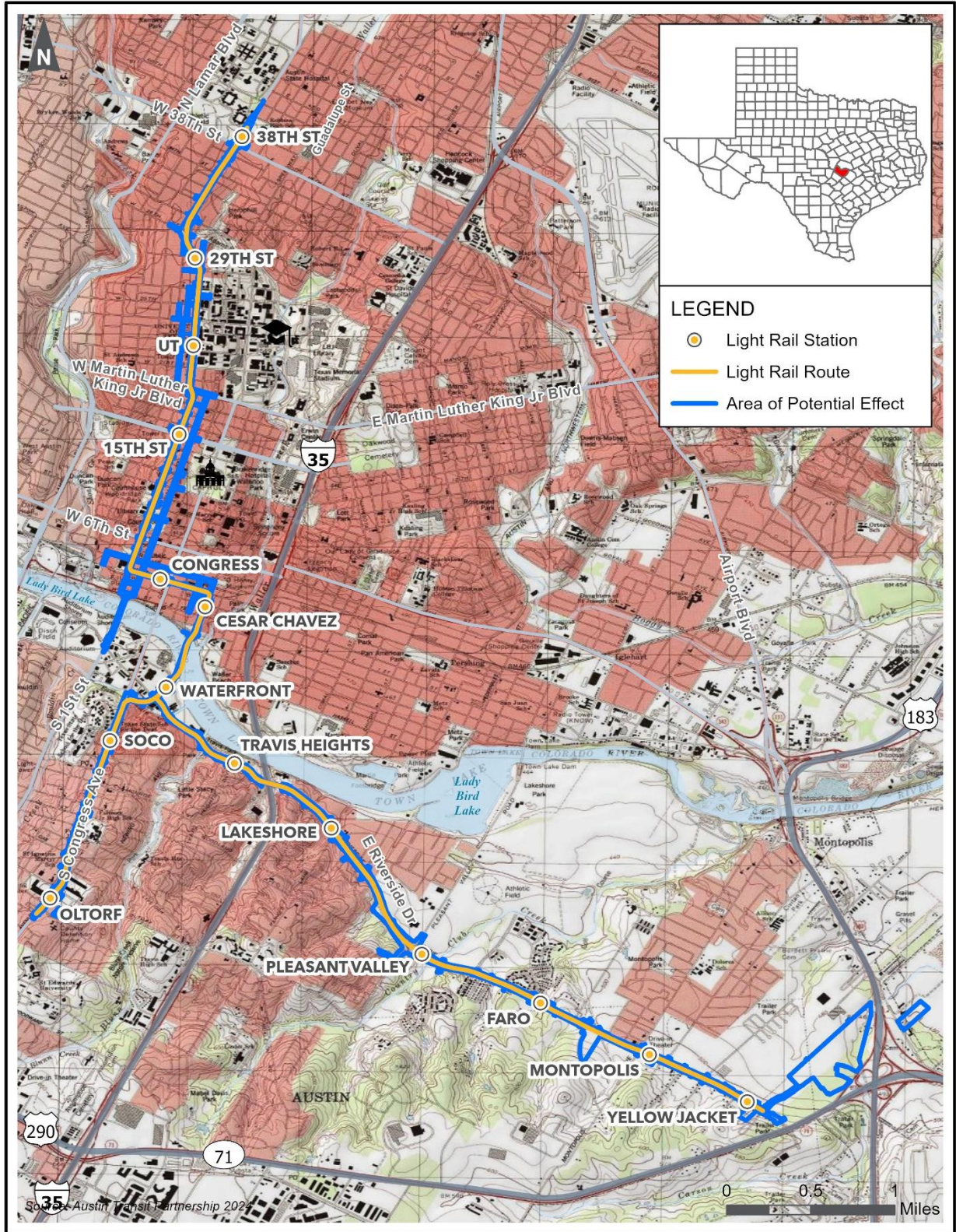
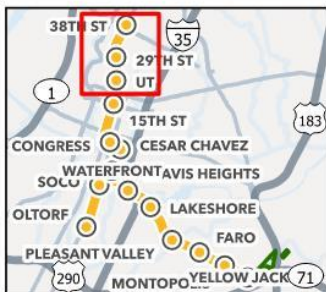
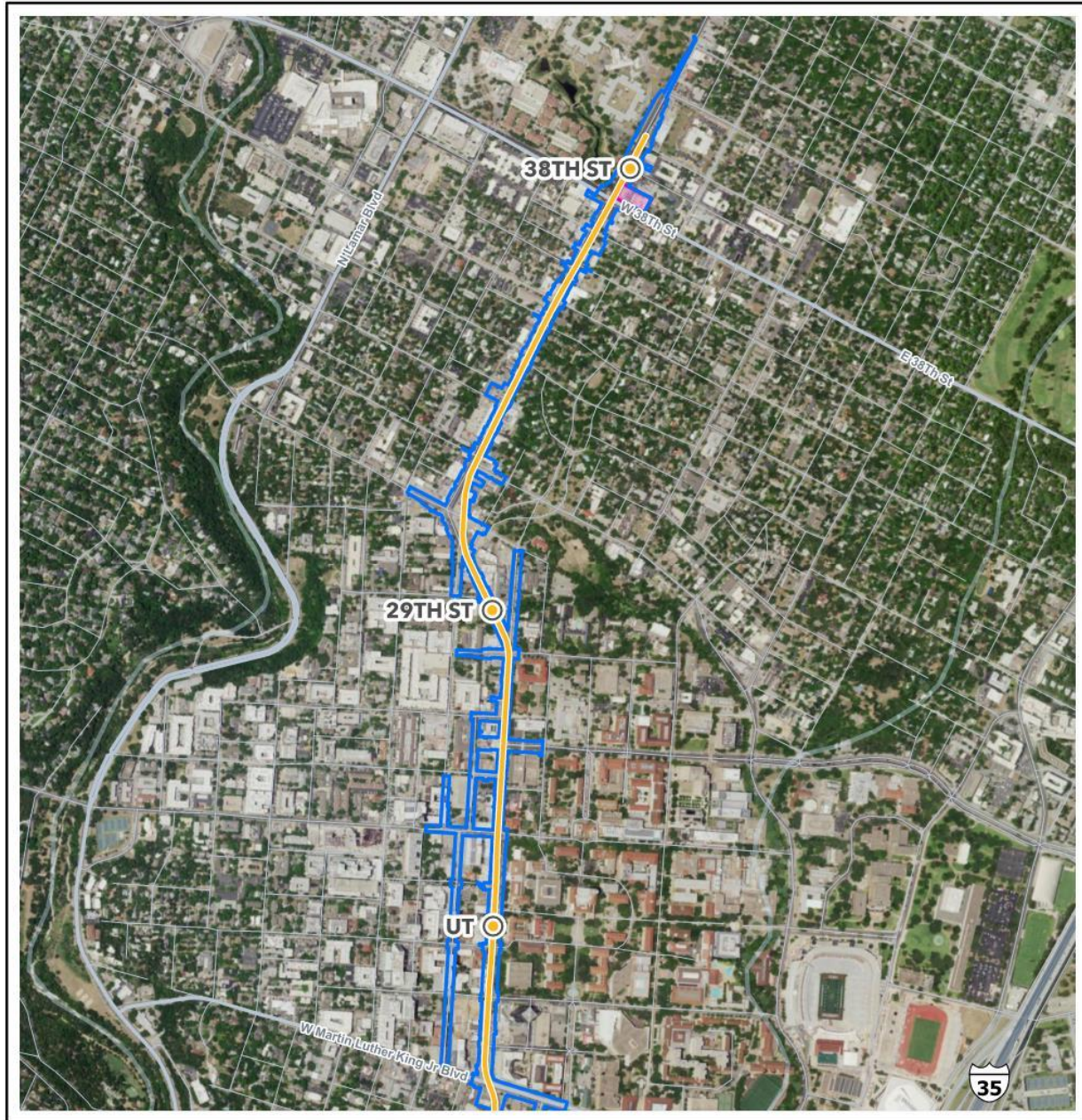


Figure A-2: Area of Potential Effects (page 1 of 5)

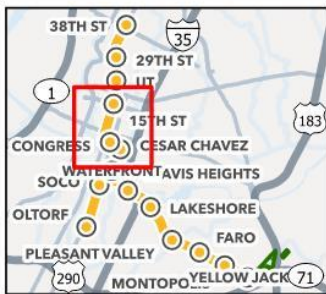
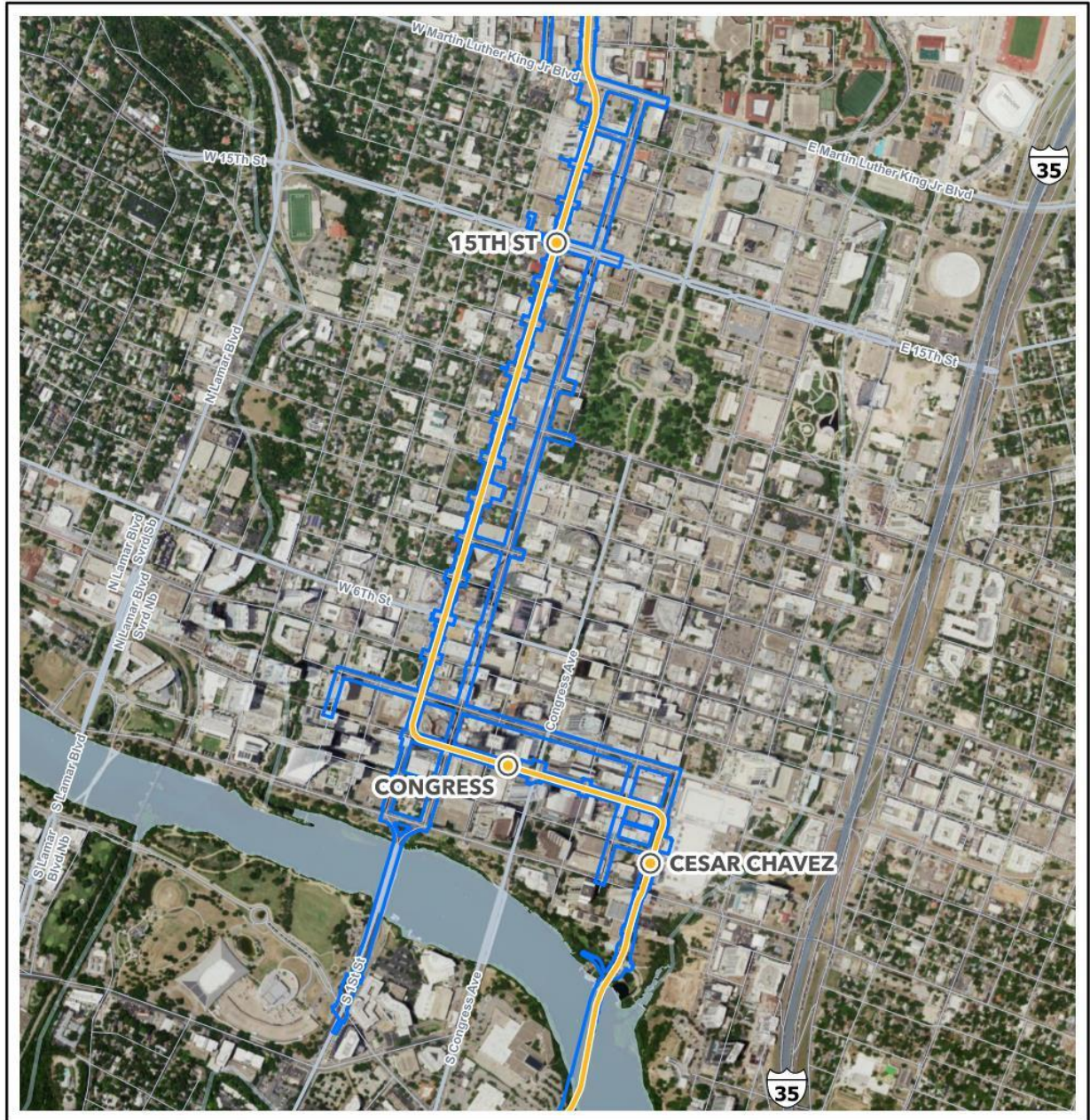


- Area of Potential Effect**
- Light Rail Station
  - Light Rail Route
  - Limits of Construction
  - Park and Ride Site
  - Operations & Maintenance Facility



Source: Austin Transit Partnership 2024, Travis County, Texas

Figure A-3: Area of Potential Effects (page 2 of 5)



**Area of Potential Effect**

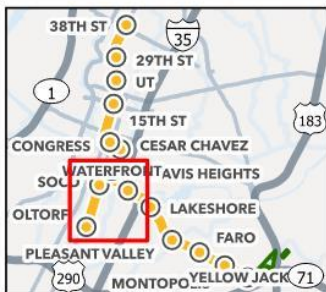
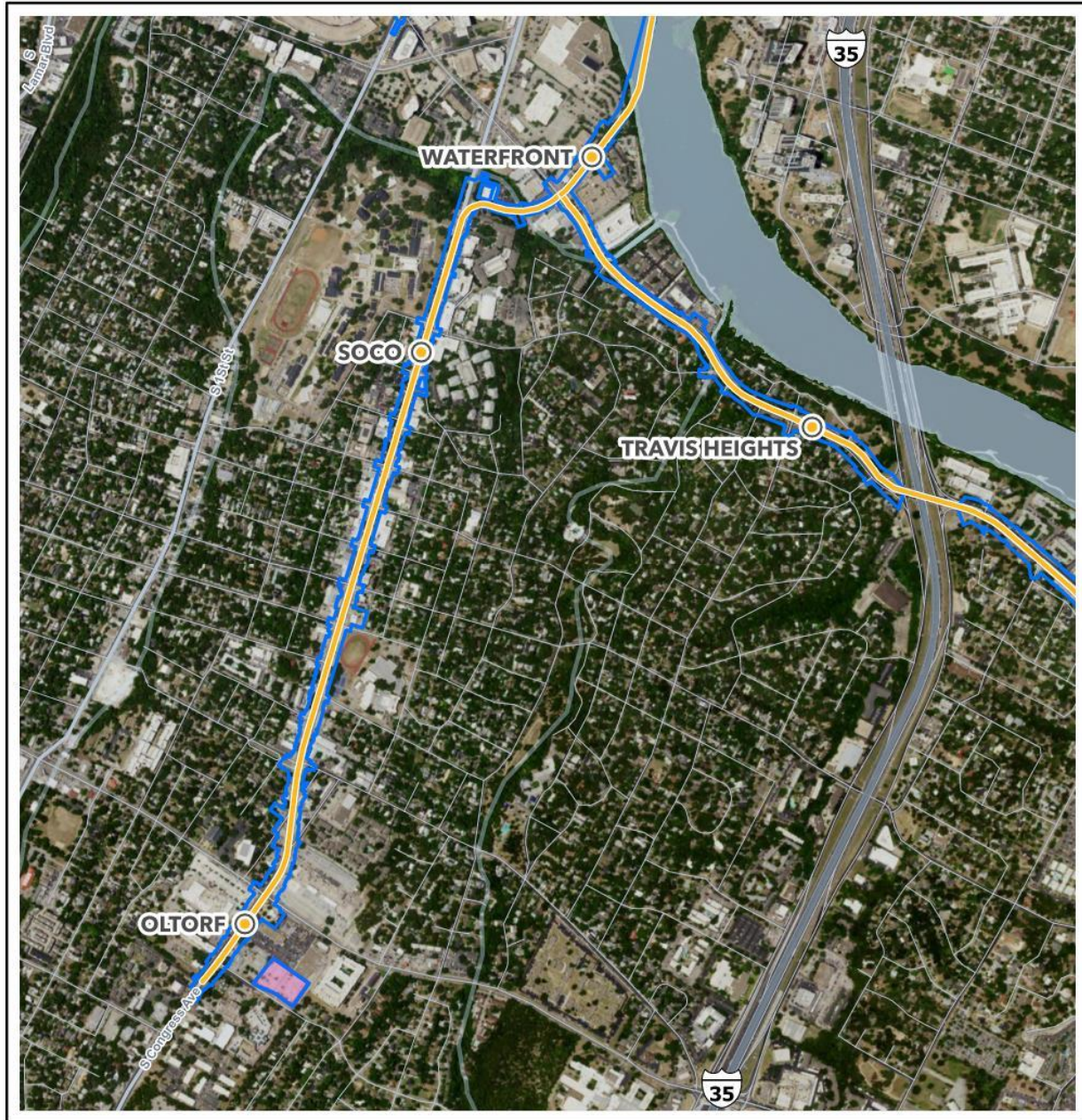
- Light Rail Station
- Light Rail Route
- Limits of Construction
- Park and Ride Site
- Operations & Maintenance Facility



Source: Austin Transit Partnership 2024, Travis County, Texas



Figure A-4: Area of Potential Effects (page 3 of 5)

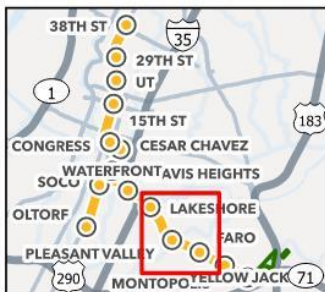
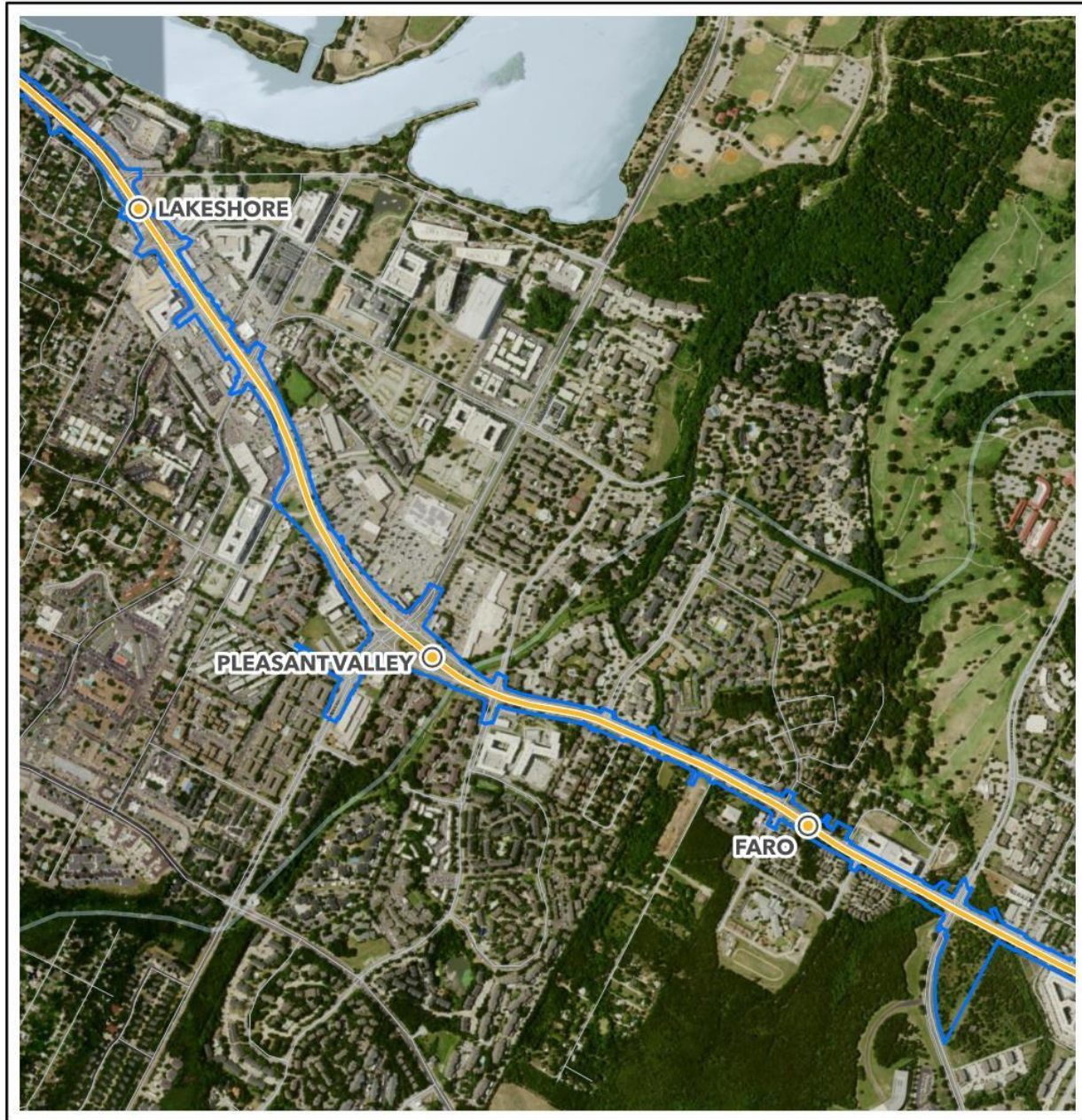


- Area of Potential Effect**
- Light Rail Station
  - Light Rail Route
  - Limits of Construction
  - Park and Ride Site
  - Operations & Maintenance Facility



Source: Austin Transit Partnership 2024, Travis County, Texas

Figure A-5: Area of Potential Effects (page 4 of 5)

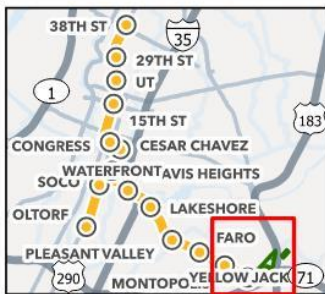


- Area of Potential Effect**
- Light Rail Station
  - Light Rail Route
  - Limits of Construction
  - Park and Ride Site
  - Operations & Maintenance Facility



Source: Austin Transit Partnership 2024, Travis County, Texas

Figure A-6: Area of Potential Effects (page 5 of 5)



- Area of Potential Effect**
- Light Rail Station
  - Light Rail Route
  - Limits of Construction
  - Park and Ride Site
  - Operations & Maintenance Facility



Source: Austin Transit Partnership 2024, Travis County, Texas

Figure A-7: Previous and current route comparisons

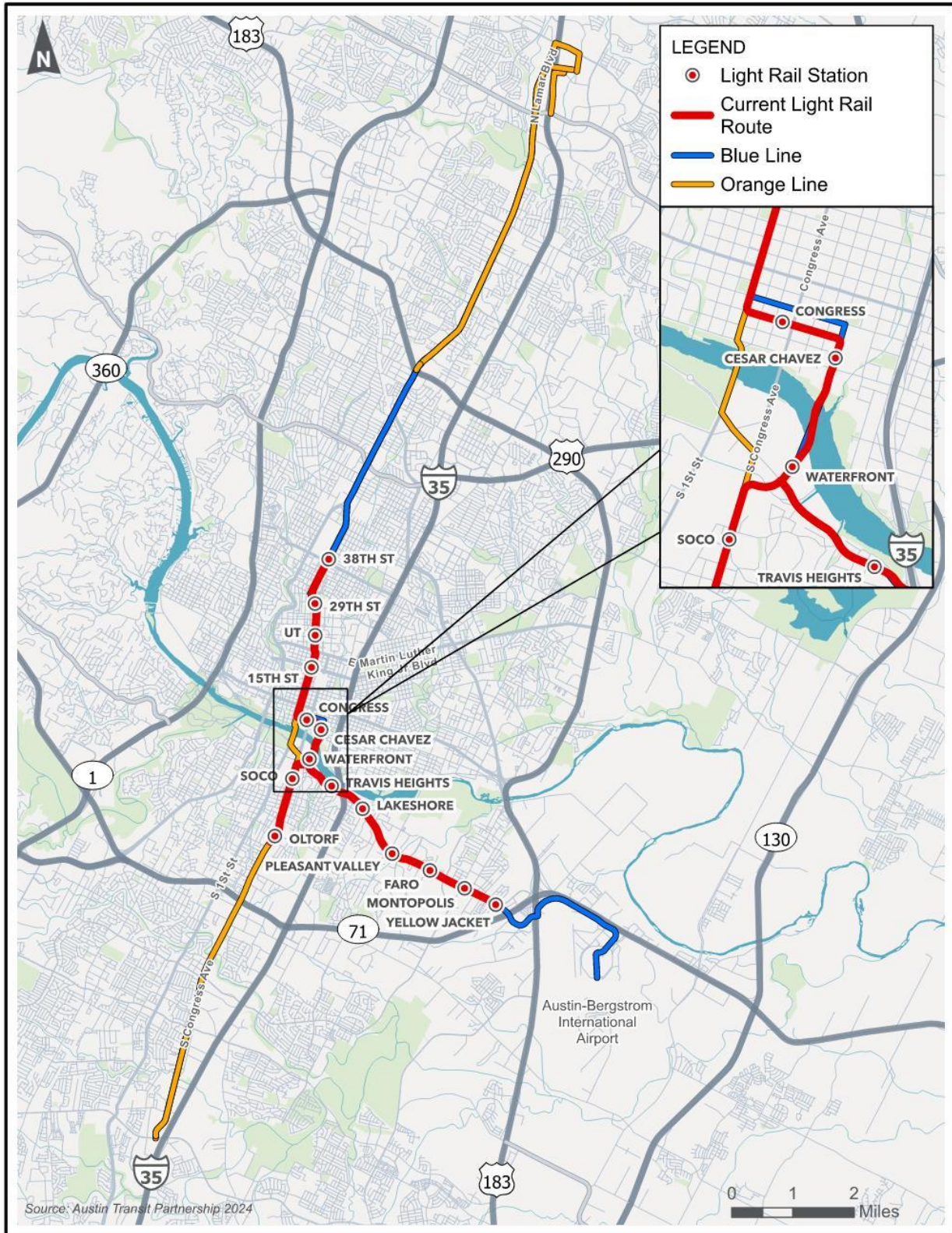
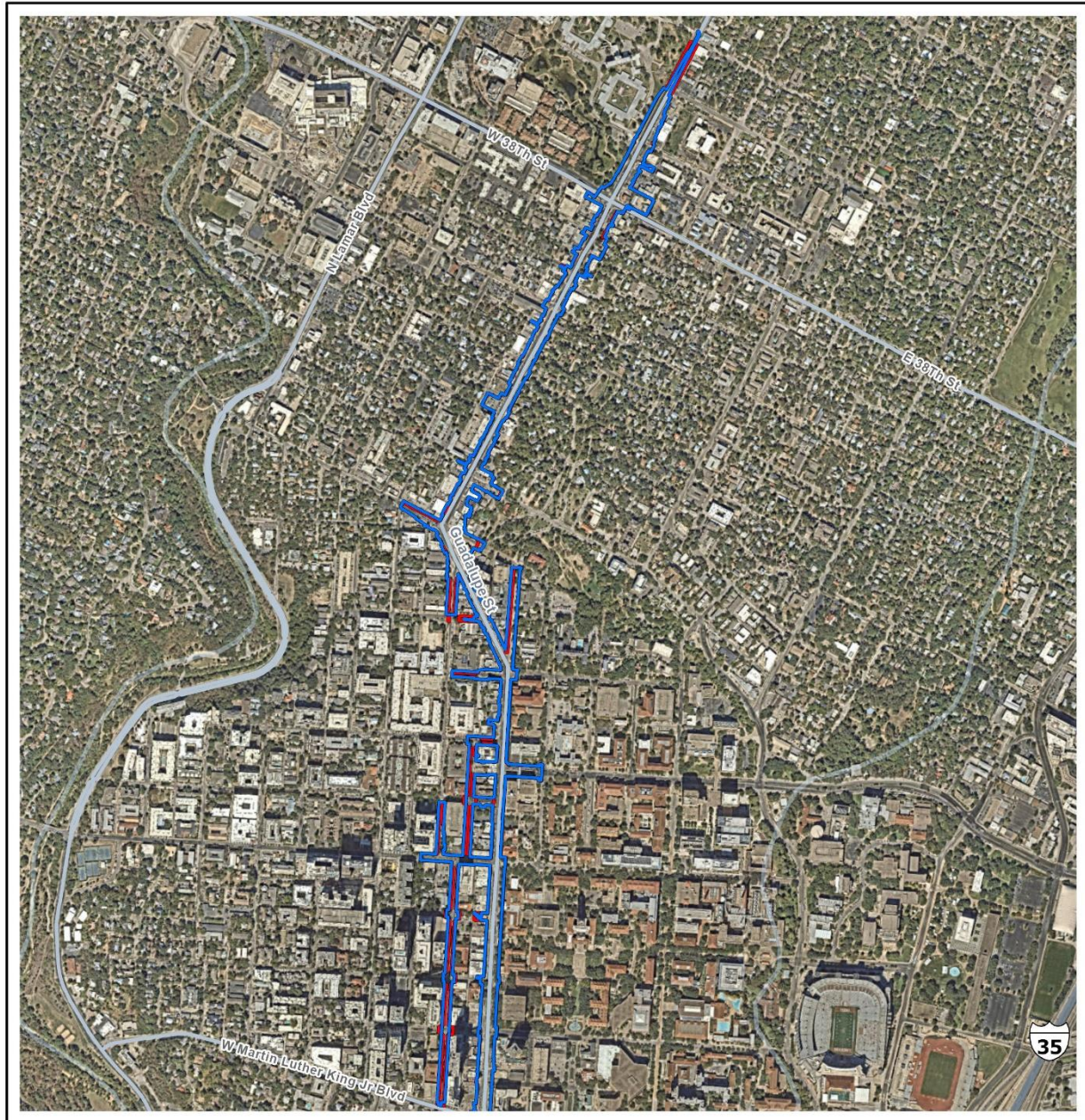


Figure A-8: Area of Potential Effect comparison (Page 1 of 5)



Area of Potential Effect  
 Comparison  
 Sheet 1 of 5

- Current Area of Potential Effect
- Previous Area of Potential Effect

0 510 1,020  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas

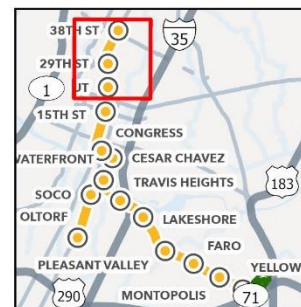
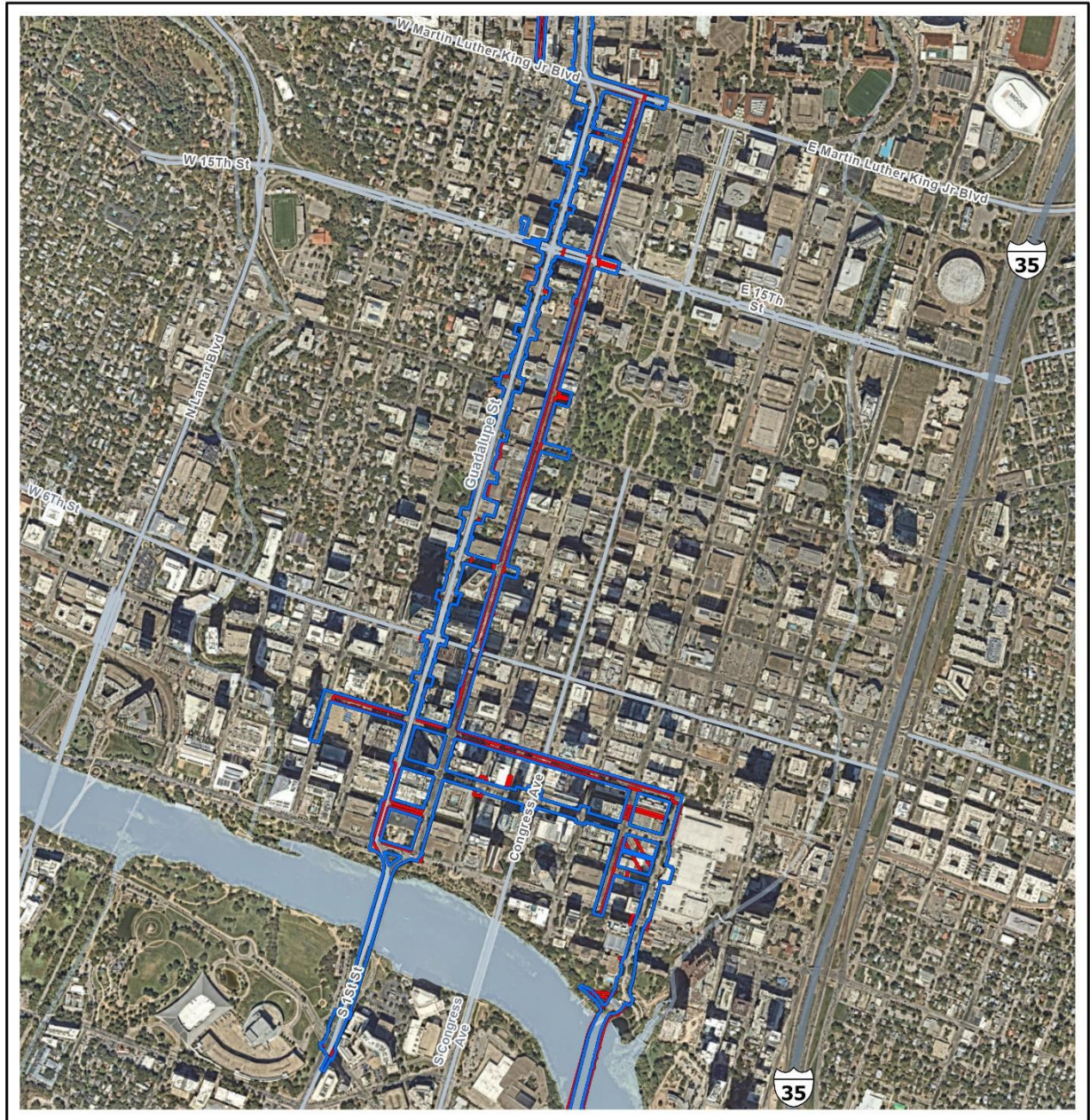


Figure A-9: Area of Potential Effect comparison (Page 2 of 5)



Area of Potential Effect  
 Comparison  
 Sheet 2 of 5

- Current Area of Potential Effect
- Previous Area of Potential Effect

0 510 1,020  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas

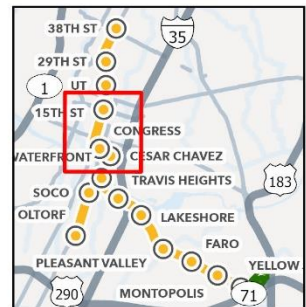


Figure A-10: Area of Potential Effect comparison (Page 3 of 5)



Area of Potential Effect  
 Comparison  
 Sheet 3 of 5

- Current Area of Potential Effect
- Previous Area of Potential Effect

0 520 1,040  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas

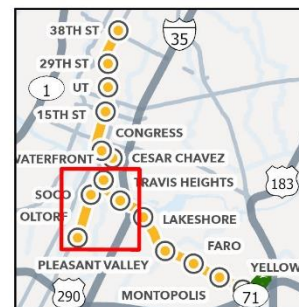


Figure A-11: Area of Potential Effect comparison (Page 4 of 5)



Area of Potential Effect  
 Comparison  
 Sheet 4 of 5

- Current Area of Potential Effect
- Previous Area of Potential Effect

0 510 1,020  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas

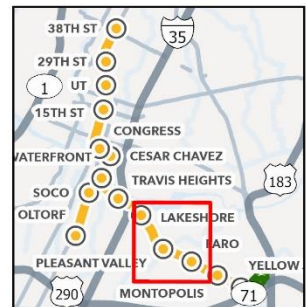




Figure A-12: Area of Potential Effect comparison (Page 5 of 5)



Area of Potential Effect  
 Comparison  
 Sheet 5 of 5

- Current Area of Potential Effect
- Previous Area of Potential Effect

0 540 1,080  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas

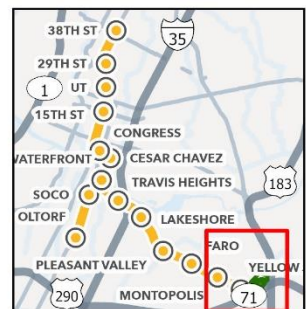


Figure A-13: Site-specific geology

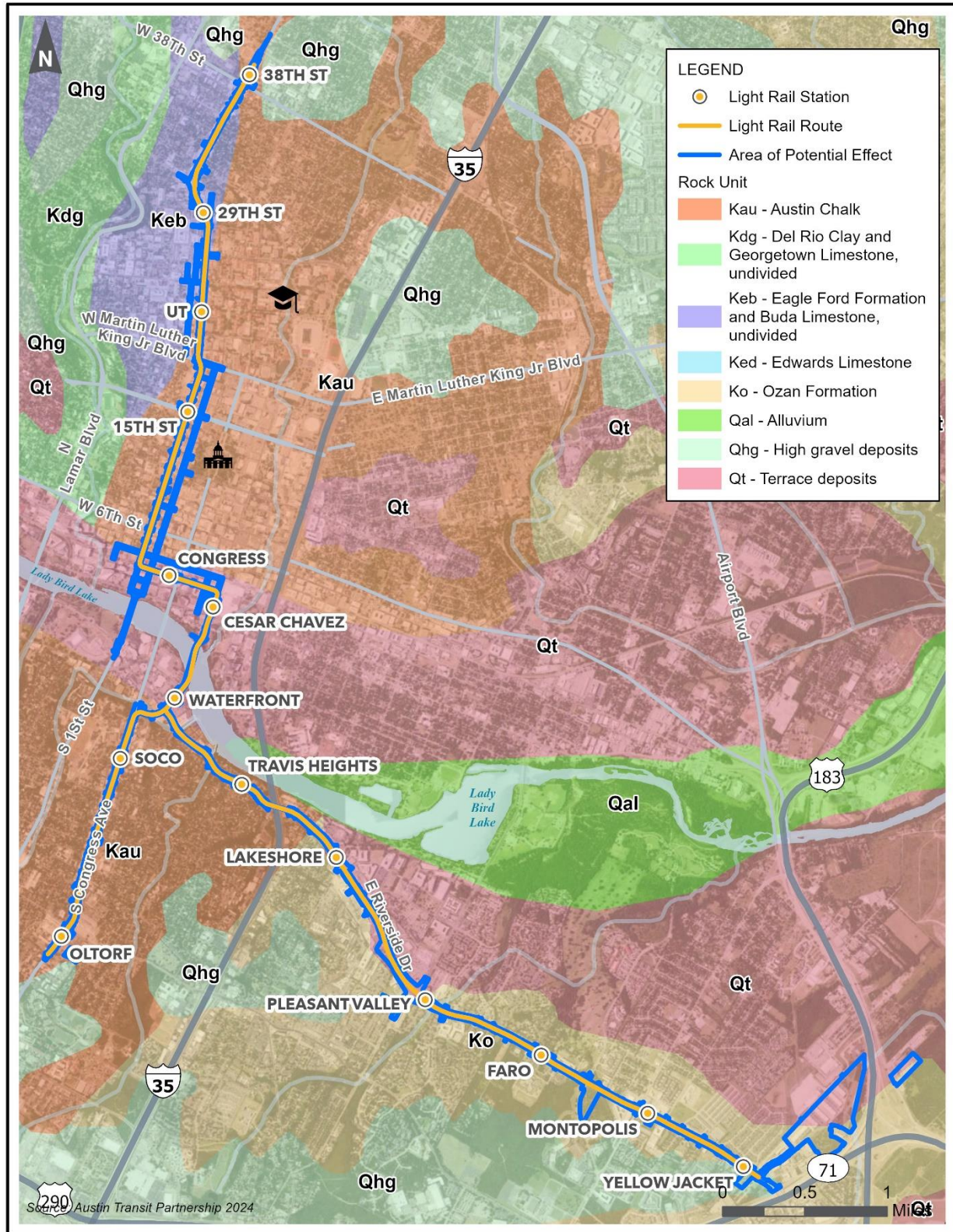


Figure A-14: Site-specific soils

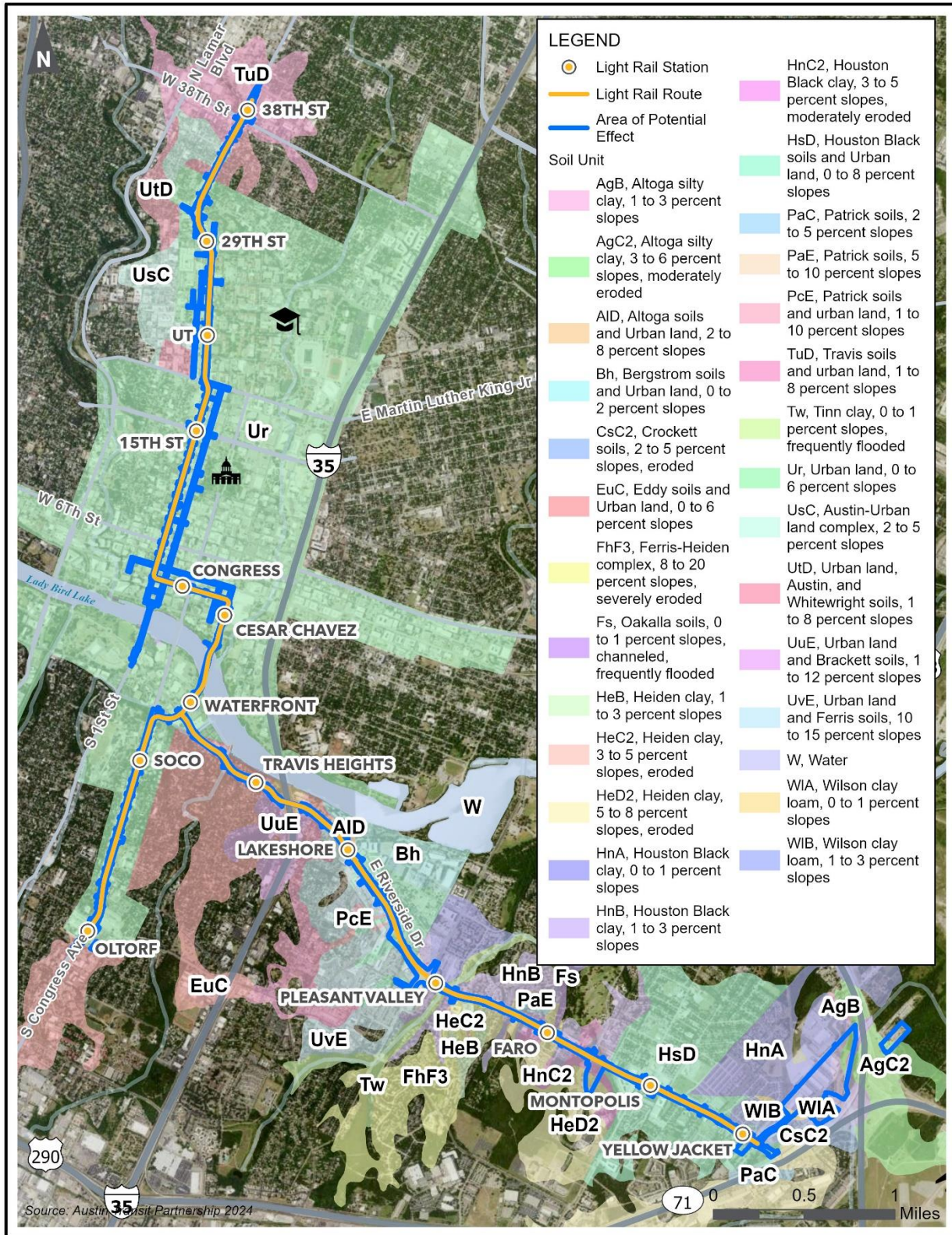


Figure A-15: Texas Department of Transportation (TxDOT 2024) Potential Archaeological Liability Map (PALM)

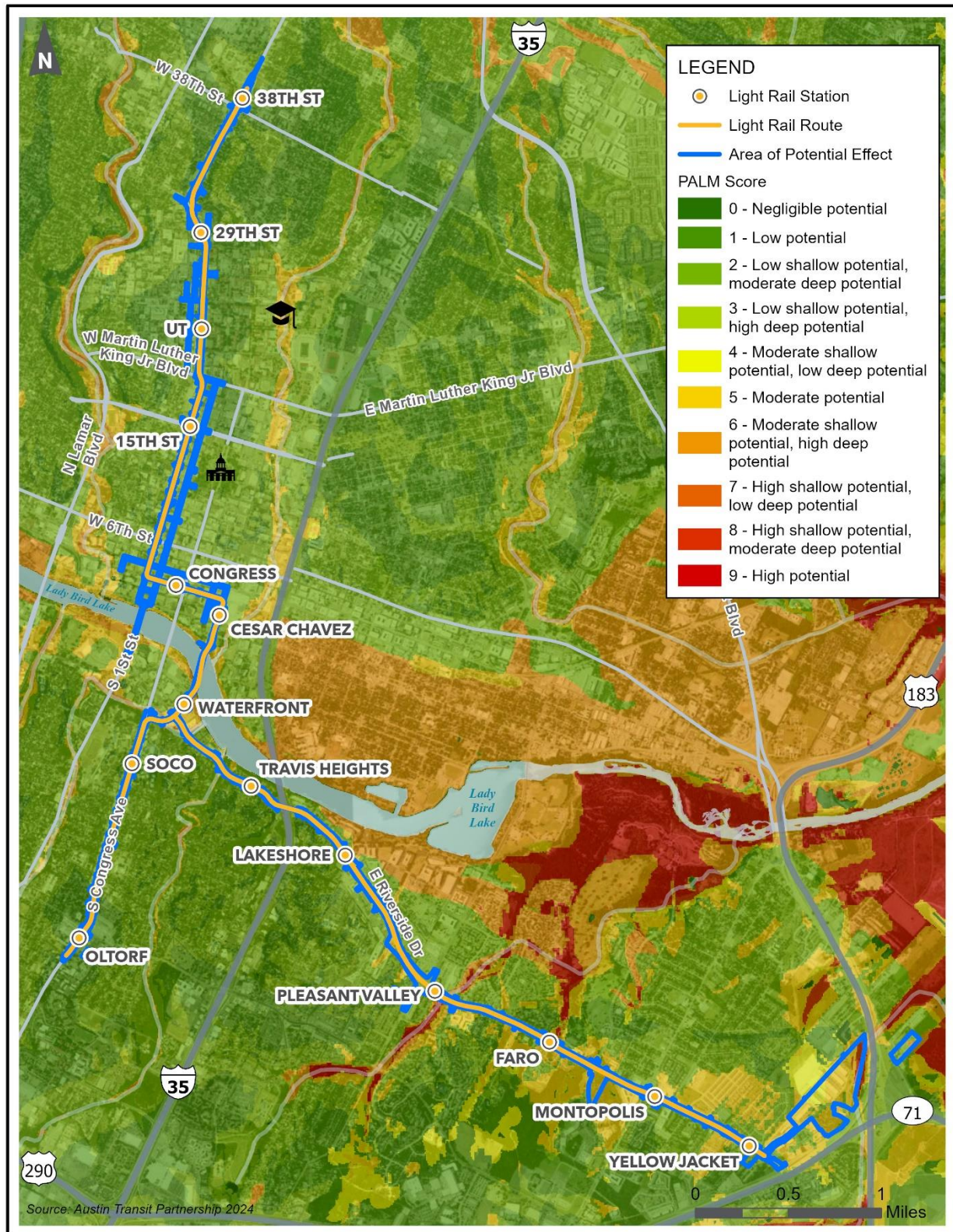
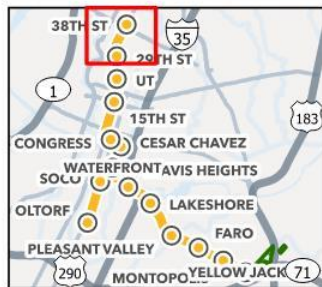
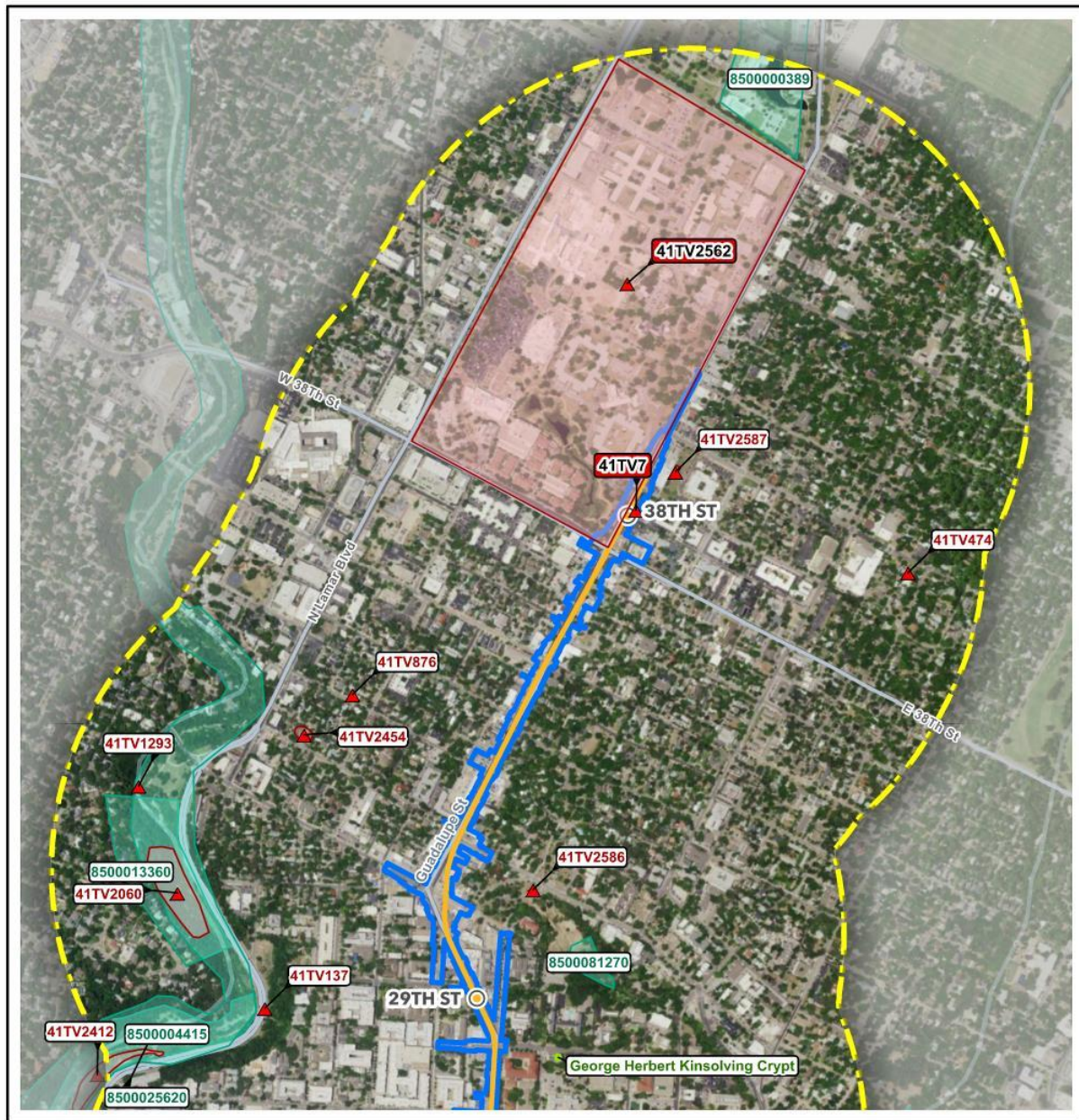
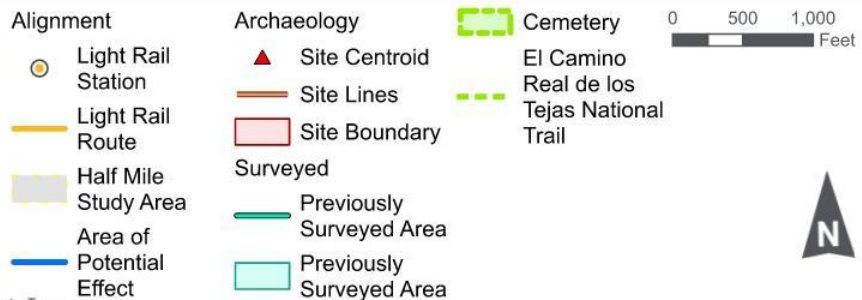


Figure A-16: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 1 of 7)

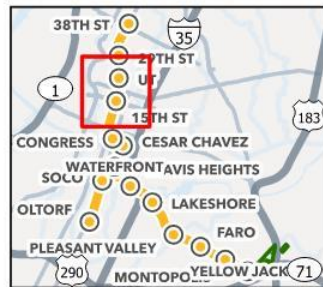
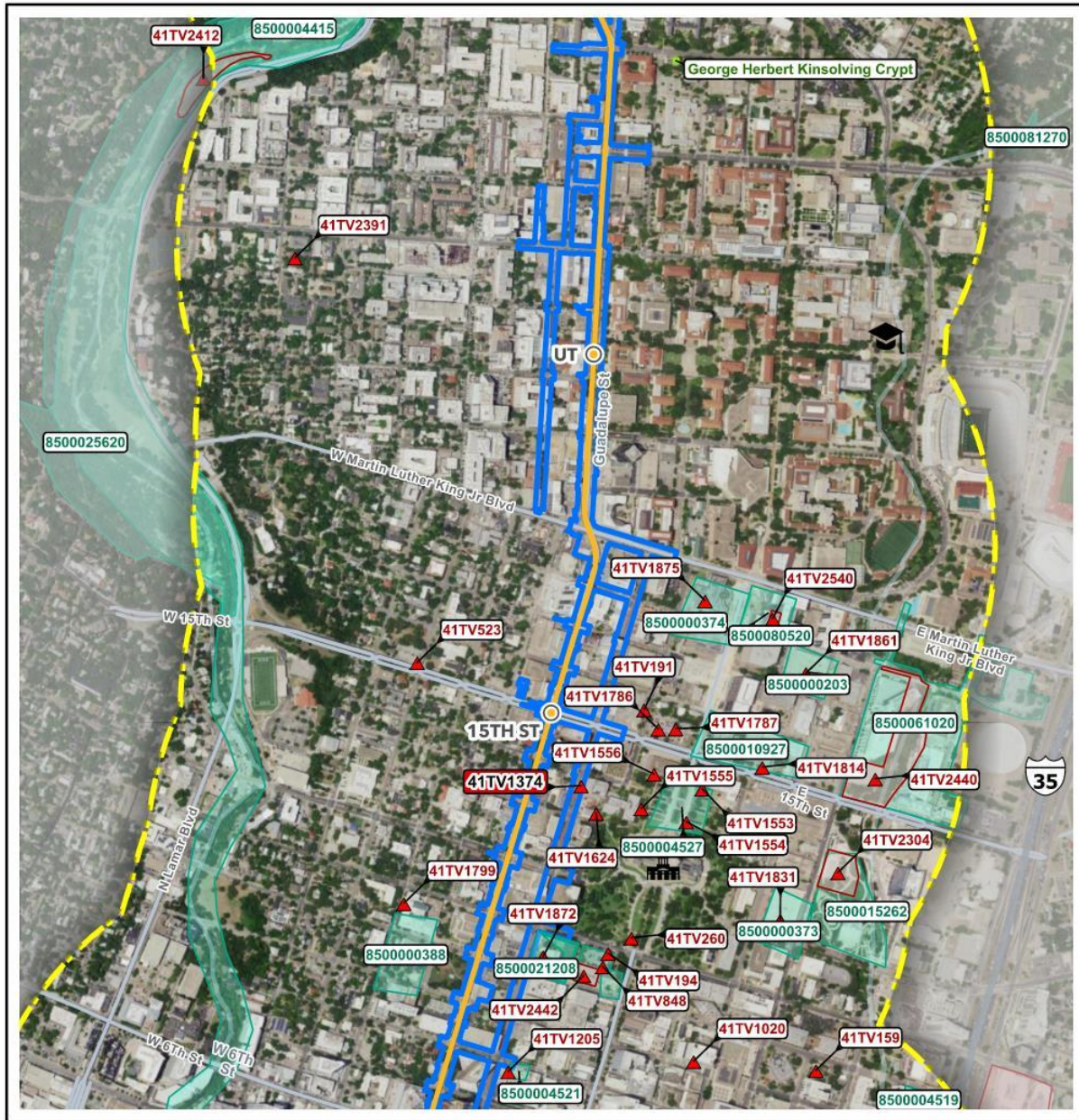


Source: Austin Transit Partnership 2024, Travis County, Texas



Note: Archaeological sites overlapping the APE are indicated with a red label.

Figure A-17: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 2 of 7)



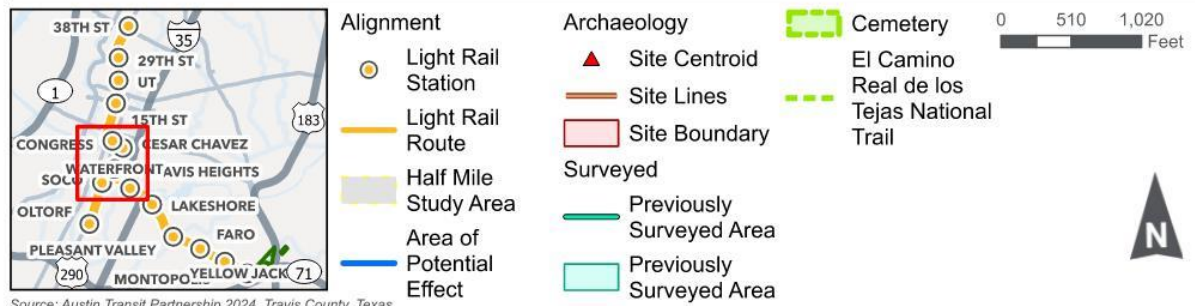
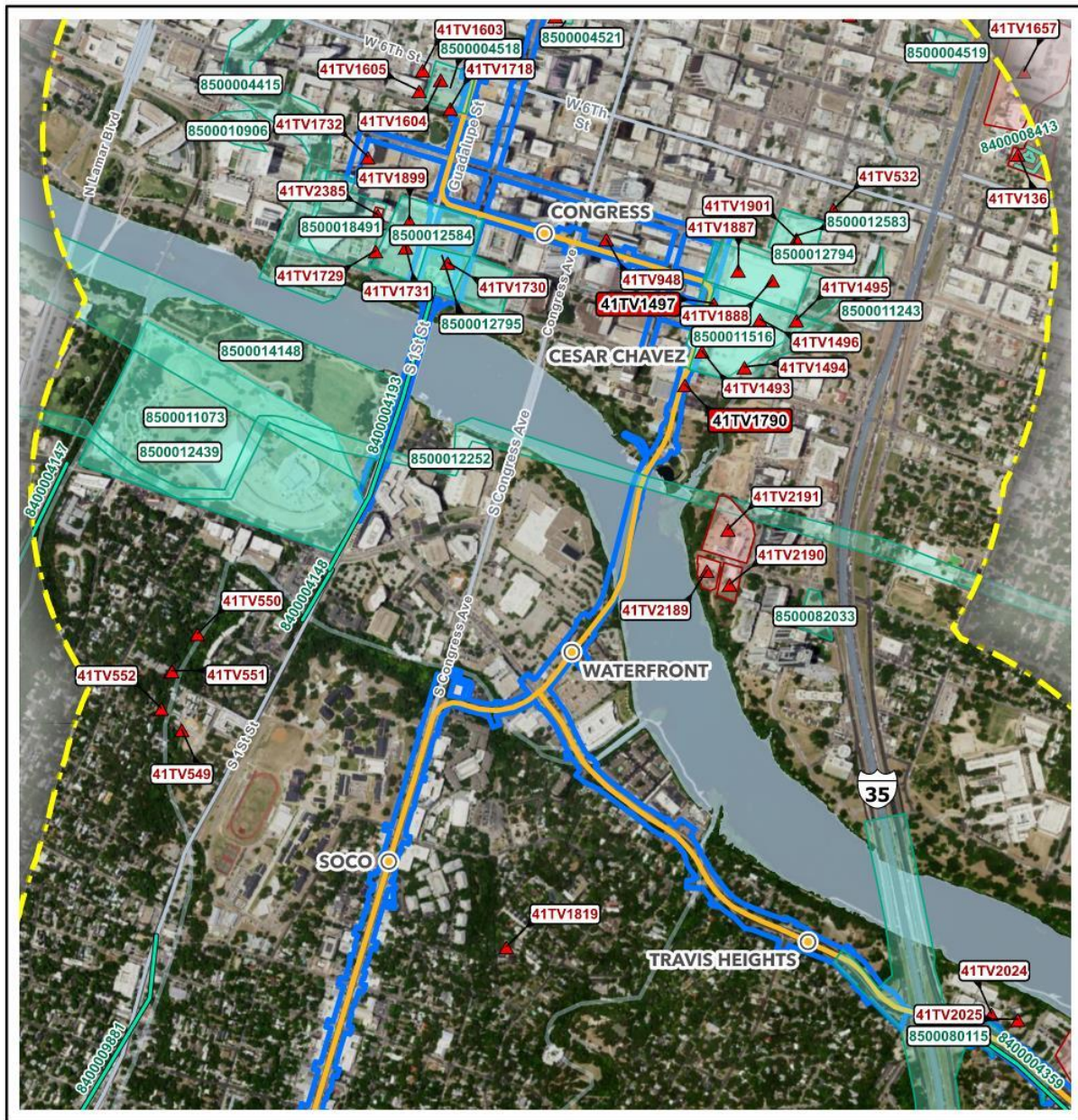
Source: Austin Transit Partnership 2024, Travis County, Texas

<p><b>Alignment</b></p> <ul style="list-style-type: none"> <li> Light Rail Station</li> <li> Light Rail Route</li> <li> Half Mile Study Area</li> <li> Area of Potential Effect</li> </ul>	<p><b>Archaeology</b></p> <ul style="list-style-type: none"> <li> Site Centroid</li> <li> Site Lines</li> <li> Site Boundary</li> </ul> <p><b>Surveyed</b></p> <ul style="list-style-type: none"> <li> Previously Surveyed Area</li> <li> Previously Surveyed Area</li> </ul>	<p> Cemetery</p> <p> El Camino Real de los Tejas National Trail</p>	<p>0 490 980 Feet</p>
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Note: Archaeological sites overlapping the APE are indicated with a red label.

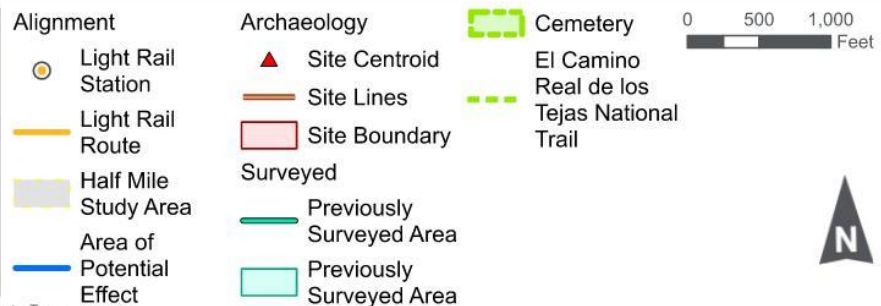
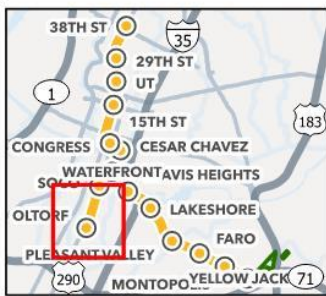
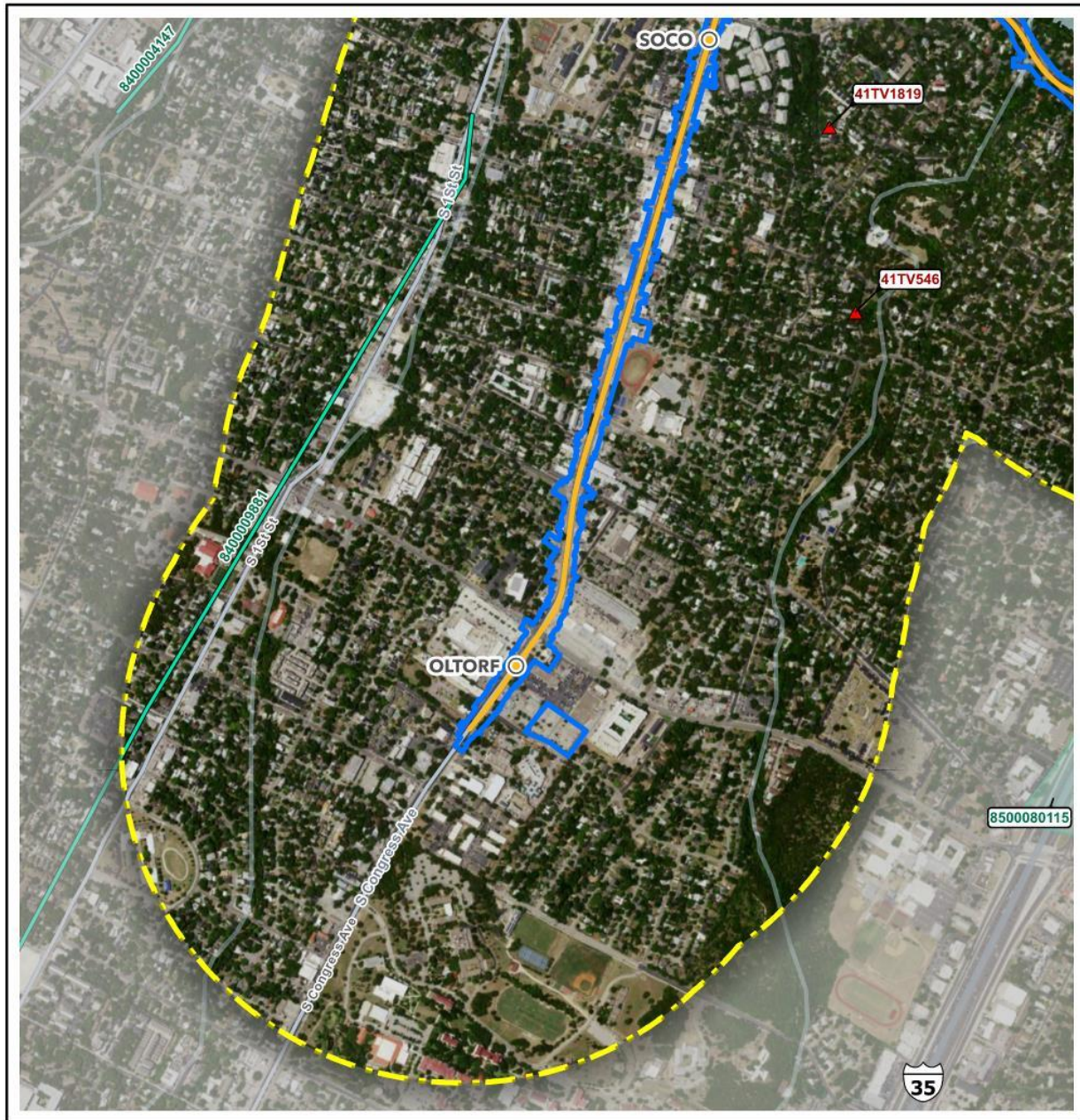
Figure A-18: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 3 of 7)



Source: Austin Transit Partnership 2024, Travis County, Texas

Note: Archaeological sites overlapping the APE are indicated with a red label.

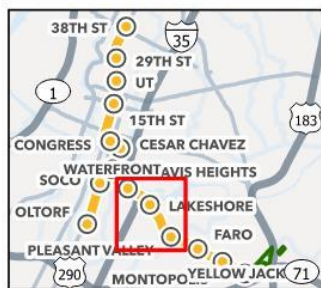
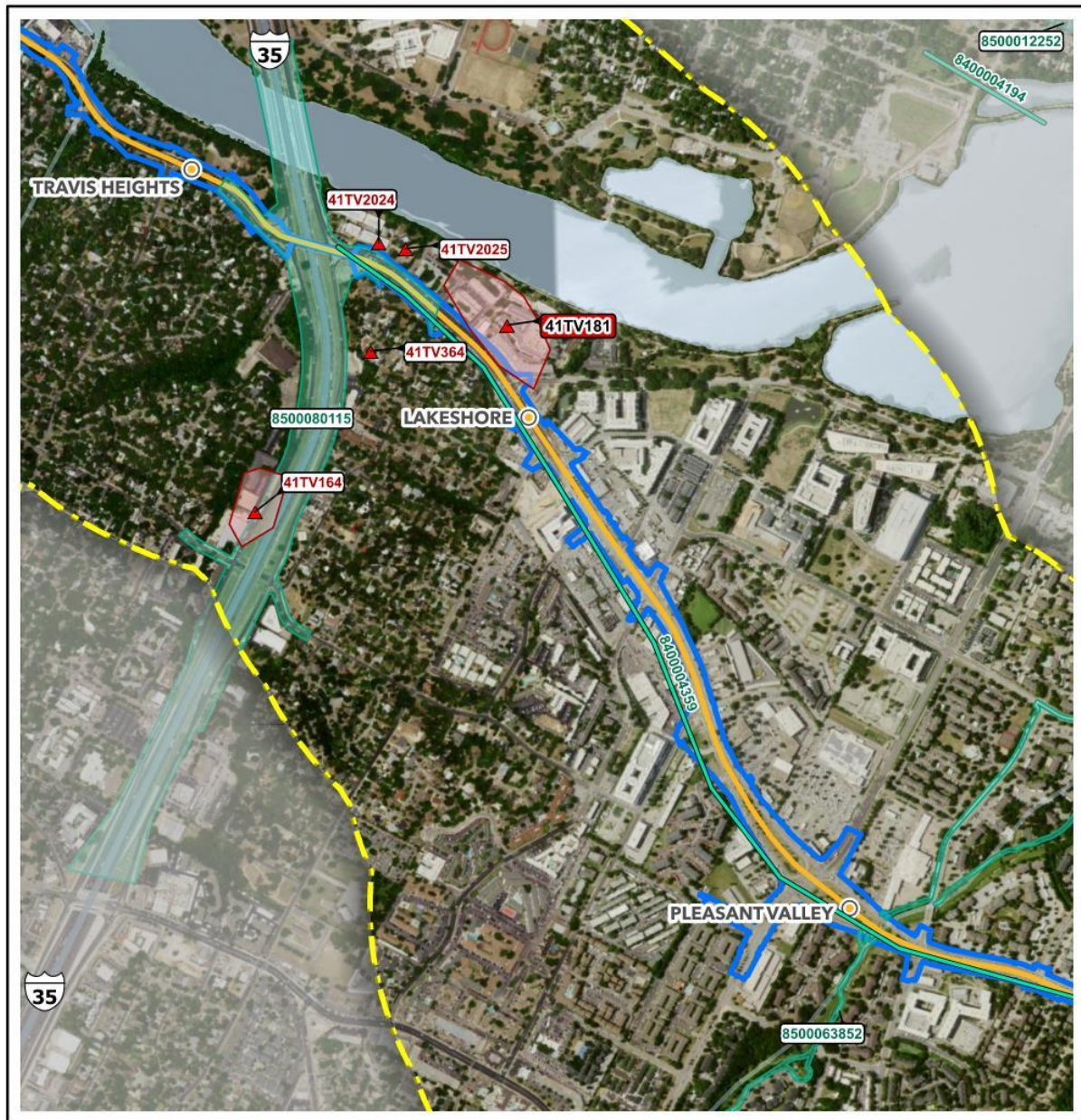
Figure A-19: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 4 of 7)



Source: Austin Transit Partnership 2024, Travis County, Texas



Figure A-20: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 5 of 7)

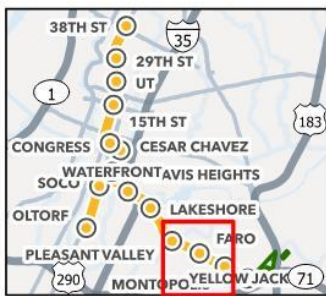


Source: Austin Transit Partnership 2024, Travis County, Texas

<p><b>Alignment</b></p> <ul style="list-style-type: none"> <li> Light Rail Station</li> <li> Light Rail Route</li> <li> Half Mile Study Area</li> <li> Area of Potential Effect</li> </ul>	<p><b>Archaeology</b></p> <ul style="list-style-type: none"> <li> Site Centroid</li> <li> Site Lines</li> <li> Site Boundary</li> </ul> <p><b>Surveyed</b></p> <ul style="list-style-type: none"> <li> Previously Surveyed Area</li> <li> Previously Surveyed Area</li> </ul>	<p><b>Cemetery</b></p> <ul style="list-style-type: none"> <li> El Camino Real de los Tejas National Trail</li> </ul>	<p>0 500 1,000 Feet</p>
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Note: Archaeological sites overlapping the APE are indicated with a red label.

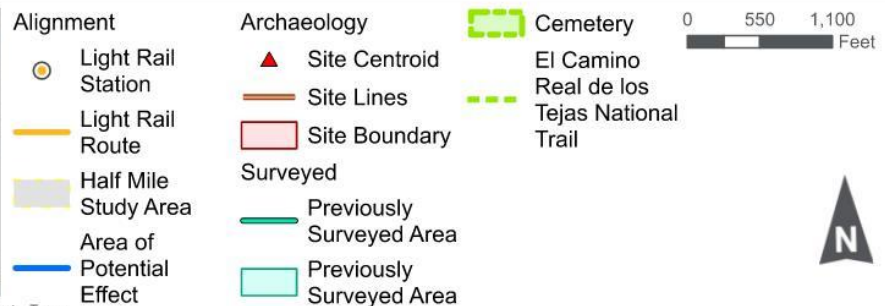
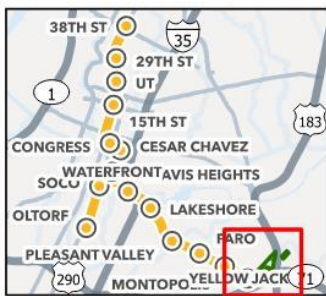
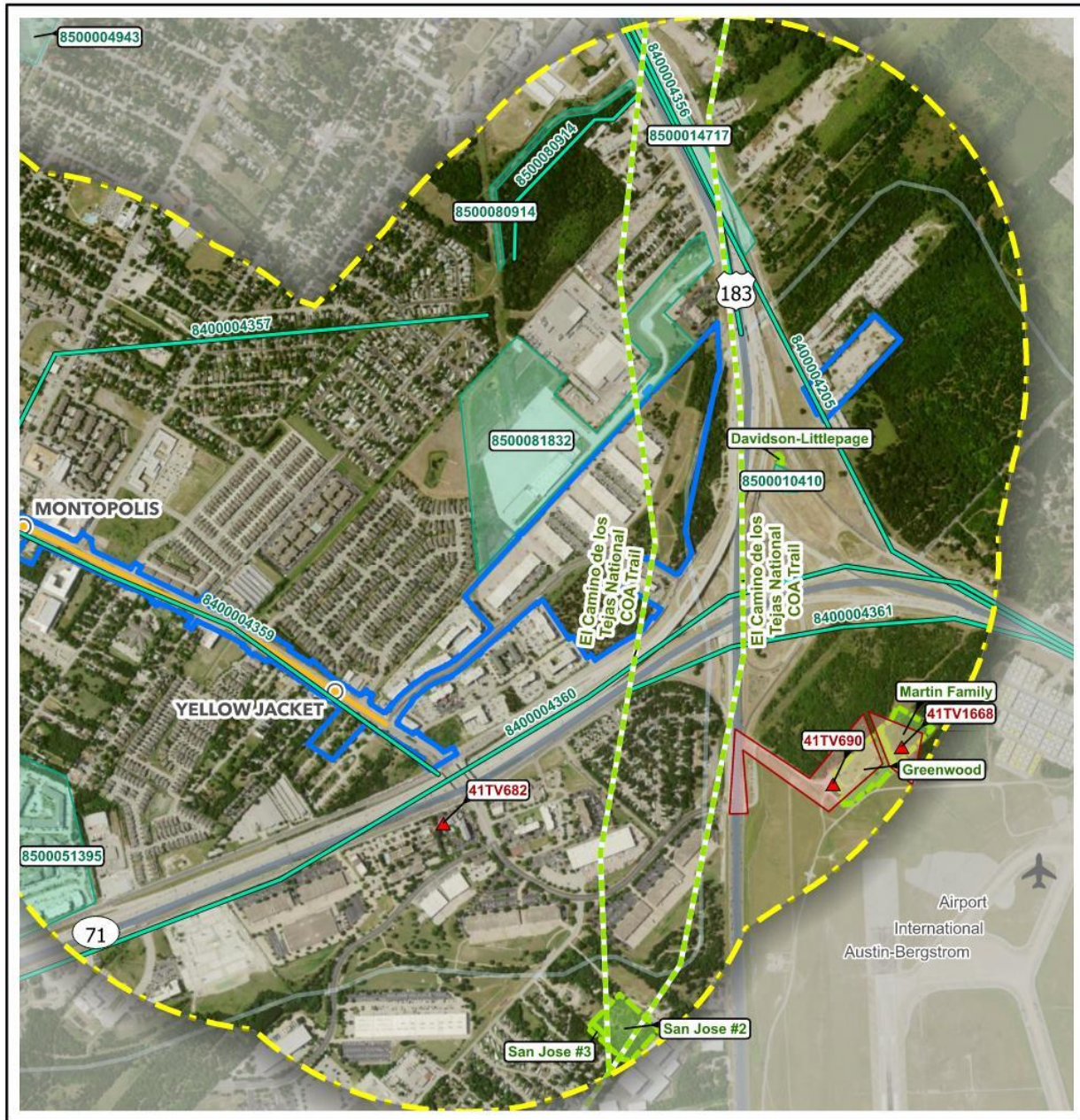
Figure A-21: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 6 of 7)



Source: Austin Transit Partnership 2024, Travis County, Texas

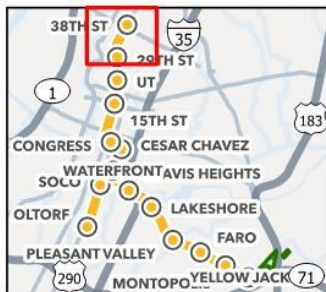
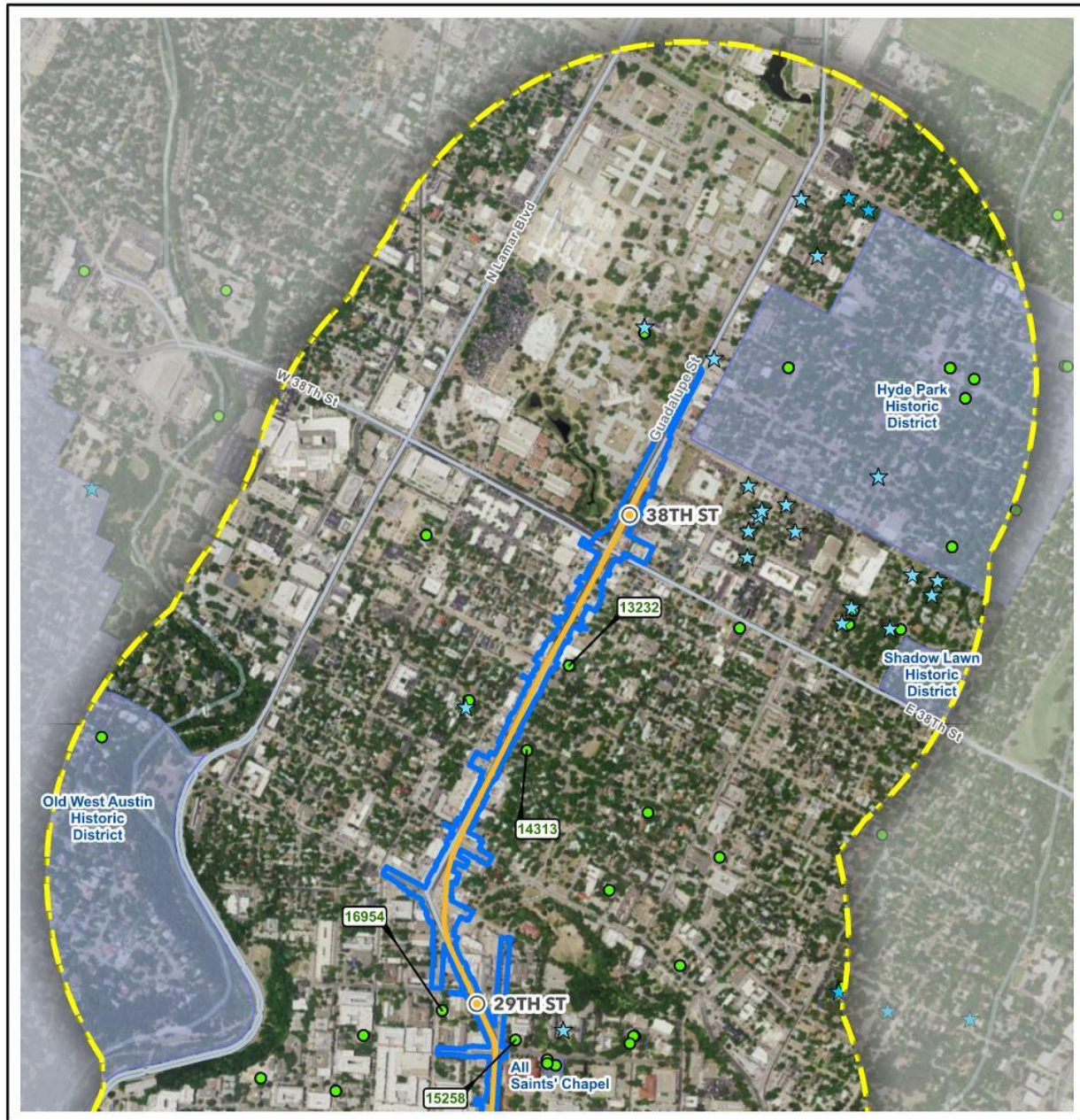
<p><b>Alignment</b></p> <ul style="list-style-type: none"> <li> Light Rail Station</li> <li> Light Rail Route</li> <li> Half Mile Study Area</li> <li> Area of Potential Effect</li> </ul>	<p><b>Archaeology</b></p> <ul style="list-style-type: none"> <li> Site Centroid</li> <li> Site Lines</li> <li> Site Boundary</li> </ul> <p><b>Surveyed</b></p> <ul style="list-style-type: none"> <li> Previously Surveyed Area</li> <li> Previously Surveyed Area</li> </ul>	<p><b>Cemetery</b></p> <ul style="list-style-type: none"> <li> El Camino Real de los Tejas National Trail</li> </ul>	<p>0 500 1,000 Feet</p> <div style="text-align: center;"> <p>N</p> </div>
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Figure A-22: Previously recorded cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 7 of 7)



Source: Austin Transit Partnership 2024, Travis County, Texas

Figure A-23: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 1 of 7)

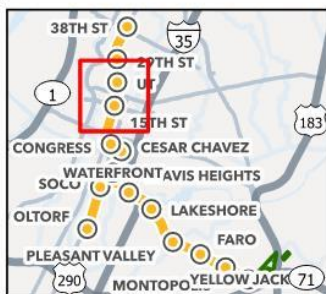
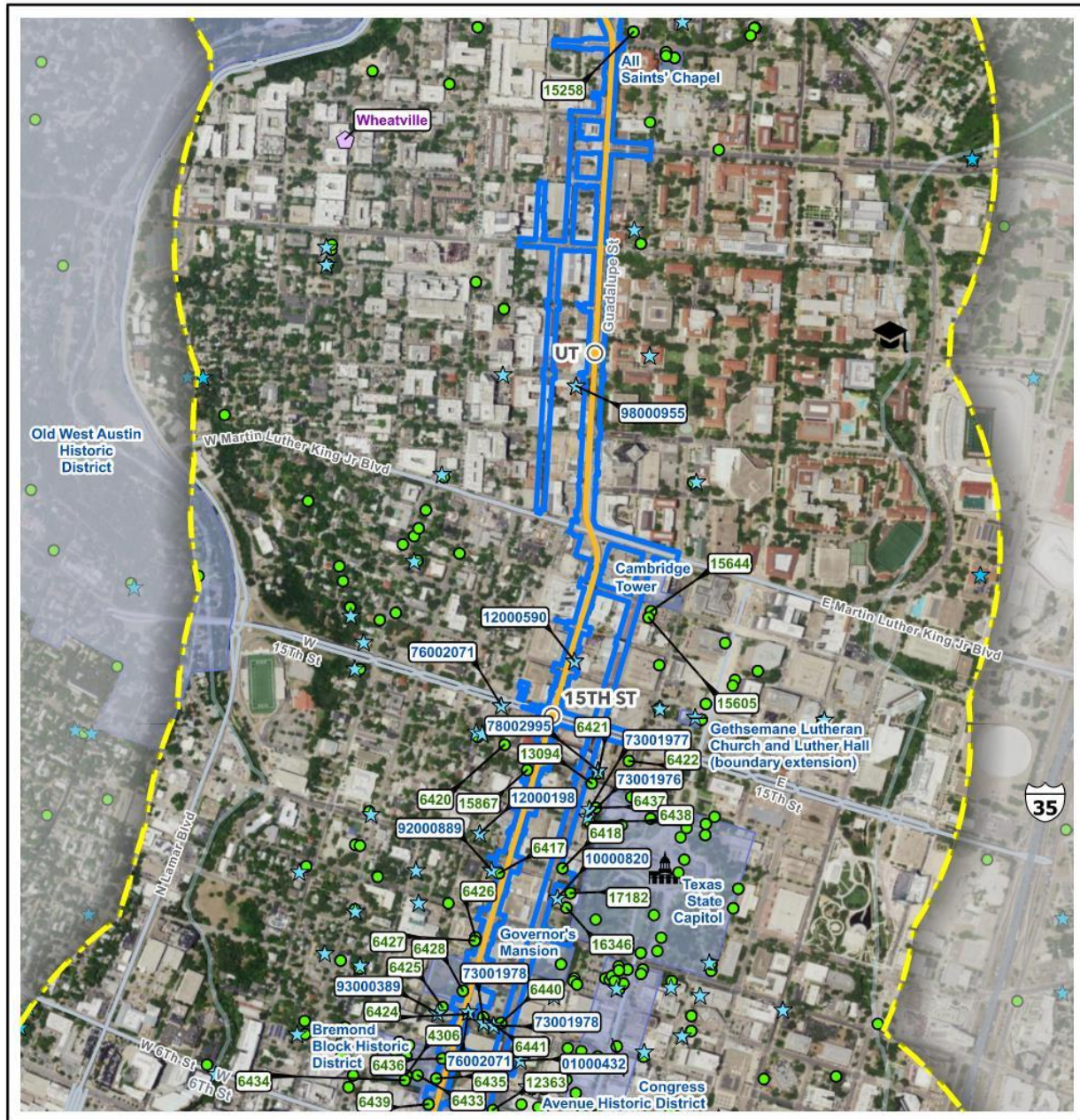


- |                          |                               |
|--------------------------|-------------------------------|
| <b>Alignment</b>         | <b>Above Ground Resources</b> |
| Light Rail Station       | NRHP Property                 |
| Light Rail Route         | Historical Marker             |
| Half Mile Study Area     | NRHP District                 |
| Area of Potential Effect | <b>Freedom Colony Source</b>  |
|                          | Located FCs                   |
|                          | Public Input                  |



Source: Austin Transit Partnership 2024, National Park Service, The Texas Freedom Colony Project, Travis County, Texas

Figure A-24: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 2 of 7)

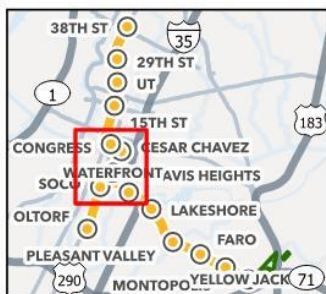
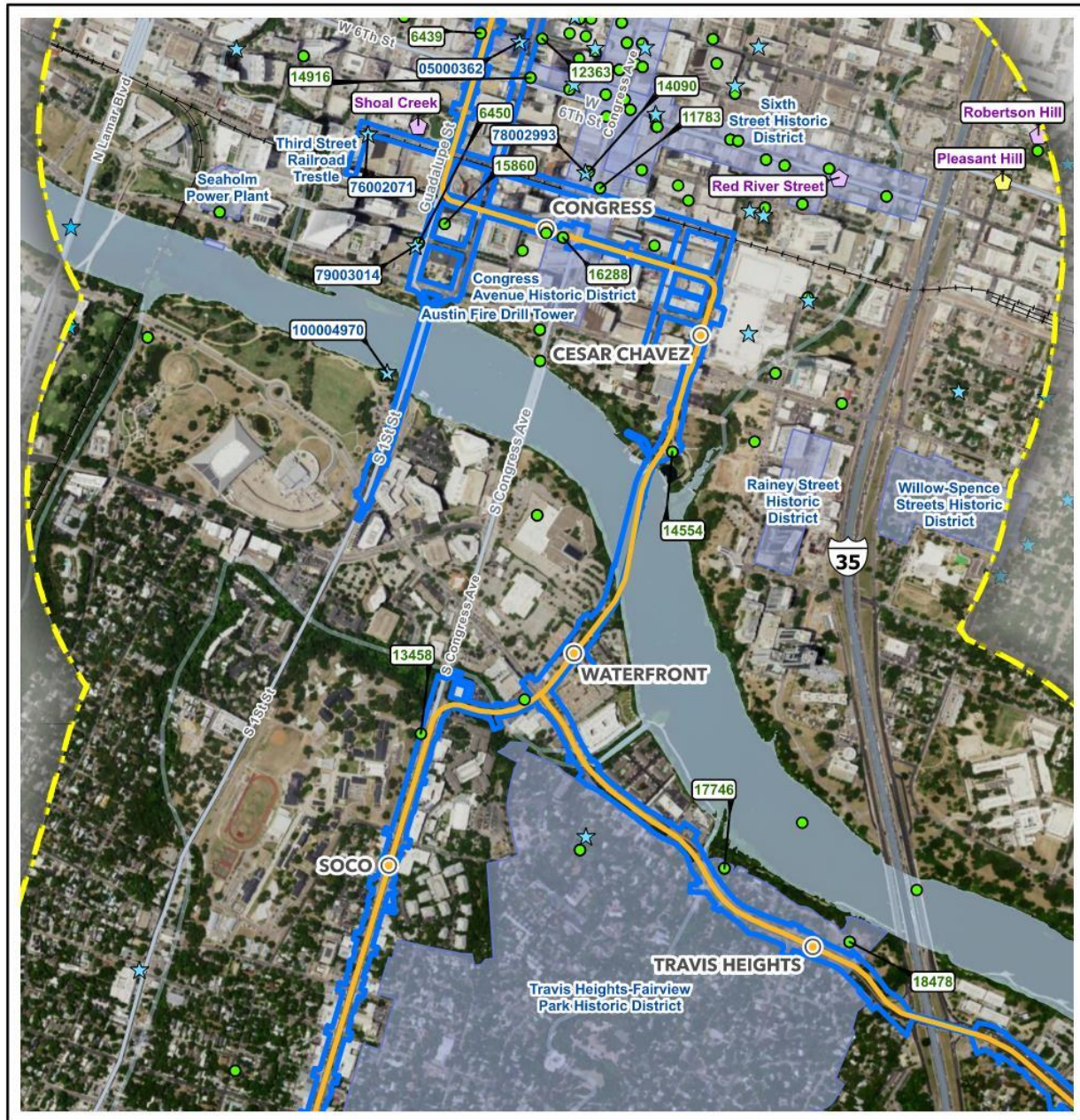


- | Alignment |                          | Above Ground Resources |                   |
|-----------|--------------------------|------------------------|-------------------|
|           | Light Rail Station       |                        | NRHP Property     |
|           | Light Rail Route         |                        | Historical Marker |
|           | Half Mile Study Area     |                        | NRHP District     |
|           | Area of Potential Effect |                        | Located FCs       |
|           |                          |                        | Public Input      |



Source: Austin Transit Partnership 2024, National Park Service, The Texas Freedom Colony Project, Travis County, Texas

Figure A-25: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 3 of 7)

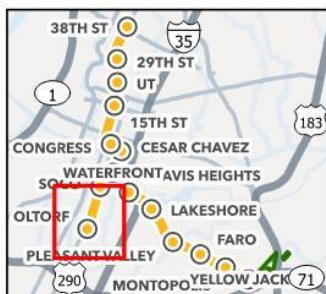


- |                          |                               |
|--------------------------|-------------------------------|
| <b>Alignment</b>         | <b>Above Ground Resources</b> |
| Light Rail Station       | NRHP Property                 |
| Light Rail Route         | Historical Marker             |
| Half Mile Study Area     | NRHP District                 |
| Area of Potential Effect | <b>Freedom Colony Source</b>  |
|                          | Located FCs                   |
|                          | Public Input                  |



Source: Austin Transit Partnership 2024, National Park Service, The Texas Freedom Colony Project, Travis County, Texas

Figure A-26: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 4 of 7)

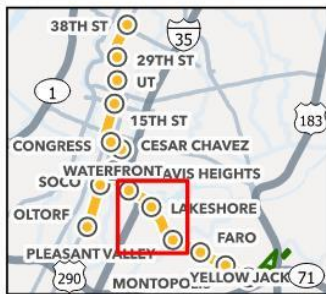


- |                          |                               |
|--------------------------|-------------------------------|
| <b>Alignment</b>         | <b>Above Ground Resources</b> |
| Light Rail Station       | NRHP Property                 |
| Light Rail Route         | Historical Marker             |
| Half Mile Study Area     | NRHP District                 |
| Area of Potential Effect | <b>Freedom Colony Source</b>  |
|                          | Located FCs                   |
|                          | Public Input                  |



Source: Austin Transit Partnership 2024, National Park Service, The Texas Freedom Colony Project, Travis County, Texas

Figure A-27: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 5 of 7)



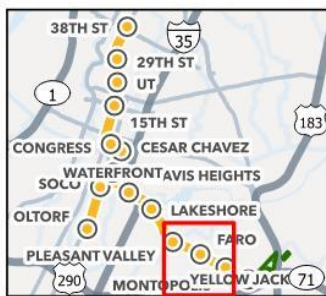
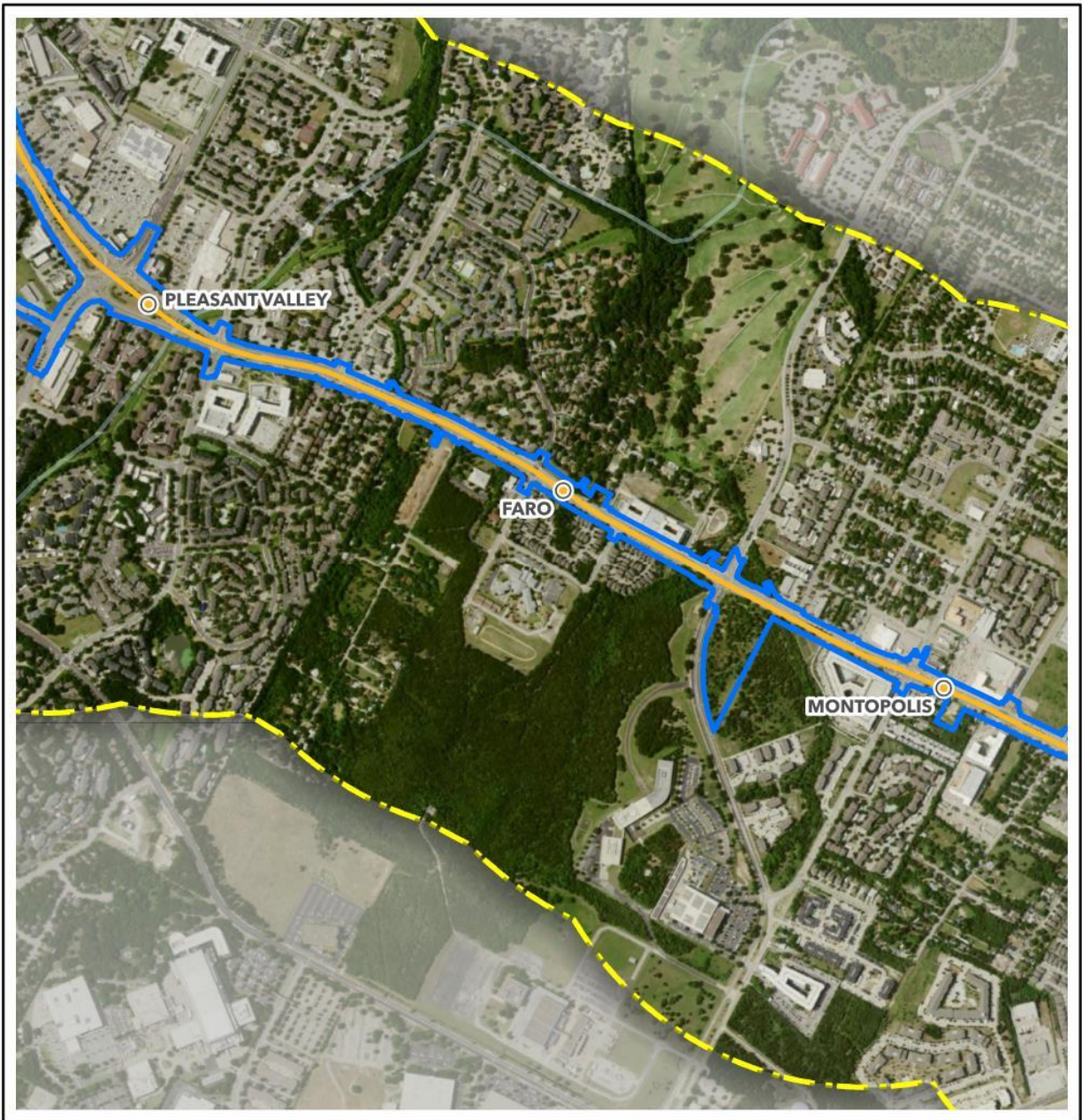
- |                          |                               |
|--------------------------|-------------------------------|
| <b>Alignment</b>         | <b>Above Ground Resources</b> |
| Light Rail Station       | NRHP Property                 |
| Light Rail Route         | Historical Marker             |
| Half Mile Study Area     | NRHP District                 |
| Area of Potential Effect | <b>Freedom Colony Source</b>  |
|                          | Located FCs                   |
|                          | Public Input                  |



Source: Austin Transit Partnership 2024, National Park Service, The Texas Freedom Colony Project, Travis County, Texas



Figure A-28: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 6 of 7)

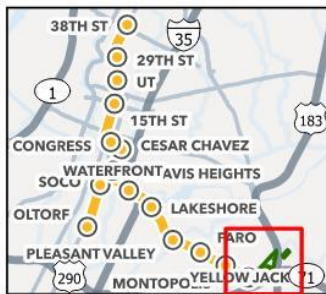
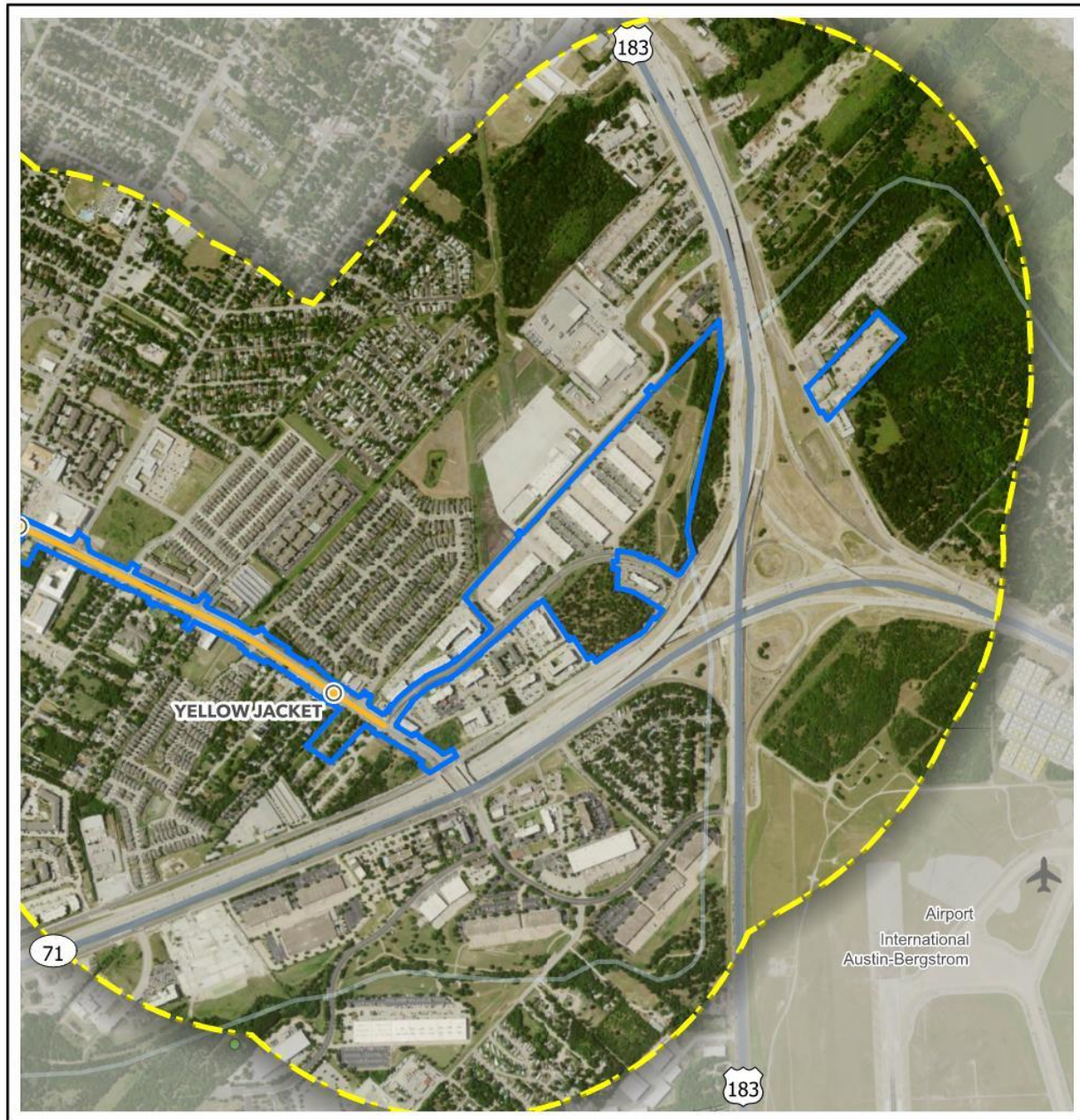


- |                          |                               |
|--------------------------|-------------------------------|
| <b>Alignment</b>         | <b>Above Ground Resources</b> |
| Light Rail Station       | NRHP Property                 |
| Light Rail Route         | Historical Marker             |
| Half Mile Study Area     | NRHP District                 |
| Area of Potential Effect | <b>Freedom Colony Source</b>  |
|                          | Located FCs                   |
|                          | Public Input                  |



Source: Austin Transit Partnership 2024, National Park Service, The Texas Freedom Colony Project, Travis County, Texas

Figure A-29: Previously recorded above-ground cultural resources within 0.5 mile (0.8 kilometer) of the Area of Potential Effects (page 7 of 7)



- |                            |                               |
|----------------------------|-------------------------------|
| <b>Alignment</b>           | <b>Above Ground Resources</b> |
| ○ Light Rail Station       | ★ NRHP Property               |
| — Light Rail Route         | ● Historical Marker           |
| ▭ Half Mile Study Area     | ▭ NRHP District               |
| ▭ Area of Potential Effect | <b>Freedom Colony Source</b>  |
|                            | ◊ Located FCs                 |
|                            | ◊ Public Input                |



Source: Austin Transit Partnership 2024, National Park Service, The Texas Freedom Colony Project, Travis County, Texas

# Appendix B. THC Concurrence Letter for Orange Line Survey

Figure B-1: THC Concurrence Letter for Orange Line Survey

**From:** McDougall, Tanya  
**Sent:** Thursday, May 19, 2022 11:07 AM  
**To:** McDougall, Tanya  
**Subject:** FW: [EXTERNAL] Section 106 Submission

**From:** [noreply@thc.state.tx.us](mailto:noreply@thc.state.tx.us) <[noreply@thc.state.tx.us](mailto:noreply@thc.state.tx.us)>  
**Sent:** Monday, May 16, 2022 3:48 PM  
**To:** Ahr, Steven <[steve.ahr@aecom.com](mailto:steve.ahr@aecom.com)>; [reviews@thc.state.tx.us](mailto:reviews@thc.state.tx.us) <[reviews@thc.state.tx.us](mailto:reviews@thc.state.tx.us)>  
**Subject:** [EXTERNAL] Section 106 Submission



TEXAS HISTORICAL COMMISSION  
*real places telling real stories*

**Re:** Project Review under Section 106 of the National Historic Preservation Act  
**THC Tracking #** 202209133  
**Date:** 05/16/2022  
Archaeological Survey for the Proposed Capital Metro Orange Line Project (Permit 30038)  
Austin  
Austin, TX

**Description:** Draft report for the archeological survey of the Capital Metro Orange Line Project in Austin, Texas.

Dear Steven Ahr:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act.

The review staff, led by Tiffany Osburn, has completed its review and has made the following determinations based on the information submitted for review:

#### Archeology Comments

- THC/SHPO concurs with information provided.

We have the following comments: We concur with the recommendations as presented in the current report for both construction monitoring of specified areas with the potential for historic archeological deposits below existing paving and for survey of the additional ROW when rights of access have been obtained.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: [tiffany.osburn@thc.texas.gov](mailto:tiffany.osburn@thc.texas.gov).

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit <http://thc.texas.gov/etrac-system>.

Sincerely,



for Mark Wolfe, State Historic Preservation Officer  
Executive Director, Texas Historical Commission

Please do not respond to this email.

## Appendix C. Permit Amendment

Figure C-1: Permit Amendment

Figure C-2: Permit Amendment THC Acceptance



September 12, 2024

Tiffany Osburn  
Deputy State Archaeologist  
Texas Historical Commission  
P.O. Box 11276  
Austin, Texas, 78711

Re: Proposed amendment of Texas Antiquities Permit No. 31726

Dear Ms. Osburn,

In April of 2024, HDR Engineering, Inc. (HDR), on behalf of Austin Transit Partnership (ATP), submitted an Antiquities Permit Application for an intensive archaeological survey in advance of the construction of the Austin Light Rail Phase 1 project in Travis County, Texas. Permit No. 31726 was issued on April 23, 2024. Since that time, changes in design have led to the adjustment of the proposed limits of construction and Area of Potential Effects (APE).

Several minor changes have been made throughout the APE with one significant change along Grove Road south of East Riverside Drive (**Figure 1 to Figure 5**). However, the majority of the APE has not changed. Approximately 10.7 acres (4.3 hectares) have been added outside of the previous APE and approximately 1.5 acres (0.6 hectares) have been removed from the previous APE. The current APE totals 307.31 acres (124.36 hectares).

HDR proposes to complete additional shovel testing in the area along Grove Road, indicated on **Figure 4**, where the updated APE passes through moderate probability areas (as indicated by the TxDOT Potential Archeological Liability Map data) outside of the previously surveyed corridor. These additional shovel tests will follow the methodology described in the previously approved April 2024 scope of work. HDR will submit a draft report to incorporate these changes and the results of the survey.

#### Summary

The proposed changes to the amended permit include several minor changes in areas not previously recommended for survey, and one significant change along Grove Road. HDR proposes to complete additional archaeological survey work, including shovel testing, in order to account for the proposed changes. A draft report will be submitted to the THC for review. We respectfully request your approval to address these proposed changes as presented above for the Austin Light Rail Phase 1 project.



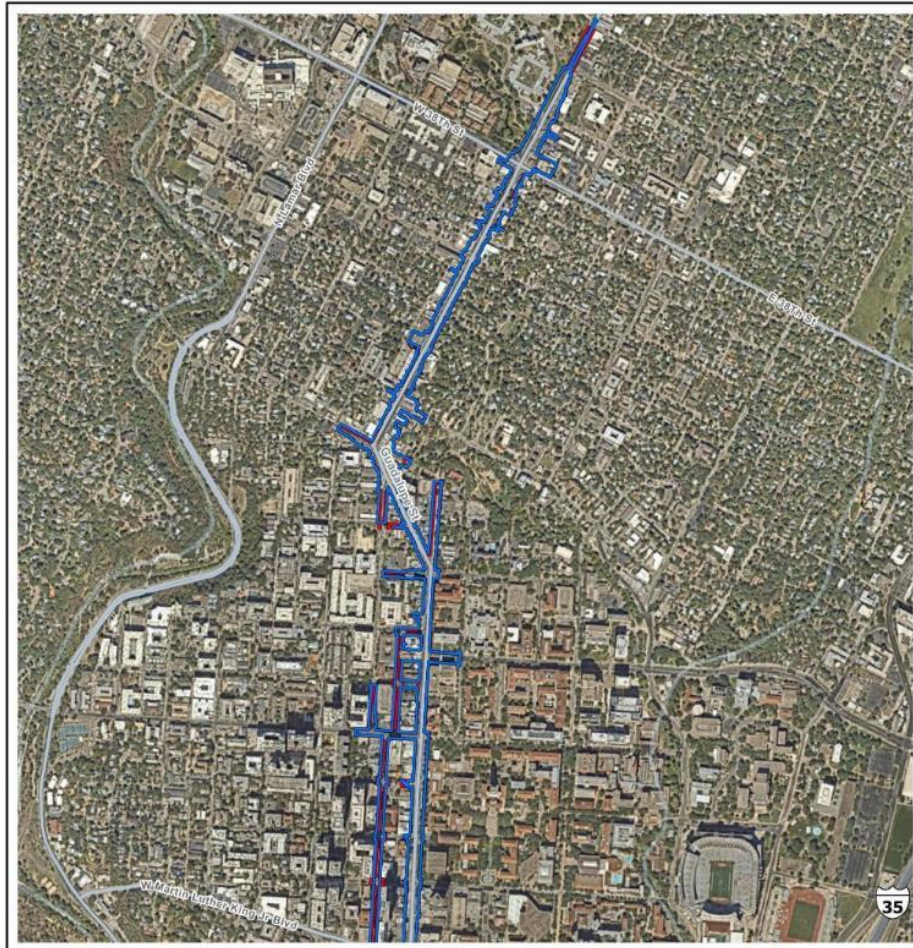
Sincerely,



**Nadya Prociuk**  
Principal Investigator  
HDR Engineering, Inc.  
Nadya.Prociuk@hdrinc.com



Figure 1. APE comparison.



Area of Potential Effect  
 Comparison  
 Sheet 1 of 5

- Proposed Shovel Test
- Current Area of Potential Effect
- Previous Area of Potential Effect



Source: Austin Transit Partnership 2024, Travis County, Texas

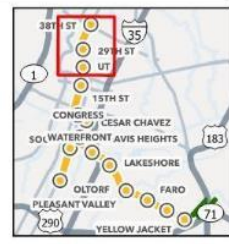
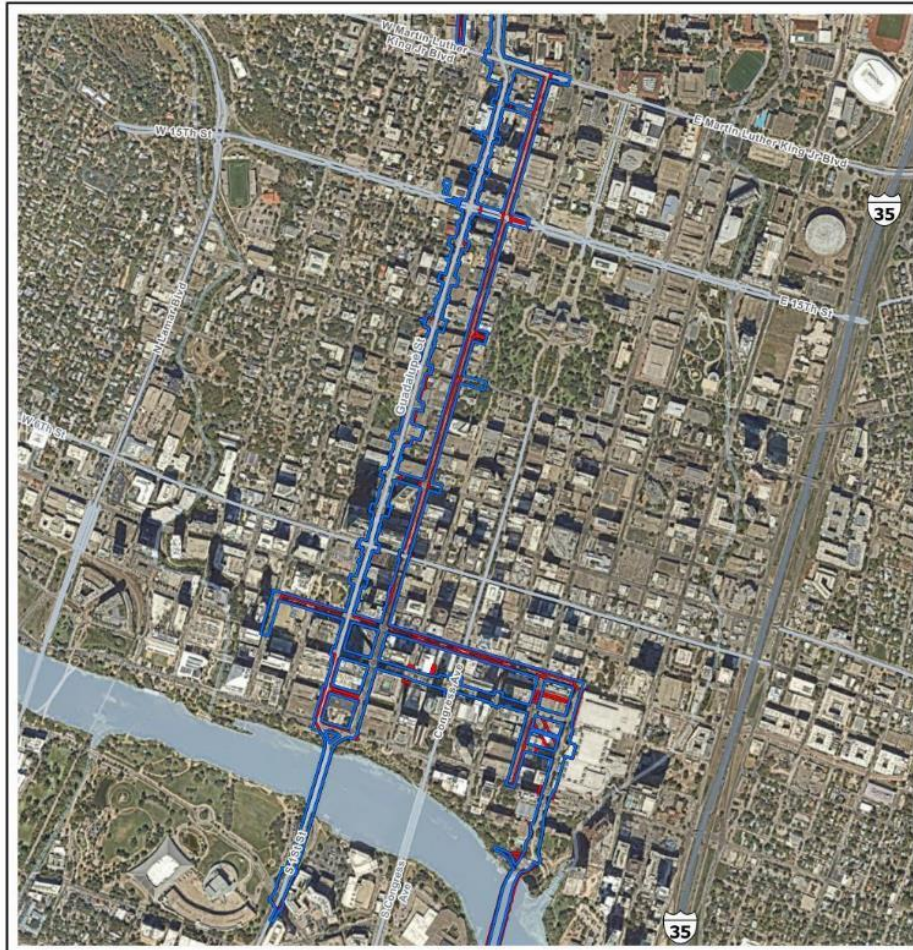






Figure 2. APE comparison.



Area of Potential Effect  
 Comparison  
 Sheet 2 of 5

- Proposed Shovel Test
- Current Area of Potential Effect
- Previous Area of Potential Effect

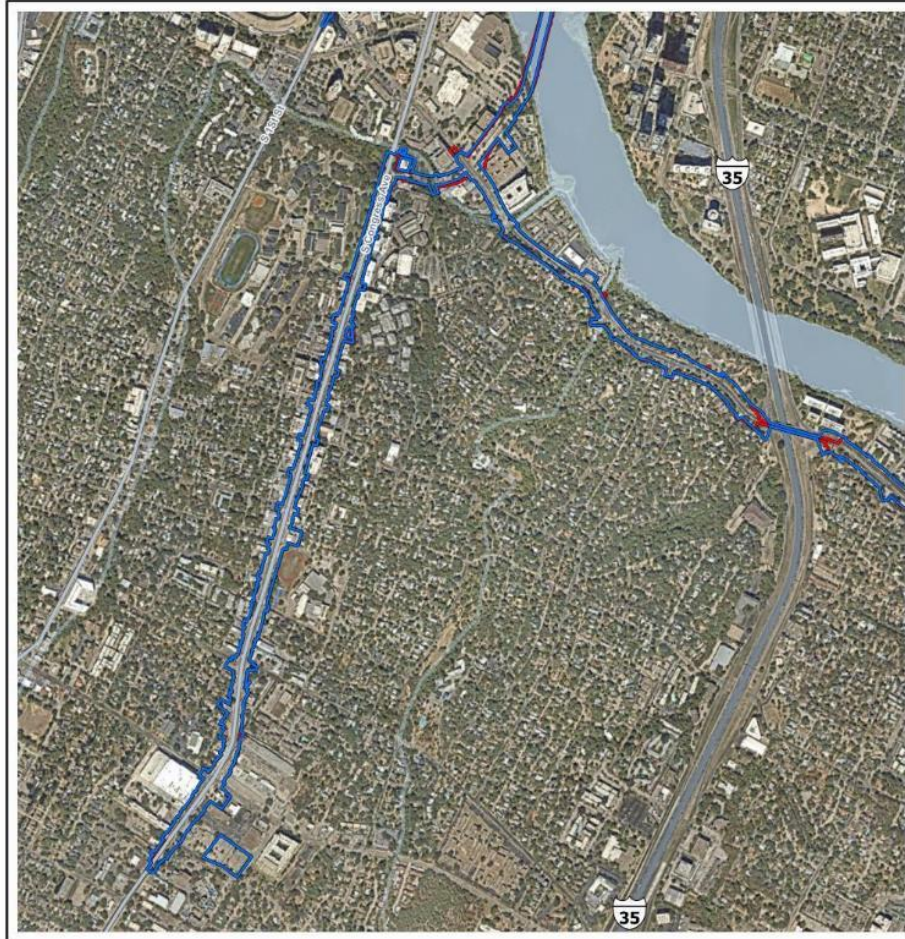


Source: Austin Transit Partnership 2024, Travis County, Texas





Figure 3. APE comparison.



Area of Potential Effect  
 Comparison  
 Sheet 3 of 5

- Proposed Shovel Test
- Current Area of Potential Effect
- Previous Area of Potential Effect

0 510 1,020  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas





Figure 4. APE comparison and proposed additional shovel testing locations.



Area of Potential Effect  
 Comparison  
 Sheet 4 of 5

- Proposed Shovel Test
- Current Area of Potential Effect
- Previous Area of Potential Effect

0 500 1,000  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas

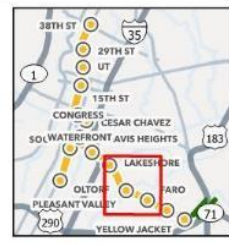




Figure 5. APE comparison.



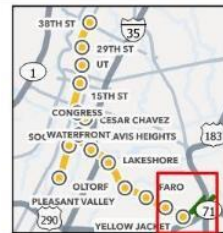
Area of Potential Effect  
 Comparison  
 Sheet 5 of 5

- Proposed Shovel Test
- Current Area of Potential Effect
- Previous Area of Potential Effect

0 525 1,050  
 Feet



Source: Austin Transit Partnership 2024, Travis County, Texas





## Appendix D. Tables

Table D-1: Mapped soil units within the Area of Potential Effects

Table D-2: Previous cultural resources surveys conducted within 0.5 mile (0.8 kilometer) of the Area of Potential Effects

Table D-3: Previously recorded archaeological sites located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects

Table D-4: Historical markers located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects

Table D-5: Cemeteries located within 1 mile (1.6 kilometers) of the Area of Potential Effects

Table D-6: National Register of Historic Places-listed properties located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects

Table D-7: NRHP districts located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects

Table D-8: Texas Freedom Colonies

**Table D-1: Mapped soil units within the Area of Potential Effects**

Map Unit Symbol	Soil Name	Landform	Depth of A Horizon (cmbs)
AgB	Altoga silty clay, 1 to 3 percent slopes	Risers on stream terraces	18
AgC2	Altoga silty clay, 3 to 6 percent slopes, moderately eroded	Risers on stream terraces	18
AID	Altoga soils and Urban land, 2 to 8 percent slopes	Pimple mounds (gilgai)	31
BeA	Bergstrom silt loam, 0 to 1 percent slopes	Bottomlands and terraces	15
BeB	Bergstrom silt loam, 1 to 3 percent slopes	Bottomlands and terraces	15
BgA	Bergstrom silty clay loam, 0 to 1 percent slopes	Bottomlands and terraces	15
BgB	Bergstrom silty clay loam, 1 to 3 percent slopes	Bottomlands and terraces	15
Bh	Bergstrom soils and Urban land, 0 to 2 percent slopes	Bottomlands and terraces	15
BsB	Burleson clay, 1 to 3 percent slopes	Stream terraces	30
ChB	Chaney fine sandy loam, 1 to 2 percent slopes	Stream terraces	10
CsC2	Crockett soils, 2 to 5 percent slopes, eroded	Ridges	20
DuA	Heaton soils and Urban land, 0 to 2 percent slopes	Stream terraces	51
EdB	Eddy gravelly loam, 0 to 3 percent slopes	Uplands	25
EuC	Eddy soils and Urban land, 0 to 6 percent slopes	Uplands	25
FhF3	Ferris-Heiden complex, 8 to 20 percent slopes, severely eroded	Backslopes of side slopes of ridges	20
Fo	Oakalla silty clay loam, 0 to 2 percent slopes, occasionally flooded	Floodplains	58
Fs	Oakalla soils, 0 to 1 percent slopes, channeled, frequently flooded	Floodplains	58

Map Unit Symbol	Soil Name	Landform	Depth of A Horizon (cmbs)
GP	Pits, gravel, 1 to 90 percent slopes	—	—
HeB	Heiden clay, 1 to 3 percent slopes	Footslopes of base slopes	46
HeC2	Heiden clay, 3 to 5 percent slopes, eroded	Footslopes of base slopes	46
HeD2	Heiden clay, 5 to 8 percent slopes, eroded	Footslopes of base slopes	46
HnA	Houston Black clay, 0 to 1 percent slopes	Ridges and plains	20
HnB	Houston Black clay, 1 to 3 percent slopes	Ridges and plains	20
HnC2	Houston Black clay, 3 to 5 percent slopes, moderately eroded	Ridges and plains	20
HsD	Houston Black soils and Urban land, 0 to 8 percent slopes	Ridges and plains	20
LcB	Lewisville silty clay, 1 to 3 percent slopes	Stream terraces	41
LeB	Lewisville soils and Urban land, 0 to 2 percent slopes	Stream terraces	41
Lu	Gaddy soils and Urban land, 0 to 1 percent slopes, occasionally flooded	Floodplains	20
PaC	Patrick soils, 2 to 5 percent slopes	Stream terraces	25
PaE	Patrick soils, 5 to 10 percent slopes	Stream terraces	25
TdF	Tarrant-Rock outcrop complex, 18 to 50 percent slopes	Summits, shoulders, and backslopes of hills and ridges	33
TeE	Tarrant soils and Urban land, 5 to 18 percent slopes	Summits, shoulders, and backslopes of hills and ridges	33
TsD	Travis gravelly soils, 1 to 8 percent slopes	Terrace	18
TuD	Travis soils and urban land, 1 to 8 percent slopes	Terrace	18



Map Unit Symbol	Soil Name	Landform	Depth of A Horizon (cmbs)
Tw	Tinn clay, 0 to 1 percent slopes, frequently flooded	Floodplains	46
Ur	Urban land, 0 to 6 percent slopes	—	—
UsC	Austin-Urban land complex, 2 to 5 percent slopes	Ridges	41
UtD	Urban land, Austin, and Whitewright soils, 1 to 8 percent slopes	Ridges	41
UuE	Urban land and Brackett soils, 1 to 12 percent slopes	Backslopes of ridges	15
UvE	Urban land and Ferris soils, 10 to 15 percent slopes	Backslopes of side slopes of ridges	20
VuD	Volente soils and Urban land, 1 to 8 percent slopes	Valleys	91
WIA	Wilson clay loam, 0 to 1 percent slopes	Stream terraces	13
WIB	Wilson clay loam, 1 to 3 percent slopes	Stream terraces	13

Source: Soil Survey Staff 2024.  
 cmbs = centimeters below surface

**Table D-2: Previous cultural resources surveys conducted within 0.5 mile (0.8 kilometer) of the Area of Potential Effects**

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
—	—	—	—	—	8400004359 <sup>a</sup>
—	—	—	—	—	8400004193
—	—	—	—	—	8400004360 <sup>a</sup>
—	—	—	—	—	8400004205
—	Housing and Urban Development	—	Sphere 3 Environmental	2013	8500051395
—	General Services Commission	—	—	1998	8500000203
—	City of Austin	—	—	1997	8500000373
—	City of Austin	—	—	1998	8500000374
—	Travis County	—	—	1997	8500000388
—	U.S. Postal Service	—	—	1992	8500004518 <sup>a</sup>
—	—	—	—	—	8500004520 <sup>a</sup>
—	—	—	—	—	8500004523 <sup>a</sup>
—	—	—	—	—	8500004527
—	—	—	—	—	8500004943
—	—	—	—	1991	8400004147
—	Federal Housing Authority	—	—	2000	8500010410
—	City of Austin	—	—	2000	8500010906
—	U.S. Army Corps of Engineers – Fort Worth District	—	—	1985	8500004415
—	SAL	—	—	1984	8500004522

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
—	Texas Department of Mental Health and Mental Retardation	—	—	1997	8500000389
—	—	—	—	—	8400004357 <sup>a</sup>
446	—	—	—	—	8500004519
549	—	—	—	—	8500004521
866	City of Austin	<i>Archeological Testing at the Austin Convention Center, Travis County, Texas</i>	Hicks and Company, Inc.	1990	8500011516 <sup>a</sup>
1863	General Services Commission	<i>A Phase I Cultural Resources Survey of the Pea Ridge Sewer Trunk Line, Bell County, Texas</i>	AAG	1997	8500010927
2167	City of Austin	<i>Archeological Investigations of Block 33 (41TV 1887) and 34 (41TV1888): The Austin Convention Center Project</i>	Page Southerland Page; City of Austin	1999	8500010440 <sup>a</sup>
2234	City of Austin	<i>Boarding Houses, Bar Rooms and Brothels -- Life in a Vice District: Archeological Investigations of a Changing Urban Neighborhood Volume I and II</i>	Hicks and Company, Inc.	1999	8100011706 <sup>a</sup>

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
2234	City of Austin	<i>Boarding Houses, Bar Rooms and Brothels -- Life in a Vice District: Archeological Investigations of a Changing Urban Neighborhood Volume I and II</i>	Hicks and Company, Inc.	1999	8500012795 <sup>a</sup>
2429	City of Austin	<i>Archeological Monitoring and Geomorphic Investigation of the City of Austin Town Lake Community Center, Travis County</i>	Antiquities Planning and Consulting	2000	8500011073 <sup>a</sup>
2429	City of Austin	<i>Archeological Monitoring and Geomorphic Investigation of the City of Austin Town Lake Community Center, Travis County</i>	Antiquities Planning and Consulting	2000	8100011330
2460	City of Austin	<i>Archeological and Historical Research Investigations on the Historic Hannig-Dickinson House and the Hedgecoxe House in Austin Texas</i>	Hicks and Company, Inc.	2000	8500012583
2460	City of Austin	<i>Archeological and Historical Research Investigations on the Historic Hannig-Dickinson House and the Hedgecoxe House in Austin Texas</i>	Hicks and Company, Inc.	2000	8500012794

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
2815	Texas Department of Transportation	<i>Archeological Investigations Along the Recommended Alignment of the Proposed Lance Armstrong Crosstown Bikeway, City of Austin, Travis County, Texas</i>	Lopez Garcia Group	2005	8100012540 <sup>a</sup>
3270	City of Austin	<i>A Cultural Resource Survey of Shoal Creek Improvements, Travis County, Texas</i>	APC	2003	8500013360
3306	Federal Transit Administration	<i>Cultural Resource Reconnaissance Survey for the Capital Metropolitan Transportation Authority's Proposed Commuter Rail from Austin to Leander, Travis and Williamson Counties, Texas</i>	LopezGarcia Group	2004	8500011243
4055	City of Austin	<i>Cultural Resources Survey, Monitoring and Research for the Town Lake Park, City of Austin, Travis County, Texas</i>	Antiquities Planning and Consulting	2006	8100013880 <sup>a</sup>
4511	Texas Department of Transportation	—	Fred L. McGhee and Associates, Inc.	2007	8500014717

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
4752	Texas Facilities Commission	<i>Archeological Monitoring and Feature Investigations for the Deferred Maintenance Project, Texas Governor's Mansion (41TV1872), Austin, Texas, Travis County</i>	Prewitt and Associates, Inc.	2008	8500016039
4935	City of Austin	<i>The Waller Creek Tunnel Project: Archeological Investigations Along Waller Creek in the City of Austin, Travis County</i>	Ecological Communications Corporation	2008	8500015262
5410	City of Austin	<i>Archeological Investigations at the Former Green Water Treatment Plant: Blocks 1 and 23, City of Austin, Travis County, Texas</i>	Ecological Communications Corporation	2010	8500018491
5822	Texas Historical Commission	<i>Archaeological Investigations and Construction Monitoring at the Texas Governor's Mansion, Austin, Travis County, Texas</i>	Ecological Communications Corporation	2011	8500021208
6358	City of Austin	<i>Cultural Resources Survey of Pease Park in the City of Austin, Travis County, Texas</i>	AmaTerra	2012	8500025620

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
6565	City of Austin	<i>Report on the Archeological Investigations of the Montopolis Water Reuse Site, Travis County, Texas</i>	Hicks & Company	2012	8500036165
6578	University of Texas at Austin	<i>Archeological and Historical Investigations for the Proposed Dell Medical School Phase 1 Project, Austin, Travis County, Texas</i>	Horizon	2013	8500061020
6633	City of Austin, Texas Historical Commission	<i>Archeological Survey and Monitoring of Block 124, Austin, Travis County, Texas</i>	AmaTerra	2013	8500048206
6675	City of Austin	<i>Short Report on the Archaeological Survey of Austin Energy's Proposed Office Complex Site near Montopolis, Travis County, Texas</i>	AmaTerra	2013	8100017124 <sup>a</sup>
7022	City of Austin	<i>Short Report on the Intensive Archaeological Survey of the City of Austin's Country Club Trail Project, Travis County, Texas</i>	Hicks & Company	2014	8500063852 <sup>a</sup>

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
7177	City of Austin	<i>Short Report on the Intensive Archeology Survey of the City of Austin's Burlison Road Pressure Conversion, Travis County, Texas</i>	Hicks & Company	2015	8500076184a
7571	City of Austin	<i>Archeological Survey Investigations for the City of Austin's Proposed US 183 South Utility Relocations</i>	Hicks & Company	2018	8500082300
7799	Texas Department of Transportation	<i>Archeological Investigations and Reporting for I-35 from South of Holly Street to North of Oltorf Street, Travis County, Texas, Austin District</i>	Atkins North America, Inc	2016	8500080115 <sup>a</sup>
8029	Texas Facilities Commission	<i>Intensive Archeological Survey and Limited Testing at 41TV2540 (1801 Congress/Block 50) for Proposed Improvements within the Texas Facilities Commission Capitol Complex, Austin, Travis County, Texas</i>	Cox McLain Environmental Consulting, Inc.	2017	8500080520
8660	City of Austin	<i>Archeological Survey of the Proposed Carson Creek Wastewater Line Project, Travis County, Texas</i>	AmaTerra Environmental, Inc.	2018	8500080914



TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
8696	Texas Historical Commission	<i>Archaeological Investigations at the French Legation State Historic Site (41TV136), Austin, Travis County, Texas</i>	Coastal Environments, Inc.	2020	8500082216
8985	City of Austin	<i>Intensive Cultural Resources Survey of the Proposed Walnut Creek Wastewater Treatment Plant to South Austin Regional Wastewater Treatment Plant Flow Transfer, City of Austin, Travis County, Texas</i>	SWCA Environmental Consultants	2019	8500081270
9563	City of Austin	<i>Austin Convention Center Warehouse and Marshalling Yard Intensive Archeological Survey</i>	Baer Engineering and Environmental Consulting	2020	8500081832 <sup>a</sup>
30036	City of Austin	<i>Austin Energy Downtown GIS Substation Archeological Survey</i>	Baer Engineering and Environmental Consulting	2021	8500082033
—	Capital Metropolitan Transportation Authority	<i>Historic Resources Survey for the Orange Line Project, Austin, Travis County, Texas</i>	AECOM	2022	—
—	Capital Metropolitan Transportation Authority	<i>Non-Archeological Historic Resources Survey Report Blue Line Project</i>	Cox McLain Environmental Consulting, Inc.	2022	—

TAC Permit	Sponsor	Report Title	Contractor	Year	Atlas Number
—	Texas Department of Transportation	<i>I-35 Capital Express Central Historic Resources Survey</i>	Mead & Hunt, Inc.	2022	— <sup>a</sup>
—	City of Austin	<i>City of Austin Comprehensive Survey of Cultural Resources</i>	Bell, Klein, and Hoffman / HHM, Inc.	1983	6600000310 <sup>a</sup>
—	City of Austin	<i>City of Austin Historic Resources Survey of City-Owned Property</i>	Casey Gallagher	2012	6600000318 <sup>a</sup>
—	Federal Transit Administration	<i>North/South Central Corridor Light Rail Project</i>	Parsons Brinkerhoff	2004	6600000315 <sup>a</sup>
—	—	<i>East Austin: An Architectural Survey</i>	Freeman and Doty Associates	1979	6600000309 <sup>a</sup>
—	Travis County Certified Local Government	<i>Cultural Resources Survey and Assessment Southwest Travis County, Texas</i>	Preservation Central, Inc.	2015	6600000057 <sup>a</sup>

Source: THC 2024.

Note: “—” denotes no information available in the Atlas (THC 2024).

SAL = State Antiquities Landmark; TAC = Texas Administrative Code

<sup>a</sup> Denotes surveys intersecting the APE

**Table D-3: Previously recorded archaeological sites located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects**

Trinomial	Affiliation	Features/Function	NRHP Eligibility	Approximate Distance from APE
41TV7 <sup>a</sup>	—	—	Unknown	Intersects
41TV136	Multicomponent	Post-contact home site / precontact lithic scatter	Eligible	0.50 mi (0.80 km) northeast
41TV137	Post-contact	Late nineteenth / early twentieth century dump site	Unknown	0.81 mi (1.31 km) west
41TV159	Post-contact	Bronze stirrup	Unknown	0.54 mi (0.86 km) east
41TV164	Post-contact	Burial site (destroyed)	Ineligible within ROW	0.36 mi (0.58 km) south
41TV181 <sup>a</sup>	Precontact	Camp site	Unknown	Intersects
41TV191	Post-contact	Home site	Unknown	0.14 mi (0.2 km) east
41TV194	Post-contact	Old Capitol Building	Unknown	0.19 mi (0.33 km) east
41TV260	Post-contact	Old Capitol Building	Unknown	0.22 mi (0.35 km) east
41TV350	Post-contact	Home site	Eligible	0.49 mi (0.79 km) west
41TV364	Precontact	Archaic projectile points, bifaces, lithic scatter	Unknown	0.12 mi (0.64 km) southwest
41TV382	Precontact	Camp site	Eligible	0.49 mi (0.79 km) west
41TV474	—	—	Unknown	0.46 mi (0.74 km) east
41TV523	—	—	Unknown	0.21 mi (0.34 km) west
41TV532	Post-contact	Late nineteenth / early twentieth century dump site	Unknown	0.23 mi (0.37 km) northeast
41TV546	Precontact	Lithic scatter	Unknown	0.45 mi (0.73 km) southwest
41TV549	Precontact	Lithic scatter	Unknown	0.37 mi (0.60 km) west

Trinomial	Affiliation	Features/Function	NRHP Eligibility	Approximate Distance from APE
41TV550	Precontact	Lithic scatter	Unknown	0.39 mi (0.62 km) west
41TV551	Precontact	Camp site	Unknown	0.40 mi (0.65 km) west
41TV552	Precontact	Camp site	Unknown	0.40 mi (0.65 km) west
41TV682	Precontact	Lithic scatter	Unknown	0.19 mi (0.30 km) southeast
41TV848	Post-contact	Late nineteenth century commercial bakery	Unknown	0.19 mi (0.30 km) east
41TV876	Multicomponent	Dump site / lithic scatter	Unknown	0.24 mi (0.38 km) northwest
41TV948	—	—	Unknown	104 ft (32 m) north
41TV1020	Post-contact	Dump site and human skeletal material (removed)	Ineligible	0.36 mi (0.57 km) east
41TV1205	—	—	Unknown	460 ft (150 m) east
41TV1293	—	—	Unknown	0.50 mi (0.81 km) west
41TV1374 <sup>a</sup>	Post-contact	Domestic dwellings	Unknown	Intersects
41TV1493	Post-contact	Block 9 of original Austin Townsite	Eligible	66 ft (20 m) east
41TV1494	Post-contact	Block 10 of original Austin Townsite	Eligible	450 ft (136 m) east
41TV1495	Post-contact	Block 13 of original Austin Townsite	Eligible	0.14 mi (0.23 km) east
41TV1496	Post-contact	Block 14 of original Austin Townsite	Eligible	460 ft (150 m) east
41TV1497 <sup>a</sup>	Post-contact	Block 15 of original Austin Townsite	Eligible	Intersects
41TV1553	—	—	Unknown	0.25 mi (0.40 km) east
41TV1554	—	—	Unknown	0.24 mi (0.39 km) east

Trinomial	Affiliation	Features/Function	NRHP Eligibility	Approximate Distance from APE
41TV1555	—	—	Unknown	0.17 mi (0.28 km) east
41TV1556	—	—	Unknown	0.18 mi (0.28 km) east
41TV1603	Post-contact	Block 52 of original Austin Townsite	Ineligible	457 ft (140 m) west
41TV1604	Post-contact	Block 52 of original Austin Townsite	Ineligible	275 ft (84 m) west
41TV1605	Post-contact	Block 52 of original Austin Townsite	Ineligible	420 ft (128 m) west
41TV1624	Post-contact	Late nineteenth / early twentieth century Christianson-Leberman House	Eligible	0.11 mi (0.18 km) east
41TV1657	—	—	Unknown	0.49 mi (0.79 km) northeast
41TV1668	Post-contact	Small family cemetery, church and school, and associated features	Eligible	0.40 mi (0.64 km) southeast
41TV1690	—	—	Unknown	0.24 mi (0.39 km) southeast
41TV1691	—	—	Unknown	0.10 mi (0.16 km) east
41TV1693	—	—	Unknown	0.42 mi (0.68 km) southeast
41TV1718	—	—	Unknown	133 ft (41 m) west
41TV1729	Post-contact	Late nineteenth / early twentieth century dump site	Ineligible	0.13 mi (0.21 km) southwest
41TV1730	Multicomponent	Late nineteenth century to early twentieth century low-income neighborhood / sparse lithic scatter	Ineligible	460 ft (140 m) south
41TV1731	Post-contact	Dump site	Ineligible	0.1 mi (0.15 km) southwest

Trinomial	Affiliation	Features/Function	NRHP Eligibility	Approximate Distance from APE
41TV1732	Post-contact	Block 26 of original Austin Townsite	Ineligible	0.13 mi (0.20 km) west
41TV1786	Post-contact	Block 46 of original Austin Townsite	Ineligible	0.16 mi (0.26 km) east
41TV1787	—	—	Unknown	0.19 mi (0.30 km) east
41TV1790 <sup>a</sup>	Post-contact	Block 183 of original Austin Townsite	Unknown	Intersects
41TV1799	Post-contact	Block 128 of original Austin Townsite	Eligible	0.13 mi (0.21 km) west
41TV1814	Post-contact	Late nineteenth century African American residence	Unknown	0.33 mi (0.54 km) east
41TV1819	—	—	Unknown	0.21 mi (0.34 km) east
41TV1831	Post-contact	Cistern	Ineligible	0.42 mi (0.68 km) east
41TV1861	—	—	Unknown	0.35 mi (0.57 km) east
41TV1872	Post-contact	Texas Governor's Mansion	Eligible	0.10 mi (0.16 km) east
41TV1875	Post-contact	Late nineteenth through twentieth century residential block	Ineligible	0.17 mi (0.28 km) east
41TV1887	Post-contact	Block 33 of original Austin Townsite	Eligible	276 ft (84 m) northeast
41TV1888	Post-contact	Mid nineteenth to twentieth century commercial block	Ineligible	0.10 mi (0.16 km) east
41TV1899	Post-contact	Block 33 of original Austin Townsite	Ineligible	331 ft (101 m) southwest
41TV1901	Post-contact	Susanna Dickinson, Hedgecoxe, and Hanni houses (Hannig house NRHP eligible)	Eligible	0.15 mi (0.25 km) northeast
41TV2024	Multicomponent	Post-contact scatter / lithic scatter	Unknown	172 ft (52 m) northeast

Trinomial	Affiliation	Features/Function	NRHP Eligibility	Approximate Distance from APE
41TV2025	Post-contact	Urban residence	Unknown	233 ft (71 m) northeast
41TV2060	Post-contact	Dump site	Ineligible	0.36 mi (0.58 km) west
41TV2189	Post-contact	Early twentieth century residential block	Ineligible	0.11 mi (0.18 km) east
41TV2190	Post-contact	Early twentieth century residential block	Ineligible	0.16 mi (0.25 km) east
41TV2191	Post-contact	Early twentieth century residential block	Ineligible	0.12 mi (0.19 km) east
41TV2304	Post-contact	Dump site	Ineligible	0.47 mi (0.76 km) east
41TV2385	Post-contact	Lot 4, Block 23 of original Austin Townsite	Unknown	0.10 mi (0.16 km) southwest
41TV2391	Post-contact	Below ground cistern	Unknown	0.45 mi (0.72 km) west
41TV2412	Post-contact	Late nineteenth early twentieth century dump site	Ineligible	0.47 mi (0.76 km) southeast
41TV2440	—	—	Ineligible	0.46 mi (0.74 km) east
41TV2442	Post-contact	First Baptist Church	Ineligible	0.15 mi (0.25 km) east
41TV2454	Precontact	Large lithic scatter	Unknown	0.30 mi (0.48 km) west
41TV2540	Post-contact	Residential site	Ineligible	0.28 mi (0.45 km) east
41TV2562 <sup>a</sup>	Post-contact	Austin State Hospital	Unknown	Intersects

Source: THC 2024.

Note: “—” denotes no information available in the Atlas (THC 2024).

APE = Area of Potential Effects; ft = foot/feet; km = kilometer(s); m = meter(s); mi = mile(s); NRHP = National Register of Historic Places; ROW = right-of-way

<sup>a</sup> Denotes surveys intersecting the APE

**Table D-4: Historical markers located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects**

Marker Number	Name	Location	Year Erected	Designation
2162	George W. Sampson Home	1003 Rio Grande Street	1982	RTHL
4306	Mrs. Alfred Robinson, Sr. Home	404 West 7th Street	1962	RTHL
4309	Robinson-Macken House	702 Rio Grande Street	1986	RTHL
6413	Pease School	1106 Rio Grande Street	1972	OTHM
6416	Austin High School Rio Grande Campus	1212 Rio Grande Street	1981	OTHM
6417	Central Christian Church	1110 Guadalupe Street	1985	OTHM
6418	First United Methodist Church of Austin	1201 Lavaca Street	1978	OTHM
6419	Smith-Clark-Smith House	504 West 14th Street	1975	RTHL
6420	Mauthe-Myrick Mansion	408 West 14th Street	1981	RTHL
6421	Wahrenberger House	208 West 14th Street	1963	RTHL
6422	State Bar of Texas	1414 Colorado Street	1985	OTHM
6423	Carrington-Covert House	1511 Colorado Street	1962	RTHL
6424 <sup>a</sup>	Austin's Moonlight Towers	West 16th Street and Colorado Street	1970	OTHM
6425	1933 Austin Public Library	810 Guadalupe Street	1993	RTHL
6426	Third Site for Travis County Government	West 10th Street and Guadalupe Street	1965	OTHM
6427	Zachary Taylor Fulmore	West 10th Street and Guadalupe Street	1967	OTHM
6430	Austin Woman's Club	708 San Antonio Street	1965	RTHL
6431	Catherine Robinson House	705 San Antonio Street	1962	RTHL
6432	Walter Bremond Home	711 San Antonio Street	1962	RTHL
6433	Pierre Bremond Home	402 West 7th Street	1962	RTHL
6434	Eugene Bremond House	404 West 7th Street	1962	RTHL
6435	John Bremond, Jr. House	700 Guadalupe Street	1962	RTHL
6436	Hale Houston Home	706 Guadalupe Avenue	1962	RTHL



Marker Number	Name	Location	Year Erected	Designation
6437	Christianson-Leberman Building	1304 Colorado Street	1969	RTHL
6438	Goodman Building	204 West 13th Street	1969	RTHL
6439	B.J. Smith Property	610 Guadalupe Street	1968	RTHL
6440	Hirshfeld House	303 West 9th Street	1962	RTHL
6441	Hirshfeld Cottage	305 West 9th Street	1962	RTHL
6450	J.P. Schneider Store	401 West 2nd Street	1974	OTHM
6451	Emma West Flats	511 West 7th Street	1976	RTHL
6452	Fischer House	1008 West Avenue	1982	RTHL
6453	Brizendine House	507 West 11th Street	1974	RTHL
6454	Daniel H. Caswell House	1404 West Avenue	1984	RTHL
6455	Goodall Wooten House	1900 Rio Grande	1990	RTHL
6456	Site of Edward Mandell House Home	1704 West Avenue	1986	OTHM
6457	Hugh B. Hancock House	1717 West Avenue	1981	RTHL
6458	West Hill	1703 West Avenue	1974	RTHL
6459	Herblin – Shoe House	712 West 16th Street	1987	RTHL
6460	The Texas Federation of Women's Clubs Headquarters	2313 San Gabriel Street	1986	RTHL
6461	Clara Driscoll	2312 San Gabriel Avenue	1967	OTHM
11783	Original Site of First Methodist Church of Austin	Northeastern corner of Congress Avenue and 4th Street	1978	OTHM
12242	Hodnette House	4300 Avenue F	1998	RTHL
12243	Moore-Flack House	901 Rio Grande	1984	RTHL
12245	Scholz Garten	1607 San Jacinto Boulevard	1967	RTHL
12247	Texas Highway Department	125 East 11th Street	1997	OTHM
12363	Original Site of First Presbyterian Church	210 West 7th Street	2000	OTHM

Marker Number	Name	Location	Year Erected	Designation
12592	Edmund and Emily Miller House	910 Poplar Street	2001	RTHL
12685	Confederate Texas Legislatures	201 East 14th Street	1965	OTHM
12687	Texas Newspapers, C.S.A.	8800 Business Park Drive	1971	OTHM
12690	Austin, C.S.A.	North Congress and West 1st Street	1965	OTHM
12693	Texas and the Civil War: Secession Convention	1201 Brazos Street	1965	OTHM
12696	Texas and the Civil War State Military Board	124 West 8th Street	1965	OTHM
12732	German Free School	507 East 10th Street	1962	RTHL
12733	Scarborough Building	101 East 6th Street	2001	RTHL
12734	Littlefield Building	601 North Congress	2002	RTHL
12743	Austin Presbyterian Theological Seminary	100 East 27th Street	2002	OTHM
12757	Austin Presbyterian Theological Seminary Campus	100 East 27th Street	2002	OTHM
12793	Joseph and Mary Robinson Martin House	600 West 7th Street	2001	RTHL
13094	Price Daniel	209 West 14th Street	2004	OTHM
13141	Stephen F. Austin Hotel	701 North Congress Avenue	2002	RTHL
13153	Site of John Bremond & Company	115 East 6th Street	2002	OTHM
13232	Buddington-Benedict-Sheffield Compound	506 West 34th Street	2004	RTHL
13458 <sup>a</sup>	Texas School for the Deaf	1102 South Congress Avenue	2006	OTHM
13620	Norwood Tower	114 West 7th Street	2006	RTHL
13774	The Walter Tips Company Building	710–712 Congress Avenue	1980	RTHL
13775	Walter Tips House	2336 South Congress Avenue	1976	RTHL

Marker Number	Name	Location	Year Erected	Designation
13859	Randerson-Lundell Building	701 East 6th Street	1994	RTHL
13926	Beriah Graham House	2605 Salado	1962	RTHL
13928	Central Presbyterian Church	200 East 8th Street	1988	OTHM
13929	African Americans in the Texas Revolution	Southwestern corner of 11th Street and Congress Avenue	1994	OTHM
13930	Driskill House	West 6th Street and Brazos Street	1966	OTHM
13932	The Governor's Mansion	1010 Colorado Street	1962	RTHL
13934	Governor Edmund Jackson Davis	11th Street and South Congress Avenue	1976	OTHM
13935	First Classes of the University of Texas Law School	11th Street and South Congress Avenue	1983	OTHM
13941	Kopperl House	4212 Avenue F	1989	RTHL
13974	Seaholm Power Plant	800 West Cesar Chavez Street	2007	RTHL
14087	Sampson Building	620 Congress Avenue	1982	RTHL
14090	Southwestern Telegraph & Telephone Bldg.	410 Congress Avenue	1977	RTHL
14111	Openheimer-Montgomery Building	105–109 West 8th Street	1983	RTHL
14150	Texas State Capitol	1100 Congress Avenue	1965	RTHL
14191	Original Site of First Baptist Church of Austin	Northeastern corner of West 10th Street and Colorado Street	1985	OTHM
14196	Saint David's Episcopal Church	301 East 8th Street	1966	RTHL
14219	The Austin Statesman	305 South Congress	1970	OTHM
14242	J. Frank Dobie House	702 East 26th Street	1991	RTHL
14246	Jacob Larmour House	1711 Rio Grande	1982	RTHL
14254	Jacob Leser House	3506 West Avenue	1962	RTHL
14294	F. Weigl Iron Works	100 Red River	1981	OTHM

Marker Number	Name	Location	Year Erected	Designation
14313	Penn and Nellie Wooldridge House	3124 Wheeler Street	2003	RTHL
14321	Dr. Robert Lee "R.L." Moore	2303 Rio Grande Street	2008	OTHM
14334	Platt-Simpson Building	310 East 6th Street	1982	RTHL
14345	E.H. Carrington Grocery Store and Lyons Hall	520 East 6th Street	1983	RTHL
14361	The Shipe House	3816 Avenue G	1982	RTHL
14373	Gilfillan House	603 West 8th Street	1981	RTHL
14389	Congress Avenue	South Congress Avenue and East Cesar Chavez Street	1989	OTHM
14392	DeWitt Clinton Baker Home Site	2620 Rio Grande	1971	OTHM
14420	Diocese of Austin	1600 North Congress	2008	OTHM
14424	Hyde Park	4301 Speedway	1989	OTHM
14448	McNeal Home	706 Rio Grande Street	1962	RTHL
14452	Kappa Kappa Gamma House	2001 University Avenue	1989	RTHL
14457	Reuter House	806 Rosedale Terrace	1986	RTHL
14469	M.M. Long's Livery Stable & Opera House	901 Congress Avenue	1979	OTHM
14486	Walter and Mae Simms House	906 Mariposa	2008	RTHL
14493	The Academy	400 Academy Drive	1985	RTHL
14502	Boardman-Webb House	602 West 9th Street	1979	RTHL
14554	Grinninger Fence	74 Trinity Street	1969	OTHM
14635	J.L. Buaas Building	407 East 6th Street	1983	RTHL
14643	Governor Elisha Marshall Pease	Southwestern corner of 11th Street and Congress Avenue	1977	OTHM
14668	Denny-Holliday House	1803 West Avenue	1978	RTHL
14676	Saint Mary's Cathedral	201 East 10th Street	1977	RTHL

Marker Number	Name	Location	Year Erected	Designation
14680	Swedish Consulate and Swante Palm Library	816 Congress Avenue	1991	OTHM
14684	Paramount Theater	713 North Congress Avenue	1976	RTHL
14722	The Archive War	1201 Brazos Street	1978	OTHM
14733	Hotel Provident & Heierman Bldg. <sup>b</sup>	115–117 East 5th Street	1974	RTHL
14765	Hofheintz-Reissig Store	600 East 3rd Street	1983	RTHL
14770	Gethsemane Church	1510 North Congress Avenue	1962	RTHL
14797	Governor James Edward Ferguson, Governor Miriam A. Ferguson	Southwestern corner of 11th Street and Congress Avenue	1977	OTHM
14828	French Legation	802 San Marcos Street	1962	RTHL
14858	West-Bremond Cottage	607 Nueces Street	1976	RTHL
14859	O. Henry	409 East 5th Street	1974	OTHM
14889	Littlefield Home	302 West 24th Street	1962	RTHL
14903	Espinosa-Olivares-Aguirre Expedition	3001 South Congress Avenue	1936	OTHM
14906	Palm School	East Caesar Chavez Street and North I-35	1982	OTHM
14909	St. Charles House	316 East 6th Street	1971	RTHL
14916	Claudia Taylor Johnson Hall	210 West 6th Street	1974	RTHL
14949	Old Bakery	1006 Congress Avenue	1966	RTHL
14962	The Railroad Commission of Texas	1701 North Congress Avenue	1966	OTHM
15026	The Woman Suffrage Movement in Texas	East 11th Street and Congress Avenue	1991	OTHM
15037	Robert S. Stanley House	1811 Newton	2001	RTHL
15042	Elvira T. Manor Davis House	4112 Avenue B	1994	RTHL
15046	Site of Swedish Evangelical Free Church	1604 Colorado	1977	OTHM

Marker Number	Name	Location	Year Erected	Designation
15055	Henry Smith	Southwestern corner of 11th Street and Congress Avenue	1983	OTHM
15063	Site of Second Travis County Courthouse and Walton Building	Southeastern corner of 11th Street and Congress Avenue	1965	OTHM
15080	Brueggemann-Sandbo House	200 East 30th Street	1981	RTHL
15101	Governor Andrew Jackson Hamilton	Southwestern corner of 11th Street and Congress Avenue	1978	OTHM
15108	All Saints' Episcopal Church	209 West 27th Street	1975	OTHM
15134	Neill-Cochran House	2310 San Gabriel	1966	RTHL
15196	Philquist-Wood House	4007 Avenue G	2003	RTHL
15263	Tyler Rose	201 West 14th Street	1969	OTHM
15258	Buen Retiro	300 West 27th Street	1972	RTHL
15288	Old Land Office Building	108 East 11th Street	1962	RTHL
15330	Swedish Central Methodist Church	201 West 14th Street	1975	OTHM
15360	Austin High School – John T. Allan Campus	901 Trinity Street	1981	OTHM
15397	Pease Park	Kingsbury Street	1971	OTHM
15417	Jane Yelvington McCallum	613 West 32nd Street	1990	OTHM
15449	Sixth Street	115 East 6th Street	1989	OTHM
15476	Old Depot Hotel	504 East 5th Street	1966	RTHL
15479	O. Henry Hall	601 Colorado	1974	RTHL
15486	St. Martin's Evangelical Lutheran Church	201 East 14th Street	1979	OTHM
15556	Rebecca Kilgore Stuart Red	100 East 27th Street	1988	OTHM
15605	Austin Lodge No. 12, A.F. & A.M.	207 West 18th Street	1979	OTHM
15632	Gerhard-Schoch House	2212 Nueces Street	1974	RTHL
15638	Paggi Carriage Shop	421 East 6th Street	1976	RTHL

Marker Number	Name	Location	Year Erected	Designation
15644	Scottish Rite Temple	207 West 18th Street	1967	RTHL
15648	Austin State Hospital	4110 Guadalupe Street	1966	RTHL
15862	John Elbridge Hines	501 East 32nd Street	2009	OTHM
15867	Adams-Ziller House	1306 Guadalupe Street	2009	RTHL
16141	Moses Austin	1700 North Congress Avenue	1986	OTHM
16288 <sup>a</sup>	H&TC and I&GN Depots	3rd Street and South Congress Avenue	2010	OTHM
16289	J.W. & Cornelia Rice Scarbrough House	1801 West Avenue	2010	RTHL
16353	Granger House and The Perch	805 West 16th Street	2010	RTHL
16345	St. David's Rectory	1603 Pearl Street	2010	RTHL
16346	Site of Haynie-Cook House	1122 Colorado Street	2010	OTHM
16803	Matsen House	1800 San Gabriel Street	2011	RTHL
16954	Zeta Tau Alpha House	2711 Nueces Street	2011	RTHL
17181	Pease School Building	1106 Rio Grande Street	2012	RTHL
17182	Westgate Tower	1122 Colorado Street	2012	RTHL
17293	Edward Clark House Outbuilding	604 West 11th Street	2012	RTHL
17408	Site of Temporary Texas State Capitol of 1880s	11th Street and South Congress Avenue	1967	OTHM
17513	McClendon-Price House	1606 Pearl Street	2013	RTHL
17561	Texas Confederate Woman's Home	3710 Cedar Street	2013	OTHM
17589	William T. and Valerie Mansbendel Williams House	3820 Avenue F	2013	RTHL
17636	Splitrock (Burns-Klein House)	2815 Wooldridge Drive	2013	RTHL
17721	Peter and Clotilde Mansbendel House	3824 Avenue F	2013	RTHL
17746	Helena and Robert Ziller House	800 Edgecliff Terrace	2013	RTHL

Marker Number	Name	Location	Year Erected	Designation
18370	Sparks House	1510 West Avenue	2016	RTHL
18478	Ollie O. Norwood Estate	1012 Edgecliff Terrace	2016	OTHM
18634	George H. Kinsolving Crypt	209 West 27th Street	2017	OTHM
20053	Carrington Bluff House	1900 David Street	2018	RTHL
23374	Willie Wells House	1705 Newton Street	2021	RTHL
23706	Wooldridge Square	900 Guadalupe Street	2022	OTHM

Source: THC 2024.

OTHM = Official Texas Historical Marker; RTHL = Recorded Texas Historic Landmark

<sup>a</sup> Resource intersects the APE

<sup>b</sup> City of Austin Landmark



**Table D-5: Cemeteries located within 1 mile (1.6 kilometers) of the Area of Potential Effects**

Cemetery ID	Name	Location	Approximate Distance from APE
TV-C011	Davidson-Littlepage Cemetery	1200 Bastrop Highway	0.13 mi (0.21 km) southwest
TV-C103	San Jose #2	8101 Posten Lane	0.35 mi (0.57 km) southeast
TV-C112	Greenwood	1927 Old Lockhart Road	0.44 mi (0.70 km) southeast
TV-C113	San Jose #3	8101 Posten Lane	0.35 mi (0.57 km) southeast
TV-C199	George Herbert Kinsolving Crypt	209 West 27th Street	455 ft (138 m) east
TV-C208	Martin Family Cemetery	1927 Old Lockhart Road	0.44 mi (0.70 km) southeast

Source: THC 2024.

ft = foot/feet; km = kilometer(s); m = meter(s); mi = mile(s)

**Table D-6: National Register of Historic Places-listed properties located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects**

Name	Location	Date Listed	NRHP Criteria	Reference Number
Austin Central Fire Station #1 <sup>a</sup>	401 East 5th Street	2000	C	00000454
Austin Daily Tribune Building	920 Colorado	2000	C	00001358
University Junior High School	1925 San Jacinto Boulevard	2001	C	01000396
Austin US Courthouse	200 West 8th Street	2001	C	01000432
Simms House	906 Mariposa Drive	2005	C	05000242
Royal Arch Masonic Lodge	311 West 7th Street	2005	C	05000362
Tucker Apartment House	1105 Nueces Street	2017	C	100001379
West Fifth Street Bridge at Shoal Creek	West 5th Street at Shoal Creek	2019	C	100004750
Town Lake Gazebo	9307 Ann and Roy Butler Hike and Bike Trail	2020	C	100004970
Westgate Tower	1122 Colorado Street	2010	C	10000820
Norwood Tower	114 West 7th Street	2011	C	10001224
Federal Office Building	300 East 8th Street	2011	C	11000211
Delta Kappa Gamma Society International Headquarters Building	416 West 12th Street	2012	C	12000198
Bertram Building <sup>a</sup>	1601 Guadalupe Street	2012	C	12000590
Kappa Kappa Gamma House <sup>a</sup>	2001 University Avenue	2013	C	13000602
Cranfill Apartments	1909 Cliff Street, Building B	2013	C	13000613
West Sixth Street Bridge at Shoal Creek	West 6th Street at Shoal Creek	2014	C	14000499
Granger House & the Perch	805 16th Street West	2006	C	6001083
Driskill Hotel	117 East 7th Street	1969	C	69000212
Old Bakery	1006 Congress Avenue	1969	C	69000214

Name	Location	Date Listed	NRHP Criteria	Reference Number
Battle Hall	South Mall, University of Texas campus	1970	C	70000763
Carrington-Covert House	1511 Colorado Street	1970	C	70000765
Gethsemane Lutheran Church	1510 Congress Avenue	1970	C	70000766
Littlefield House <sup>a</sup>	24th Street and Whitis Avenue	1970	C	70000767
Neill-Cochran House	2310 San Gabriel Street	1970	C	70000768
Old Land Office Building	108 East 11th Street	1970	C	70000769
U.S. Post Office and Federal Building	126 West 6th Street	1970	C	70000771
Goodman Building	202 West 13th Street	1973	C	73001976
Hancock, John, House	1306 Colorado Street	1973	C	73001977
Hirshfeld, Henry, House and Cottage <sup>a</sup>	303 and 305 West 9th Street	1973	C	73001978
Porter, William Sidney, House <sup>a,b</sup>	409 East 5th Street	1973	C	73001979
St. Mary's Cathedral	201–207 10th Street	1973	C	73001981
Brizendine House	507 West 11th Street	1974	C	74002090
Daniel H. & William T. Caswell Houses	1404 and 1502 West Avenue	1975	C	75002004
Paqqi, Michael, House	200 Lee Barton Drive	1975	C	75002006
Wooten, Goodall, House	700 West 19th Street	1975	C	75002008
Moonlight Towers <sup>a</sup>	#2: Guadalupe Street and West 9th Street	1976	C	76002071
Moonlight Towers	#4: South 1st Street and West Monroe Street	1976	C	76002071
Moonlight Towers	#7: West 9th Street and Guadalupe Street	1976	C	76002071a
Moonlight Towers	#17: East 11th Street and Trinity Street	1976	C	76002071
Moonlight Towers (Gone)	#20: East 2nd Street and Neches Street	1976	C	76002071

Name	Location	Date Listed	NRHP Criteria	Reference Number
Moonlight Towers	#12: West 41st Street and Speedway	1976	C	76002071
Moonlight Towers	#11: West 22nd Street and Nueces Street	1976	C	76002071
Moonlight Towers	#10: West 15th Street and San Antonio Street	1976	C	76002071
Moonlight Towers	#9: West 12th Street and Rio Grande Street	1976	C	76002071
Moonlight Towers (Gone)	#5 West 4th Street and Nueces Street	1976	C	76002071
Paramount Theatre	713 Congress Avenue	1976	C	76002072
Mather-Kirkland House <sup>b</sup>	402 Academy	1978	C	78002990
Millett Opera House	110 East 9th Street	1978	C	78002991
Southwestern Telegraph and Telephone Building <sup>a, b</sup>	410 Congress Avenue	1978	C	78002993
St. David's Episcopal Church	304 East 7th Street	1978	C	78002994
Wahrenberger House	208 West 14th Street	1978	C	78002995
Rather House	3105 Duval Street	1979	C	79003013
Schneider, J. P., Store <sup>a</sup>	401 West 2nd Street	1979	C	79003014
Scholz Garten	1607 San Jacinto	1979	C	79003015
Smith-Clark and Smith-Bickler Houses	502 and 504 West 14th Street	1979	C	79003016
Westhill	1703 West Avenue	1979	C	79003017
Fannie Moss Miller House	900 Rio Grande Street	2008	C	8000318
Boardman-Webb-Bugg House	602 West 9th Street	1980	C	80004152
Gilfillan House	603 West 8th Street	1980	C	80004153
Fischer House	1008 West Avenue	1982	C	82001741
Sampson, George W., House	1003 Rio Grande	1982	C	82004526

Name	Location	Date Listed	NRHP Criteria	Reference Number
Hofheintz-Reissig Store <sup>b</sup>	600 East 3rd Street	1983	C	83003165
Shipe, Col. Monroe M., House	3816 Avenue G	1983	C	83003167
Polhemus, Joseph O., House	912 East 2nd Street	1985	C	85002299
Robinson-Macken House	702 Rio Grande Street	1985	C	85002300
Texas Federation of Women's Clubs Headquarters	2312 San Gabriel Street	1985	C	85003377
Reuter, Louis and Mathilde, House	806 Rosedale Terrace	1987	C	87002100
State Lunatic Asylum	4110 Guadalupe Street	1987	C	87002115
Sears, Rev. Henry M. and Jennie, House	209 West 39th Street	1990	C	90001174
Hyde Park Presbyterian Church	3915 Avenue B	1990	C	90001175
Ramsey, F. T. and Belle, House	4412 Avenue B	1990	C	90001176
Oliphant-Walker House	3900 Avenue C	1990	C	90001177
Ledbetter, Charles P., House	3904 Avenue C	1990	C	90001178
Missouri, Kansas and Texas Land Co. House	3908 Avenue C	1990	C	90001179
Smith-Marcuse-Lowry House	3913 Avenue C	1990	C	90001180
Parker, James F. and Susie R., House	3906 Avenue D	1990	C	90001181
Williams, W. T. and Clotilde V., House	3820 Avenue F	1990	C	90001182
Mansbendel, Peter and Clotilde Shipe, House	3824 Avenue F	1990	C	90001183
Hildreth-Flanagan-Heierman House	3909 Avenue G	1990	C	90001184
Covert, Frank M. and Annie G., House	3912 Avenue G	1990	C	90001185

Name	Location	Date Listed	NRHP Criteria	Reference Number
Page-Gilbert House	3913 Avenue G	1990	C	90001186
Commercial Building at 4113 Guadalupe Street <sup>a</sup>	4113 Guadalupe Street	1990	C	90001187
Bluebonnet Tourist Camp <sup>a</sup>	4407 Guadalupe Street	1990	C	90001188
Robbins, Alice H., House	4311 Avenue A	1990	C	90001235
McCauley, Robert H. and Edith Ethel, House	4415 Avenue A	1990	C	90001236
Dobie, J. Frank, House	702 East 26th Street	1991	C	91000575
Central Christian Church <sup>a</sup>	1110 Guadalupe Street	1992	C	92000889
Austin Public Library <sup>a</sup>	810 Guadalupe Street	1993	C	93000389
Lamar Boulevard Bridge	Lamar Boulevard over the Colorado River	1994	C	94000678
McCallum, Arthur N. and Jane Y., House	613 West 32nd Street	1996	C	96000936
Wroe-Bustin House	506 Baylor Street	1997	C	96001626
Brown Building	708 Colorado Street	1997	C	97000364
1918 State Office Building and 1933 State Highway Building	1019 Brazos and 125 East 11th Street	1998	C	97001625
Scottish Rite Dormitory	210 West 27th Street	1998	C	98000404
University Baptist Church <sup>a</sup>	2130 Guadalupe Street	1998	C	98000955

Source: THC 2024.

<sup>a</sup> Resource intersects the APE

<sup>b</sup> City of Austin Landmark

**Table D-7: NRHP districts located within 0.5 mile (0.8 kilometer) of the Area of Potential Effects**

Name	Location	Date Listed	Criteria	Reference Number
Texas State Capitol	Congress and 11th Street	1970	C	70000770
Congress Avenue Historic District <sup>a</sup>	Congress Avenue from 1st to 11th Street	1978	A, C	78002989
Bremond Block Historic District <sup>a</sup>	Roughly bounded by Guadalupe, San Antonio, 7th, and 8th Streets	1970	C	70000764
Sixth Street Historic District <sup>a</sup>	Roughly bounded by 5th, 7th, and Lavaca Street and I-35	1975	A, C	75002132
Willow-Spence Streets Historic District	Portions of Willow, Spence, Canterbury, San Marcos, and Waller Street	1985	C	85002264
Hyde Park Historic District <sup>a, b</sup>	Roughly bounded by Avenue A, 45th Street, Duval Street, and 40th Street	1990	C	90001191
Shadow Lawn Historic District	Roughly bounded by Avenue G, 38th Street, Duval Street, and 39th Street	1990	C	90001192
Rainey Street Historic District	70–97 Rainey Street	1985	C	85002302
West Line Historic District	Roughly bounded by Baylor Street, West 5th and 6th Street, Mopac Expressway (Loop 1), and 12th and 13th Street	2005	A, C	5001166
Old West Austin Historic District	Roughly bounded by Funston, West 34th, Texas Loop 1, Oakmont, and West 31st Street	2003	A, C	03000937
Austin Fire Drill Tower	201 West Cesar Chavez Street	2016	—	16000720
All Saints' Chapel <sup>a</sup>	209 West 29th Street	2015	—	15000543
Gethsemane Lutheran Church and Luther Hall (boundary extension)	105 West 16th Street	2004	A, C	04001398
Wooldridge Parka	Guadalupe Street	1979	C	79003018
Seaholm Power Plant	800 W. Cesar Chavez Street	2013	A, C	13000614
Governor's Mansion	1010 Colorado Street	1970	A, C	70000896
French Legation	802 San Marcos Street	1969	A, C	69000213

Name	Location	Date Listed	Criteria	Reference Number
St. Edward's University Main Building and Holy Cross Dormitory	3001 South Congress Street	1973	A, C	73001980
Cambridge Tower <sup>a</sup>	1801 Lavaca Street	2018	—	100002603
Fiesta Gardens	2101 Jesse East Segovia Street	2019	—	100003600
Travis Heights-Fairview Park Historic District <sup>a</sup>	Roughly, rear line Edgecliff Terrace, rear line East Live Oak Street, rear line Kenwood Avenue, and rear line South Congress Avenue	2021	—	100006796
Third Street Railroad Trestle	Western end of 3rd Street at Shoal Creek	2021	—	100007202

Source: THC 2024.

Note: “—” denotes no information available in the Atlas (THC 2024).

<sup>a</sup> Resource intersects the APE

<sup>b</sup> City of Austin Landmark



**Table D-8: Texas Freedom Colonies**

Name	Location	Description
Wheatsville	Roughly bounded by 24th Street to the south, 26th Street to the north, Shoal Creek to the west, and Rio Grande Street to the east	Thought to be the first Black community associated with Austin after the Civil War. It was founded in 1867 by James Wheat and his family. A large stone building was constructed and used by various businesses and as a residential space. New Hope Baptist Church was opened in 1889, Pilgrim Home Baptist Church in 1904, and a school in 1881. After laws were passed to push African Americans to East Austin, the community had vanished by the 1930s.
Shoal Creek	On the eastern side of Shoal Creek and roughly concentrated around Nueces, San Antonio, and Guadalupe Streets, north of East 4th Street	Well established by the nineteenth century, the Metropolitan African Methodist Episcopal (AME) Church was established nearby during the 1970s. An African American school also developed within the area.
Red River Street	Along Red River Street from approximately East 5th Street north to East 10th Street	Established during the late nineteenth century, East 6th Street was an important African American business corridor in the nineteenth and early twentieth centuries. Two churches were located there by 1905 and are still active today. A few of the remaining small-scale commercial buildings along Red River may be related to the former African American community.
Pleasant Hill	Roughly bounded by East 11th Street, East 7th Street, and San Marcos Street	One of the earliest freedmen communities established in Austin as a “squatter’s camp,” completely developed by 1875 with several wood-framed dwellings.
Robertson Hill	On the corner of East 8th Street and Embassy Drive	—

Source: Texas Freedom Colonies Atlas 2024.

Note: “—” denotes no information available in the Texas Freedom Colonies Atlas.

## Appendix E. Shovel Test Table

Table E-1: Summary of Shovel Tests

**Table E-1: Summary of Shovel Tests**

Shovel Test (ST) Number	Matrix Description	Contents	Reason for Termination
1	0–20 cmbs: 10YR 2/1 clay loam 20–35 cmbs: 10YR 5/2 clay loam with PC 35–45 cmbs: 10YR 4/6 loamy clay, PC, rounded pebbles	No cultural materials	Subsoil
2	0–10 cmbs: 10YR 3/2 clay 10–25 cmbs: 10YR 2/1 loamy clay, gravels, PC 25–35 cmbs: construction fill	No cultural materials	Subsoil, disturbed soil
3	0–20 cmbs: 10YR 5/2 clay loam 20–50 cmbs: 10YR 2/1 clay, PC rounded pebbles	No cultural materials	Subsoil
4	0–25 cmbs: 10YR 3/2 clay loam, PC, redox 25–35 cmbs: 10YR 2/1 clay	No cultural materials	Subsoil
5	0–5 cmbs: eroded A horizon, 10YR 5/2 clay loam 5–10 cmbs: 10YR 4/6 loamy clay, redoximorphic features (redox), PC, pebbles 10–25 cmbs: 10YR 3/3 loamv clav. PC	No cultural materials	Subsoil
6	0–15 cmbs: 10YR 3/2 clay loam, PC 15–25 cmbs: redox, weathering 25–35 cmbs: 10YR 2/1 clav. PC	No cultural materials	Subsoil
7	Within disturbed drainage ditch 0–20 cmbs: 10YR 5/2 clay loam 20–35 cmbs: 10YR 4/6 loamv clav. PC. rounded cobbles	No cultural materials	Disturbed soil
8	0–15 cmbs: 10YR 3/2 clay loam 15–40 cmbs: 10YR 4/3 sand	No cultural materials	Subsoil
9	No Dig	No cultural materials	Within drainage ditch
10	0–25 cmbs: 10YR 2/1 clay loam 25–40 cmbs: 10YR 4/1 mottled redox	No cultural materials	Subsoil
11	0–15 cmbs: 10YR 2/1 clay loam 15 cmbs: root impasse	No cultural materials	Root impasse
12	0–10 cmbs: 10YR 4/2 clay loam 10–25 cmbs: 10YR 4/1 silty clay loam 25–50 cmbs: 10YR 2/1 clay	No cultural materials	Subsoil
13	No Dig	No cultural materials	Within drainage ditch
14	0-10 cmbs: 10YR 5/3 silty loam clay, PC 10-40 cmbs: 10YR 5/3 mottled with 10YR 5/6 loamy clav. PC	No cultural materials	
15	No Dig	No cultural materials	Within drainage ditch
16	No Dig	No cultural materials	Slope
17	0–20 cmbs: 10YR 3/3 clay loam, PC	No cultural materials	Subsoil
18	0–20 cmbs: 10YR 4/1 loamy clay 20–50 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil

Shovel Test (ST) Number	Matrix Description	Contents	Reason for Termination
19	No Dig	No cultural materials	Within drainage ditch
20	Disturbed construction fill 0–10 cmbs: 10YR 4/1 silty clay loam 10–25 cmbs: Construction fill	No cultural materials	Subsoil
21	No Dig	No cultural materials	Within drainage ditch
22	0–10 cmbs: 10YR 4/1 loamy clay 10–20 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
23	0–10 cmbs: 10YR 3/1 clay loam 10–30 cmbs: Construction fill mottled with 10YR 2/1 clay loam	No cultural materials	Subsoil
24	No Dig	No cultural materials	Within drainage ditch
25	0–10 cmbs: 10YR 3/1 clay loam 10–15 cmbs: Construction fill 15–35 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
26	0-10 cmbs: construction fill mottled with 10YR 3/1 clay loam, PC 10-35 cmbs: 10YR 2/1 clay, PC	No cultural materials	
27	0–20 cmbs: 10YR 4/1 loamy clay 20–30 cmbs: Construction fill	No cultural materials	Subsoil
28	0–20 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
29	0–20 cmbs: 10YR 4/1 loamy clay 20–40 cmbs: 10YR 2/1 clay	No cultural materials	Root impasse
30	0–20 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
31	0–10 cmbs: 10YR 3/1 silty loam 10–20 cmbs: 10YR 4/3 silty loam, PC	No cultural materials	Subsoil
32	0–10 cmbs: 10YR 3/1 clay loam	Concrete foundation	Concrete foundation
33	0–10 cmbs: 10YR 2/1 loamy clay 10–35 cmbs: 10YR 3/2 loamy clay, PC, rounded large pebbles/ small cobbles	No cultural materials	Subsoil
34	0–20 cmbs: 10YR 4/1 silty clay loam, root impasse	No cultural materials	Root impasse
35	No Dig	No cultural materials	Pavement
36	0–20 cmbs: 10YR 3/2 clay loam, rounded cobbles	No cultural materials	Bedrock
37	Shovel scrape	No cultural materials	Compact gravels
38	0–20 cmbs: 10YR 3/2 clay loam, compact cobbles and gravels	No cultural materials	Compact gravels

Shovel Test (ST) Number	Matrix Description	Contents	Reason for Termination
39	No Dig	No cultural materials	Utilities
40	0–5 cmbs: 10YR 2/1 loamy clay 5–25 cmbs: 10YR 3/2 clay, PC	No cultural materials	Subsoil
41	0–10 cmbs: 10YR 3/2 loamy clay 10–20 cmbs: Construction fill	No cultural materials	Disturbed
42	0–15 cmbs: 10YR 3/2 loamy clay 15–25 cmbs: 10YR 3/2 clay	No cultural materials	Cobble impasse
43	No Dig	No cultural materials	Slope
44	0-20 cmbs: 10YR 2/1 loamy clay, PC	No cultural materials	Subsoil, disturbed
45	0-15 cmbs: 10YR 2/1 loamy clay, PC, gravels 15-20 cmbs: Construction fill	No cultural materials	Disturbed
46	0-10 cmbs: 10YR 2/2 loamy clay 10-30 cmbs: 10YR 2/2 clay, PC	No cultural materials	Subsoil
47	0-25 cmbs: 7.5YR loamy clay, PC	No cultural materials	Subsoil, disturbed
48	No Dig	No cultural materials	Paved road/bridge
49	No Dig	No cultural materials	Slope
50	No Dig	No cultural materials	Slope and creek
51	0-10 cmbs: 10YR 3/1 loam over construction fill/gravels	No cultural materials	Disturbed
52	0-10 cmbs: 10YR 3/1 loam over construction fill/gravels	No cultural materials	Disturbed
53	0-10 cmbs: 10YR 3/1 loamy clay 10-30 cmbs: 10YR 2/1 clay loam, PC	No cultural materials	Subsoil
54	0-15 cmbs: 10YR 3/1 loamy clay mixed with construction fill 15- 35 cmbs: 10YR 2/1 clay loam, PC	No cultural materials	Subsoil
55	No Dig	No cultural materials	Slope and creek
56	0-15 cmbs: 10YR 3/2 loamy clay 15-35 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
57	No Dig	No cultural materials	Slope
58	0-15 cmbs: 10YR 3/2 loamy clay 15-20 cmbs: 10YR 4/5 sandy loam 20-40 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil

Shovel Test (ST) Number	Matrix Description	Contents	Reason for Termination
59	0-10 cmbs: 10YR 4/3 silty loam 10-30 cmbs: 10YR 4/3 silty loam, 50% limestone pieces	No cultural materials	Likely construction disturbance
60	0-20 cmbs: 10YR 3/1 clay, dry and smectic 20-30 cmbs: 2.5Y 3/2 clay 30-40 cmbs: 10YR 2/1 clay, PC, slickenside	No cultural materials	Subsoil
61	No Dig	No cultural materials	Asphalt
62	No Dig	No cultural materials	Asphalt
63	No Dig	No cultural materials	Asphalt
64	0-15 cmbs: 10YR 2/2 clay, wet 15-30 cmbs: 10YR 3/1 clay, wet, PC	No cultural materials	Subsoil
65	0-15 cmbs: 10YR 2/2 clay, wet 15-30 cmbs: 10YR 3/1 clay, wet, PC	No cultural materials	Subsoil
66	0-15 cmbs: 10YR 2/2 clay, wet 15-30 cmbs: 10YR 3/1 clay, wet, PC	No cultural materials	Subsoil
67	0-10 cmbs: 10YR 3/1 clay, wet, gravels 10-25 cmbs: 10 YR 2/2 clay, wet 25-40 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
68	0-15 cmbs: 10YR 2/2 clay, wet 15-30 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
69	0-15 cmbs: 10YR 2/2 clay, wet 15-30 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil
70	0-15 cmbs: 10YR 2/2 clay, wet 15-30 cmbs: 10YR 2/1 clay, PC	No cultural materials	Subsoil

cmbs = centimeter(s) below surface; PC = pedogenic carbonates

## Appendix F. Trench Table

Table F-1: Summary of Mechanical Trenches

Table F-1: Summary of Mechanical Trenches

Trench 1	Orientation: NW-SE	Length: 3.4 m	Max. Depth: 100 cm	Parent Material: Ozan Formation Cretaceous clay	Landscape: Urban Landscape within a floodplain	Landform: Stream terrace			Anthropogenic Feature: Urbanized environment, previous construction/fill	
Stratum	Color (dry)	Consistency	Texture	Structure					Lower Boundary Distinctness	Comments
				Grade	Type	Size (mm)	Inclusions	Redoximorphic Features (RMF) / Mottling		
1: 0-25 cmbs	2.5Y 5/3	Friable	Sandy clay	Weak/Moderate	Subangular blocky	25	Subangular pebbles and cobbles (25%)	Mottles: 2.5Y 6/4, coarse (15%)	Clear, wavy/broken	Dry gravelly topsoil, likely artificially deposited on top of fill layer
2: 25-30 cmbs	—	—	—	—	—	—	—	—	—	Construction fill layer
3: 30-75 cmbs	2.5Y 3/2	Firm	Clay loam	Moderate	Angular blocky	80	Angular pebbles and shell (2%)	RMF concentrations, medium (15%)	Clear, wavy/broken	Predeveloped slickensides; Possible BKs 1 or 2 horizon; likely that topsoil was stripped during construction
4: 75-100 cmbs	2.5Y 5/3	Firm	Clay	Moderate	Angular blocky	30	Rounded pebbles and shell (1%); pedogenic carbonates, fine masses (1%)	Mottles: 2.5Y 6/4 medium	Not observed	Possibly Bk 2 or 3; likely that topsoil was stripped during construction

Note: “—” denotes no information available

Trench 2	Orientation: NW-SE	Length: 3 m	Max. Depth: 80 cm	Parent Material: Ozan Formation Cretaceous clay	Landscape: Urban Landscape	Landform: N/A			Anthropogenic Feature: Previous construction/fill	
Stratum	Color (dry)	Consistency	Texture	Structure					Lower Boundary Distinctness	Comments
				Grade	Type	Size (mm)	Inclusions	RMF/Mottling		
1: 0-25 cmbs	7.5YR 5/4	Friable	Sandy clay loam	Moderate	Subangular blocky	15	Angular to rounded pebbles and cobbles (50%)	Mottles: 7.5YR 4/4, coarse (20%)	Irregular	Construction fill and topsoil mix
2: 25-80 cmbs	7.5YR 5/6	Very friable	Coarse sand	Weak	Subangular blocky	Coarse	Angular to rounded pebbles and cobbles (10%)	None	Not observed	Multi-colored large grain sand and gravel fill