New Hope Drive

Joey O'Keefe

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New Hope Drive

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Archeological Survey Report

Project Name: New Hope Drive
From Ronald Reagan Blvd To CR 175
District(s): Austin
County(s): Williamson
CSJ Number(s): CSJ-0914-05-197
Prinicpal Investigator and Firm/Organization: Joey O’Keefe, aci consulting
Antiquities Permit No. 9370
Report Completion Date: November 09, 2020

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated 12-09-19, and executed by FHWA and TxDOT.
Abstract

On April 13 and 14, 2020, aci consulting conducted a cultural resources survey for the proposed New Hope Drive in Williamson County, Texas. New Hope Drive would expand CR 272 between Ronald Reagan Boulevard and CR 175 in Cedar Park, Williamson County, Texas. The Area of Potential Effect (APE) for this project is approximately 1.76 (2.83 kilometers) miles in total length and includes approximately 0.62 (0.99 kilometer) mile of existing right of way (ROW) for CR 272. The remaining approximately 1.14 (1.83 kilometers) miles would be construction of new ROW where no road currently exists. The expansion includes four lanes along CR 272, a storm sewer system, water line, wastewater line, traffic signals, bridge, and intersection improvements. The proposed ROW will be approximately 120 to 130 feet (36.58 to 39.62 meters) wide, and the total area of the APE is approximately 27.73 acres (11.22 hectares).

This work was conducted in compliance with the Texas Administrative Code (13 TAC 26.20[2]) under Texas Antiquities Code permit number 9370, as well as Section 106 of the National Historic Preservation Act of 1966, as amended. The survey did not result in the location of any new archaeological sites, historic structures, or additional historic properties. Previously recorded sites 41WM1163 and 41WM1268 were revisited during the survey. The sites were not relocated within the APE, and no artifactual evidence was observed within either previously mapped site boundary. As the previously recorded archeological sites 41WM1163 and 41WM1268 were not relocated within the New Hope Drive APE, and no artifactual or other site evidence was observed in surface or subsurface contexts, no mitigation or avoidance strategies are recommended for either of the archeological sites. The portion of 41WM1163 and 41WM1268 overlapping with the New Hope Drive APE does not contribute to either site’s eligibility for listing on the National Register of Historic Places (NRHP) and does not warrant designation as a State Antiquities Landmark (SAL). Based on these results, no further archeological work is recommended. Records from this investigation will be curated at the Texas Archeological Research Laboratory (TARL). Joey O’Keefe served as Principal Investigator.
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Management Summary and Introduction

On April 13 and 14, 2020, aci consulting archeologists Sarah King and Erin Wilson conducted a cultural resources survey for the proposed New Hope Drive in Williamson County, Texas. Reconnaissance prior to the pedestrian survey was conducted by Joey O’Keefe on August 12, 2019. The pedestrian survey component of the project took approximately 15 hours to complete, using the full day on April 13 and a half day on April 14. New Hope Drive was formerly associated with, conducted under, and approved by the Texas Department of Transportation (TxDOT) under CSJ-0914-05-197. However, funding for the undertaking will be provided by the City of Cedar Park and Williamson County. aci consulting completed the archeological survey and report on behalf of LJA Engineering.

New Hope Drive would expand CR 272 between Ronald Reagan Boulevard and CR 175 in Cedar Park, Williamson County, Texas. The Area of Potential Effect (APE) for this project is approximately 1.76 miles (2.83 kilometers) in total length and includes approximately 0.62 mile (0.99 kilometer) of existing CR 272. The area of CR 272 within the APE is 3.94 acres and is existing right-of-way (ROW). The remaining approximately 1.14 miles (1.83 kilometers) would be construction of new ROW where no road currently exists. The expansion includes four lanes along CR 272, a storm sewer system, water line, wastewater line, traffic signals, bridge, and intersection improvements. The proposed ROW will be approximately 120 to 130 feet (36.58 to 39.62 meters) wide, and the total area of the APE is approximately 27.73 acres (11.22 hectares) (Figures 1 and 2).

Ground-disturbing activities associated with road reconstruction and construction of the new ROW will occur throughout the APE. The cultural resources survey was conducted within the entire ROW. If additional areas of disturbance outside of the current ROW are required for construction easements, access roads, additional infrastructure, etc., those areas will be surveyed during a separate investigation once the proposed locations have been determined. The maximum depth of impacts reached during this project is anticipated to be 28 feet (8.53 meters) in the drill shafts for the bridge over Brushy Creek. A trunkline is also anticipated to be located down the center median of New Hope Drive, typically reaching a depth of 5-10 feet (1.52-3.05 meters). The roadway itself is anticipated to have an excavated depth of 3 feet (0.91 meters).

This work was conducted in compliance with the Texas Administrative Code (13 TAC 26.20[2]) under Texas Antiquities Code permit number 9370, as well as Section 106 of the National Historic Preservation Act of 1966, as amended. The investigation consisted of an intensive pedestrian survey, shovel testing, site revisits, data analysis, and reporting in accordance with current THC and Council of Texas Archeologists (CTA) standards. The survey did not result in the location of any new archeological sites, historic structures, or additional historic properties. Previously recorded sites 41WM1163 and 41WM1268, both prehistoric lithic scatters, were revisited during the survey. The sites were not relocated within the APE, and no
artifactual evidence was observed within either previously mapped site boundary. As the previously recorded archeological sites 41WM1163 and 41WM1268 were not relocated within the New Hope Drive APE, and no artifactual or other site evidence was observed in surface or subsurface contexts, no mitigation or avoidance strategies are recommended for either of the archeological sites. The portion of 41WM1163 and 41WM1268 overlapping with the New Hope Drive APE does not contribute to either site’s eligibility for listing on the National Register of Historic Places (NRHP) and does not warrant designation as a State Antiquities Landmark (SAL). Based on these results, no further archeological work is recommended. Records from this investigation will be curated at the Texas Archeological Research Laboratory (TARL). Joey O’Keefe served as Principal Investigator.

As a result of the investigation, aci consulting recommends that construction of the proposed New Hope Drive should be allowed to proceed without further examination for archeological resources within the 27.73-acre APE. It must be noted that no level of survey intensity can be guaranteed to locate all cultural features within the APE. Therefore, should previously unrecorded cultural resources, including human remains, be discovered during the course of construction for this project, the City of Cedar Park and Williamson County will contact a qualified professional archeologist to assess the findings.
Project Information

- **This survey is:**
  - ☑ the initial survey for this project.

- **Report Completion Date:** 08/20/2020
- **Date(s) of Survey:** 04/13/2020 to 04/14/2020
- **Archeological Survey Type:**
  - ☑ Reconnaissance  ☐ Intensive
- **Report Version:**
  - ☑ Draft  ☐ Final
- **Report Author(s) and Affiliation:** Sarah King, aci consulting; Joey O’Keefe, aci consulting
- **Estimated Percentage of Time that the Principal Investigator was in the Field:** 25%
Area of Potential Effects and Survey Area

- **Area of Potential Effects (APE)**
  The APE is defined to encompass the limits of the existing right of way; proposed, new project right of way; permanent and temporary easements; and any project-specific locations and utility relocations designated by TxDOT. Note: the APE encompasses the entirety of the project area, regardless of the extent of prior archeological investigations, the particular locations subject to field investigations, or the portion of a project added through a design change. If impacts are not known, worst-case impacts are assumed in defining the APE.

  See **Attachment 1**, Figures 1 and 2 for a map of the APE, which is based on the project information attached as **Attachment 2**.

- **No Survey Area**
  Not applicable; entire APE requires survey.

- **Access Denied Area:**
  None. Right-of-entry access was granted to all parcels within the APE at the time of survey.

- **Survey Area:**
  Same as APE.

- **Project Area Ownership:**
  This survey was conducted on portions of public roadway easements owned by the City of Cedar Park and the City of Round Rock, as well as on private land parcels. Figures 1 and 2 detail the areas of public roadway easements as existing ROW; all other areas were privately owned for residential and commercial use. No artifacts were collected on either public easements or private land parcels as a result of this survey.
Project Setting

- **Natural Setting**

  - **Topography:**
    According to the *Leander 7.5-minute topographic quadrangle* (USGS 1987), the APE crosses three streams: Brushy Creek, Block House Creek, and Dry Fork Creek (Figure 1). The eastern portion of the APE begins on a gentle upland slope leading to a ridge with an elevation of 907 feet above mean sea level (MSL) (Figure 1). From there, the APE quickly grades down to the stream terrace of Brushy Creek at an elevation of 800 feet above MSL, before grading gently back up another slope to 850 feet above MSL in the western terminus of the APE (Figure 1). In the northern portion of the APE, approximately 1,033 feet (315 meters) west of Brushy Creek, the APE appears to include some portions of the Block House Creek stream terrace (Figure 1). Of these areas, the stream terraces in proximity to Brushy and Block House Creeks appear to be particularly conducive to human occupation and activity as known historical and prehistoric water sources.

  - **Geology:**
    The Bureau of Economic Geology (Barnes 1972) has classified the general surface geology of the area as being primarily dominated by Comanche Peak Limestone Formation (Kc), Alluvium (Qal), and Edwards Limestone (Ked). Both the Comanche and Edwards are Cretaceous-aged formations that are comprised primarily of limestone with marl, dolomite, and chert. The Alluvium is Quaternary-aged formation that is comprised of primarily quartz, siliceous chert, limestone, and petrified wood (USGS 2020). Alluvium is also a Holocene-age deposit that correlates with landforms proven conducive for habitation and cultural deposits.

  - **Soils:**
    Six soils from five soil series are mapped within the APE including Crawford clay, 0 to 1 percent slopes (CfA); Crawford clay 1 to 3 percent slopes (CfB); Eckrant cobbly clay, 1 to 8 percent slopes (EaD); Georgetown stony clay loam, 1 to 3 percent slopes (GsB); Oakalla silty clay loam, 0 to 2 percent slopes, frequently flooded (Of); and Sunev silty clay loam, 1 to 3 percent slopes (SuB) (NRCS 2020) (Figure 3). The Crawford and Eckrant series were formed in residuum weathered from limestone. The Georgetown series formed in clayey residuum weathered from limestone. The Sunev series is an alluvium of quaternary age derived from mixed sources, and the Oakalla series consists of very deep, well drained soils formed in loamy alluvium derived from limestone of Cretaceous age. The majority of the soils within the APE have been previously determined to have negligible to moderate probability to contain cultural materials at shallow depths (less than 1 meter) and the Oakalla series has high potential to contain deep deposits (greater than 1 meter) of cultural materials according to the Archeological Integrity Model of Texas created by TxDOT’s Environmental Affairs Division (ENV) for highway projects in the Austin District (Abbott 2013). Oakalla soils comprise approximately 14 percent (3.85 acres) of the APE and overlap with
areas of high potential for cultural deposits at any depth (Abbott and Pletka 2015) (see Figures 3 and 4).

− Potential Archeological Liability Map:
According to the Austin District Hybrid Potential Archeological Liability Map (HPALM), the potential for the APE to contain cultural resources varies from low to high probability (Abbott and Pletka 2015) (Figure 4). The areas of high potential at any depth generally follow the flowlines of Brushy Creek and Block House Creek and comprise approximately 3.12 acres of the 27.73-acre APE. In addition to this, there is a 0.02-acre area of moderate shallow potential and high deep potential, and a area measuring less than 0.01 acre of high shallow potential and moderate potential at depth. The remainder of the APE is situated in low to moderate potential areas. The high potential areas appear to correlate with areas of Oakalla soils (Figures 3 and 4).

− Historic Land Use:
The APE lies within Williamson County, which has historically been used for agricultural purposes such as growing wheat and corn, raising livestock such as cattle and sheep, and cotton farming (Odintz 2002). According to the earliest available historic aerial photographs (ASCS 1941), the APE was predominantly rural and agricultural lands containing a combination of densely wooded areas, cleared or open spaces, and visible travel corridors. Topographic maps available via the Texas Historic Overlay (THO) show an increase in structures adjacent to the APE, from six in 1934 (USDA) to 13 in 1964 (USGS) (Figures 5 and 6). According to the Texas State Historical Association (TSHA), limestone for building and cedar (*Juniperus ashei*) fence posts became a major product of Cedar Park between 1890 to 1970 (Wynn 2010). The historic aerials appear to reflect a fluctuation in the number of trees visible within and adjacent to the APE between 1941 and 1981, which may indicate logging, or other harvesting for purposes such as construction and fences (Figures 7-11).

Significant population and economic changes occurred in the 1960s, 1970s, and 1980s within Williamson County. The construction and expansion of roads throughout the undeveloped areas of Williamson County meant urban populations now had easier access to the Hill Country and vice versa (Odintz 2002). This is reflected in the historic aerial photographs through the visible expansion of both Ronald Reagan Blvd and CR 175 (Figures 9-11). Further changes to the landscape occurred during the establishment of housing developments and modern roads which began to appear outside of the current APE in 1981 (USGS) and 1995 (USGS) (Figures 11 and 12). Growth became more rapid and expansive according to aerial photographs from 2004 to 2014 (USDA) (Figures 13-15). The ground disturbance from underground utilities and the wood recycling plant are visible by 2014 (Figure 15). The aerial image from 2019 (TNRIS) shows recent land use patterns and residential and commercial developments surrounding the APE; however, it is missing the newly-constructed LCRA substation present at the time of the aci survey (Figures 2 and 16).
Possible and known historically utilized water sources for the area include Brushy Creek, which crosses the APE near the center, and an intermittent tributary of Dry Fork Creek, which crosses the APE in its eastern part (Figure 1).

- **Land Use:**
  The APE includes portions of private residential property, industrial property such as the Austin Wood Recycling facility, and property used for livestock ranching. The APE contains both above ground and subsurface utilities (see Attachment 3 for all photographic overviews of the APE and adjacent parcels).

- **Vegetation:**
  According to the Texas Parks and Wildlife Department’s Ecological Mapping System of Texas, the APE primarily lies within Urban Low Density, Edward’s Plateau Deciduous Oak/Evergreen Mott and Woodland, Edwards Plateau Post Oak Motte Woodland, and Edwards Plateau Savanah Grassland vegetation classes (TPWD 2020). Observed vegetation within the APE at the time of survey included grasses, Ashe juniper, cedar elm, poison ivy, live oak, greenbriar, mustang grape, and Texas sycamore.

- **Estimated Ground Surface Visibility:**
  The ground surface visibility varied from 0 to 100 percent throughout the APE. More visibly disturbed areas, such as the ranchland parcels, the Austin Wood Recycling facility parcels, and the LCRA substation portion generally possessed greater ground visibility, and the less disturbed land areas, such as the Native Wildlife Management parcels, possessed reduced ground visibility. Photographs of the APE, including ground surface visibility examples, are presented in Attachment 3.

- **Previous Investigations and Known Archeological Sites:**
  **Known Archeological Sites**
  A literature review of the Texas Historical Commission’s (THC) Archeological Sites Database (the Atlas) revealed two sites are located within the APE, site 41WM1163 and 41WM1268, and an additional 13 archeological sites are within the 1-kilometer buffer of the APE (Table 1; Figure 17). Of the additional 13 archeological sites within the 1-kilometer buffer, three are considered eligible for listing on the NRHP, and one, 41WM235 (the Wilson-Leonard site) is a registered SAL. According to the Atlas (2020), there are no cemeteries or historical markers within the APE or within the 1-kilometer buffer of the APE. Below is a description of the sites.
within the APE and the 1-kilometer buffer that are considered eligible for listing on the NRHP or registered as a SAL.

The digitally mapped northern extent of the boundary of site 41WM1163 is located within the APE approximately 3,054 feet (930.86 meters) east of Ronald Reagan Blvd. The site was recorded in 2007 by Horizon Environmental Services, Inc. during a survey for the North Brushy Creek Interceptor Extension, Phase 1 project. The site consists of a low-density artifact scatter situated in a field on the western terrace of Brushy Creek. Artifacts include lithic debitage (bifacial reduction flakes, other flakes, and shatter), a stemmed dart point fragment, a late-stage biface, and several large fragments of burned rock. No evidence for cultural features was identified (Atlas 2020). The site was determined ineligible for listing on the NRHP in 2007. According to the Atlas (2020), the site could be impacted by the project undertakings.

Site 41WM1268 is located within the approximate center of the proposed APE. The site was recorded by Jacobs Engineering, Inc. in 2011 during the survey for the Round Rock Treated Water Transmission Line – Segment 3 project. The site consists of a thin scatter of lithic debitage and tested cobbles in the upland on the east side of Brushy Creek (Voellinger 2011). The site was determined ineligible for listing on the NRHP in 2012 (Atlas 2020). According to the Atlas (2020), the site could be impacted by the project undertakings.

Site 41WM234 is located approximately 2,502 feet (762.61 meters) south of the APE on Spanish Oak Creek just north of RM 1431 near the intersection of Spanish Oak Creek and Brushy Creek. The site is between Parmer Lane/Ronald Reagan Blvd and CR 272. The site was originally recorded in 1973, then revisited in 2000, and again in 2013. During the original recording, the site consisted of two burned rock middens. Later surveys and excavations revealed the site had been extensively looted, but there remained a high density of lithics and snail shell fragments within the exposed sediments. Burned rock was also scattered on the surface and in the backdirt. Piles of discarded debitage had been left near areas of looting including placed on top of tree stumps. The site was listed as eligible for the NRHP in 2008 (Atlas 2020). The site is well outside of the APE and would not be impacted by the project undertakings.

Site 41WM235, the Wilson-Leonard site, is approximately 3,630 feet (1,106.42 meters) south of the APE on terraces south of the confluence of Spanish Oak Creek and Brushy Creek, 3.25 miles (5.23 kilometers) east/northeast of the junction of US 183 and RM 1431, and approximately 5 miles (8.05 kilometers) northwest of Round Rock, Texas (Atlas 2020). The site was first recorded by TxDOT in 1973. A major excavation of the site occurred in 1982 through April 1984, all under the direction of Frank A. Weir. A second major excavation was conducted by archeologists with the TARL in 1992 under the direction of Michael B. Collins. The site occurs
as multiple cultural levels buried in layers of natural valley fill, which accumulated to a thickness of 19.5 feet (6 meters) over approximately the last 12,000 years (TSHA 2020). The site was listed as eligible for the NRHP in 1999 and was designated as a SAL in 1984. The site is well outside of the APE and would not be impacted by the project undertakings.

Site 41WM964, the Krienke Site, is believed to be associated with 41WM235 (the Wilson-Leonard site) due to its proximity to Wilson-Leonard. The site is located approximately 3,032 feet (924.15 meters) south of the APE, at the confluence of Spanish Oak and Brushy Creek on the north side of RM 1431 and approximately 580 feet (176.8 meters) north of 41WM235. The site was recorded in 2000 as a prehistoric campsite with deeply buried deposits. Artifacts include chert debitage, mussel valves, bone, one Lange dart point, biface fragments, and one stone lined pit feature (Atlas 2020). The site was listed as eligible for the NRHP in 2000. The site is well outside of the APE and would not be impacted by the project undertakings.

According to the Atlas (2020), the remaining 10 archeological sites within the 1-kilometer buffer consist primarily of prehistoric-age sites (n=7), which include lithic scatters, burned rock middens, and campsites; and historic-age farmsteads and structures (n=3). Of these 10 sites, 8 are considered ineligible for listing on the NRHP, and the eligibility for 2 are unknown (Figure 17). A brief description of these remaining sites and their trinomials is available in Table 1.

Previous Surveys

According to Atlas (2020), three previous surveys have been conducted within or intersecting the APE (Table 2; Figure 17). A fourth and fifth investigation have been included using information from an interim report that is not yet included in the Atlas (Werfel and Smith 2018), and another report that was accepted by the THC, but the authors did not provide a digital shapefile for the Atlas (Voellinger 2011). The following are descriptions of each survey within the APE based on information provided in the Atlas (2020), the interim report (Werfel and Smith 2018), and the report submitted, but provided no digital shapefile (Voellinger 2011). Additional investigations occurring within one kilometer of the APE, as well as their findings and approximate distance from the APE, are presented in Table 2.

In 2000, a linear cultural resources survey sponsored by the Federal Communications Commission (FCC) was conducted in the western portion of the APE. No further information about this survey was available (Atlas 2020), and no cultural resources were documented as a result of this survey.

In 2007, Horizon Environmental Services, Inc. conducted a cultural resources survey sponsored by the City of Cedar Park for the North Brushy Creek Interceptor Extension, Phase 1 project. The survey runs perpendicular to the APE at approximately 0.61 mile (0.99 kilometer)
east of the western extent of the APE. Archeological sites 41WM1162, 41WM1163, 41WM1164, and 41WM1165 were recorded as a result of this survey.

In 2011, Jacobs Engineering, Inc. conducted a cultural resources survey for the Round Rock Treated Water Transmission Line – Segment 3 project for the City of Round Rock. The survey is located along the approximate alignment of New Hope Drive, beginning at the western extent of the APE at Ronald Reagan Blvd. The previous survey then travels east within the APE for approximately 3,700 feet (1,128 meters). The survey then curves to the north and runs adjacent to the north boundary for approximately 2,250 feet (685 meters), then rejoins the APE for approximately 445 feet (135.64 meters) until both the APE and previous survey reach CR 175, at which point the survey takes a 90-degree turn to the south and shadows the west side of CR 175 (Voellinger 2011). Site 41WM1268 was recorded as a result of this survey. There is no information provided for this survey in the Atlas (2020).

In 2015, SWCA Environmental Consultants conducted a cultural resources survey sponsored by Prime Strategies for the Arterial H Extension Project. The survey runs adjacent north of the APE’s east extent for approximately 450 feet (137.16 meters). Archeological site 41WM1309 was recorded as a result of this survey.

In 2018, the Lower Colorado River Authority (LCRA) conducted a cultural resources survey as part of the proposed Leander to Round Rock Transmission Line and Ridgmar and Spanish Oak Substation project (Werfel and Smith 2018). The survey runs adjacent to the APE on the southern side for approximately 3,750 feet (1,143 meters), then crosses the APE and runs adjacent on the north side for approximately 1,900 feet (580 meters). No cultural resources were recorded within the APE or the 1-kilometer buffer as a result of this survey. At the time of this review, the report for this survey was in the early draft stages and had not been officially submitted to the THC or TARL. Therefore, no information was provided for this survey in the Atlas.

- **Evaluation of Project Setting:**

The APE contains no deposits that would allow for prehistoric-age or historic-age archeological sites to maintain sufficient integrity and potential to address important archeological questions. Any such sites would lack integrity of location, design, and materials. The surface of the APE has been disturbed by construction and the clearing of vegetation. Certain soils within the APE are mapped as deep and are considered to have high probability to contain subsurface deposits that harbor intact cultural material (Abbott 2013); however, the previous 2011 and 2018 archeological surveys have indicated an overall lack of soil depth within the APE (Voellinger 2011; Werfel and Smith 2018). This was confirmed during the 2020 aci consulting field investigations, which revealed minimal soil depth (maximum of 63 cm below surface (cmbs), average of 31 cmbs) within the APE.
Survey Methods

**Surveyors:**
Sarah King and Erin Wilson. Reconnaissance prior to the pedestrian survey was conducted by Joey O’Keefe on August 12, 2019.

**Description of Methods:**
An intensive pedestrian survey augmented with shovel testing was conducted within the entire 27.73-acre (11.22 hectare) APE on April 13 and 14, 2020, in order to locate any archeological sites or other historical properties that may be within the APE (Figures 1 and 2). The survey was conducted in cool conditions under sunny skies using two transects no more than 30 meters apart. The ground surface was damp throughout the APE from recent rains.

The Austin District HPALM model (Abbott and Pletka 2015) was utilized to identify the areas with the highest probability to contain archeological sites (Figure 4). According to the Archeological Integrity Model of Texas created by TxDOT ENV for highway projects in the Austin District (Abbott 2013), Oakalla soils have a very high probability of containing cultural deposits (Figure 3).

The high potential areas for intact cultural materials are mapped within Oakalla soils and comprise approximately 14 percent (3.85 acres) of the 27.73-acre APE (Figures 4 and 5). In the accepted scope for this project, aci consulting proposed that seven backhoe trenches be excavated in these high probability areas if deep alluvial deposits (i.e., deeper than shovel test depths of 80 cmbs) were located during the pedestrian survey and shovel testing. No deep alluvial deposits were encountered, as evidenced by the depths of shovel test units within the APE, which reached a maximum depth of 63 cmbs in low probability soils and an overall average of 33 cmbs throughout the APE before termination due to limestone cobbles. A total of 17 shovel test units were excavated throughout the APE to locate any potential subsurface cultural material (Figure 18). Shovel tests were placed in areas with the least amount of artificial disturbances relative to the project area. Figure 18 illustrates the areas that were shovel tested as well as areas that were not shovel tested due to marked subsurface disturbances, i.e. underground utilities; visibly shallow, cobbly soils; areas subjected to mechanical scraping and/or ground clearing action, such as that seen at the Austin Wood Recycling facility and the LCRA substation; inundation; or else a combination of these factors. Each in-field disturbance within the APE was photo-documented (see Attachment 3) and are discussed further in the Survey Area Description.

Historic aerial photographs for the area containing the APE dating from 1941 (ASCS) (the earliest photograph available) and historical topographic and soils maps were referenced throughout the survey to determine the potential for historic-age structures and cultural
resources within the APE (Figures 5-10). During the course of the desktop assessment, it was determined that the one historic structure visible within the APE on the 1964 Leander historic topographic quadrangle map may no longer exist within the current APE. Field investigations confirmed that no historic-age structures or resources depicted on historic maps were present within the APE.

Shovel tests were conducted in settings that had potential for buried cultural horizons and/or if the ground surface visibility was less than 30 percent. The tests were excavated at least 30 cm in diameter to the bottom of Holocene deposits, if possible. The shovel tests were dug in 10 cm levels, and the excavated sediments were screened through ¼-inch hardware cloth. Shovel tests were recorded on logs and the locations of the tests were recorded on a GPS unit. A total of 17 shovel test units were performed throughout the APE, all of which were negative for cultural material at any depth.

- **Subsurface Probes**

  See Figure 18.

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- **Other Methods:**

  None.

- **Collection and Curation:** ✗ NO ☐ YES

  This was a non-collection survey, and no cultural resources were recorded as a result of this survey. Records from this investigation will be curated at the TARL.

- **Comments on Methods:**

  At the time of the approved New Hope Drive scope of work, the THC minimum survey standards for project areas of 200 acres or less for linear projects with a ≤ 100 foot (30 meter) wide corridor was 16 shovel tests per mile. The pedestrian survey was completed using two transects spaced no more than 30 meters apart. A total number of 17 shovel test units was
completed. The length of the APE in total would have required a shovel test total of
approximately 28-29 shovel test units; however, as illustrated in Figure 18 and the
photographs in Attachment 3, shovel testing was not conducted in areas that had a high
amount of ground disturbance, underground utilities, visible limestone bedrock, and/or were
inundated at the time of survey (see Survey Area Description for a detailed analysis of each
area within the survey).

In the accepted project scope, a minimum of 14 shovel test units was proposed due to known
subsurface disturbances and shallow soils reported in previous reports (see Werfel and Smith
2018 and Voellinger 2011), as well as a maximum of seven mechanical trenches if deep
deposits were encountered during survey. This shovel test minimum was met, and mechanical
trenching was found not to be necessary due to the lack of soil depth evidenced in shovel
testing. The shovel test units reached a maximum depth of 63 cmbs in low probability soils,
and an overall average of 33 cmbs throughout the APE before termination due to limestone
cobbles. THC survey standards for mechanical trenching state that mechanical excavation
should be continued to the lesser of bedrock; as bedrock was reached in shovel testing, aci
consulting personnel did not find that mechanical trenching would be necessary for the New
Hope Drive project.

Survey Results

• Survey Area Description:

The survey was conducted under full sun with cool temperatures. Heavy rains had occurred for
several days prior to the survey and soils were damp. The overall ground surface of the APE
was level to gently sloped, but the areas of the APE closest to Brushy Creek were sloped.
Surface visibility ranged from 0 to 100 percent. No issues arose during the survey of the 27.73-
acre APE.

The APE generally trends northeast to southwest, through residentially developed areas,
ranchland, an active wood recycling facility, and is adjacent to a transmission line corridor.
Most of the land parcels surveyed are privately owned, with the exceptions being the Austin
Wood Recycling facility, City of Cedar Park-owned land, and an undeveloped parcel owned by
a housing subdivision. Right-of-entry was obtained prior to survey and all parcels within the APE
were accessed. Underground utilities are present in places throughout the APE, and a water
main is present within and adjacent to the APE (see Figure 17 and Voellinger 2011 for the
survey and location of the water main).

Survey of the 27.73-acre APE began on April 13, 2020, at the northeastern extent of the APE
at the intersection of E New Hope Drive and CR 175 (Attachment 3; Photographs 1 and 2).
From there, aci consulting archeologists headed generally southwest along the project
alignment, ending the day’s survey on the eastern bank of Brushy Creek. This portion of the
survey contained most of the undeveloped land, and the majority of the shovel test units was performed on this day (n=14). An abandoned residential structure was observed within the APE but was determined not to be historic-period in age based on historic aerial imagery and historic topographic maps, which indicate that the structure was built between 1981 and 1987 (Figures 1 and 11) (Attachment 3; Photograph 3). The APE in this area also includes two driveways, one of which leads to a small, developed monitoring station (Attachment 3; Photographs 2 and 4).

Sections of the eastern portion of the alignment west of CR 175 and east of the Austin Wood Recycling facility are part of a multi-property Wildlife Management Native Pasture and possess relatively few disturbances in comparison to the rest of the alignment (Attachment 3; Photograph 5). The remains of a former private road and a berm were also observed within what is currently the native pasture (Attachment 3; Photographs 6 and 7). Some parts of the parcels associated with the native pasture were inundated with a significant amount of water from recent rains at the time of survey (Attachment 3; Photograph 8). This portion of the APE is listed within the National Hydrography Dataset (NHD) as an intermittent stream tributary to Dry Fork Creek, as well as a blue line on the Leander topographic quadrangle (USGS 1987), indicating the potential for seasonal flooding and stream activity (USGS 2012) (Figures 1 and 18). As the survey proceeded west towards Brushy Creek, the highly disturbed wood recycling facility was observed, as well as privately owned land used for livestock ranching (Attachment 3; Photographs 9 and 10). The soils within the APE west of the site and east of Brushy Creek were gravelly and shallow, as they had been within the site, and ground surface visibility was overall at or above 30 percent (Attachment 3; Photograph 12). Other privately-owned land parcels were also encountered, some bearing intensive modification to the landscape by the landowners (Attachment 3; Photographs 13 and 14).

Survey on April 14, 2020, began at the intersection of CR 272 and Ronald Regan Drive and headed northeast along the project alignment until the west bank of Brushy Creek was reached (Attachment 3; Photographs 15 and 16). This portion of the survey contained more developed private parcels, the current ROW of CR 272, more exposed limestone cobbles, and more underground utilities (Attachment 3; Photographs 17-21). As a result, only three (n=3) shovel tests were excavated on this portion of the alignment. Two of the shovel tests were conducted on the west bank of Brushy Creek, and one was conducted north of CR 272 in an undeveloped field (Figure 18) (Attachment 3; Photograph 22). An abandoned shed structure was observed within this field approximately 30 meters (100 ft) north/northeast of shovel test 17 but was determined not to be historic-period in age due to the presence of PVC piping, electrical wiring and outlets, and modern nails (Attachment 3; Photographs 23-25). Additionally, the shed is not visible on any of the historic topographic maps or in historic aerial imagery (Figures 5-16).

Ground surface visibility varied between 0 to 100 percent throughout the APE due to vegetation growth, livestock grazing, and ground clearing activities associated with development, such as
the Austin Wood Recycling facility and the LCRA transmission line and substation. Vegetation within the APE included grasses, Ashe juniper, cedar elm, poison ivy, live oak, greenbriar, mustang grape, and Texas sycamore. Areas of visible limestone cobbles were interspersed throughout the APE but were primarily located in the portions southwest of Brushy Creek (Figure 18).

- **Potential Buffer Zone Description:**
  
  No additional landforms, waterways, or otherwise more favorable settings for human occupation occur within 50 feet of the survey area (Figures 1-3). Further development for residential and commercial use has occurred within 50 feet of the survey area (see photographs in Attachment 3). Further areas along Brushy and Block House Creeks would be situated within the 50-foot buffer zone; however, given the shallow soil deposition observed within the APE, it is unlikely that improved preservation conditions would exist within 50 feet of the APE. Additionally, the previous 2011 Jacobs Engineering survey and the 2018 LCRA survey include portions of the 50-foot buffer zone, and no further cultural resources aside from 41WM1163 and 41WM1268 were observed within the 50-foot buffer (Figure 17).

- **Archeological Materials Identified and Archeological Site Description:**
  
  No archeological sites were identified. Previously recorded sites 41WM1163 and 41WM1268 were revisited, but no artifactual evidence was observed for either site within the New Hope Drive APE.
Recommendations

- **Results Valid Within (check all that apply to define the buffer zone):**

<table>
<thead>
<tr>
<th>No Survey Area (NSA)</th>
<th>Survey Area</th>
<th>Either</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 50 feet of NSA</td>
<td>☐ 50 feet of survey area</td>
<td>☐ Variable, see map</td>
</tr>
<tr>
<td>☒ 0 feet of NSA</td>
<td>☒ 0 feet of survey area</td>
<td></td>
</tr>
</tbody>
</table>

- **The Definition and Evaluation of this Horizontal Buffer Zone Is Based on One or More of the Following Considerations (check all that apply):**

  ☐ The integrity of the areas has been affected by prior development, modern land use practices, or other disturbances.
  ☐ The areas are unlikely locations for past human activity.
  ☐ The survey shows that archeological materials are unlikely to exist in this area.
  ☒ The survey shows that areas may contain intact archeological sites or the survey results cannot preclude the possibility of such sites.
  ☒ Other (specify)

  Only the APE was surveyed, therefore recommendations for further work and findings of no effect will be limited to the APE.

- **Archeological Site Evaluations:**

  **Site 41WM1163**
  Site 41WM1163 was recorded in 2007 by Horizon Environmental Services, Inc. during a survey for the North Brushy Creek Interceptor Extension, Phase 1 project. The site consists of a low-density artifact scatter situated in a former agricultural field on the western terrace of Brushy Creek. At the time of recording in 2007, the site was located in an actively plowed agricultural area, and the site was noted as being only 25 percent intact at the time of its recording (Atlas 2020). Artifacts included lithic debitage (bifacial reduction flakes, other flakes, and shatter), a stemmed dart point fragment, a late-stage biface, and several large fragments of burned rock. No evidence for cultural features was identified, though the recorders noted that the burned rock may indicate that features were once present within the site. The site was determined ineligible for listing on the NRHP in 2007 (Atlas 2020).

  The mapped northern extent of site 41WM1163 that is within the APE and would potentially be impacted by New Hope Drive was revisited by aci consulting archeologists on April 14, 2020. The site as it is described in Atlas (2020) was not relocated and may have been destroyed within the APE by the construction of the LCRA substation. The ground has been completely cleared and levelled for construction, and a layer of light-colored gravelly, sandy fill had been

Archeological Survey Report, Texas Department of Transportation, Environmental Affairs Division
deposited atop the natural soils (Attachment 3; Photographs 26-30). No artifactual evidence for this site was observed within the APE, and no shovel tests were conducted within the site boundary due to the amount of disturbance.

No changes to the site boundary north of the site and across CR 272 were observed. Shovel test units 15, 16, and 17 were conducted in adjacent, less-disturbed soils located northeast and northwest of the site. All three shovel test units outside of the site boundary were negative for cultural material and displayed no subsurface evidence of the site boundary extending in these directions (Figure 18 and Table 3).

As the site was not relocated within the New Hope Drive APE, and no artifactual or other site evidence was observed in surface or subsurface contexts, no mitigation or avoidance strategies are recommended for this site. The portion of 41WM1163 overlapping with the New Hope Drive APE does not contribute to the site’s eligibility for listing on the NRHP and does not warrant designation as a SAL.

**Site 41WM1268**

Site 41WM1268 was initially recorded by Jacobs Engineering, Inc. in 2011 during the survey for the Round Rock Treated Water Transmission Line – Segment 3 project. The site consists of a thin scatter of lithic debitage and tested cobbles in the upland on the east side of Brushy Creek (Voellinger 2011). The site was determined ineligible for listing on the NRHP in 2012 (Atlas 2020).

According to the Atlas (2020) site boundary, the entire site is located within the center of the New Hope Drive APE and would be directly impacted by the project undertakings. As such, the site was revisited by aci consulting archeologists on April 13, 2020. Voellinger (2011) describes the site as consisting of five tested cobbles, two cores, 30 primary flakes, and 10 interior flakes in a 40 meter (east to west) area along a fenceline bordering the Austin Wood Recycling facility. Burned chert and limestone were also observed during the 2011 survey, but the recorders attributed this to recent brush burning that had occurred previous to the survey. The artifact material type was primarily gray Edwards chert as well as honey colored chert (Voellinger 2011). North of the site was noted a dense juniper wood that has since been cleared for the LCRA transmission line (Attachment 3; Photograph 31).

During the 41WM1268 site revisit, aci archeologists observed multiple broken chert cobbles and fragments within the mapped site boundary, none of which appeared to be culturally modified (Attachment 3; Photograph 32). Conchoidal fracturing, bulbs of percussion, directional flaking patterns, and platforms were absent from the material observed within the site, and none of the artifacts described in the 2011 survey report were relocated. No burned cherts or limestone were observed. Six (n=6) shovel tests were performed within the documented site boundary, all of which were negative for cultural material. Three of these
shovel tests terminated almost immediately at 5 centimeters below surface (cmbs) due to the large amounts of subsurface limestone and chert cobbles, and the deepest test unit terminated at 30 cmbs due to limestone and chert cobbles.

Given that the description of the site’s location in the 2011 Voellinger report appeared to be congruent with the location visited by aci consulting archeologists and that no artifactual material was relocated within the site boundary, the site itself may have been destroyed. The site is partially located in an area frequently used for livestock ranching, and several of the chert cobbles within the site appeared to have been broken due to hoof spall. The treeline directly north of the site has also been cleared for the LCRA transmission line, which may have further impacted the site (Attachment 3; Photographs 31-37).

As the site was not relocated within the New Hope Drive project APE, and no artifactual or other site evidence was observed in surface or subsurface contexts, no mitigation or avoidance strategies are recommended for this site. The portion of 41WM1268 overlapping with the New Hope Drive APE does not contribute to the site’s eligibility for listing on the NRHP and does not warrant designation as a SAL.

- **Comments on Evaluations:**
  None.

- **Further Work:**
  The proposed project would have no effect on archeological historic properties and/or State Antiquities Landmarks within the horizontal buffer zone, as specified in the previous subsections. Any design change within this area would not require additional review or investigation. Design changes that either extend beyond the buffer zone or result in potential impacts deeper than the impacts considered in this report would require additional review.

aci consulting has no recommendations regarding further archeological fieldwork for the New Hope Drive project.

- **Justification:**
  As a result of the investigation, aci consulting recommends that construction of the proposed New Hope Drive should be allowed to proceed without further examination for archeological resources within the 27.73-acre APE. As the previously recorded archeological sites 41WM1163 and 41WM1268 were not relocated within the New Hope Drive project APE, and no artifactual or other site evidence was observed in surface or subsurface contexts, no mitigation or avoidance strategies are recommended for either of the archeological sites. The portion of 41WM1163 and 41WM1268 overlapping with the New Hope Drive APE does not contribute to either site’s eligibility for listing on the NRHP and does not warrant designation as a SAL. It must be noted that no level of survey intensity can be guaranteed to locate all cultural features within the APE. Therefore, should previously unrecorded cultural resources;
including human remains, be discovered during the course of construction for this project, the City of Cedar Park and Williamson County will contact a qualified professional archeologist to assess the findings.
References Cited

Abbott, James T.
2013  Automated Archeological Integrity Modeling in Texas: A Pilot Study. Texas Department of Transportation, Environmental Affairs Division, Austin, Texas.

Abbott, James T. and Scott Pletka
2015  Data Release: The Austin District HPALM Model. Texas Department of Transportation, Environmental Affairs Division, Austin, Texas.

(AMS) Army Mapping Service
1953 Williamson County; 1:24,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

(ASCS) Agricultural Stabilization and Conservation Service
1941 Williamson County; 1:24,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

Atlas

Barnes, V.E. et. al.
1972  Geologic Atlas of Texas, Austin Sheet. The University of Texas at Austin, Bureau of Economic Geology. Scale 1:250,000.

Collins, Michael B. and C.E. Mear

(NASA) The National Aeronautics and Space Administration
1970 Williamson County; 1:24,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

(NRCS)
Odintz, Mark
2002 *Handbook of Texas Online*, s.v. “Williamson County”

(USDA) United States Department of Agriculture

2004 Williamson County; 1:2,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

2008 Williamson County; 1:2,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

2014 Williamson County; 1:2,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

(USGS) United States Geologic Survey
1962 Williamson County; 1:2,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

1964 Leander, TX. Photo revised 1964. 1:24,000. 7.5-Minute Series. USGS, Lakewood, CO.

1981 Williamson County; 1:2,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

1987 Leander, TX. 1:24,000. 7.5-Minute Series. USGS, Lakewood, CO.

1995 Williamson County; 1:2,000 in Banks Environmental Data. Historic Aerial Photographs: ES-132477. New Hope Drive Phase 2. Received Thursday, 11/14/19.

Voellinger, Leonard R.

Werfel, Valerie, and Michael Smith

Wynn, Frances W.
Table 1. Previously Recorded Archeological Sites within the APE and One Kilometer of the APE

<table>
<thead>
<tr>
<th>Trinomial</th>
<th>Site Name</th>
<th>Site Type</th>
<th>Distance from APE</th>
<th>NRHP</th>
</tr>
</thead>
<tbody>
<tr>
<td>41WM234</td>
<td></td>
<td>Prehistoric burned rock midden</td>
<td>763 meters (2,502 feet) south</td>
<td>Eligible</td>
</tr>
<tr>
<td>41WM235</td>
<td>Wilson-Leonard Site</td>
<td>Paleo/Archaic campsite</td>
<td>1,106 meters (3,630 feet) south</td>
<td>Eligible/SAL</td>
</tr>
<tr>
<td>41WM236</td>
<td></td>
<td>Prehistoric open terrace campsite</td>
<td>648 meters (2,126 feet) south</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM311</td>
<td></td>
<td>Prehistoric lithic scatter</td>
<td>354 meters (1,160 feet) north</td>
<td>Unknown</td>
</tr>
<tr>
<td>41WM701</td>
<td>Winfield Site</td>
<td>Prehistoric lithic scatter with possible burial mounds</td>
<td>904 meters (2,967 feet) southwest</td>
<td>Unknown</td>
</tr>
<tr>
<td>41WM964</td>
<td>Krienke Site</td>
<td>Prehistoric campsite</td>
<td>924 meters (3,032 feet) south</td>
<td>Eligible</td>
</tr>
<tr>
<td>41WM1000</td>
<td>Corn Crib Site</td>
<td>Historic farmstead</td>
<td>851 meters (2,793 feet) east</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM1031</td>
<td></td>
<td>Historic structure and scatter</td>
<td>580 meters (1,904 feet) north</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM1032</td>
<td></td>
<td>Historic structure</td>
<td>903 meters (2,964 feet) north</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM1163</td>
<td></td>
<td>Prehistoric lithic scatter</td>
<td>Within project APE</td>
<td>Ineligible</td>
</tr>
<tr>
<td>Trinomial</td>
<td>Site Name</td>
<td>Site Type</td>
<td>Distance from APE</td>
<td>NRHP</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>41WM1164</td>
<td>Prehistoric lithic scatter and burned rock midden</td>
<td></td>
<td>433 meters (1,420 feet) north</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM1165</td>
<td>Prehistoric camp</td>
<td></td>
<td>962 meters (3,157 feet) north</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM1182</td>
<td>Prehistoric lithic scatter</td>
<td></td>
<td>806 meters (2,643 feet) south</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM1268</td>
<td>Prehistoric lithic scatter</td>
<td></td>
<td>Within project APE</td>
<td>Ineligible</td>
</tr>
<tr>
<td>41WM1309</td>
<td>Prehistoric lithic scatter</td>
<td></td>
<td>803 meters (2,635 feet) east</td>
<td>Ineligible</td>
</tr>
</tbody>
</table>

Table 2. Previous Investigations within the APE and One Kilometer of the APE

<table>
<thead>
<tr>
<th>Year</th>
<th>TAC #</th>
<th>Surveyor</th>
<th>Sponsor</th>
<th>Identified Cultural Resources</th>
<th>Distance from APE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>N/A</td>
<td>BTAS Bol. 62/1991</td>
<td>Houston Museum of Natural Science</td>
<td>41WM235 (Facial Reconstruction from Wilson-Leonard Site)</td>
<td>1,065 meters (3,494 feet) south</td>
</tr>
<tr>
<td>1992</td>
<td>N/A</td>
<td>N/A</td>
<td>Federal Highway Administration</td>
<td>None</td>
<td>1,030 meters (3,379 feet) south</td>
</tr>
<tr>
<td>1998</td>
<td>1907</td>
<td>Horizon Environmental Services, Inc.</td>
<td>City of Cedar Park</td>
<td>Delineation of 41WM235 for project avoidance.</td>
<td>820 meters (2,690 feet) south</td>
</tr>
<tr>
<td>Year</td>
<td>TAC #</td>
<td>Surveyor</td>
<td>Sponsor</td>
<td>Identified Cultural Resources</td>
<td>Distance from APE</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>----------</td>
<td>---------</td>
<td>------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>2000</td>
<td>2385</td>
<td>Horizon Environmental Services, Inc.</td>
<td>City of Cedar Park</td>
<td>41WM964; boundary extension of 41WM234, delineation of 41WM236.</td>
<td>900 meters (2,953 feet) south</td>
</tr>
<tr>
<td>2000</td>
<td>N/A</td>
<td>N/A</td>
<td>FCC</td>
<td>None</td>
<td>Within APE</td>
</tr>
<tr>
<td>2002</td>
<td>2736</td>
<td>ACSG, aci consulting</td>
<td>Williamson County</td>
<td>41WM1031, 41WM1032, 41WM1033, 41WM1042</td>
<td>33 meters (108 feet) west</td>
</tr>
<tr>
<td>2002</td>
<td>2768</td>
<td>Paul Price Associates, Inc.</td>
<td>USACE Fort Worth District</td>
<td>None</td>
<td>625 meters (2,051 feet) east</td>
</tr>
<tr>
<td>2003</td>
<td>2718</td>
<td>Prewitt and Associates, Inc.</td>
<td>TxDOT</td>
<td>None</td>
<td>979 meters (3,212 feet) south</td>
</tr>
<tr>
<td>2006</td>
<td>4181</td>
<td>CAS- Texas State University, San Marcos</td>
<td>Williamson County</td>
<td>41WM235 site delineation</td>
<td>1,155 meters (3,789 feet) south</td>
</tr>
<tr>
<td>2007</td>
<td>4374</td>
<td>Horizon Environmental Services, Inc.</td>
<td>City of Cedar Park</td>
<td>41WM1162, 41WM1163, 41WM1164, 41WM1165</td>
<td>Within APE</td>
</tr>
<tr>
<td>2007</td>
<td>4480</td>
<td>PBS&amp;J</td>
<td>City of Cedar Park</td>
<td>None</td>
<td>485 meters (1,591 feet) south</td>
</tr>
<tr>
<td>2007</td>
<td>4615</td>
<td>Hicks and Company</td>
<td>City of Cedar Park</td>
<td>None</td>
<td>788 meters (2,585 feet) south</td>
</tr>
<tr>
<td>2011</td>
<td>6061</td>
<td>Jacobs Engineering, Inc.</td>
<td>Williamson County</td>
<td>41WM1268</td>
<td>Within APE</td>
</tr>
<tr>
<td>2012</td>
<td>6196</td>
<td>aci consulting</td>
<td>LAN</td>
<td>41WM234 site delineation</td>
<td>734 meters (2,408 feet) south</td>
</tr>
<tr>
<td>2015</td>
<td>7315</td>
<td>SWCA Environmental Consultants</td>
<td>Prime Strategies Inc.</td>
<td>41WM1309</td>
<td>Within APE; site is 803 meters (2,635 feet) northeast of APE</td>
</tr>
<tr>
<td>Year</td>
<td>TAC #</td>
<td>Surveyor</td>
<td>Sponsor</td>
<td>Identified Cultural Resources</td>
<td>Distance from APE</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>--------------</td>
<td>---------</td>
<td>------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>2015</td>
<td>7531</td>
<td>LCRA</td>
<td>LCRA</td>
<td>None</td>
<td>322 meters (1,056 feet) north</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>None</td>
<td>1,055 meters (3,461 feet) south</td>
</tr>
<tr>
<td>2018</td>
<td>8279</td>
<td>LCRA</td>
<td>LCRA</td>
<td>None</td>
<td>Within APE</td>
</tr>
<tr>
<td>2019</td>
<td>9201</td>
<td>aci consulting</td>
<td>City of Cedar Park</td>
<td>None</td>
<td>493 meters (1,617 feet) south</td>
</tr>
</tbody>
</table>

Table 3. Shovel Test Pit Results for Each Level in the Shovel Test Pit

<table>
<thead>
<tr>
<th>Shovel Test Pit Number / Site Shovel Test Number</th>
<th>Depth (cmbs) of level</th>
<th>Sediment color (Munsell)</th>
<th>Sediment Texture</th>
<th>Cultural Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>STP 1</td>
<td>0-10</td>
<td>10 YR 3/2</td>
<td>Clay Loam</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>10-20</td>
<td>10 YR 3/2</td>
<td>Clay</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mottled with 7.5 YR 3/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20-47</td>
<td>7.5 YR 3/4</td>
<td>Clay</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mottled with 10 YR 3/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STP 2</td>
<td>0-20</td>
<td>10 YR 3/2</td>
<td>Clay</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mottled with 10 YR 4/1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20-25</td>
<td>10 YR 3/2</td>
<td>Clay</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mottled with 10 YR 2/1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STP 3</td>
<td>0-15</td>
<td>10 YR 3/2</td>
<td>Clay</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>15-25</td>
<td>10 YR 4/2</td>
<td>Clay Loam</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mottled with 10 YR 3/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shovel Test Pit Number / Site Shovel Test Number</td>
<td>Depth (cmbs) of level</td>
<td>Sediment color (Munsell)</td>
<td>Sediment Texture</td>
<td>Cultural Material</td>
</tr>
<tr>
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<tr>
<td>STP4</td>
<td>25-45</td>
<td>10 YR 4/2</td>
<td>Clay with 10% Loam</td>
<td>None</td>
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<tr>
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<td>0-30</td>
<td>10 YR 3/2 mottled with 10 YR 4/1</td>
<td>Clay</td>
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<td>20-25</td>
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<td>Clay</td>
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<td>10 YR 3/1</td>
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<td>17-40</td>
<td>10 YR 4/4 mottled with 10 YR 3/1</td>
<td>Clay Silt</td>
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<td>40-63</td>
<td>10 YR 4/4</td>
<td>Silty Clay</td>
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<td>STP6</td>
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<td>Clay</td>
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<td>20-25</td>
<td>10 YR 3/3 mottled with 10 YR 2/1</td>
<td>Clay</td>
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<td>10 YR 2/1 mottled with 20% 7.5 YR 4/6</td>
<td>Clay Loam</td>
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<td>STP10/SST4</td>
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<td>Shovel Test Pit Number / Site Shovel Test Number</td>
<td>Depth (cmbs) of level</td>
<td>Sediment color (Munsell)</td>
<td>Sediment Texture</td>
<td>Cultural Material</td>
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<td>Silty Clay with 30% gravels</td>
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<td>10 YR 2/1</td>
<td>Loamy Clay</td>
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Attachments

Attachment 1 – Figures
Attachment 2 – Project Information
Attachment 3 – Project Area Photographs
Attachment 4 – Site Revisit Forms
Attachment 1. Figures

Figure 1. APE on Leander 7.5-Minute Topographic Quadrangle (USGS 1987)
Figure 2. APE on Aerial Photograph Background
Figure 3. APE Soils
Figure 4. Austin District Hybrid Potential Archeology Liability Map
Figure 5. APE on 1934 Williamson County 63k Soils Map Overlay (USDA)
Figure 6. APE on 1964 Leander 7.5-Minute Topographic Quadrangle (USGS)
Figure 7. APE on 1941 Aerial Photograph Background (ASCS)
Figure 8. APE on 1953 Aerial Photograph Background (AMS)
Figure 9. APE on 1962 Aerial Photograph Background (USGS)
Figure 10. APE on 1970 Aerial Photograph Background (NASA)
Figure 11. APE on 1981 Aerial Photograph Background (USGS)
Figure 12. APE on 1995 Aerial Photograph Background (USGS)
Figure 13. APE on 2004 Aerial Photograph Background (USDA)
Figure 14. APE on 2008 Aerial Photograph Background (USDA)
Figure 15. APE on 2014 Aerial Photograph Background (USDA)
Figure 16. APE on 2019 Aerial Photograph Background (TNRIS)
Figure 17. Previously Recorded Cultural Resources and Surveys
Figure 18. Shovel Test Units
New Hope Drive (Williamson County)

Figure 1. APE on Leander 7.5-Minute Topographic Quadrangle (USGS 1987)
Figure 2. APE on Aerial Photograph Background

New Hope Drive (Williamson County)

November 2020
New Hope Drive (Williamson County)

Figure 3. APE Soils
New Hope Drive (Williamson County)

Figure 4. Austin District Hybrid Potential Archeology Liability Map (HPALM) (Abbott and Pletka 2015)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

New Hope Drive (Williamson County)

Figure 5. APE on 1934 Williamson County 63k Soils Map Overlay (USDA)
New Hope Drive (Williamson County)

Figure 6. APE on 1964 Leander 7.5-Minute Topographic Quadrangle (USGS)
New Hope Drive (Williamson County)

Figure 7. APE on 1941 Aerial Photograph Background (ASCS)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

New Hope Drive (Williamson County)

Figure 8. APE on 1953 Aerial Photograph Background (AMS)

aci Project No.:05-18-041
November 2020
Figure 9. APE on 1962 Aerial Photograph Background (USGS)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

1,000  500  0  1,000
1:12,000  1 inch = 1,000 feet

300  150  0  300
1:12,000  1 inch = 300 meters

New Hope Drive (Williamson County)
Figure 10. APE on 1970 Aerial Photograph Background (NASA)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

New Hope Drive (Williamson County)

Figure 11. APE on 1981 Aerial Photograph Background (USGS)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

New Hope Drive (Williamson County)

Figure 12. APE on 1995 Aerial Photograph Background (USGS)

November 2020
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

Figure 13. APE on 2004 Aerial Photograph Background (USDA)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

New Hope Drive (Williamson County)

Figure 14. APE on 2008 Aerial Photograph Background (USDA)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

New Hope Drive (Williamson County)

Figure 15. APE on 2014 Aerial Photograph Background (USDA)
This map is intended for planning purposes only. All map data should be considered preliminary. All boundaries and designations are subject to confirmation.

1,000 Feet
1 inch = 1,000 feet

300 Meters
1 inch = 300 meters

New Hope Drive (Williamson County)

Figure 16. APE on 2019 Aerial Photograph Background (TNRIS)
Attachment 2. Project Information
Project Definition

Project Name: New Hope Drive Extension Project

Anticipated Environmental Classification: EA

Yes Is this an FHWA project that normally requires an EIS per 23 CFR 771.115(a)?

Manually Associate CSJ:

There are currently no Project Associations added to this project.

DCIS Project Funding and Location

DCIS Funding Type:
- Federal
- State
- Local
- Private

Location

DCIS Project Number: CC 914-5-197

Highway: CR

District: AUSTIN

County: WILLIAMSON

Project Limit -- From: CR 175 §SAM BASS!

Begin Latitude: + 30.8470493

Begin Longitude: - 97.7937044

End Latitude: + 30.8471691

End Longitude: - 97.7933229

DCIS & P6 Letting Dates

DCIS District: 08/25

DCIS Approved: 

DCIS Actual: 

P6 Ready To Let: 

P6 Proposed Letting: 

DCIS Project Description

Type of Work: $NEW

Layman's Description:

WIDEN ROAD - ADD LANES

DCIS Project Classification: WNF - WIDEN NON-FREEWAY

Design Standard: 4R - New Location and Reconstruction

Roadway Functional Classification: 5 - Rural major collector or urban collector street

Jurisdiction

No Does the project cross a state boundary, or require a new Presidential Permit or modification of an existing Presidential Permit?
Attachment 3. Project Area Photographs

Photograph 1. Eastern terminus of APE, facing intersection of CR 175 and E New Hope Drive, facing west

Photograph 2. Overview of APE directly west of CR 175, facing southwest
Photograph 3. Overview of southwest corner of abandoned non-historic residential structure within APE, facing northeast

Photograph 4. Overview of developed and inundated area partially within and adjacent to APE, approximately 128 meters (420 feet) west of abandoned residential structure, facing northwest
Photograph 5. Overview of APE within Wildlife Management Native Pasture parcel, facing west

Photograph 6. Overview of berm in APE, facing east
Photograph 7. Overview of ground surface in former unpaved road, plan view

Photograph 8. Overview of APE in inundated portion of Wildlife Management Native Pasture parcel near the tributary to Dry Fork Creek, facing southwest
Photograph 9. Overview of APE at start of Austin Wood Recycling parcel, recently cleared for transmission line, facing southwest

Photograph 10. Overview of Austin Wood Recycling facility and transmission line, facing south
Photograph 11. Overview of site 41WM1268 and livestock ranching parcels, facing west; area has been previously cleared for the Round Rock water main

Photograph 12. Ground surface between western edge of site 41WM1268 and east bank of Brushy Creek, plan view
Photograph 13. Overview of landowner modifications near Brushy Creek, facing west

Photograph 14. Downslope of landowner modifications near Brushy Creek, facing east/northeast
Photograph 15. Overview of western terminus of APE at CR 272 and Ronald Regan Road, facing west

Photograph 16. Overview of Brushy Creek from the western bank, facing east
Photograph 17. Overview of residential property adjacent to and within APE, facing north; CR 272 and underground utility signage present in foreground

Photograph 18. Overview of CR 272 ROW within APE, facing east
Photograph 19. Example of ground surface and limestone cobbles within APE, plan view

Photograph 20. Example of underground utility line and signage on south side of CR 272, facing southeast
Photograph 21. Example of water line and extensive subsurface disturbances south of CR 272, facing west

Photograph 22. Overview from ST 17, facing southwest
Photograph 23. Overview of non-historic abandoned shed structure within APE, facing north

Photograph 24. Detail of PVC piping and non-historic nails on north side of abandoned shed structure
Photograph 25. Detail of interior of abandoned shed, facing southeast corner

Photograph 26. Overview of site 41WM1163 from northeast corner of site, facing southwest towards recorded site boundary
Photograph 27. Overview of site 41WM1163 from northwest corner of site, facing southeast towards recorded site boundary.

Photograph 28. Cleared, filled, and disturbed ground surface of site 41WM1163, plan view.
Photograph 29. Overview of site 41WM1163 from within site, facing southeast

Photograph 30. Overview from southern terminus of APE facing site 41WM1163, facing north
Photograph 31. Overview of site 41WM1268 at eastern terminus, in cleared area north of fenceline, facing west

Photograph 32. Example of broken cherts visible in site, plan view
Photograph 33. Overview of site 41WM1268 in center north of fenceline, facing south

Photograph 34. Site 41WM1268 overview from center, facing west
Photograph 35. Site 41WM1268 overview south of fenceline in center of site, facing east

Photograph 36. Site 41WM1268 overview south of fenceline, facing Austin Wood Recycling facility to the south
Photograph 37. Site 41WM1268 overview at western terminus of site, facing east
Attachment 4. Site Revisit Forms