2020

Archaeological Investigations Of The Comal ISD Middle School #8 (Milam Tract) Bulverde, Comal County, Texas

Mikayla Matthews
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Matthews, Mikayla and Basse, Karissa (2020) "Archaeological Investigations Of The Comal ISD Middle School #8 (Milam Tract) Bulverde, Comal County, Texas," Index of Texas Archaeology: Open Access Gray Literature from the Lone Star State: Vol. 2020, Article 141. ISSN: 2475-9333
Available at: https://scholarworks.sfasu.edu/ita/vol2020/iss1/141

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ARCHAEOLOGICAL INVESTIGATION OF THE
COMAL ISD MIDDLE SCHOOL #8 (MILAM TRACT)
BULVERDE, COMAL COUNTY, TEXAS

Prepared For:
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Lead Agency:
Texas Historical Commission
Texas Antiquities Permit No. 9658

December 2020
Report No. 2020-023
COMAL ISD MIDDLE SCHOOL #8 (MILAM TRACT)
Archaeological Investigation

ABSTRACT

On behalf of Comal Independent School District (Comal ISD), Pape-Dawson Engineers, Inc. (Pape-Dawson) conducted an archaeological investigation for the proposed Comal ISD Middle School #8 (Milam Tract) Project (Project) in Bulverde, Comal County, Texas. The Project consists of the construction of a new middle school complex, sports field, water detention basin, portable building space, water storage tank, and associated driveways and utilities within a 14.1-hectare (ha; 35.8-acre [ac]) tract of land (Project Area) east of the intersection of US 281 and Ancestral Trail. As the Project is still within the design phase, the maximum depth of impact for the Project is not presently defined but will vary across the Project Area.

As the Project will take place on land owned by Comal ISD (a political subdivision of the state of Texas), compliance with the Antiquities Code of Texas, as administered by the Texas Historical Commission (THC), is required. No federal permitting or funding is anticipated for the Project, which would necessitate compliance with Section 106 of the National Historic Preservation Act. Consistent with state regulatory review, the purpose of the investigation was to identify archaeological sites (if present) within the Project Area and assess the potential for the proposed Project to impact archaeological sites listed or considered eligible for listing as State Antiquities Landmarks or within the National Register of Historic Places.

The archaeological investigation for the Project consisted of a background study and an intensive pedestrian survey supplemented by systematic shovel testing. Per the research design approved by the THC on October 22, 2020, a reduced number of shovel tests were excavated to target portions of the Project Area with the highest potential for soil deposition. Archaeological survey of the Project Area occurred on October 27, 2020. A total of 10 shovel tests were excavated under Texas Antiquities Permit No. 9658 in accordance with the Council of Texas Archeologists (CTA) Intensive Terrestrial Survey Guidelines (CTA 2020). Pape-Dawson archaeologist, Dr. Karissa Basse, supervised all tasks and served as Principal Investigator for the Project. Project Archaeologist Jacob Sullivan and Archaeological Technician Mikayla Mathews conducted the fieldwork and assisted with report production and preparation of map exhibits. Zachary Overfield served as the Project Manager, managing client and agency coordination for the Project and providing senior oversight. THC concurred with the results of this report on December 9, 2020.
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The investigation did not result in the identification of cultural materials or the documentation of any archaeological sites; therefore, Pape-Dawson recommends that no additional work is warranted within the Project Area, as currently defined. However, if undiscovered archaeological deposits or human remains are encountered during construction, all work in the vicinity should cease and the discovery should be evaluated by a qualified archaeologist who can provide guidance on how to proceed in accordance with applicable state regulations. Records generated for the Project will be curated at the University of Texas at San Antonio Center for Archaeological Research in accordance with THC requirements for State Held-in-Trust Collections.
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CHAPTER 1: INTRODUCTION

On behalf of Comal Independent School District (Comal ISD), Pape-Dawson Engineers, Inc. (Pape-Dawson) conducted an archaeological investigation for the proposed Comal ISD Middle School #8 (Milam Tract) Project (Project) in Bulverde, Comal County, Texas (Figure 1). The Project consists of the construction of a new middle school complex, including a sports field, water detention basin, portable building space, water storage tank, and associated driveways and utilities within a 14.1-hectare (ha; 35.8-acre [ac]) tract of land (Project Area) east of the intersection of US 281 and Ancestral Trail (Figure 2). As the Project is still within the design phase, the maximum depth of impact for the Project is not presently defined but will vary across the Project Area.

As the Project will take place on land owned by Comal ISD (a political subdivision of the state of Texas), compliance with the Antiquities Code of Texas (ACT), as administered by the Texas Historical Commission (THC) is required. No federal permitting or funding is anticipated for the Project, which would necessitate compliance with Section 106 of the National Historic Preservation Act. Consistent with state regulatory review, the purpose of the investigation was to identify archaeological sites (if present) within the Project Area and assess the potential for the proposed Project to impact archaeological sites listed or considered eligible for listing as State Antiquities Landmarks (SALs) or National Register of Historic Places (NRHP) properties.

The archaeological investigation for the Project consisted of a background study and a 100-percent pedestrian survey supplemented by judgmental shovel testing. In accordance with a research design approved by the THC on October 22, 2020, a reduced number of shovel tests targeting portions of the Project Area with the highest potential to contain buried cultural deposits was performed on October 27, 2020. A total of 10 shovel tests were excavated during the investigation under Texas Antiquities Permit No. 9658. Pape-Dawson archaeologist, Dr. Karissa Basse, supervised all tasks and served as Principal Investigator for the Project. Project Archaeologist Jacob Sullivan and Archaeological Technician Mikayla Mathews conducted the fieldwork and assisted with report production and preparation of map exhibits. Zachary Overfield served as the Project Manager, managing client and agency coordination for the Project and providing senior oversight.
Figure 1. Project location map.
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Figure 2. Project Area map on aerial background.
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As no materials were identified during the course of investigation, records generated for the Project will be curated at the University of Texas at San Antonio Center for Archaeological Research (UTSA-CAR) in accordance with THC requirements for State Held-in-Trust Collections.

Pape-Dawson prepared the following report detailing the results of the archaeological investigation according to the CTA Guidelines for Cultural Resource Management Reports (2020a). Following this introduction (Chapter 1), the subsequent sections include an overview of the environmental setting (Chapter 2) of the Project, the investigative methods employed by Pape-Dawson (Chapter 3), a discussion of the findings (Chapter 4), and a summary of the investigation and management recommendations (Chapter 5). Additionally, shovel test profile descriptions are provided in Appendix A, and Project design sheets are provided in Appendix B.
CHAPTER 2: ENVIRONMENTAL SETTING

The Project Area is located east of US 281 in Bulverde, Comal County, Texas. The Project Area is situated southeast of dense residential development within the city of Bulverde, occupying a largely undeveloped tract of land roughly bounded by Bulverde Road to the north, US 281 and Ancestral Trail to the west, residential construction to the south, and Wiley Road to the east. An unnamed tributary to Cibolo Creek is located approximately 170 meters (m; 560 feet [ft]) north of the Project Area. The Project Area is depicted on the Bulverde (2998-423) United States Geological Survey (USGS) 7.5-minute quadrangle map at an elevation of approximately 329.2 m (1080 ft) above mean sea level.

Environment

The Project Area is located within the Balcones Canyonlands subregion of the greater Edwards Plateau ecoregion of Texas (Griffith et al. 2007). The Balcones Canyonlands are situated on the southeastern edge of the Edwards Plateau. The canyonlands were created by an uplift that occurred at the Balcones Fault Zone during the Miocene epoch. This fault zone separates Central Texas from the coastal plains. The Balcones Canyonlands are characterized by the erosion and solution of springs, streams, and rivers—both above and below ground. These features, created by the clear waters of the Edwards Aquifer, formed the hills and canyons that presently dominate the landscape.

The Balcones Canyonlands are distinguishable from surrounding ecoregions by the Cretaceous-period limestone present throughout the ecoregion that supports natural oak savannah vegetation, including black cherry (Prunus serotina), Texas mountain-laurel (Dermatophyllum secundiflorum), madrone (Arbutus menziesii), Lacey oak (Quercus lacyi), bigtooth maple (Acer grandidentatum), and Carolina basswood (Tilia caroliniana). Several East Texas plant species sprawl into the Edwards Plateau, including bald cypress (Taxodium distichum), American sycamore (Platanus occidentalis), and black willow (Salix nigra). These species commonly occur around waterways in the Balcones Canyonlands (Griffith et al. 2007).

The Balcones Canyonlands historically contained habitat for white-tailed deer (Odocoileus virginianus), ground squirrels (Spermophilus spp.), rock squirrels (S. variecutus), cotton rats (Sigmodon hispidus), wood rats (Neotoma spp.), as well as several species of mice (Peromyscus spp., Perognathus spp., and others).
and gophers (Order Rodentia), spiny soft shell turtles (*Trionyx spiniferus*), Texas spiny lizards (*Scleropus olivaceous*), Texas horned lizards (*Phrynosoma cornutum*), Texas alligator lizards (*Garrhonotus liocephalus*), western diamondbacks (*Crotalis atrox*), mottled rock rattlers (*Crotalus lepidus*), and Rio Grande leopard frogs (*Rana berlandieri*). Smaller carnivores in the ecoregion include raccoons (*Procyon lotor*), coyotes (*Canis latrans*), foxes (*Urocyon spp.*), and ringtailed “cats” (*Bassariscus astutus*), while large carnivores include mountain lions (*Puma concolor*) and black bears (*Ursus americanus*). Birds common in the Balcones Canyonlands include turkeys (*Meleagris gallopavo*), canyon wrens (*Catherpes mexicanus*), as well as several species of quail (*Coturnix spp.*) and dove (*Zenaida spp.*). Waterways in the ecoregion contain long-nosed gar (*Lepisosteus osseus*), river carp sucker (*Carpoides carpio*), smallmouth buffalo (*Ictiobus bubalus*), flathead catfish (*Pylodictus olivaris*), channel or blue catfish (*Ictalurus spp.*), as well fresh water clams (*Corbicula spp.*) and snails (*Cremnoconchus spp.*). Three different species of rabbit are also present: the eastern cottontail (*Sylvilagus floridanus*), black-tailed jackrabbit (*Lepus californicus*), and desert cottontail (*S. audubonii*). Bison (*Bison bison*) historically utilized grasslands in the ecoregion but were not as prominent as on the plains and prairies in neighboring ecoregions (Texas Beyond History 2020).

**Geology and Soils**

Geologically, the Project landscape is characterized by the summits, shoulders, and backslopes of ridges overlying the Glen Rose Limestone formation. Glen Rose Limestone primarily dates to the Early Cretaceous epoch and is mostly composed of limestone, clay, and sand alternating with sandstone (United States Geological Survey [USGS] 2020a).

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), the Project Area is entirely mapped within the Real-Comfort-Doss complex with 1 to 8 percent slopes (Figure 3). The Real series consists of soils that are very shallow or shallow paralithic limestone bedrock interbedded with marl and chalk. The series is well draining (USDA-NRCS 2020). The Comfort series consists of soils that are shallow to indurated limestone bedrock that are also well drained. The Doss series, meanwhile, consists of shallow to weakly cemented limestone that is well drained but with moderately slow permeability. The Real-Comfort-Doss complex is typically found on nearly level to steep summits, shoulders, and backslopes of ridges on dissected plateaus (USDA-NRCS 2020). The A-Horizon is
approximately 40 centimeters (cm; 16 inches [in]) thick. Based on these data, archaeological deposits, if present, would be shallowly buried or on the ground surface across most of the Project Area.
Figure 3. Project Area soils map.
CHAPTER 3: METHODOLOGY

Cultural Background Study

Pape-Dawson archaeologists conducted a cultural resources background review to determine if the Project Area was previously investigated for cultural resources and if any previously identified cultural resources are located within a 1-kilometer (km; 0.6-mile [mi]) radius of the Project. This review radius constituted the Study Area. The review included an examination of the THC’s Texas Archeological Sites Atlas (Atlas) online database. Cultural resources recorded in this database include archaeological sites, NRHP properties and districts, SALs, National Historic Trails (NHTs), Official Texas Historic Markers (OTHMs), Registered Texas Historic Landmarks (RTHLs), and cemeteries.

Map and Aerial Photograph Review

Pape-Dawson archaeologists also examined recent and historic-age aerial photographs available online (Google Earth Pro 2020; Nationwide Environmental Title Research [NETR] 2020; USGS 2020b) to identify historic high probability areas (HHPAs) within the Project Area where historic-age structures (45 years or older) or historic archaeological sites may exist. Archaeologists also sought to identify any previous impacts or disturbances that may have occurred within the Project Area. In addition, Pape-Dawson examined the Texas Department of Transportation (TxDOT) Hybrid Potential Archeological Liability Map (HPALM) to assess the likelihood that NRHP-eligible prehistoric archaeological deposits were located within or adjacent to the Project Area.

Field Methods

The objectives of the archaeological investigation were to: (1) identify cultural resource sites within the Project Area; (2) document the vertical and horizontal extents of any identified sites within the Project Area; (3) provide a preliminary evaluation of each site’s eligibility for listing as a SAL and/or NRHP property; and (4) assess any potential for the Project to impact significant archaeological sites or other sensitive cultural resources. As such, the fieldwork consisted of an intensive pedestrian survey supplemented with judgmental shovel testing.
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Pedestrian Survey and Shovel Testing Methods

Pape-Dawson archaeologists conducted a 100-percent pedestrian survey supplemented with judgmental shovel testing of the Project Area. The pedestrian survey was conducted along 30-m (98.4-ft) transect intervals in accordance with the Intensive Terrestrial Survey Guidelines (CTA 2020b) for upland and erosional settings. Additionally, to confirm the presence/absence of subsurface deposits within the shallow depositional environment, Pape-Dawson excavated a 10 shovel tests in portions of the Project Area with the greatest potential to contain subsurface deposits. Potential locations for shovel tests were proposed based on the results of the background review and in consultation with the THC; however, final locations were adjusted at the discretion of the Principal Investigator based on field reconnaissance and avoidance of modern features, as necessary.

In general, shovel tests measured approximately 30 cm (12 in) in diameter and were excavated in arbitrary 10-cm (3.9-in) levels. Shovel tests were excavated to a depth of 80 cm (31.5 in) below surface per the CTA (2020b) survey standards, or to pre-Holocene sterile substrates (if possible), unless manual shovel testing was unable to penetrate shallow bedrock. All soil matrices were screened through ¼-in hardware mesh, unless the matrix was dominated by clay. Clayey matrices were finely divided and visually inspected. For each shovel test, the following information was recorded on shovel test logs: location, maximum depth, presence or absence of cultural material (by level), and the number of soil strata. For each soil stratum, thickness, texture, and color will be recorded. Shovel tests will be mapped using a sub-meter accurate, handheld Global Positioning System (GPS) unit, and backfilled upon completion.

The crew was equipped with topographic maps, aerial photographs, and historic map overlays of the Project Area, as well as a digital camera. Each archaeologist was also provided with a compass, appropriate excavation forms, photographic logs, daily journal forms, and state site forms. A lab-based Geographic Information Systems (GIS) Specialist supported the fieldwork and preparation of maps.

Lab Analysis and Curation

Throughout the Project, the analysis and organization of records was ongoing. All records generated during the Project were prepared in accordance with THC requirements for State Held-in-Trust collections. Field forms were printed on acid-free paper and completed with pencil. All field notes, forms, photographs, and drawings were placed in labeled archival folders. Digital photographs will be printed on
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acid-free paper. Finally, following completion of the investigation, all records and the final report will be curated at UTSA-CAR.
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CHAPTER 4: RESULTS

Cultural Background Study

Previously Conducted Cultural Resource Investigations

The background review indicates that the Project Area was previously surveyed for cultural resources on one occasion (Figure 4). In 1975, the Texas Department of Highways and Public Transportation (TDHPT) conducted a linear investigation along US 281; however, no additional information regarding the results of the investigation are available on the Atlas (THC 2020). Regardless, the investigation likely does not meet the current survey standards established by the CTA (2020b). Nine additional investigations were conducted within the larger Study Area. Similarly, limited information regarding the results of the investigations conducted prior to 2001 is available on the Atlas, including three surveys conducted at unknown dates and a survey sponsored by TxDOT in 1996 along and adjacent to US 281 (THC 2020).

In 2001, SWCA Environmental Consultants (SWCA) conducted a linear survey for the Western Canyon Pipeline project on behalf of the Guadalupe-Blanco River Authority (GBRA) 0.2 km (0.1 mi) north and west of the current Project Area. Although site 41CM282 was identified in Comal County, no further work was recommended for the project, as the site lack stratified deposits or temporally diagnostic artifacts (Houk et al. 2005).

In 2005, SWCA conducted a survey along Farm-to-Market road (FM) 1863 on behalf of the Federal Highway Administration (FHA) 0.3 km (0.2 mi) north of the current Project Area. SWCA observed shallow, stony soils throughout the surveyed area, which was also disturbed from previous development and road construction. Although sparsely scattered chert was observed during the investigation, these artifacts were considered isolated finds and no further work was recommended for the project (Chavez and Miller 2008).
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### Archaeological Investigation

**Table 1. Previous Cultural Resource Investigations within the Study Area**

<table>
<thead>
<tr>
<th>Investigation Date</th>
<th>Atlas Number</th>
<th>Investigation Type</th>
<th>Agency Sponsor</th>
<th>Investigator</th>
<th>Distance from Project Area</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>–</td>
<td>–</td>
<td>Survey</td>
<td>–</td>
<td>–</td>
<td>1 km (0.6 mi)</td>
<td>–</td>
</tr>
<tr>
<td>–</td>
<td>8500076720</td>
<td>Survey</td>
<td>–</td>
<td>–</td>
<td>0.8 km (0.5 mi)</td>
<td>–</td>
</tr>
<tr>
<td>–</td>
<td>8500076721</td>
<td>Survey</td>
<td>–</td>
<td>–</td>
<td>0.8 km (0.5 mi)</td>
<td>–</td>
</tr>
<tr>
<td>1975</td>
<td>8400002928</td>
<td>Survey</td>
<td>TDHPT</td>
<td>–</td>
<td>Within</td>
<td>–</td>
</tr>
<tr>
<td>1996</td>
<td>8400008459</td>
<td>Survey</td>
<td>TxDOT</td>
<td>–</td>
<td>100 m (328.1 ft)</td>
<td>–</td>
</tr>
<tr>
<td>2001</td>
<td>8500011885</td>
<td>Survey</td>
<td>GBRA</td>
<td>SWCA</td>
<td>0.2 km (0.1 mi)</td>
<td>Sites 41CM282 and 41KE159 recommended ineligible for NRHP and SAL designation.</td>
</tr>
<tr>
<td>2005</td>
<td>8500015395</td>
<td>Survey</td>
<td>FHA</td>
<td>SWCA</td>
<td>0.3 km (0.2 mi)</td>
<td>No further work recommended for isolated surface finds.</td>
</tr>
<tr>
<td>2015</td>
<td>8500079852</td>
<td>Survey</td>
<td>CPS Energy</td>
<td>Atkins</td>
<td>0.7 km (0.4 mi)</td>
<td>Sites 41BX2038 and 41BX2039 recommended not eligible for NRHP or SAL designation.</td>
</tr>
<tr>
<td>2015</td>
<td>8500076719</td>
<td>Survey</td>
<td>CPS Energy</td>
<td>Atkins</td>
<td>0.9 km (0.6 mi)</td>
<td>Site 41CM382 recommended ineligible for NRHP or SAL designation.</td>
</tr>
<tr>
<td>2016</td>
<td>–</td>
<td>Survey</td>
<td>DR Horton</td>
<td>Pape-Dawson</td>
<td>12.7 m (41.7 ft)</td>
<td>No further work recommended.</td>
</tr>
</tbody>
</table>
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In 2015, Atkins conducted two surveys within the Study Area on behalf of CPS Energy for their 2014 and 2015 annual permits. Sites 41BX2038, 41BX2039, and 41CM382 were identified during the investigations; however, no further work was recommended at these sites, which were all characterized as lithic artifact scatters with minimal research potential (Rains 2016a, 2016b).

Most recently, in 2016, Pape-Dawson completed a large area survey adjacent to the southern margin of the Project Area on behalf of D.R. Horton. The project boundary and corresponding report are not currently available on the Atlas, but the data is on file at Pape-Dawson. Sites 41CM405, 41CM406, and 41CM407 were identified as a result of the investigation, as well as 28 historic-age structures. No further work was recommended at the archaeological sites, though evaluation of the historic-age structures by a historian was recommended (Moore et al. 2016).

Previously Recorded Cultural Resources

The background review indicates 10 previously recorded cultural resources are located within the Study Area, though none are recorded within 91.4 m (300 ft) of the Project Area (Figure 5) (THC 2020). Seven of the cultural resources are recorded as archaeological sites, while the other three are historic cemeteries. Considering that none of the resources within the Study Area are recorded adjacent to the Project Area, they will not be impacted by Project-related activities. Resources identified within the Study Area are discussed in detail below.

Archaeological Sites

Seven archaeological sites are documented within the Study Area (Table 2). Sites 41CM218, 41CM294, and 41CM382 are prehistoric sites. Site 41CM218 was recorded in 1996 approximately 0.6 km (0.4 mi) north of the Project Area by Al McGraw. The site contains an upland, fire-cracked rock (FCR) scatter approximately 8.5 by 4 m (27.8 by 13 ft) in size. The scatter is most likely an earth oven of unknown temporal affiliation (THC 2020). Site 41CM294 is a small rock shelter recorded approximately 0.6 km (0.4 mi) southwest of the Project Area by the Southern Texas Archaeological Association and Texas Archeological Stewards Network in 2006. The site was utilized from the Middle Archaic to Historic period (THC 2020).
This page has been redacted as it contains restricted information
### Table 2. Previously Recorded Archaeological Sites within the Study Area

<table>
<thead>
<tr>
<th>Site Trinomial</th>
<th>Site Type</th>
<th>Cultural Affiliation</th>
<th>Depth of Deposits</th>
<th>Distance from Project Area</th>
<th>Consultant Recommendation</th>
<th>Eligibility According to the Atlas</th>
</tr>
</thead>
<tbody>
<tr>
<td>41CM218</td>
<td>FCR Scatter</td>
<td>Unknown Prehistoric</td>
<td>20-25 cm (7.8-9.8 in)</td>
<td>0.6 km (0.4 mi)</td>
<td>No further work</td>
<td>Not Assessed</td>
</tr>
<tr>
<td>41CM294</td>
<td>Rock Shelter</td>
<td>Middle Archaic to Late Prehistoric; Historic</td>
<td>0-200 cm (0-78.7 in)</td>
<td>0.6 km (0.4 mi)</td>
<td>Data recovery</td>
<td>Not Assessed</td>
</tr>
<tr>
<td>41CM370</td>
<td>Rock Wall and Roadbed</td>
<td>Nineteenth to Twentieth-Century</td>
<td>Surface</td>
<td>0.5 km (0.3 mi)</td>
<td>Archival research</td>
<td>Not Assessed</td>
</tr>
<tr>
<td>41CM382</td>
<td>Lithic Artifact Scatter</td>
<td>Late Archaic and Late Prehistoric</td>
<td>0-20 cm (0-7.8 in)</td>
<td>0.8 km (0.5 mi)</td>
<td>No further work</td>
<td>NRHP Ineligible (2015)</td>
</tr>
<tr>
<td>41CM405</td>
<td>Lithic Artifact Scatter and Farmstead</td>
<td>Unknown Prehistoric; Nineteenth-Century to Modern</td>
<td>0-20 cm (0-7.8 in)</td>
<td>1 km (0.6 mi)</td>
<td>No further work</td>
<td>Not Assessed</td>
</tr>
<tr>
<td>41CM406</td>
<td>Farmstead</td>
<td>Nineteenth-Century to Modern</td>
<td>0-10 cm (0-2.9 in)</td>
<td>0.6 km (0.4 mi)</td>
<td>No further work</td>
<td>Not Assessed</td>
</tr>
<tr>
<td>41CM407</td>
<td>Lithic Artifact Scatter and Refuse Scatter</td>
<td>Archaic; Late-Nineteenth to Early-Twentieth-Century</td>
<td>0-30 cm (0-11.8 in)</td>
<td>0.8 km (0.5 mi)</td>
<td>No further work</td>
<td>Not Assessed</td>
</tr>
</tbody>
</table>

Site 41CM382 is a diffuse, surficial to subsurface lithic artifact scatter with Late Archaic to Late Prehistoric components. The site was recorded by Atkins in 2015 approximately 0.8 km (0.5 mi) southwest of the Project Area (THC 2020). Sites 41CM218 and 41CM294 have yet to be assessed for NRHP eligibility; however, 41CM382 was assessed in 2015 and determined to be ineligible for NRHP listing (THC 2020). Sites 41CM218 and 41CM382 were not recommended for further work by the recorders; however, further work was recommended at 41CM294 due to the presence of stratified deposits and the possibility of undisturbed soil 1 m (3 ft) below the surface (THC 2020).
Sites 41CM370 and 41CM406 were recorded as historic sites consisting of structural remains. Site 41CM370 is a historic-age, linear rock wall likely used as a property boundary, as well as the old FM 1863 roadbed. The site was recorded by SWCA in 2014 approximately 0.5 km (0.3 mi) northeast of the Project Area. The NRHP eligibility of the site remains undetermined, as further archival research is warranted (THC 2020). Site 41CM406 is a complex of historic-age buildings (i.e., a farmstead) and an associated scatter of late-nineteenth century artifacts. The site was recorded approximately 0.6 km (0.4 mi) southeast of the Project Area by Pape-Dawson in 2016. The NRHP eligibility of the site remains undetermined, though no further work was recommended (Moore et al. 2016).

The remaining two sites, 41CM405 and 41CM407, are multicomponent sites. Site 41CM405 consists of a lithic artifact scatter and farmstead recorded approximately 1 km (0.6 mi) southeast of the Project Area by Pape-Dawson in 2016. Site 41CM407 is a surficial to subsurface scatter of prehistoric and historic artifacts recorded approximately 0.8 km (0.5 mi) southeast of the Project Area, also by Pape-Dawson in 2016. The prehistoric component of the site dates to the Archaic period. The historic component of the site dates from the late-nineteenth to early-twentieth century. The NRHP eligibility of both sites remains undetermined, and no further work was recommended for either (Moore et al. 2016; THC 2020).

Cemeteries

The background review also indicates that there are three cemeteries located within the Study Area (THC 2020). All three are recorded over 91.4 m (300 ft) from the Project Area (Table 3; see Figure 5). The cemeteries identified within the Study Area include the Fritz Voges (CM-C065), Peña (CM-C065), and Hitzfelder (CM-C031) cemeteries. The Fritz Voges Cemetery contains approximately 14 interments that occurred between 1883 and 2006 (THC 2020). The cemetery is designated as a Historic Texas Cemetery. The Hitzfelder Cemetery is alternately known as the Uecker-Hitzfelder Cemetery and contains at least 13 interments from 1884 to 1920 (THC 2020). No additional information about the Peña Cemetery is available on the Atlas (THC 2020).
Table 3. Cemeteries within the Study Area

<table>
<thead>
<tr>
<th>Cemetery Name</th>
<th>Cemetery ID</th>
<th>Atlas ID</th>
<th>Time Period</th>
<th>Cultural Affiliation</th>
<th>Distance to Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fritz Voges</td>
<td>CM-C065</td>
<td>7091006505</td>
<td>1883-2006</td>
<td>-</td>
<td>0.6 km (0.4 mi)</td>
</tr>
<tr>
<td>Hitzfelder</td>
<td>CM-C031</td>
<td>7091003105</td>
<td>1884-1920</td>
<td>-</td>
<td>0.9 km (0.6 mi)</td>
</tr>
<tr>
<td>Peña</td>
<td>CM-C030</td>
<td>7091003005</td>
<td>-</td>
<td>-</td>
<td>0.9 km (0.6 mi)</td>
</tr>
</tbody>
</table>

Map and Aerial Photograph Review


The review of historic topographic maps and aerial photographs indicates no HHPAs are present within the Project Area, which has remained largely undeveloped and sparsely wooded since at least 1955 (NETR 2020). US 281, which borders the Project Area to the west, and Wiley Road, which borders the Project Area to the east, were extant by 1955. Sometime between 1975 and 1986, a large outbuilding and a small segment of gravel road was constructed within the northern half of the Project Area. A residence associated with these improvements was constructed outside of the Project Area at that time. A presently abandoned and unpaved roadway, which intersects the western half of the Project Area oriented northwest to southeast, was in use as early as 1955 (NETR 2020). The roadway was replaced by Ancestral Trail sometime between 1986 and 1995. Commercial development north of the Project Area commenced sometime between 1995 and 2004 (NETR 2020; USGS 2020b). According to modern aerial imagery available from Google Earth Pro (2020), residential development south of the Project Area began construction in 2018.
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The San Antonio HPALM, which extends into the Project Area, illustrates areas with low to moderate potential for containing shallowly and deeply buried prehistoric archaeological deposits within and adjacent to the Project Area (Figure 6).
Figure 6. HPALM of the Project Area.
Cultural Background Study Assessment

The background review indicates that the Project Area occupies a historically undeveloped tract of land situated south of an unnamed tributary to Cibolo Creek. Most of the Project Area has not been previously surveyed for cultural resources, and seven archaeological sites are documented within 1 km (0.6 mi) of the Project Area (THC 2020). Given the general lack of prior disturbances within the Project Area, its proximity to water, shallow soils, and predicted archaeological potential, Pape-Dawson concluded that there was a low to moderate probability that prehistoric cultural resources are present within the Project Area. Conversely, based on a review of historic maps and aerial photographs, there is a low likelihood that historic-age cultural resources are present within the Project Area. Based on these data, ground disturbing activities associated with the Project had the potential to impact significant prehistoric cultural deposits, warranting a program of systematic pedestrian survey and judgmental shovel testing prior to Project construction. However, as the Project Area is mapped within an area with little to no potential for soil deposition, Pape-Dawson consulted with the THC and determined that a reduced number of shovel tests below the CTA (2020b) standard was sufficient for the investigation. As a result, judgmental shovel testing targeted areas most likely to contain buried cultural deposits based on the results of the background study presented above, as well as field assessments.

Fieldwork Results

Pape-Dawson archaeologists conducted a 100-percent pedestrian survey supplemented with judgmental shovel testing across the Project Area on October 27, 2020 (Figure 7). A total of 10 shovel tests were excavated in accordance with the research design approved by the THC on October 22, 2020 under Texas Antiquities Permit No. 9658. The investigation did not result in the documentation of any archaeological sites. A summary of the investigations is presented below. Appendix A presents a table of shovel test descriptions, including soil profile data.
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Figure 7. Results map on aerial background.
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Setting

The Project Area consists of a largely undeveloped tract of land with short to medium, dense native grasses, cacti, and groves of ash juniper, oak, and mesquite trees (Figure 8). Outcrops of limestone bedrock were also observed across the landscape (Figure 9). Ground surface visibility (GSV) ranged from 0 to 15 percent in areas of dense vegetation and leaf litter. Conversely, GSV was upwards of 90 percent within clearings. A drainage ditch was observed in the eastern half of the Project Area oriented generally north to south to divert water to a wetland (Figure 10). A large outbuilding, built between 1975 and 1986, was present near the northern border of the Project Area, along with an associated gravel road. Two additional gravel roads were observed in the western portion of the Project Area trending roughly north to south. Disturbances within the Project Area included construction of the outbuilding and gravel roads, land clearing evidenced by large mulch piles, and a large push pile (Figure 11 to Figure 14).

Figure 8. Project Area overview, facing east.
Figure 9. Exposed bedrock, facing south.

Figure 10. Drainage on east side of Project Area, facing west.
Figure 11. Outbuilding overview, facing east.

Figure 12. Gravel road on west side of the Project Area.
Figure 13. Area of mulched trees near MM03, facing north.

Figure 14. Artificial berm south of storage facility, facing southwest.
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Work Performed

Based on the results of the background study, the entirety of the Project Area traversed low to moderate probability settings for both prehistoric and historic cultural resources. An intensive pedestrian survey supplemented by 10 shovel tests was conducted for the Project. Shovel tests were excavated to pre-Holocene sterile substrates (if possible) and generally terminated at an average depth of approximately 28 cm (11 in) below surface but as deep as approximately 50 cm (19.7 in) below surface. Shovel tests typically contained one or two strata of silt to clay soil ranging in color from brown (7.5YR 4/5) to black (10YR 2/1) (Figure 15). Shovel tests were generally terminated upon encountering bedrock, which is consistent with the shallow paralithic limestone bedrock of the Real series (Figure 16) (USDA-NRCS 2020) (Appendix A). No cultural resources were identified within the Project Area as a result of the investigation. Based on the results of the investigation, no significant archaeological sites will be impacted by the Project, and therefore, Pape-Dawson recommends that no additional work is warranted within the Project Area, as currently defined.

Figure 15. JS02 close-up, facing south.
Figure 16. JS01 close-up, facing southwest.
CHAPTER 5: SUMMARY AND RECOMMENDATIONS

Comal ISD retained Pape-Dawson to conduct an archaeological investigation for the proposed Comal ISD Middle School #8 (Milam Tract) Project in Bulverde, Comal County, Texas. The Project consists of the construction of a middle school building, sports field complex, water detention basin, portable building space, water storage tank, and associated driveways and utilities. The Project Area totals approximately 14.1 ha (35.8 ac) for the new middle school complex, which will be located east of the intersection of US 281 and Ancestral Trail.

The Project Area is to be owned by Comal ISD, a political subdivision of the state of Texas. Therefore, compliance with the ACT, as administered by the THC is required. Consistent with state regulatory review, the purpose of the investigation was to identify archaeological sites (if present) within the Project Area and assess the potential for the proposed Project to impact archaeological sites listed or considered eligible for listing as SALs or NRHPs.

Archaeological survey of the Project Area occurred on October 27, 2020. A total of 10 shovel tests were excavated during fieldwork in accordance with a research design approved by the THC on October 22, 2020. The survey investigation did not result in the identification of cultural materials or the documentation of any archaeological sites. Pape-Dawson therefore recommends that no additional work is warranted within the Project Area, as currently defined. However, if undiscovered archaeological deposits or human remains are encountered during construction, it is recommended that all work in the vicinity should cease and that the discovery be evaluated by a qualified archaeologist who can provide guidance on how to proceed in accordance with applicable state regulations. All records generated for the Project will be curated at UTSA-CAR.
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Texas Historical Commission (THC)  

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS)  

United State Geological Survey (USGS)  

APPENDIX A: SOIL PROFILE DATA
## Appendix A: Shovel Test Data

<table>
<thead>
<tr>
<th>ST #</th>
<th>Site</th>
<th>Zone</th>
<th>Level</th>
<th>Depth (cmbs)</th>
<th>Results</th>
<th>Munsell</th>
<th>Soil Color</th>
<th>Soil Texture</th>
<th>Cultural Material</th>
<th>Comments/Reason for Termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM0 1</td>
<td>–</td>
<td>I</td>
<td>1-2</td>
<td>0-20</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Very dark grayish brown</td>
<td>Clay loam</td>
<td>None</td>
<td>Bedrock</td>
</tr>
<tr>
<td>MM0 1</td>
<td>–</td>
<td>II</td>
<td>2-5</td>
<td>20-44</td>
<td>Negative</td>
<td>7.5YR/4</td>
<td>Dark brown</td>
<td>Loam</td>
<td>None</td>
<td>Compaction</td>
</tr>
<tr>
<td>MM0 2</td>
<td>–</td>
<td>I</td>
<td>1-2</td>
<td>0-18</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Very dark grayish brown</td>
<td>Silt</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>MM0 2</td>
<td>–</td>
<td>II</td>
<td>2-4</td>
<td>18-36</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Very dark grayish brown</td>
<td>Sandy silt</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>MM0 3</td>
<td>–</td>
<td>I</td>
<td>1</td>
<td>0-8</td>
<td>Negative</td>
<td>10YR/4</td>
<td>Dark grayish brown</td>
<td>Silt</td>
<td>None</td>
<td>Bedrock</td>
</tr>
<tr>
<td>MM0 4</td>
<td>–</td>
<td>I</td>
<td>1-2</td>
<td>0-20</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Very dark brown</td>
<td>Loam</td>
<td>None</td>
<td>Impassable Limestone rocks</td>
</tr>
<tr>
<td>MM0 5</td>
<td>–</td>
<td>I</td>
<td>1</td>
<td>0-7</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Very dark grayish brown</td>
<td>Silt</td>
<td>None</td>
<td>Bedrock</td>
</tr>
<tr>
<td>MM0 5</td>
<td>–</td>
<td>II</td>
<td>1-3</td>
<td>7-30</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Very dark brown</td>
<td>Clay loam</td>
<td>None</td>
<td>None</td>
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<tr>
<td>JS01</td>
<td>–</td>
<td>I</td>
<td>1-2</td>
<td>0-13</td>
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<td>7.5YR/5</td>
<td>Brown</td>
<td>Loam</td>
<td>None</td>
<td>Bedrock</td>
</tr>
<tr>
<td>JS02</td>
<td>–</td>
<td>I</td>
<td>1-2</td>
<td>0-12</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Black</td>
<td>Silty clay</td>
<td>None</td>
<td>Pre-Holocene</td>
</tr>
<tr>
<td>JS02</td>
<td>–</td>
<td>II</td>
<td>2-4</td>
<td>12-35</td>
<td>Negative</td>
<td>10YR/3</td>
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<td>Silty clay</td>
<td>None</td>
<td>None</td>
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<tr>
<td>JS03</td>
<td>–</td>
<td>I</td>
<td>1-2</td>
<td>0-19</td>
<td>Negative</td>
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<td>Very dark brown</td>
<td>Silty clay loam</td>
<td>None</td>
<td>Impassable limestone cobbles</td>
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<tr>
<td>JS04</td>
<td>–</td>
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<td>0-45</td>
<td>Negative</td>
<td>10YR/2</td>
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<td>Clay</td>
<td>None</td>
<td>Bedrock</td>
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<td>JS04</td>
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<td>5</td>
<td>45-50</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Black</td>
<td>Clay</td>
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<td>None</td>
</tr>
<tr>
<td>JS05</td>
<td>–</td>
<td>I</td>
<td>1-3</td>
<td>0-25</td>
<td>Negative</td>
<td>10YR/2</td>
<td>Very dark brown</td>
<td>Silty clay loam</td>
<td>None</td>
<td>Bedrock</td>
</tr>
</tbody>
</table>
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APPENDIX B: PROJECT DESIGN SHEETS