Intensive Archaeological Survey of the Proposed IH-37 Land Development Project,
San Antonio, Bexar County, Texas

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Abstract

At the request of Garver Real Estate, Pape-Dawson conducted an intensive archaeological survey for the proposed development of a 49-acre tract in south San Antonio near the intersection of IH-37 and Loop 1604. Impacts to the project area are anticipated to include bulldozing and grading for the construction of an office park. Depth of impact for construction is anticipated to be approximately 3 feet (ft) (0.91 meters [m]) below the ground surface.

Since this project is located within the San Antonio City Limits, compliance with the City’s Unified Development Code (UDC) is necessary. However, as the project does not involve federal funding and no federal permitting is required, cultural resources work in compliance with Section 106 of the National Historic Preservation Act is not necessary. In addition, the project is not situated on lands owned by a political subdivision of the state of Texas, so compliance with the Antiquities Code of Texas is not necessary.

Fieldwork took place on July 1 and July 7, 2015. The entirety of the project area was subject to visual inspection supplemented by systematically placed shovel tests in order to evaluate the impact of the proposed project on cultural resources. Archaeologists excavated a total of 29 shovel tests, exceeding the minimum archaeological survey standards established by the Council of Texas Archeologists. All shovel tests were negative, and no cultural resources were located or recorded during the course of the survey. Project records and photographs will be curated at the Center for Archaeological Research (CAR) at the University of Texas San Antonio. Based on the results of the investigation, Pape-Dawson archaeologists recommend that no further archaeological work is necessary for the proposed project and that the project be allowed to proceed.
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Introduction
Garver Real Estate proposes to construct a business park on an approximately 49-acre tract of land south of downtown San Antonio, near the intersection of IH-37 and Loop 1604 (Figure 1). Impacts to the project area are anticipated to include bulldozing and grading for the construction of this commercial development. Average depth of vertical impact is considered to be up to 3 ft (0.9 m) below the ground surface throughout the project area. Aerial imagery and topographic maps show that as far back as 1955 the project area has remained undeveloped and has been used as agricultural farmland.

As this project falls within the San Antonio City Limits, compliance with the City’s Unified Development Code (UDC) is necessary. However, as the project does not involve federal funding and no federal permitting is required, cultural resources work in compliance with Section 106 of the National Historic Preservation Act is not necessary. In addition, the project is not situated on lands owned by a political subdivision of the state of Texas, so compliance with the Antiquities Code of Texas will not be necessary.

Project Setting
The project is located south of San Antonio’s city center, near the intersection of IH-37 and Loop 1604. Situated approximately 0.25 miles (0.42 kilometers [km]) south of the confluence of the Medina and San Antonio Rivers, the project area adjoins the IH-37 South frontage road to the west. While the area north and west of the project footprint remains rural with scattered residences, an industrial development borders the property to the south. The project area itself is an undeveloped tract with moderately dense mesquite trees and open clearings of mixed grasses. The presence of a pen suggests the area has been used to pasture cattle or goats (Figure 2).

The project area is located across upland terrain that consists of a nearly level upland plain surrounded on each side by a series of gently sloping ridges. According to the Geologic Atlas of Texas, San Antonio Sheet (1983) the project area is mapped as Pleistocene-age Leona Formation. Soils within the project area are mapped, west to east, as Miguel fine sandy loam, 1 to 3 percent slopes; Sunev clay loam, 1 to 3 percent slopes; Sunev clay loam, 3 to 5 percent slopes; Duval loamy fine sand, 0 to 5 percent slopes; Duval fine sandy loam, 3 to 5 percent slopes; and Patrick soils, 3 to 5 percent slopes, rarely flooded (Figure 3).

The predominant soil is Sunev clay loam, which consists of roughly 45 percent of the total project area. Sunev series soils are very deep, well drained soils that formed in loamy alluvium. Sunev soils occur on stream terraces or footslopes of valleys and ridges. Approximately 40 percent of the project area consists of Duval Series soil. Duval soils are characterized by deep, well drained, moderately permeable soils that formed in loamy residuum from interbedded sandstone and siltstone over sandstone bedrock. Duval soils occur on nearly level to gently sloping upland plains. Patrick series soils are located along the eastern project boundary and are characterized by moderately deep, well drained, moderately permeable soils that formed in clayey over gravelly sediments. Patrick soils occur on nearly level to strongly sloping ancient upland terraces. Miguel series soils are located along the western boundary and are characterized by very deep, well drained, slowly permeable soils that formed in the clayey and
Figure 1: Project Location

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loamy sediments on marine terraces. Miguel soils occur on nearly level to moderately sloping uplands (United States Department of Agriculture [USDA] 2014).

Figure 2: Livestock pen near southern project boundary facing southwest
Figure 3: Soils within the project area

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Methods

Records Review
Prior to fieldwork, Pape-Dawson archaeologists consulted the Texas Historical Commission’s (THC) online Restricted Archeological Sites Atlas and the Historic Sites Atlas to identify previously recorded archaeological sites, previous archaeological surveys, National Register of Historic Places (NRHP) listed properties and sites, NRHP districts, cemeteries (including Historic Texas Cemeteries), Official Texas Historical Markers (OTHMs), Recorded Texas Historic Landmarks (RTHLs), and State Antiquities Landmarks (SALs) located within one kilometer (km) of the project area. Archaeologists also consulted the National Park Service’s (NPS) National Historic Trails Map Viewer online to learn whether any National Historic Trails (NHTs) are located within the 1 km radius. In addition, Pape-Dawson reviewed data from the City of San Antonio’s Historic Landmark and Historic Districts GeoDatabase.

Fieldwork
Pape-Dawson personnel conducted an archaeological investigation of the entirety of the proposed project area. This investigation consisted of an intensive pedestrian survey with inspection of the ground surface, augmented by shovel testing in areas with the perceived potential for buried cultural deposits and with less than 30 percent ground surface visibility. As soils in the project area are predominately mapped as upland soil, archaeologists anticipated that archaeological deposits, if present, would be reachable by shovel testing and that backhoe trenching was unnecessary. Survey methods followed the Council of Texas Archeologists Archeological Survey Standards for Texas.

Pedestrian transects were spaced at intervals of no more than 30 m (98 ft) across the project area. A total of 29 shovel tests were excavated to investigate the 49-acre project area, exceeding the state’s minimum standard of 1 shovel test every 2 acres for project areas measuring between 11 to 100 acres in size. Shovel tests were roughly 30 cm (11.8 in) in diameter and were excavated in 10 cm (3.9 in) levels to pre-Holocene clay. All soils were screened through ¼-inch mesh unless clay concentrations were high enough to require hand sorting. All shovel tests were recorded, visually described, plotted by Global Positioning System, and backfilled upon completion. No artifacts were identified or collected as a result of the survey. All project records and photographs will be curated at the Center for Archeological Research (CAR) at the University of Texas at San Antonio.

Results

Previously Recorded Sites
Within the project area, the background research revealed no previously recorded sites, NRHP properties or districts, cemeteries, OTHMs, RTHLs, SALs, NHTs, or local historic landmarks. However, within 1 km of the project area, there are five archaeological sites (Table 1, Figure 4) and one NHT, the El Camino Real.
Table 1 Previously Recorded Archaeological Sites

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Site Type</th>
<th>Landform</th>
<th>Distance and Direction from Project Area</th>
<th>Depth of Deposits</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>41BX226</td>
<td>Prehistoric (hearth),</td>
<td>Series of upper and lower terraces along the</td>
<td>0.12 mi (0.19 km) N</td>
<td>Unknown</td>
<td>No site form exists, but early correspondence indicates hearths, mortars, ceramics, and points were present on site. Drill box excavation was preformed (~3m), near the site, but no cultural material was discovered. Hacienda is also present onsite.</td>
</tr>
<tr>
<td></td>
<td>historic (hacienda)</td>
<td>south side of the Medina River and San Antonio River confluence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41BX1239</td>
<td>Paleoindian (Mammoth Remains)</td>
<td>Lower terraces along western bank of the San Antonio River</td>
<td>0.30 mi (0.49 km) NE</td>
<td>1-2 m below ground surface</td>
<td>Eligible according to Sites Atlas</td>
</tr>
<tr>
<td>41BX1240</td>
<td>Prehistoric, Historic</td>
<td>Upper terraces along eastern bank of the San Antonio River</td>
<td>0.50 mi (0.80 km) NE</td>
<td>Surface - 50cmbs</td>
<td>Sites Atlas shows both ineligible and eligible determinations; recording archaeologist recommended site ineligible within right-of-way.</td>
</tr>
<tr>
<td>41BX1307</td>
<td>Lithic scatter:</td>
<td>Upland ridge/relict upper terrace of the San Antonio River</td>
<td>0.18 mi (0.29 km) SE</td>
<td>Surface-30cmbs</td>
<td>Only 1 subsurface artifact, and field had been recently plowed; Sites Atlas lists it as ineligible.</td>
</tr>
<tr>
<td></td>
<td>unknown prehistoric</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41BX1906</td>
<td>Lithic scatter:</td>
<td>Upper terraces along eastern back of the San Antonio River</td>
<td>0.50 mi (0.80 km) NE</td>
<td>Unknown; may contain deeply buried deposits</td>
<td>No site form exists, but a report by Abasolo Archaeological Consultants (Shafer 2012) noted that monitoring a drill box near the site yielded no buried cultural material.</td>
</tr>
<tr>
<td></td>
<td>unknown prehistoric</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Site 41BX226, the closest site to the current project area, contains both prehistoric and historic elements. Although there is no site form for this site, correspondence on file at TARL indicates hearths, ceramics, and stone tools (both ground stone and chipped stone) are present. In addition, the correspondence indicates a rebuilt hacienda is present onsite. Given the lack of formal documentation, it is possible site 41BX226 could extend into the current project area.

Although most of the sites near the project area are surficial or shallowly buried, 41BX1239 is deeply buried and contains significant deposits. This site consists primarily of a mammoth bone bed, and while there is a suggestion that the site could be associated with human activity, the principal investigator acknowledges there is no definitive human association (Carpenter et al. 2013).

Two of the sites (41BX226 and 41BX1240) also have historic components, one of which (41BX226) is a rebuilt hacienda. This early historic site may be potentially associated with the nearby El Camino Real; the trail runs along IH-37 as it passes east of the site and the current project area.
Figure 4: Previously recorded cultural resources within 1km of project area
In addition to this review of previously recorded resources, Pape-Dawson archaeologists reviewed recent and historic topographic maps (1986, 1975, 1986) and recent and historic aerial photographs (2012, 2004, 1995, 1986, 1973, 1966, 1963, 1955) of the project area to identify areas with the potential to contain historic archaeological deposits. This review showed the project area seems to have been used for agricultural purposes since at least 1955. A 1955 aerial photograph shows the entire project area had been plowed, and 1963, 1966, and 1973 aerials show some degree of plowing. These aerials also show scattered trees existed throughout the north-central project area, and that they have continued to grow over the last 60 years. Subsequent aerials through 2004 suggest that while vegetation began to appear in the western and eastern thirds of the project area as well, there were still some areas that may have continued to be plowed (NETR 2015).

Fieldwork
Pape-Dawson archaeologists conducted the archaeological survey on July 1 and July 7, 2015. Nesta Anderson was principal investigator, Melanie Nichols was project archaeologist, and Katie Hill and Jake Sullivan served as the field crew. Archaeologists walked the project area along transects spaced 30 m apart, visually inspecting the ground surface for artifacts and features. Shovel tests were placed in areas with the perceived potential for intact soils and with low ground surface visibility. The project area is on a nearly level upland plain as well as a series of adjacent gently sloping upland ridges approximately 0.28 miles (0.45 km) south of the confluence of the Medina River and the San Antonio River. The majority of the project area is wooded, interspersed with clearings containing tall, mixed grasses. The understory within the forested portions of the project area includes prickly pear and native grasses. Ground surface visibility was limited to less than 30 percent throughout most of the project area (Figures 5 and 6).

During the course of the survey, a total of 29 shovel tests (Figure 7) were excavated to evaluate the impact of the proposed project on cultural resources. Shovel tests typically consisted of dark brown sandy loam (10YR3/3) over very dark brown sandy clay (10YR2/2) (Figure 8). Shovel test depths ranged from 25 cm to 70 cm in depth, but pre-Holocene-age clay was typically reached at about 30 cm below surface. No historic or prehistoric artifacts were located and no archaeological sites were recorded as a result of this survey.
Figure 5: Overview of project area facing southeast

Figure 6 Overview of project area facing northeast
Figure 7: Shovel tests in the project area
Summary and Recommendations

Pape-Dawson archaeologists conducted an archaeological investigation of a proposed 49-acre business park sponsored by Garver Real Estate on July 1 and 7, 2015. Anticipated depth of impact for the project is approximately 3 ft (0.9 m) below the ground surface throughout the project area. Based on the project’s upland setting, archaeologists focused on pedestrian survey and shovel testing with the expectation that archaeological deposits would be surficial or shallowly buried. In addition, a review of current and historic aerial imagery and topographic maps show that as far back as 1955 the project area has remained undeveloped and has been primarily used as agricultural farmland, suggesting the upper levels of soil have been disturbed to some degree.

No historic or prehistoric artifacts were located and no archaeological sites were recorded as a result of this survey. Therefore, Pape-Dawson recommends that no further archaeological work is necessary and that the project be allowed to proceed. However, if cultural material is encountered during construction, it is recommended that all work in the vicinity should cease and COSA archaeologist Kay Hindes be contacted.
References Cited

Bureau of Economic Geology (BEG)


NETR Online

Shafer, Harry J.

United States Department of Agriculture, Soil Conservation Service (USDA)