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Report on the Results of Eligibility Testing at Site 41TV222 for the Webberville Park New Maintenance Facility Project, Travis County, Texas

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REPORT ON THE RESULTS OF ELIGBILITY TESTING AT SITE 41TV222 FOR THE WEBBERVILLE PARK NEW MAINTENANCE FACILITY PROJECT, TRAVIS COUNTY, TEXAS

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Travis County and
The Texas Historical Commission

Antiquities Permit #7513

Hicks & Company Archeology Series #277

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ABSTRACT

In January 2016, Hicks & Company conducted eligibility testing at Site 41TV222 located within Webberville Park, Travis County, Texas. The investigations were conducted on behalf of Travis County under Texas Antiquities Permit #7513 in preparation for the proposed construction of a new maintenance building, an associated paved parking area, new walkways, and park lighting.

The area of potential effects (APE) for the proposed improvements both overlays and is immediately adjacent to the boundaries of Site 41TV222 as depicted on the Texas Historical Commission's (THC's) Archeological Sites Atlas. This site was previously determined eligible as a State Antiquities Landmark. Prior to the excavation of test units, Hicks & Company conducted shovel testing across the APE (n=19) to assess the current mapped boundaries of Site 41TV222 and to assist in determinations of the depth, character, and contextual integrity of cultural deposits. Shovel testing was done at intervals spaced 20 meters apart and acquired data were utilized in the placement of two 1- x 1-meter excavated test units conducted to determine if the footprint of the proposed project would adversely affect cultural deposits that contribute to Site 41TV222's eligibility.

Data from the current investigations indicate that Site 41TV222 contains subsurface deposits within the APE that could contribute to its listing as eligible. These deposits are located south of the current mapped boundaries of the site. Because of this, the current site boundary has been extended. As the investigated APE is larger than planned impacts, Hicks & Company recommended that construction proceed where deposits are largely absent and avoid the area where uninvestigated deposits may yet occur. The THC concurred with this recommendation and Travis County altered their design plan accordingly.

This report serves as partial fulfillment of the requirements for Antiquities Permit #7513 as required under Chapter 26 of the THC's Rules of Practice and Procedure. In accordance with Antiquities Code of Texas permit requirements, hard copies and digital files of the final report will be submitted to the THC and other recommended libraries and repositories across Texas. Additionally, all project-generated forms, notes, and photographs will be formally curated at the Center for Archaeological Studies (CAS) in San Marcos, Texas.

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INTRODUCTION AND MANAGEMENT SUMMARY

On January 5, 6, 8, and 11–12, 2016, archeologists from Hicks & Company conducted National Register eligibility testing at Site 41TV222 located within Webberville Park, Travis County, Texas (**Figure 1**). Work was conducted on behalf of the Travis County Parks Division to inform final design and construction of a proposed maintenance facility which would include a paved parking lot, walkways, and lighting within an ultimate construction footprint of approximately 0.4 acres in size. Depths of impact for these facilities are generally anticipated to be less than 35 centimeters (cm) as limited grading is planned. However, the installation of associated underground utilities, such as water and wastewater lines, is expected to have greater depths of impact (**Appendix A**: **Design Plans**). These investigations were conducted under Texas Antiquities Permit #7513 and complied with the guidelines set forth under 36 CFR 800 and the Rules of Practice and Procedure for implementing the Antiquities Code of Texas (ACT) under 13 TAC 26. Josh Haefner served as the Principal Investigator for the project and Will Pratt served as Project Archeologist. Emily McCuistion was crew chief for the field investigations. Will Pratt and Josh Haefner authored the report. Shovel testing took place on January 5, 2016, and unit testing took place on January 6, 8, and 11–12, 2016. Approximately 60 person-hours were executed to complete the investigations which were supplemented by the excavation of 19 shovel tests and two 1- x 1-meter test units.

Site 41TV222 was first recorded in 1955 and has been revisited many times. Hicks & Company conducted investigations at the site in 1998 on behalf of Travis County prior to the addition of lighting at the soccer fields located north of the current project area. The 1998 investigation was the first to conduct subsurface exploration, including shovel testing and mechanical backhoe trenching (Karbula and Seibel 1998). The findings from the 1998 effort indicated that subsurface deposits likely exist south of the site boundary as mapped on the Texas Historical Commission’s (THC’s) Archeological Sites Atlas (the Atlas). In coordination with the THC, it was determined that additional investigations were warranted prior to construction of the current proposed maintenance facility and associated improvements.

Travis County has design flexibility regarding the location of the proposed improvements and purposefully requested survey and testing in an area of potential effects (APE) of 1.94 acres, an area that is larger than necessary for the ultimate construction footprint (**Figure 2**). With this in mind, it was agreed during THC coordination, that shovel testing would be conducted in 20-meter intervals within the APE prior to the excavation of test units. The intent of this tight-formation shovel testing methodology was to: assess the potential for impacts to archeological resources within the APE located outside of the previously mapped limits of Site 41TV222 as depicted on the Atlas, and to establish accuracy of this site boundary.

All shovel tests conducted within the Atlas-mapped limits of Site 41TV222 where it overlaps with the APE were negative for cultural materials as were five of the six shovel tests conducted immediately south of Site 41TV222’s Atlas-mapped southern boundary. This indicates there is limited potential for subsurface cultural deposits to be present where the APE and the mapped site boundary overlap at the APE's northwestern corner (see **Appendix B: Figure B-1** for shovel test locations, test unit locations, and the Atlas-mapped boundary of 41TV222). Further, the frequency of positive shovel tests and the quantity of artifacts recovered within these tests increased moving north to south outside and away from the Atlas-mapped site boundary towards the southern extent of the proposed project's APE. Following shovel testing, the two 1- x 1- meter test units were excavated at the southern extent of the APE in locations adjacent to the two shovel tests which yielded the highest artifact counts.

While the previous investigation noted subsurface artifact counts were low (Karbula and Seibel 1998), the number of artifacts recovered in shovel tests and test units during the current investigations was relatively high, especially toward the southern extent of the APE, just above a terrace break in the landform. Results of the current investigation suggest that there is a strong potential for the presence of an isolable cultural deposit between 15–35 centimeters below ground surface (cmbs) that could be potentially eligible for listing under National Register of Historic Places (NRHP) Criterion D and as a State Antiquities Landmark (SAL) under Criteria a, b, and d. Results of the current investigation, assessed in context with results of previous investigations, suggest that these deposits are located south of the current Atlas-depicted site boundary. As a result, following field investigations, Hicks & Company extended the limits of Site 41TV222 and recommended an area of avoidance that, if adhered to, would limit the proposed project's potential to adversely affect eligible deposits. THC further augmented this area of avoidance to include all the original mapped boundaries of Site 41TV222 within the survey area (**Appendix C**: **Regulatory Correspondence**). As a result, Travis County elected to augment their APE to avoid these areas (**Appendix A: Design Plans**).

Subsequent sections of this report include a project background, discussion of the environmental setting, cultural background, brief discussion of previous surveys and recorded sites, description of field methodology, and discussion of the results of field investigations. The report concludes with formal regulatory recommendations. All project-generated forms, notes, photographs, and the artifacts collected from test units will be formally curated at the Center for Archaeological Studies (CAS) in San Marcos, Texas.

FIGURE REDACTED DUE TO SENSITIVE LOCATIONAL DATA

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FIGURE REDACTED DUE TO SENSITIVE LOCATIONAL DATA

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ENVIRONMENTAL SETTING

Geology and Soils

According to the Geologic Atlas of Texas, Austin Sheet, the underlying geology of the proposed project area consists of alluvium (Qal) and fluviatile terrace deposits (Qt) associated with the Colorado River (Barnes 1981) (**Figure 3**). Both represent relatively late geologic formations with alluvial deposits having formed recently and fluviatile terrace deposits dating to the early Pleistocene. As such, cultural deposits can be expected to be potentially deeply buried throughout the project area. Soils mapped for the project area belong to the Bergstrom series (USDA 2015). Bergstrom soils are described as being deep, silt loam to silty clay loam soils formed on flood-plain steps parented from residuum of Holocene-age.

Hydrology

Webberville Park is situated on the north bank of the Colorado River, and much of the park is located within or adjacent to the Colorado River floodplain. An unnamed intermittent stream and a drainage swale tributary to that stream flow through the park and eventually into the Colorado River. Functionally, this stream separates the softball fields from the rest of the park. The proposed APE sits on an ancient river terrace overlooking the floodplain which, prior to park development, was a working pecan orchard. Successive flood and drought cycles in the lower portion of the park have impacted the tree community substantially since it was acquired by Travis County, but it remains a much loved recreational asset in the Webberville Community.

Climate

The climate of the area is considered humid subtropical, characterized by hot summers and cool winters, with an average high temperature in August of 94 degrees Fahrenheit and an average low temperature in January of 39 degrees. Peak precipitation typically occurs in June, with an average monthly rainfall of around 5 inches (13 cm) (Larkin and Bomar 1983).

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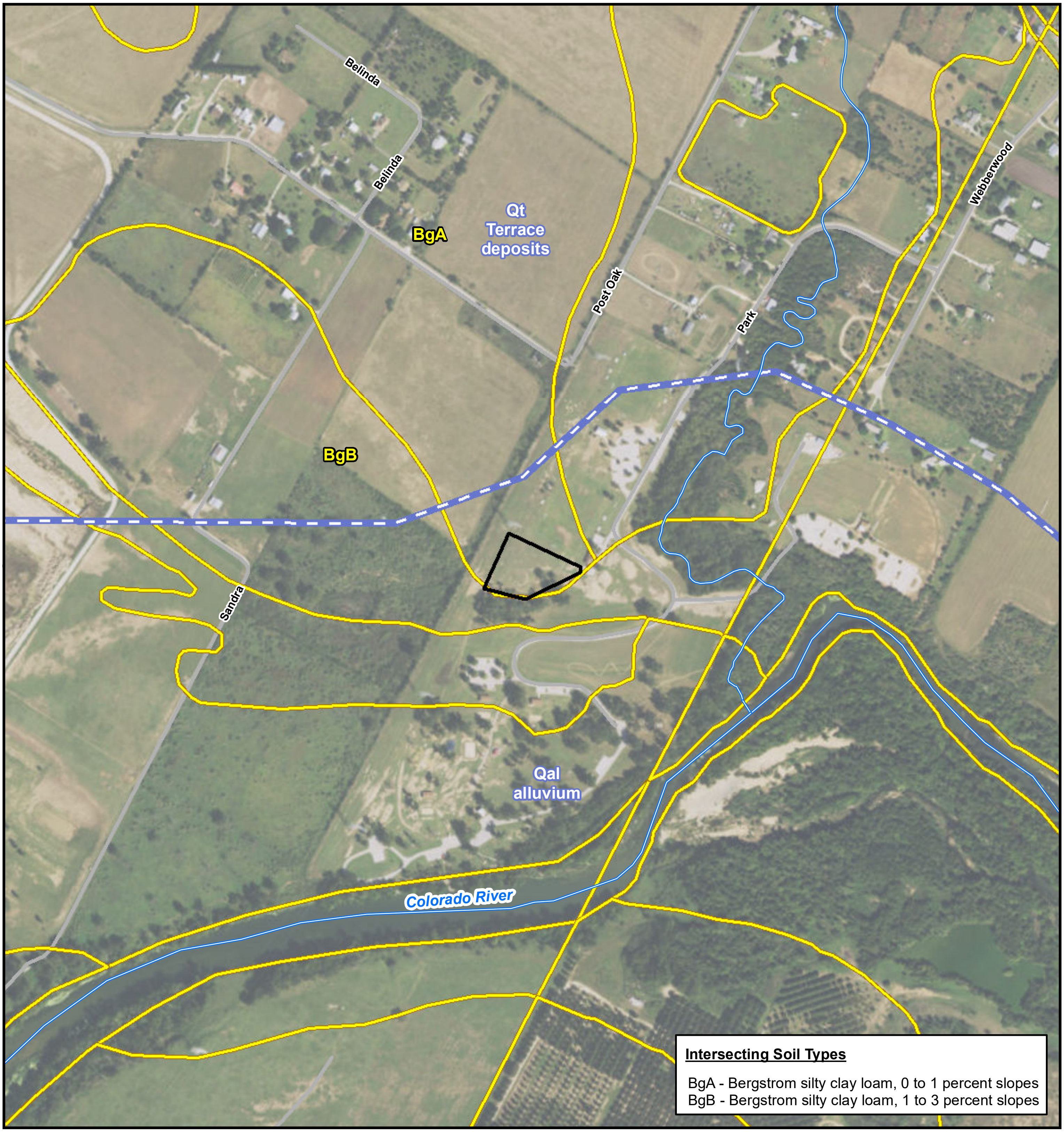

N

0 300 600
Feet
0 100 200
Meters
One inch equals 200 m

Figure 3
Geology and Soils

Archeological Testing at Site 41TV222
Travis County, Texas.

Key to Features

- Streams / Creeks (NHD)
- Proposed Project Area
- Soil Type Boundaries
- Geologic Formation Boundaries

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Flora and Fauna

The project area is located within the Blackland Prairie Ecological Region of Texas just west of the Edwards Plateau and south of its interface with the Cross Timbers and Prairies (Gould et al. 1960). The Blackland Prairie Ecological Region is relatively flat and gently undulating underlain by deep soils formed under grasslands which originally stretched from San Antonio to the Red River and covered 6.1 million hectares (WWF 2016).

During the later part of the nineteenth century, the fertile soils of the Blackland Prairie were cultivated for the production of wheat, cotton, corn, forages, and sorghum. Today, approximately 98% of the ecoregion is, or has been, cultivated. Ranching has become more common in the region in the last century (Texas A&M 2000), but only small pockets of native prairie vegetation remain which are used for hay production and/or cattle grazing. The vast majority of grazing land has been converted to tame pasture species such as coastal bermudagrass (*Cynodont dactylon*) and bahiagrass (*Paspalum notatum)*. Common native species of vegetation found in this region include Texas wintergrass (*Nassella leucotricha*), buffalograss (*Buchloe dactyloides*), Indiangrass (*Sorghastrum nutans*), little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), live oak (*Quercus virginiana*), Ashe juniper (*Juniperus ashei*), pecan (*Carya illinoinensis*), black willow (*Salix nigra*), and black walnut (*Juglans nigra*) (Texas A&M 2000; Texas A&M 2016).

A high diversity of fish and wildlife is known to exist in Travis County. According to Texas Parks and Wildlife, more than 407 species can be found in the region (TPWD 2016). Amphibians and reptiles are represented by five species of salamanders, 21 species of frogs and toads, eight species of turtles, 11 different kinds of skinks and lizards, 27 different snakes, the American alligator, and at least 60 species of mammals. Further, 471 bird species have been documented within the oaks and prairies region that includes Travis County (Texas A&M 2009; TPWD 2012).

Commonly occurring mammal species that would be expected in the project area include but are not limited to: coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), bobcat (*Lynx rufus*), Virginia opossum (*Didelphis virginiana*), fox squirrel (*Sciurus niger*), hispid cotton rat (*Sigmodon hispidus*), eastern cottontail (*Sylvilagus floridanus*), and raccoon (*Procyon lotor*). Common reptile species include the green anole (*Anolis carolinensis*), Mediterranean gecko (*Hemidactylus turcicus*), checkered garter snake (*Thamnophis marcianus*), and water snakes (*Nerodia* spp.). Frequently encountered bird species would include Northern Mockingbird (*Mimus polyglottos*), Northern Cardinal (*Cardinalis cardinalis*), Blue Jay (*Cyanocitta cristata*), House Sparrow (*Passer domesticus*), House Finch (*Carpodacus mexicanus*), White-winged Dove (*Zenaida asiatica*), Mourning Dove (*Zenaida macroura*), American Crow (*Corvus brachyrhynchos*), Red-tailed Hawk (*Buteo jamaicensis*), Red-shouldered Hawk (*Buteo lineatus*), Cooper's Hawk (*Accipiter cooperii*), Great Horned Owl (*Bubo virginianus*), gray phase of the Eastern Screech owl (*Otus asio*), Barred

Owl (*Strix varia*), Great-tailed Grackle (*Quiscalus mexicanus*), Turkey Vulture *(Cathartes aura*), and Black Vulture (*Coragyps atratus*).

Land Use

Webberville Park was established as a Travis County park in 1978 and was formerly in agricultural production that likely included grazing and pecan harvest in the floodplain below the terrace break. Site maps created of the area during an archeological survey conducted by Fred Williams in 1972 and curated at the Texas Archeological Research Laboratory (TARL) indicate that the upland area was plowed and used for agriculture. Additionally, a previous archeological survey documented historic barbed wire at Site 41TV222, indicating that the area around the site may have been used for ranching at some point in the recent past (Black and Kegley 1978:6). Currently, this day-use park is a popular destination for family gatherings at the numerous shaded shelters and is used as a river access point for boating and paddle sports, and for other recreational activities such as running, swimming, fishing, and team sports (Travis County 2016).

CULTURAL BACKGROUND

Central Texas Archeological Region

The project area is located within the Central Texas Archeological Region. As defined by Prewitt (1981) and later modified by Hester (1989:2), the Central Texas Archeological Region (CTAR) encompasses an area that is nearly 84,300 square kilometers. This region extends from the City of Uvalde northwestward to Sonora and, from here, northward to just beyond the City of Paint Rock onto the Grand Prairie and Rolling Plains. Moving northeast from Paint Rock, the City of Cleburne marks the northern most point of this region. From there, the area extends southeast, beyond Waco into the Blackland Prairie and further south to just north of the City of Floresville. Like most other archeological regions, the boundaries for this region are ephemeral, subject to reinterpretation as more and more work is done. Ellis and Black (1997:25) discuss the ephemeral nature in defining exact boundaries for a Central Texas "archeological region" citing inherent difficulties due to "considerable environmental diversity." Implicit with these difficulties is the danger of assuming for the area a single ethnic or cultural identity. In all of its various iterations the core of the CTAR has always been the Edwards Plateau (Hester 1989).

Most of the recent chronologies for Central Texas are based on six distinct time periods, roughly representing a 12,000 year sequence of occupation. A synthesis of the cultural-historical sequences provided by Collins (2004) and Johnson (1995) is as follows: Paleoindian (prior to 8800 BP [Before Present ca. 1950]), Early Archaic (8800–6000 BP), Middle Archaic (6000–4000 BP), Late Archaic (4000–1400 BP), Post-Archaic or Late Prehistoric (1400 BP–AD 1600), and Historic (AD 1600–1950). Although these divisions represent convenient temporal categories, they are also based in large part on perceived adaptations in subsistence and changes in lithic and other technologies.

Paleoindian (prior to 8800 BP)

Scholars divide the Paleoindian period in North America by geological epochs. Pleistocene era peoples that inhabited North America from ca. 12,000–10,000 BP are referred to as Early Paleoindian with the advent of the Holocene as the arbitrary temporal demarcation between Early and Late Paleoindian periods (Collins 1995, 2004). The people of the Late Paleoindian (10,000–8800 BP) utilized a similar lanceolate point technology and practiced lifestyles that were in many ways the same as the Early Paleoindian period. Diagnostic artifacts for the Early Paleoindian period include lanceolate-shaped, fluted projectile points such as Clovis, Folsom, and Plainview. Early projectile points were utilized as tips on atlatls and spears and were used in the hunting of big game such as mammoth, mastodon, bison, horse, and camel (Black 1989). Artifact assemblages for Early Paleoindian peoples in Central Texas include engraved stones, exotic lithic materials such as obsidian, and ochre stained artifacts (Collins et al. 1991). The shift from the Early to the Late Paleoindian subperiod is marked by the appearance of several unfluted projectile point styles such as the Dalton and San Patrice types and "Plainview like" points that are similar to Plainview points but differ in flaking technology and are noticeably thicker through the midsection (Collins 2004). The appearance of Golondrina-Barber and Saint Mary's Hall point types postdate Dalton and San Patrice types (Collins 2004).

The Early Paleoindian culture in Central Texas is believed to be related to the well-known big game hunting tradition of the Great Plains (Hester 1980). Most of the well-documented Early Paleoindian sites in Texas that are associated with extinct megafauna are located north and west of Central Texas on the Llano Estacado and adjacent areas of the Southern High Plains. In general, Early Paleoindian sites are scarce in Central Texas, or at least less visible than later sites. Conversely, Late Paleoindian sites are much more numerous in South and Central Texas, although both are usually identified from only surface-collected artifacts (Black and McGraw 1985). Subsistence data from several Late Paleoindian sites does suggest, however, that small game was exploited in addition to extinct megafauna. This data supports the idea that a hunting and gathering lifestyle may have already been adopted across much of Southwest and Central Texas prior to the Early Archaic period.

Paleoindian occupations in Central Texas have typically been associated with lanceolate projectile points such as Clovis, Folsom, Plainview, Golondrina, and Meserve, and stemmed points such as Scottsbluff (Turner and Hester 1993). Recent investigations at the Wilson Leonard Site (41WM235) equate three styles of projectile points, Golondrina/Barber, St. Mary's Hall and Wilson, to the late Paleoindian period (Collins 2004). The Wilson component is dated at 10,000 to 9650 BP and is associated with features, artifacts, and a burial that are more Archaic-like in nature than Paleoindian (Collins 2004). The data from this site further suggests that the Archaic nature of the adaptation continues during the ensuing Golondrina/Barber and St. Mary's Hall components. These are dated between 9500 and 8800 BP and may represent a transitional period between the Paleoindian and the Archaic.

Early Archaic (ca. 8800–6000 BP)

Dating from approximately 8800 to 6000 BP, the Early Archaic period is subdivided into three projectile point style intervals: Angostura, Early Split Stem, and Martindale/Uvalde (Collins 2004). Generally, the shift from Paleoindian to Archaic subsistence strategies is measured by a change in technology focused on the use of burned rocks to process geophyte plant foods. This shift is traced back as early as 8800 BP at the Wilson-Leonard Site and at roughly comparable ages at several other Central Texas sites (Decker et al. 1999; Thoms et al. 1996). At these sites, evidence for the use of earth ovens and burned rock technologies for processing plant foods is associated with lanceolate-shaped Angostura projectile points. Hence, the use of Angostura and Late Paleoindian lithic technologies may have continued on into the Early Archaic period for a time but was gradually replaced by the bifurcate base split-stem and Martindale/Uvalde styles.

The shift to the use of burned rock cooking for the heated processing of plant foods represents the start of a long-lived Archaic cooking tradition, lasting roughly to 1400 BP. This tradition was characterized by the repeated utilization of earth ovens and the resulting creation of burned rock middens at strategic places on the landscape. These new subsistence practices began with a distinctive cooking technology using layered arrangements of heated rocks in earth ovens, allowing for exploitation of a broad range of geophytes. These included upland xerophytic plants like sotol and other species such as Lily family onion bulbs, which grow in wetter environments (Decker et al. 1999).

Some of the most recent climatic reconstructions for the period posit a moist and cool late Pleistocene environment with early to mid-Holocene shifts to drier conditions that became most pronounced during the mid-Holocene, ca. 5000–7000 BP (Ricklis and Collins 1994). In contrast, Johnson (1995) suggests that the relatively mesic conditions of the eastern Edwards Plateau during the Pleistocene and early Holocene/Paleoindian period underwent a brief dry interval during Late Paleoindian times, later returning to more mesic conditions during the ensuing Early Archaic period (roughly 8000–5800 BP). Whether the Early Archaic climate reflects a gradual drying period (Ricklis and Collins 1994) or a more mesic interval within an overall, long-lived trend toward aridity along the eastern Edwards Plateau, it appears that the use of burned rock midden technologies for plant food and other types of subsistence related processing began during this period and continued for many thousands of years.

Overall, the bulk of the Central Texas archeological literature suggests that Early Archaic occupations were generally small, widely distributed, and non-specialized (Black and McGraw 1985). Explanations for these characteristics support a generalized hunting-gathering strategy involving relatively high group mobility, poorly defined territories, and short-term occupations. Hence, broad spectrum, well-adapted, highly mobile subsistence strategies are theorized.

Middle Archaic (ca. 6000–4000 BP)

The Middle Archaic marks an intensification of the use of burned rock technologies to process plants and other types of foods within an increasingly arid environment. Ricklis and Collins (1994) recognize a pronounced mid-Holocene drying event from 7000 to 5000 BP, though it may have lasted longer. Johnson (1995) suggests the occurrence of a dry Edwards Interval along the eastern Edwards Plateau from roughly 5500 to 1400 BP. Evidence for this is seen in the cessation of significant overbank sediment aggradation at a number of Central Texas sites. Instead of deposition, arid conditions catalyzed extensive downcutting and erosion along many Central Texas streams. Hypothetically, dry conditions would have promoted the spread of desert succulent xerophytic plants and fostered the increased use of burned rock middens. Drier conditions may also have engendered the return of bison in great numbers to the plateau during the Middle Archaic periods. Furthermore, the proliferation of Bell/Andice/Calf Creek projectile point styles at the beginning of the Middle Archaic may have coincided with this return as these broad bladed projectile points have been associated with the exploitation of bison. Additional Middle Archaic projectile point styles include: Early Triangular, La Jita, Nolan, and Travis.

Late Archaic (ca. 4000–1400 BP)

Refinements in the Central Texas chronology divide the Late Archaic interval into two different subperiods (Johnson 1995). Subperiod I is marked by the appearance of Bulverde projectile points, which along with later forms (Pedernales, Castroville, Marshall and Montell) were used to hunt bison and other large game. Burned rock middens continued to proliferate during the Late Archaic I interval. The resources processed via burned rock technology may have included yucca, sotol, and perhaps agave lechuguilla. Other middens may simply be dumps for kitchen-type debris, which contain sizeable quantities of animal bones, broken stone tools, and flint-knapping detritus (Johnson 1995). Peoples associated with the Pedernales style interval, in particular, may have been adept at both hunting and the processing of large volumes of plant food materials.

The Late Archaic II interval (ca. 600 BC–AD 600) likely was a time of increasingly mesic conditions for all but the western and southwestern portions of the Edwards Plateau (Johnson 1995). The onset of more mesic conditions may have resulted in decreased numbers of upland xerophytic plants and perhaps bison (Johnson 1995), which may have forced adjustments in prehistoric subsistence strategies. There appears to be a decrease in the number of burned rock middens that can be directly attributable to the Late Archaic II interval. The projectile points used at this time are smaller and are characterized by such styles as Ensor, Fairland, Frio, and Darl. Evidence suggests the large projectiles well-adapted to bison hunting may have been gradually replaced. Also, it has been posited that the spread of Eastern Woodland religious cults may have had an influence on the Late Archaic II peoples of Central Texas (Johnson 1995).

Late Prehistoric (ca. 1400 BP–AD 1600)

For Central Texas, the period of transition from the long Archaic period to what Collins (1995) labels the "Late Prehistoric" is one mired in ambiguity. Cultural traits that prevailed in other regions of Texas, such as the adoption of the bow and arrow, the use of pottery, and the practice of agriculture, were expected to reveal themselves, with time, in the Central Texas archeological record (Suhm et al. 1954). In anticipation of these findings, early scholars had adopted the term "Neo-American" to describe post-Archaic life-ways. Others, recognizing the anomalous continuation of a basic hunting and gathering subsistence strategy, coined terms such as "Neo-Archaic" (Prewitt 1981) and "Post-Archaic' (Johnson and Goode 1994). Bow and arrow technology appears to have indeed been adapted ca. 1200 BP (Collins 1995). Pottery is too utilized, but much later and is not as widespread as is seen in other regions of Texas. Evidence for agriculture for the area is minimal and, by all accounts, comes into use comparably late.

Johnson and Goode (1994) write that the Sabinal and Edwards arrowheads may have been the first arrowhead styles to appear on the eastern Edwards Plateau at about 1200 BP. This date is slightly more recent than the earliest accepted dates, ca. 1450 BP, for the advent of bow technology in eastern North America (Shott 1993), although Odell (1988) argues that proximal flakes and bifaces were utilized as arrow points during the Archaic period. It is widely believed that the bow and arrow entered into eastern North America from an arctic source (Shott 1997). Reasons for the adoption of this new technology are still being examined, with conventional assumptions that regarded the bow as being more efficient for hunting now being questioned (Larralde 1990; Shott 1993). Within Central Texas, there appears to be a correlation of Edwards, and, later, Scallorn type arrowheads with conflict and warfare (Johnson and Goode 1994; Prewitt 1982).

Austin Phase

While recognizing that a predominantly Archaic lifestyle persisted for Central Texas for far longer than neighboring regions, Collins (2004), like Jelks (1962) before him, organizes the Late Prehistoric into two subperiods. These subperiods correspond with the Austin and Toyah phases that are distinguished by changes in projectile point styles. The Austin subperiod, or interval, is dated from 1200 BP to 650 BP by Collins (1995). Associated with this subperiod are Scallorn and Edwards point types. Save for the adoption of bow technology, the material culture associated with the Austin subperiod is similar to that of the Late Archaic (Johnson and Goode 1994). As representative of such assemblages, Prewitt (1981:83) lists Clear Fork gouges, scrapers, small concave unifaces, grinding and hammer stones, bone awls and beads and marine shell beads and pendants. Johnson and Goode (1994) add that bifacial flint knives, although usually smaller than those with Archaic associations, are also commonly found.

Subsistence practices also seem to be very similar to those practiced during the Late Archaic. Regarding resource exploitation, Prewitt (1981:74) states that the “emphasis seems to be on gathering a balanced variety of plant foods rather than on hunting, although a slight increase occurs in the overall importance of hunting.” Burned rock middens have been dated to the Austin subperiod, though these seem to occur with a good deal less frequency than preceding time periods (Goode 1991; Houk and Lohse 1993). During the Austin subperiod, there is marked widespread appearance of “true” cemeteries, a trend that carries over into the following Toyah subperiod (Prewitt 1981).

Toyah Phase

Both Collins (1995) and Johnson and Goode (1994) tentatively date the Toyah Phase from approximately 650 BP–200 BP. This time period is one of the better documented and understood of the prehistoric culture-historical time periods within and adjacent to Central Texas. This is because there are large numbers of well documented Toyah sites, many of which were short lived, isolated occupations (Johnson 1994; Karbula 2003; Quigg and Peck 1995; Ricklis and Collins 1994). During the Toyah interval, the climate continued trending towards the mesic norms prevalent today and buffalo were returning to the area in numbers (Johnson and Goode 1994). In consort, Toyah subsistence aligns toward bison procurement and there is an increased emphasis on hunting compared to the Austin subperiod (Prewitt 1981).

Toyah has been variably described as an interval, a phase, and a horizon (University of Texas at Austin 2011). While the ascribed labels may vary, the intent seems to be the same: to identify a distinct cultural expression that abruptly appears across the Edwards Plateau, Rio Grande Plains, and the Lower Pecos. Largely this identification is based on two sets of unique material remains that appear in the Central Texas archeological record during the fourteenth century: a unique toolkit and earthenware pottery. It has been noted that technical and stylistic changes from the Austin phase to the Toyah phase was more pronounced than between the Late Archaic and Prehistoric periods (Story and Shafer 1965).

Although not restricted to Toyah, perhaps the most recognized element of the Toyah stone toolkit is the Perdiz Point. In addition to the ubiquitous Perdiz point, the Toyah phase lithic assemblages include Clifton points and a variety of flaked tools oriented towards bison processing (Karbula 2003). Directly percussed flake blades are found in Toyah assemblages and represent a blade technology that was absent during the preceding Archaic (Johnson and Goode 1994). Other hallmarks of this time are sandstone abraders, beveled-edged Harahey and Covington knives, gravers, small drills often fashioned from small proximal flakes, stone side scrapers, deer bone spatulates, grass basketry/mats, mussel shell pendants, bone awls, and beads.

While there has been pottery found in association with sites that are pre-Toyah, it is during this period that ceramics first appear in the Central Texas archeological record in numbers. Locally manufactured ceramic-types are known as Leon Plain, a bone tempered plainware, and Doss Redware with slips that were decorated with red ochre. Occasionally, these vessels exhibit incised decorations, beveled rims, and an application of a fine wash to their interiors (Johnson 1994; Texas Beyond History 2016). In addition to these styles, ceramics were acquired from the Eastern Woodlands (Collins 1995). Occasionally, asphaltum-coated sherds are found and are likely intrusions from the Texas Gulf Coast tradition of the Karankawa. Within the archeological record, most of the remnants of Toyah-age pottery are fragmented potsherds, a consequence of weathering the low-firing technique of Toyah ceramic manufacture (Texas Beyond History 2016). When reconstruction of vessels has been possible, most appear to be utilitarian water jugs and simple bowls.

Johnson (1994) documents that most of the lithic tools found in Toyah assemblages were fabricated from either proximal flakes or blades, although bifacial reduction was, on occasion, also utilized. The fabrication of pointed-stem, barbed arrowheads from flint blades was new to Central Texas (Johnson 1994, Tunnell 1989). These points typically began as small blades, some as small as 70 mm in length extracted from block or rounded nodules. Sub-cubical shapes make ideal blade cores because they already have flat surfaces for striking platforms. After an initial flake detachment, a series of blades can be detached by rotating the core to access fresh platforms (Johnson 1994). Generally, the detached blades would be thicker along its longitudinal axis with extremely thin lateral edges. In order to prepare this preform for pressure flaking, the lateral edges were abruptly retouched. Johnson (1994) notes that previously identified Cliffton points were in actuality Perdiz preforms.

Studies suggest that bison presence in Central Texas reached its height during the Late Prehistoric (Barsness 1985; McDonald 1981). Across North America, this increase in bison numbers is often correlated with the "Little Ice Age" which brought in wetter conditions that brought about widespread vegetative growth (McDonald 1981). Robust and wide-ranging, bison likely moved throughout the Central Texas region exploiting ecotones just as humans did.

Historic Period (AD 1600–1950)

The most radical changes in the Native American history of Central Texas came during the historic era (Black 1989). The historic period in Texas began with the arrival of Alvar Nuñez Cabeza de Vaca and other survivors of the Navarez expedition on the Texas coast in 1528. The influences of European colonization were not felt strongly in Texas, however, until over a century later. By the middle of the eighteenth century, the Spanish had established missions in East Texas and settlements in South Texas. This resulted in massive depopulation and cultural disintegration among Native American groups.

The horse was introduced into North America by Spanish settlers in the sixteenth century. Nomadic groups, initially the Apaches and later the Comanches, adopted the horse and rapidly altered the aboriginal situation of Central Texas. These nomadic groups entered Central Texas from the plains and mountains to the north and west and within 150 years had forced most of the native peoples to flee. Most groups were destroyed by the combined effects of the nomadic raiders and the foreign diseases introduced by Europeans. Others moved south, entering Spanish missions and settlements, or eastward to join various agricultural groups such as the Wichita (Black 1989).

The recorded history of Webberville begins in 1832 when John F. Webber received a land grant in the area. Originally known as Webber's Prairie, settlers fortified themselves to defend against raids from native groups and several fortified settler homes are reported to have been in the area. A post office was established in Webber's Prairie in 1846 and it served as a mail stop for the surrounding communities. In 1853, the name of the settlement was officially changed to Webberville and by the 1880s the town had several stores, cotton gins, gristmills, two churches, a school and 200 residents. In 1900 the population had grown to 382. The post office in Webberville was transferred to the town of Manor in 1903 and between 1940 and 2000 the population decreased with an estimated 50 residents during that time (Smyrl 2010).

PREVIOUS INVESTIGATIONS

According to the THC Sites Atlas (the Atlas), accessed on 3 February, 2016, six surveys have been conducted within one kilometer of the APE. Of these surveys, only one did not encompass any portion of Webberville Park. This survey outside the park was carried out in 1986 by HPF Consultants. No further details of this survey are presented on the Atlas. The only recorded archeological sites within a kilometer of the APE are Site 41TV216 and Site 41TV222. Site 41TV216, located roughly a kilometer east-northeast of Webberville Park, was recorded as a surface scatter by J.T. Baumgartner. No site form was ever completed for this site, and a trinomial designation was given based on the artifacts collected from the site rather than from initial in-field recognition of the site. No details of the date of the survey or the types of artifacts collected are presented on the Atlas. Site 41TV222 is located directly within Webberville Park (**Figure 4**). Site 41TV222 was determined eligible as a State Antiquities Landmark (SAL) by the THC in 1998 (THC 2016).

Previous Investigations at Site 41TV222

Site 41TV222 is a multiple component historic and lithic scatter site located on an eroded alluvial terrace of the Colorado River and has been noted in several different surveys over the years (**Figure 4**). The site was first recorded in 1955 by Dale Exley and Dee Ann Suhm who noted its existence but performed no other work (THC 2016). In 1978, Arthur Black and George B. Kegley conducted a surficial survey of the then-proposed Webberville Park limits. During background research for this project, Black and Kegley posit that Site 41TV222 may have been inadvertently recorded as 41BP74 (the Baker Site) by R. L. Carlisle and L. Kirkman in 1965 during a survey of the area. In their report on the Webberville investigations, Black and Kegley note that the 1965 survey by Carlisle and Kirkman likely utilized maps with "discrepancies of at least 750 feet" in their Travis and Bastrop County line boundaries, determining that Site 41TV222 and Site 41BP74 are, in actuality, the same site (Black and Kegley 1978:4). At 41TV222, Black and Kegley recorded the presence of diagnostic historic artifacts such as blue painted featheredged earthenware, pressed glass tableware, and cut nails, which they attributed to a pre-Civil War historic component (Black and Kegley 1978:6-7). In addition to diagnostic historic artifacts, Darl projectile points as well as Scallorn and Perdiz arrow points were also documented (Black and Kegley 1978:9-10). A University of Texas Site Survey Form filled out by Fred Williams in 1972, further evidences that 41BP74 is the same site as 41TV222: while the site form notes the trinomial as "41BP74" the county is noted as Travis. Notes on the site sketch map that accompanied this site survey form, made by M.S. Ford in 1983, 11 years after this form was filed, state that originally the north arrow was erroneously pointing south. When corrected, this places the site location of Site 41BP74 in the immediate vicinity of mapped locations of Site 41TV222. There are no site revisit forms available on the Atlas that post-date Williams' original form.

In 1998, Hicks & Company conducted a survey of 41TV222 for the Travis County Transportation and Natural Resources Division. During their survey, Hicks & Company supplemented shovel testing with backhoe trenching to determine the stratigraphy of the site and the depth of cultural deposits (Karbula and Seibel 1998:3). Ten backhoe trenches were excavated during this survey, the deepest of which was excavated to a depth of 3.5 meters below the ground surface. Karbula and Seibel documented five distinct soil strata: two Holocene-age strata containing an intact cultural zone up to 60 cmbs overlying three probable Pleistocene-age clays. Cultural materials were recorded migrating into the third stratum through cracks in the clay (Karbula and Seibel 1998:21). Within the APE of their project, Site 41TV222 was a very low density scatter of lithic materials with good organic preservation, but lacking in features or activity areas. Shovel test and backhoe trench locations along with the total number of artifacts recovered from Karbula and Seibel's survey are depicted in **Appendix B: Figure B-2**. Artifact counts depicted in this figure include mussel shell, charcoal, flakes, tools, faunal bone, groundstone, glass, and a single piece of electrical tape.

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Figure 4

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RESEARCH DESIGN & METHODOLOGY

The primary objectives of the current investigation, derived through consultation with the THC, were to establish concise site boundaries for Site 41TV222 as they relate to the APE, and assess the proposed project's potential to adversely affect archeological deposits that contribute to Site 41TV222's status as eligible for listing in the NRHP and as an SAL. To this end, Hicks & Company's research design centered on: establishing horizontal and vertical limits of cultural deposits within the APE; collecting data on the nature of these deposits relating to site structure, function, and chronology; and evaluating the integrity of any encountered deposits. Further, since the site currently is listed as eligible by the State Historic Preservation Office, all cultural deposits encountered were assessed for the ability to contribute to this status. The NRHP criteria for listing are that:

> "the quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and
>
> A. that are associated with the events that have made a significant contribution to the broad patterns of our history; or
> B. that are associated with the lives of persons significant in our past; or
> C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
> D. that yielded, or may be likely to yield, information on prehistory or history.

For archeological sites, Criterion D is the one most often applied when relating deposits in terms of data yield against past and current paradigms. In addition to being eligible for NRHP listing, to be eligible for SAL status, an archeological site must meet one of the following criteria:

a. the site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;
b. the site's archeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation interests of the site;
c. the site possesses unique or rare attributes concerning Texas prehistory and/or history;
d. the study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge; and

e. there is a high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to ensure maximum legal protection, or alternatively, further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected (13 TAC 26.10).

Though subsurface testing was absent or only conducted minimally in prior investigations at Site 41TV222, it was noted that the diagnostic projectile points collected at the site range from Darl projectile points to Scallorn and Perdiz arrow points, and affix site use to the end of the Late Archaic Period, through the Prehistoric Period and, possibly, into the Historic Period (Collins 2004). While earlier investigations posited that Site 41TV222's terrace landform likely housed deeply stratified cultural deposits, excavations conducted by Hicks & Company in 1998 noted no cultural deposits below approximately 60 cm in depth (Karbula and Seibel 1998).

Shovel testing was conducted within the proposed project's APE in 20-meter intervals. A total of 19 shovel tests were conducted throughout the project area, exceeding the THC's minimum standards for a project of this size. Upon the excavation of positive shovel tests it was concluded that further investigation was necessary to determine if the footprint of the proposed project would adversely affect cultural deposits that contribute to Site 41TV222's eligibility. For this purpose, two 1x1 meter hand excavated units were placed in areas most likely to be productive, based on positive shovel test data. Sediment from all excavations was screened through ¼-inch hardware cloth. Investigators recorded their observations and the results of shovel tests and test units through notes, standardized forms, and photographs. Locations of all excavations were recorded utilizing GPS technology.

The survey followed a returned collection policy in which artifact from shovel tests were returned to find location immediately after the termination of the shovel test pit. Artifacts from test unit excavation were analyzed at Hicks & Company and will be curated at CAS. Additionally, a revisit form and extended site boundary was prepared for Site 41TV222 and submitted to TARL.

For the purpose of the artifact analysis presented later in this volume, artifacts were divided by level into typological categories based on form and function. Artifacts were further divided into a "thermally altered" category based on visible evidence of heat damage such as discoloration, potlidding, and carbonization. During the course of the artifact analysis, a distinction was made when analyzing types of lithic debitage between flakes and non-flake debitage. Here, flakes can be defined as intentionally created lithic debitage with an observable platform or point of applied pressure. Non-flake debitage is defined as fragments of lithic material without a definite point of applied pressure or platform. Artifact types and counts are presented in **Table 2** and **Table 3** while thermally altered artifact types and counts are presented in **Table 4** and **Table 5**.

RESULTS OF INVESTIGATIONS

This section summarizes the results of the significance testing conducted at archeological Site 41TV222. A chronology of the excavations, summary of effort, a discussion of site size, stratigraphy, and character, as well as a description of each site's cultural components and artifacts follows.

SITE 41TV222

Site 41TV222 is located on an upland terrace near the edge of a ridge overlooking a tributary of the Colorado River 150 meters to the south. Predominantly, the immediate site area is cleared woodlands with manicured Bermuda grass covering the majority of the ground surface, limiting visibility to 10–15 percent (**Figure 5**). The very northern extent of the APE is clear of trees and is utilized as soccer fields. Beyond the APE to the south and east, the landform descends into the Colorado River floodplain.

Figure 5: Overview of Site 41TV222 where it overlaps with the APE facing west from the east end of the site.

Shovel Testing

The boundaries of Site 41TV222 were largely established by shovel testing and backhoe trenching during previous investigations conducted by Hicks & Company (Karbula and Seibel 1998). In order to confirm that these subsurface finds accurately reflected the extent of the site and that the currently proposed project would not significantly impact archeological deposits that might contribute to the site's eligibility, a total of 19 shovel tests were excavated at the site and its periphery. Seven of these shovel tests were positive for cultural material. Shovel tests within the current site boundaries (STWP01, STWP02, STWP03, and STEM02) were negative for cultural materials as were four of the five shovel tests placed just outside of the current site boundaries (STWP04, STWP05, STEM03, and STEM04). The majority of the positive shovel tests were located along the southern edge of the terrace immediately overlooking the descent to the floodplain below. Results of positive shovel tests are presented below in **Table 1**. The results of all shovel testing are included in **Appendix B: Table B-1**.

Screened sediment from the shovel tests was noted to be uniform, despite differing locations on the terrace landform. In general, the first strata is a dark brown (7.5YR 3/2 or 7.5YR 3/3) silty clay loam between 10 and 30 cm in thickness, that overlies a second stratum noted as a brown to dark brown (7.5YR 4/2 to 7.5YR3/3) silty clay loam mottled with a clay loam ranging from brown to reddish brown (7.5YR 4/4 to 2.5YR 4/4) in color. This mottling increases in density until approximately 60–70 cmbs where it becomes the dominant soil type. This third stratum, composed of brown to reddish brown (7.5YR 4/4 to 2.5YR 4/4) clay loam, occupies depths greater than 60 or 70 cmbs. During shovel testing, artifactual finds in the first and second stratum were solely prehistoric-age lithic debitage, tools, and faunal remnants. The third and final stratum was devoid of cultural material.

Artifacts recorded during shovel testing around the site include several chert non-flake debitage fragments, ten chert flakes, a chert core fragment, and a stone pestle. No artifacts were recovered from shovel tests within the currently (Atlas) mapped site boundaries. While no burned rock or charcoal was encountered in shovel tests within the site boundaries, small flecks of charcoal were documented in five shovel tests outside the site boundary (STWP05, STWP08, STEM04, STEM05, and STEM06) and burned rock was recorded in one shovel test (STWP08). Positive shovel tests and associated artifact counts were utilized to guide the placement of two 1- x 1-meter test units intended to assess the significance of cultural deposits. The results of positive shovel tests excavated around Site 41TV222 supported Hicks & Company's findings from their 1998 survey and backhoe trenching which determined that there were no cultural deposits at a depth greater than 60 cmbs.

Table 1. Positive Shovel Test Results					
Shovel Test	**Location**	**Depth (cmbs)**	**Munsell Color**	**Description**	**Cultural Material**
WP06	28m southwest of STWP04	0-20	7.5YR 3/2	Clay Loam	2 Pieces of Debitage @ 30-40 cmbs
		20-70	7.5YR 3.5/2	Silty Loam w/ a bit of Clay 2.5YR 4/4 mottled inclusions increasing from 3% at 20-30 cmbs to 8% at 60-70 cmbs	
WP08	East corner of APE near back parking lot. 20m east of STJH01	0-70	7.5YR 3/3	Clay Loam with a bit of Silt	4 Pieces of Debitage, FCR, Mussel Shell @ 10-20 cmbs; FCR, 1 Piece of Debitage @ 20-30; Mussel Shell @ 30-40 cmbs; 2 Pieces of Debitage @ 40-50 cmbs
WP09	20m south of STJH01	0-10	7.5YR 3/3	Silty Clay Loam	1 Core Fragment @ 20-30 cmbs
		10-70	5YR 4/3	Sandy Loam with a bit of Silt	
WP12	20m south of STEM03	0-35	7.5YR 3/3	Silty Clay Loam	1 Piece of Debitage @0-10 cmbs; 1 Stone Pestle @ 10-20 cmbs
		35-70	7.5YR 3/3	Silty Clay Loam mottled with 7.5YR 3.5/2	
EM01	20m east of STEM04	0-70	7.5YR 3/2	Silty Clay Loam	1 Piece of Debitage @ 10-24 cmbs
EM06	20m south of STWP11	0-55	7.5YR 3/2	Silty Clay Loam	2 Pieces of Debitage @ 20-30 cmbs; 7 Bone Fragments, 1 Core, @ 30 cmbs; Mussel Shell @ 33 cmbs; 1 Piece of Debitage @ 36 cmbs; Quartzite Cobble Fragments @ 43 cmbs
		55-70	7.5YR 4/4	Silty Clay	
JH01	20m east of STWP07	0-60	7.5YR 3/2	Silt Clay Loam	2 Pieces of Debitage @ 10-20 cmbs

Unit Testing at 41TV222

During eligibility testing of Site 41TV222, Hicks & Company excavated a total of two 1- x 1-meter hand-dug test units oriented with the cardinal directions. Test units (Test Unit 1 and Test Unit 2) were placed adjacent to areas with high artifact concentrations noted during the above-described shovel testing phase of the project. As a result, both test units were placed along the bluff to the south of the current Atlas-depicted boundaries of Site 41TV222 where artifact density was highest (**Figure 6**). Artifacts recovered from these test units included 406 pieces of debitage, four bifaces/biface fragments, three cores, one complete Scallorn projectile point, and the base of a Darl point, as well as six ceramic sherds (with five specimens identified as being likely prehistoric Leon Plain style ceramic fragments and the sixth being a Historic Period whiteware sherd). Test units were terminated either in sterile levels or where a decreased artifact count was observed at a depth of 60 cmbs below the anticipated depths of impact that are expected to be no greater than 53.3 cmbs. for this immediate area (**Appendix A**).

Figure 6: Overview across bluff at southern extent Site 41TV222 to northeast.

Test Unit 1

Excavated in ten centimeter levels, the northwest corner of Test Unit 1 was placed approximately ten cm south of positive shovel test WP08 just north of the terrace edge. The datum for Test Unit 1 was placed in the northeast corner, 3.5 cms above the surface and the unit was excavated in 10-cm levels. There was a notable increase in artifact density between Level 1 and Level 3. While only 12 artifacts were recovered from Level 1, a total of 48 and 106 prehistoric artifacts were recovered from Level 2 and from Level 3, respectively. Within Level 1 (0–10 centimeters below datum [cmbd]), a mix of recent-era and prehistoric artifacts was documented. Temporally recent artifacts recovered from Level 1 include a crown bottle cap, an aluminum pull tab, a plastic tube fragment, and two concrete fragments. Additionally, seven prehistoric artifacts were recovered from Level 1 including four flakes, two pieces of non-flake debitage, and a core fragment. In Level 2, the types of artifacts recovered shifted from the mix of recent and prehistoric artifacts noted in Level 1 to solely prehistoric artifacts. Artifacts recovered from Level 2 included the distal half of a biface (**Figure 7**), a possible quartzite hearthstone (**Figure 7**), and 15 flakes, 20 non-flake debitage, three fire cracked rock (FCR) fragments, four items of faunal bone, and four mussel shell fragments. In Level 3, artifacts recovered included 16 items of non-flake debitage, 49 flakes, a lithic core, three small quartzite fragments, 16 faunal bone fragments, seven fragments of FCR, 12 mussel shell fragments, and two small burned clay fragments. A dark brown (7.5YR 3/3) silty clay loam was noted in these three levels.

Beginning with Level 4, the high artifact count seen in previous levels began to decrease steadily into Levels 5, 6, and 7 (40–70 cmbd) until no artifacts were recovered from the bottom portion of Level 7 at approximately 65–70 cmbd. A total of 76 artifacts were recovered from Level 4 (30–40 cmbd) including 28 items of non-flake debitage, 26 flakes, a biface fragment (**Figure 8**), seven faunal bone fragments, four items of FCR, six quartzite fragments, and a core fragment. Faunal bone (n=3), non-flake debitage (n=17), flakes (n=18), mussel shell (n=4), and FCR (n=5) comprised the 47 artifacts recovered from Level 5. A total of 23 artifacts, including four faunal bone fragments, six pieces of non-flake debitage, six flakes, five quartzite fragments, and two fragments of mussel shell were recovered from Level 6. In Level 7, one item of non-flake debitage, two flakes, and a quartzite cobble fragment comprised the artifacts recovered. Evidence of bioturbation was noted within this level in the form of three root holes ranging from 7–10 cm in diameter. In Level 4, the dark brown (7.5YR 3/3) silty clay loam observed within Levels 1, 2, and 3 became mottled with a brown to dark brown (7.5YR 3.5/2) clay loam. This mottling increased in density until Level 5 (40–50 cmbd) when it became the primary matrix. No cultural features were observed in this test unit and excavation was terminated at the base of Level 7 at 70 cmbd. Artifact totals by level for Test Unit 1 are presented below in **Table 2**.

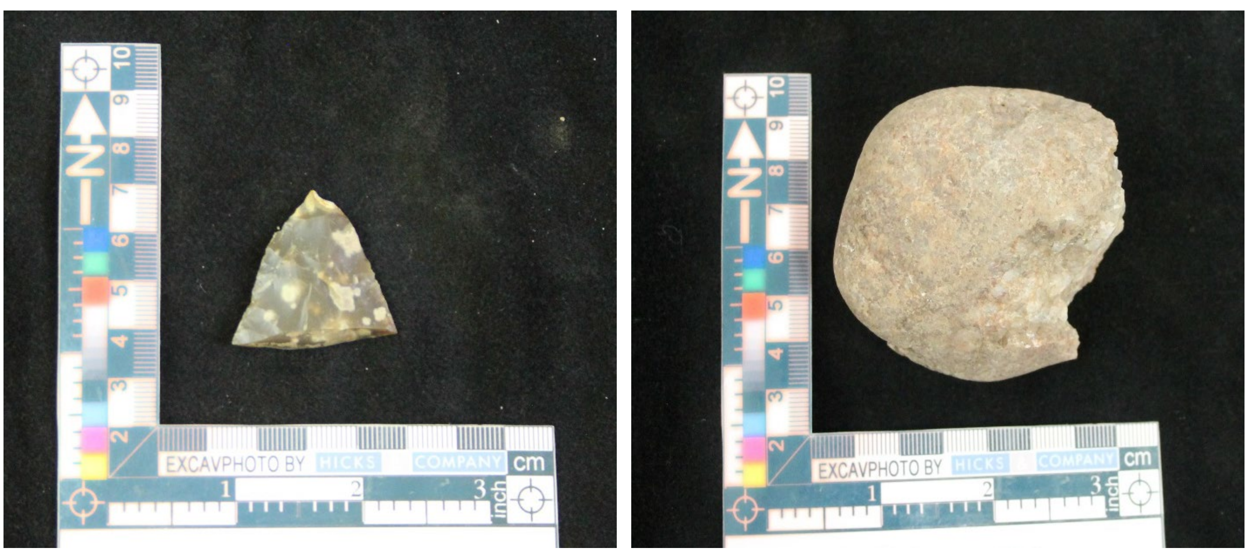

Figure 7: Biface fragment recovered in Level 2, Test Unit 1 (on left) and quartzite hearthstone/fragment recovered in Level 2, Test Unit 1 (on right).

Table 2. Test Unit 1 Artifact Totals													
Level	**Depth**	**Glass**	**Ceramic**	**Non-Flake Deb.**	**Flake**	**Biface**	**Core**	**Projectile Point**	**Mussel Shell**	**Faunal Bone**	**FCR**	**Burned Clay**	**Quartzite Frags**
1	0-10	0	0	2	4	0	1	0	0	0	0	0	0
2	10-20	3	0	20	15	1	0	0	4	4	3	0	1
3	20-30	0	0	16	49	0	1	0	12	16	7	2	3
4	30-40	0	0	28	26	1	1	0	3	7	4	0	6
5	40-50	0	0	17	18	0	0	0	4	3	0	0	5
6	50-60	0	0	6	6	0	0	0	2	4	0	0	5
7	60-70	0	0	1	2	0	0	0	0	0	0	0	1
Total	0-70	3	0	90	120	2	3	0	25	34	14	2	21

Figure 8: Biface fragment recovered in Level 4, Test Unit 1.

Test Unit 2

Test Unit 2, located approximately 40 meters south of the current mapped boundaries of Site 41TV222, was placed six meters east of the bluff edge and about 30 cm west of positive shovel test STEM06. As with Test Unit 1, this unit was opened to examine the apparent high concentration of artifacts located along the bluff and was excavated in 10-cm levels using a datum at the northeast corner placed 4.5 centimeters above the ground surface. Level 1 (0–10 cmbd) was positive for cultural materials with a mix of historic and prehistoric artifacts including a single undecorated whiteware ceramic sherd and two prehistoric plain ware sherds. Additionally, 11 items of non-flake debitage, eight flakes, four mussel shell fragments, two faunal bone fragments, 1 FCR fragment, and 1 quartzite fragment were recovered. The mixing of historic and prehistoric artifacts continued to be observed in Level 2 (10–20 cmbd), but with possibly earlier-dated historic artifacts. These artifacts include worked bottle glass fragments such as a glass flake and a notched or pressure flake removal off a glass wine-bottle mouth. Also recovered in Level 2 were three prehistoric sherds, two plain and one with a burnished or black-slipped exterior, as well as the proximal section of a Darl projectile point, 38 non-flake debitage, 44 flakes, 13 mussel shell fragments, 10 faunal bone fragments, and four quartzite fragments. In Level 2, the density of artifacts increased dramatically with a count almost four times higher, from 30 artifacts in Level 1 to 116 artifacts in Level 2. Throughout Levels 1 and 2, the soil matrix was a dark brown (7.5YR 3/2) silty clay loam.

The high artifact count observed in Level 2 continues into Level 3 (20–30 cmbd) with a total of 102 artifacts recovered including non-flake debitage (n=29), flakes (n=29), faunal bone (n=20), mussel shell (n=12), and quartzite fragments(n=11), as well as a Scallorn projectile point. In Level 4 (30–40 cmbd), the artifact count dropped dramatically to 33 artifacts. The proximal half of a biface was recovered from this level (**Figure 9**). In Level 5 (40–50 cmbd), only a single piece of non-flake debitage was recovered. The artifact count increased slightly in Level 6 where 15 artifacts were recovered. Level 3 (20–30 cmbd) was notable for a gradual change in soil with a dark brown (7.5YR 3/2) silty clay loam dominant in Levels 1 and 2 becoming mottled with a brown (7.5YR 4/4) to dark brown (7.5YR 3/3) clay loam. The mottled clay soil documented in Level 3 continued into Level 4, increasing in density through Level 5 and into Level 6 (50–60 cmbd) where it became the dominant soil type. No cultural features were observed in this test unit which was terminated at the base of Level 6 at 60 cmbd. Artifact totals by level for Test Unit 2 are presented below in **Table 3**.

Table 3. Test Unit 2 Artifact Totals													
Level	**Depth**	**Glass**	**Ceramic**	**Non-Flake Deb.**	**Flake**	**Biface**	**Core**	**Projectile Point**	**Mussel Shell**	**Faunal Bone**	**FCR**	**Burned Clay**	**Quartzite Frags**
1	0-10	0	3	11	8	0	0	0	4	2	1	0	1
2	10-20	3	3	38	44	0	0	1	13	10	0	0	4
3	20-30	0	0	29	29	0	0	1	12	20	0	0	11
4	30-40	0	0	26	0	1	0	0	6	0	0	0	0
5	40-50	0	0	1	0	0	0	0	0	0	0	0	0
6	50-60	0	0	5	5	0	0	0	0	5	0	0	0
Total	0-60	3	6	110	86	1	0	2	35	37	1	0	16

Figure 9: Biface Fragment recovered from Level 4 in Test Unit 2.

Artifact Descriptions, Analysis, and Summary

The testing excavations conducted at 41TV222 recovered large amounts of debitage (n=414), and moderate amounts of faunal bone and mussel shell. Also recovered during the excavations, though less represented, were lithic tools (a Scallorn point, a Darl point base, as well as biface fragments and lithic cores), FCR, burned clay, and ceramics, including historic and prehistoric types. In addition to ceramics, recovered historic-period artifacts included glass shards.

Projectile Points

One partially complete and one complete projectile point were recovered during testing of Site 41TV222. One is a complete Scallorn point; the other the base of a Darl point. According to Turner et al. (2011) Scallorn projectile points, nearly ubiquitous across Texas, are noted as having triangular blades with corner notches and barbed shoulders. Stem shape varies from broad stems to stems as wide as the shoulders. Edges of this point are straight to convex and the base can appear varied from straight to concave or convex. Several specimens have been documented with an asphaltum binding agent on the stem. Distribution is widespread, encompassing most of Texas. Scallorn points have been associated with burials either as an intentional burial deposit or as the cause of death. Dates range from 800–1250 BP. A single Scallorn point was recovered from Level 3 of Test Unit 2 (**Figure 10**). Darl projectile points are long and slender points with sometimes serrated lateral edges. Edges are flaked, and stems, which are sometimes beveled, are often rectangular. Darl points are found in central Texas, the coastal plain, north central Texas, and northern portions of south Texas. Darl point types date to the Transitional Archaic Period around 1250 B.P. to 1750 B.P. (Turner et al. 2011). The base of a single Darl point was recovered from Level 2 of Test Unit 2 (**Figure 11**).

Figure 10: Scallorn point from Level 3 of Test Unit 2.

Figure 11: Darl point from Level 2 of Test Unit 2.

Flakes and Non-Flake Debitage

Flakes and non-flake debitage comprised the greatest number of artifacts recovered from test units and shovel tests. From Test Unit 1, a total of 210 flakes and non-flake debitage were recovered, while a total of 196 were recovered from Test Unit 2. In Test Unit 1, 48% of flakes and non-flake debitage were recovered from Levels 2 and 3. In Test Unit 2, this percentage was noticeably higher, with 71% of flakes and non-flake debitage recovered from Levels 2 and 3. Though an intensive lithic analysis of this assemblage was not conducted, both flakes and non-flake debitage are included in the discussion of thermal alteration presented below.

Ceramics

Four ceramic sherds were collected from test units excavated at Site 41TV222. The ceramic analysis focused on describing sherd attributes. The following interpretation is broad as the sample size is small, and there were no decorated sherds represented within the assemblage. Site 41TV222 contains small, fractured ceramic samples with few diagnostic traits. Based on the limited sample size, the site is most likely a campsite on an isolated landform with a ceramic occupation starting around A.D. 1200.

The ceramics recovered from Site 41TV222 include four prehistoric ceramic body sherds which were analyzed (**Figure 12**). Sherd sizes ranged from 5–10 millimeters (mm) with a thickness between 4–5 mm. The sherds were examined for temper and firing. The ceramics recovered from Site 41TV222 have been identified as likely Leon Plain in typology. Leon Plain ceramics are undecorated ranging in color from brown to gray and dark gray. They often are tempered with ground bone or clay-grit and exhibit a fine, compact texture. Leon Plain is found in central Texas along the Colorado and the Leon rivers and is dated to several centuries prior to the 1700s (Suhm and Jelks 2009). Alternatively, these ceramics may represent Goliad Ware ceramics, a historic variant of Leon Plain from the eighteenth century (Texas Beyond History 2016).

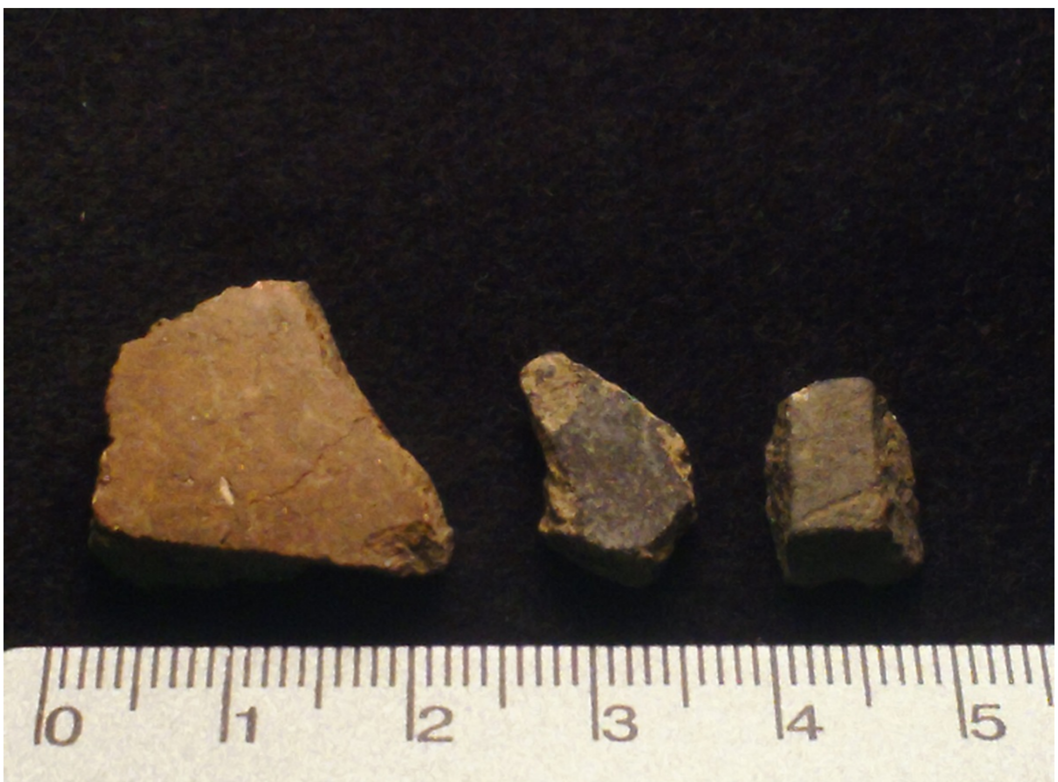

Figure 12: Ceramics recovered from Level 2 of Test Unit 2.

Glass

Three historic glass fragments were collected from Test Unit 2. These fragments were too small to determine whether they were fragments of a hand-blown or mold pressed bottle. However, two of the three fragments appear olive amber in color with the third appearing very dark olive amber. Olive amber and very dark olive amber glass were uncommon after the 1890s and 1880s, respectively (SHA 2016). A pre-1880 date correlates well with the historic scatter at the site as documented by Black and Kegley (1978:6–7) and the early history of the Webberville area. A single bottle neck shard had the appearance of knapping retouch to form a serrated edge (**Figure 13**).

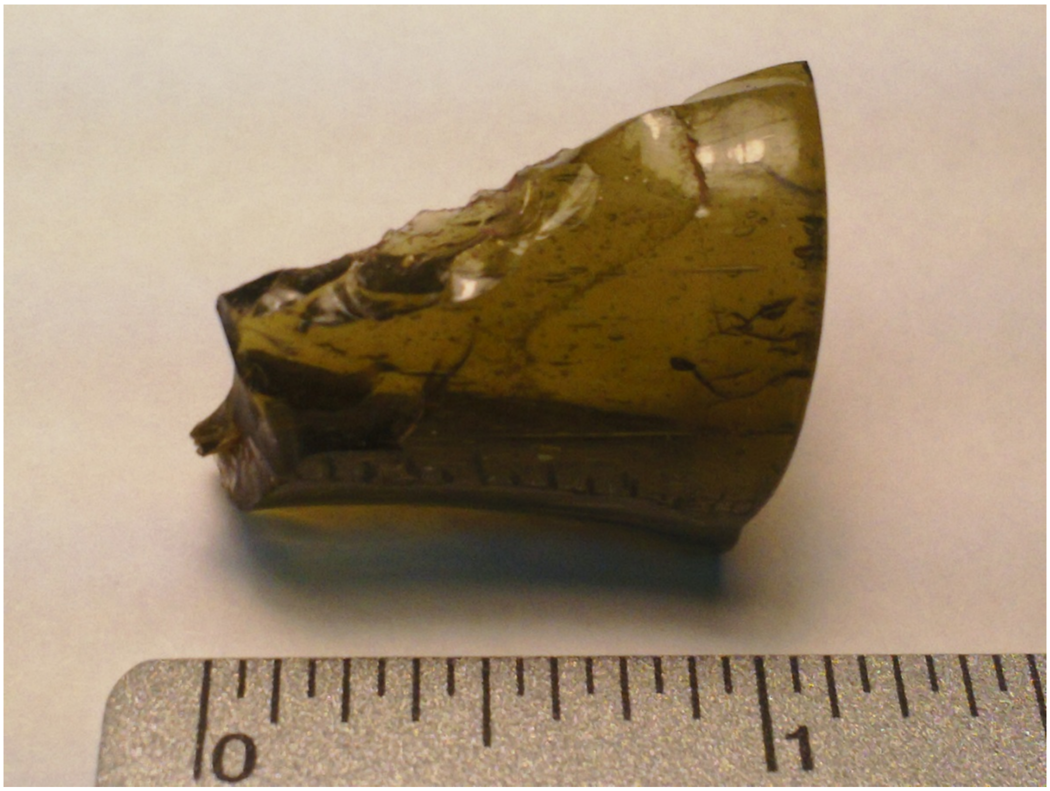

Figure 13: Glass bottle mouth from Level 2 of Test Unit 2.

Mussel Shell

Mussel shell was the second-most common faunal material recovered from shovel tests and excavation units. Within Test Unit 1, 25 specimens were collected. Within Test Unit 2, 35 specimens were recovered. The largest percentage of these (68%), were recovered from Levels 2 and 3. Most of the recovered mussel shell was fragmented and lacked umbos. Because of this, a minimal number of individuals (MNI) analysis was not done, but mussel shell is included in the discussion of thermal alteration presented below.

Faunal Bone

Faunal bone was the most common type of faunal material recovered in shovel tests and excavation units. Within Test Unit 1, 34 specimens were collected, while in Test Unit 2, 37 specimens were recovered. Like mussel shell noted above, the largest percentage of these (70%) were recovered from Levels 2 and 3. Similarly, the bulk of this collected assemblage consist of highly fragmented sections of long bone and an MNI analysis was not done, though faunal bone is included in the discussion of thermal alteration presented below.

Analysis: Thermal Alteration

Analysis of type and quantity of thermally altered artifacts from archeological deposits can provide useful evidence of past activities that occurred at a site. By examining the types of artifacts that show evidence of thermal alteration, it's possible to determine the nature of activities that were taking place at a locale. Thermally altered shell, bone, or other organic material may be the result of on-site food preparation or material processing. Thermally altered stone can be indicative of plant or animal roasting, boiling processes, steam generation, or lithic materials processing (Petraglia 2014). Past studies have shown that thermal alteration can be advantageous in the refining of raw material for the purpose of lithic tool production (Bleed and Meier 1980; Crabtree and Butler 1964; Gregg and Grybush 1974). Furthermore, analysis of thermally altered artifacts can provide evidence of natural or unnatural catastrophic fires like forest fires and those created during warfare, though this often results in a contiguous charcoal lens and a distinct horizontal arrangement of burned artifacts.

No evidence of *in-situ* burning or cultural features was encountered during the current investigations. In fact, few charcoal fragments were recovered from the site during the entirety of the investigation. Soil pH can have a significant impact on the preservation potential of archeological materials. Soils with a pH lower than 7 are acidic, and soils with a pH higher than 7 are alkaline. Charcoalified materials, organic materials heated in no oxygen or a limited supply of oxygen, are easily fragmented in alkaline environments, and soils with a pH of 8.5 leave little in the way of charcoalified seeds, wood, or other plant material (Braadbaart 2009). The USDA's Web Soil Survey (2016) lists the pH of the Bergstrom series as 7.9–8.4 indicating an alkaline soil which may leave few remains of charcoalified material as evidence of past fire related activities. With a noted absence of significant quantities of charcoal at Site 41TV222, the study of thermally altered artifacts becomes even more important when searching for evidence of on-site activities in areas where preservation of charcoalified materials is poor.

The following analysis uses quantity and type of burned artifacts to draw inferences about the organization of Site 41TV222 and the activities that may have taken place there. Artifacts recovered during the current investigations were examined for visible evidence of heat damage including discoloration, potlid fractures, and fragmentation. A total account of types of thermally altered artifacts recovered from test units was gathered by number of artifacts rather than weight of artifacts.

Test Unit 1

Types of artifacts with evidence of thermal alteration recovered from Test Unit 1 include non-flake debitage (n=6), flakes (n=12), a core, mussel shell (n=2), faunal bone (n=4), burned clay (n=2), quartzite (n=10), and FCR in the form of limestone or anthropomorphically unmodified chert (n=14). Flakes, FCR, and quartzite account for a cumulative 73.4% of total thermally altered artifacts from Test Unit 1 (**Table 4**).

In general, evidence of thermally altered artifacts in Test Unit 1 remained consistent throughout the majority of levels with an average of 19.6% of artifacts recovered displaying evidence of thermal alteration. Thermally altered artifact counts significantly different than the average were documented in Level 1 and Level 7. A total of 57.1% of artifacts display evidence of thermal alteration in Level 1. The high percentage of heated artifacts from Level 1 is due to the low artifact count with four out of seven prehistoric artifacts displaying evidence of thermal alteration. None of the four artifacts recovered from Level 7 exhibit evidence of thermal alteration. When Level 1 and Level 7 are discounted, the total percentage of thermally altered artifacts recovered in this test unit decreases to 16.1%.

The most notable concentrations of thermally altered artifacts, with the exception of Level 1, were documented in Level 3 and Level 5. In Level 3, 17% of artifacts exhibited some evidence of heat damage. Almost half (7 out of 16) of the thermally altered artifacts from Level 3 were FCR. In Level 5, 23.4% of artifacts displayed evidence of heat damage. Almost half (5 out of 11) of the thermally altered artifacts from Level 5 were quartzite fragments. The majority (52.4%) of quartzite fragments recovered during excavation of Test Unit 1 appeared burnt or heat shattered, many to the extent that they were crumbling into a quartzite crystal sand.

Mussel shell and mussel shell fragments were documented between 10–60 cmbs (Level 2 through Level 6) and bone fragments between 20 cmbs and 60 cmbs (Level 3 through Level 6). Only 8% of mussel shell and 11.7% of bone recovered from this test unit appeared visibly burnt. Rabdotus shell and rabdotus shell fragments increased in density from Level 2 until unit termination at the bottom of Level 7, but no evidence of heat damage was visible among any rabdotus shell fragments.

Thermally altered artifact types and concentrations in Test Unit 1 suggest that most fire related activities occurring on site were associated with domestic food production with some lithic material processing. These activities are concentrated in Level 3 and Level 5. Almost half (12 out of 25) of mussel shell and nearly half (16 out of 34) of bone documented in Test Unit 1 was recovered from Level 3. Additionally, half of all FCR recovered from Test Unit 1 was found in Level 3.

It is interesting to note that Level 5 contained the only instances of visible thermally altered mussel shell fragments recovered during excavations and that these mussel shell fragments were found alongside relatively high concentrations of thermally altered quartzite. It has been suggested that quartzite cobbles were used to boil mussel shell (Quigg 1999), and this may have been the primary fire related activity taking place in the immediate area of Test Unit 1.

Table 4. Test Unit 1 Thermally Altered Artifact Totals

Level	Depth	Ceramic	Non-Flake Debitage	Flake	Biface	Core	Projectile Point	Mussel Shell	Faunal Bone	FCR	Burned Clay	Quartzite Frags
1	0-10	0	1	2	0	1	0	0	0	0	0	0
2	10-20	0	1	2	0	0	0	0	0	3	0	0
3	20-30	0	2	3	0	0	0	0	1	7	2	1
4	30-40	0	0	3	0	0	0	0	1	4	0	3
5	40-50	0	1	2	0	0	0	2	1	0	0	5
6	50-60	0	1	0	0	0	0	0	1	0	0	1
7	60-70	0	0	0	0	0	0	0	0	0	0	0
Total	0-70	0	6	12	0	1	0	2	4	14	2	10

Test Unit 2

Thermally altered artifacts from Test Unit 2 include non-flake debitage, flakes, faunal bone, and FCR in the form of limestone and quartzite (**Table 5**). Bone was by far the most common type of thermally altered artifact recovered from Test Unit 2, comprising 57.1% of thermally altered artifacts from this unit with 75.7% of all bone recovered from this unit displaying some evidence of heat damage.

As a percentage of artifact assemblage, less evidence of thermal alteration was noted in Test Unit 2 than Test Unit 1 at every level. An average of 26.8% of artifacts recovered in each level exhibited evidence of heat damage. The two notable concentrations of thermally altered artifacts were documented in Level 3 and Level 5. In Level 5, only a single, heat spalled fragment of non-flake debitage was recovered. When Level 5 is discounted, the average number of thermally altered artifacts by level decreases to 12.1%. Generally, the percentage of artifacts with evidence of heat damage in every level was 10% or less.

In Level 3, 33 of 102 artifacts (or 32.4%) appeared thermally altered. Thermally altered artifacts from this level comprised 11.1% of all artifacts from this unit. A total of 17.6% of artifacts recovered from Level 3 are thermally altered bone. Almost half (5 out of 11) of the quartzite fragments from Level 3 exhibited evidence of heat damage.

Mussel shell and mussel shell fragments were documented in this unit from Level 1 to Level 4. No thermally altered mussel shell was documented in Test Unit 2. Bone fragments were recorded from Level 1 to Level 3 and then again in Level 6. As mentioned previously, 75.7% of bone fragments recovered from this test unit exhibited evidence of heat damage.

Thermally altered artifact types and concentrations from Test Unit 2 suggest the majority of fire related activities occurring on site were related to domestic food production. Additionally, these types and concentrations suggest that little fire related activity was taking place in the area around Test Unit 2 during time periods represented with Level 4 through Level 6. Most of the fire related activity in Test Unit 2 is concentrated in Level 3 where a high concentration of thermally altered quartzite and bone was documented.

Table 5. Test Unit 2 Thermally Altered Artifact Totals

Level	Depth	Ceramic	Non-Flake Debitage	Flake	Biface	Core	Projectile Point	Mussel Shell	Faunal Bone	FCR	Burned Clay	Quartzite Frags
1	0-10	0	0	0	0	0	0	0	2	1	0	0
2	10-20	0	2	0	0	0	0	0	8	0	0	0
3	20-30	0	6	4	0	0	0	0	18	0	0	5
4	30-40	0	1	0	0	0	0	0	0	0	0	0
5	40-50	0	1	0	0	0	0	0	0	0	0	0
6	50-60	0	0	1	0	0	0	0	0	0	0	0
Total	50-70	0	10	5	0	0	0	0	28	1	0	5

Interpretations of Thermally Altered Artifacts within Test Units

Despite the fact that the pH of Bergstrom Series soils could have left little in the way of charcoalified material, there were no other indications within the test units of *in-situ* burning such as intact hearth features or strongly oxidized soils. This is not surprising given the limited horizontal coverage that two 1- x 1-meter test units can offer. Nonetheless, there are a notable high number of thermally altered artifacts within the two units. This indicates that thermally altered artifacts recovered from test units represent evidence of latent patterns of distribution or secondary distribution rather than evident, *in-situ* patterns of distribution. Latent patterns of distribution are represented at sites where post depositional disturbances have affected artifact distribution or where sites were ephemerally occupied such as the seasonal campsites. It is likely that hearth features were utilized on site and then abandoned for some time, leaving the heat damaged artifacts on the surface to be moved through various means. Additionally, we see varying proportions of thermally altered artifacts identified within test units. While the percentage of thermally altered artifacts was relatively consistent in Test Unit 1 (typically varying from 12-15%), in Test Unit 2, there is a dramatic spike in thermally altered artifacts within Level 3.

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CONCLUSIONS AND RECOMMENDATIONS

While limited in scope, the current investigation at Site 41TV222 were notably revealing. As described previously, prior to the excavation of test units, shovel testing was done in a systematic fashion to better define the horizontal and vertical limits of the site's boundary as it relates to the APE. Data from shovel tests noted that subsurface cultural deposits exist south of the current site's boundary as depicted on the Atlas by approximately 50 meters and at least as far west as the parcel boundary. Because of this, the site boundary has been extended to include the area where these cultural deposits were documented (**Figure 14**). Interestingly, all positive shovel tests were located within this extended boundary. Shovel test data also noted that the southern extent of this new boundary contained an array of artifacts including lithics, FCR, faunal bone, numerous amounts of mussel shell, and ceramics. Additionally, one groundstone item, a pestle, was recovered, and there may be more yet to be detected among the deposits. Regarding vertical limits of the deposits, data suggests that these deposits are no deeper than approximately 50 cmbs with the higher artifact concentrations located between 20–40 cmbs.

Considering that Karbula and Seibel (1998:2) reported a "very low density accumulation of prehistoric living debris," the recovery of 415 lithic items and numerous amounts of both faunal and mussel shell from the two test units excavated during the current investigations is surprising. These numbers suggest that there are indeed subsurface deposits in good numbers located at the southern extent of the newly modified boundary. Additionally, while no well-articulated features were encountered, the assemblage is varied enough to provide data on a number of different questions regarding site use and subsistence patterns. The results of Hicks & Company's shovel testing and test unit excavations support the findings of Karbula and Seibel's 1998 survey which indicated that the cultural material on site was not present below a depth of 60 cmbs and that the bulk of cultural material is concentrated along the edge of the natural bluff at the southern extent of the project area.

When referencing current chronologies for Central Texas that utilize projectile point style intervals, the recovery of the Darl base above the Scallorn arrow point would be problematic (Collins 1995, 2004; Johnson 1995; Johnson and Goode 1994; Prewitt 1981, 1985). In many cases, such a displacement would be considered evidence of disturbed or inverted stratigraphy and therefore a lack of spatial integrity and, hence, eligibility. However, more recent research indicates that these point types are partially contemporaneous (Carpenter et al. 2006; Lohse et al 2014). From a review of published radiocarbon dates associated in good context with the Darl type, Lohse et al. (2014:272) notes a bimodal distribution with peaks at approximately 1350–1150 BP and 900–700 BP The latter peak overlaps with the probability distribution presented for Scallorn at 1200–650 BP (Lohse et al. 2014:272–273). If this is indeed the case at Site 41TV222, then there is a strong possibility that there is an isolable component between 15–35 cmbs with sufficient data to qualify as eligible for listing under NRHP Criterion D and as an SAL under the ACT through Criteria a, b, and d. However, shovel testing done as a phase of the current investigations assessed in tandem with data from previous investigations suggest that the deposits with potential to contribute to this site's eligibility status are most likely located south of the extent of the Atlas-depicted boundary. Because of this, Hicks & Company recommended a modified APE and an area of avoidance that, if adhered to, would limit the proposed projects potential to adversely affect eligible deposits. THC further augmented this area of avoidance to include all the original mapped boundaries of Site 41TV222 within the survey area (**Appendix C**: **Regulatory Correspondence**). Travis County has elected to augment their original APE to reflect this area of avoidance (**Appendix A: Design Plans**). This report is offered in partial fulfillment of the requirements for ACT Permit #7513. All project-related materials will be curated at CAS located in San Marcos, Texas.

FIGURE REDACTED DUE TO SENSITIVE LOCATIONAL DATA

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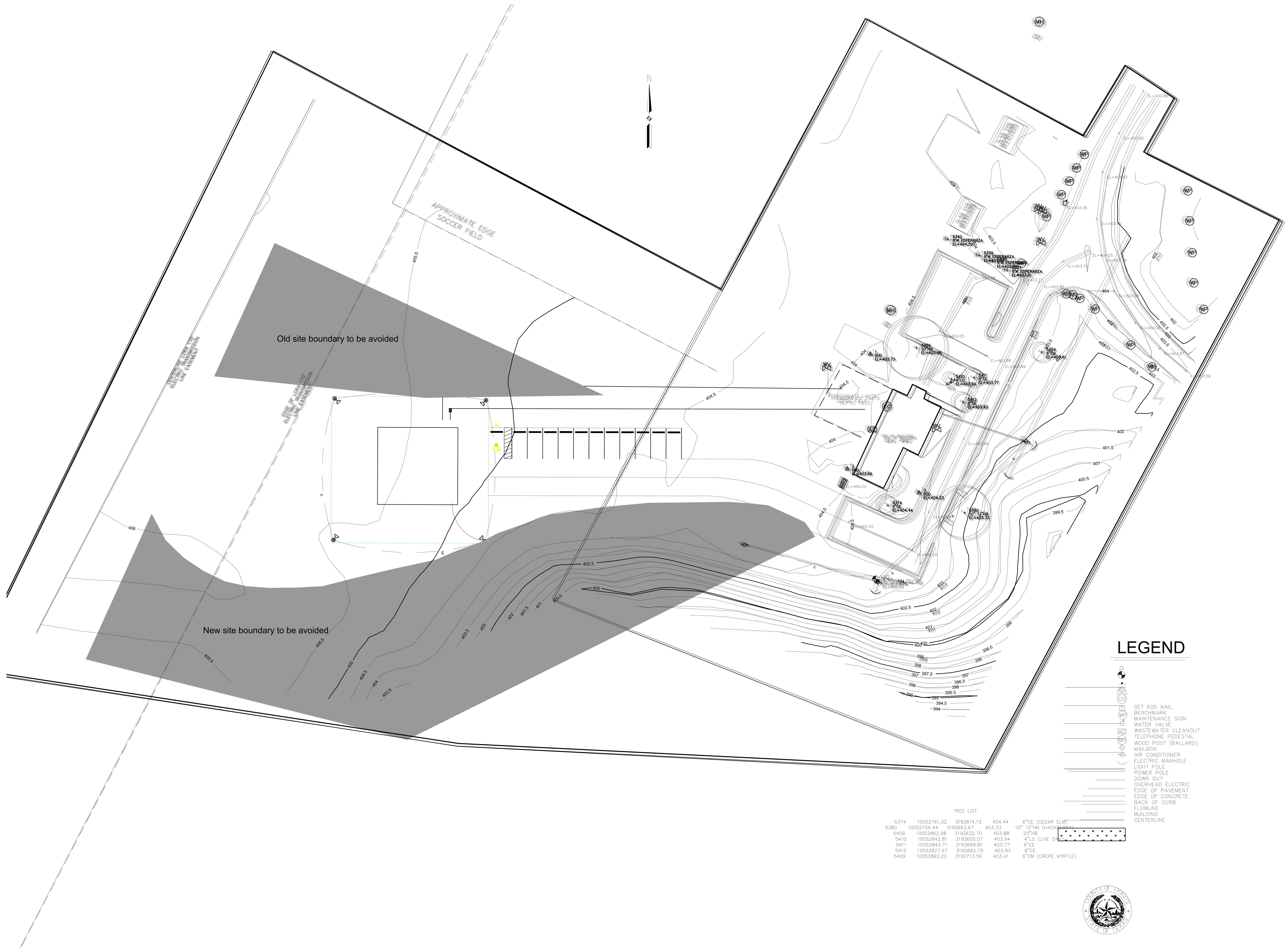
APPENDIX A

DESIGN PLANS



LEGEND

SET 60D NAIL
BENCHMARK
MAINTENANCE SIGN
WATER VALVE
WASTEWATER CLEANOUT
TELEPHONE PEDESTAL
WOOD POST (BALLARD)
MAILBOX
AIR CONDITIONER
ELECTRIC MANHOLE
LIGHT POLE
POWER POLE
DOWN GUY
OVERHEAD ELECTRIC
EDGE OF PAVEMENT
EDGE OF CONCRETE
BACK OF CURB
FLOWLINE
BUILDING
CENTERLINE

TREE LIST

5374	10052761.32	3192614.13	404.44	6"CE (CEDAR ELM)
5380	10052756.44	3192663.67	403.33	10" 12"HB (HACKBERRY)
5409	10052862.98	3192632.70	403.88	20"HB
5410	10052842.81	3192655.07	403.94	4"LO (LIVE OAK)
5411	10052843.71	3192669.81	403.77	6"CE
5412	10052827.97	3192662.75	403.93	6"CE
5429	10052860.22	3192713.59	403.41	6"CM (CREPE MYRTLE)

A1 SURVEY PLAN - FULL SITE
SCALE: 1" = 20'

NORTH

0 10' 20' 40' 60'
SCALE: 1" = 20'

WEBBERVILLE MAINTENANCE FACILITY

ARIZPE
500 VFW RD, AUSTIN TX 787553
P 512 339 3707
www.arizpe.com
TX. FIRM REGISTRATION #F000053

WEBBERVILLE MAINTENANCE FACILITY
SURVEY PLAN - FULL SITE

PRELIMINARY
NOT FOR REGULATORY APPROVAL, PERMITTING OR CONSTRUCTION
Texas Registered Engineering Firm # F-000053

date	issues & revisions	dsgn	aprv
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DRAWN BY
CHECKED BY
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description
SURVEY PLAN - FULL SITE

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V-100
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WEBBERVILLE PARK MAINTENANCE FACILITY

TRAVIS COUNTY, TEXAS

PROJECT NUMBER: 15001

CIVIL DRAWING INDEX

SHEET ID	SHEET TITLE
	GENERAL
G-001	COVER SHEET
G-002	GENERAL CIVIL NOTES & LEGENDS
V-100	SURVEY PLAN - FULL SITE
V-101	SURVEY PLAN - PRIMARY SITE
C-100	DEMOLITION - EROSION-SEDIMENTATION CONTROL PLAN
C-101	SITE PLAN - COGO
C-102	GRADING & DRAINAGE
C-103	UTILITY PLAN
C-104	CIVIL DETAILS
C-105	CIVIL DETAILS

ARCHITECTURAL/STRUCTURAL DRAWING INDEX

SHEET ID	SHEET TITLE
A-100	FLOOR PLAN
A-101	FIRST FLOOR REFLECTED CEILING PLAN
A-103	ROOF PLAN
A-200	EXTERIOR ELEVATIONS NORTH & SOUTH
A-201	EXTERIOR ELEVATIONS WEST & EAST
A-202	INTERIOR ELEVATIONS
A-300	BUILDING SECTIONS
A-301	BUILDING SECTIONS
A-302	PARTITION TYPES AND DETAILS
A-303	WALL SECTIONS AND DETAILS
A-600	ROOM FINISH AND RESTROOM ACCESSORY SCHEDULE
A-601	DOOR AND WINDOW SCHEDULE
S-101	STRUCTURAL GENERAL NOTES
S-102	FOUNDATION PLAN
S-103	STRUCTURAL DETAILS
S-104	ROOF SCHEMATIC FRAMING PLAN

PEMB TYPICAL

MEP DRAWING INDEX

SHEET ID	SHEET TITLE
M-100	MECHANICAL HVAC PLAN
M-101	MECHANICAL PIPING
M-102	MECHANICAL SCHEDULE
E-100	ELECTRICAL POWER PLAN
E-100A	ELECTRICAL POWER PLAN OPTION-1
E-101	LIGHTING PLAN
E-103	ELECTRICAL SCHEDULES
P-100	SANITARY SEWER AND DOMESTIC WATER PLUMBING PLAN
P-101	PLUMBING VENT PLAN
P-102	PLUMBING SCHEDULE
F-100	FIRE PROTECTION PLAN

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Texas Registered Engineering Firm # F-000053

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description
COVER SHEET

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STANDARD SITE PLANS NOTES

(IF APPLICABLE)

1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN.
2. APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING CODE APPROVAL; FIRE CODE APPROVAL; OR BUILDING, DEMOLITION, OR RELOCATION PERMITS APPROVAL.
3. ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE M.U.T.C.D.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS OF UTILITY RELOCATION.
5. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO UTILITIES BY CONTRACTOR.

COMPATIBILITY:

1. HIGHLY REFLECTIVE MATERIALS WILL NOT BE USED. MATERIALS MAY NOT EXCEED 20% REFLECTIVITY. THIS REQUIREMENT SHALL NOT APPLY TO SOLAR PANELS OR COPPER OR PAINTED ROOFS.

FIRE DEPARTMENT:

1. TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED, SHALL INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIMES OF CONSTRUCTION. WHERE ALTERNATIVE METHODS OF PROTECTION, AS APPROVED BY THE AGD FIRE AND SAFETY OFFICER, ARE PROVIDED, THE ABOVE MAY BE MODIFIED OR WAIVED.
2. COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN FEET OF OPENINGS, OR COMBUSTIBLE EAVE LINES.
3. VERTICAL CLEARANCE REQUIRED FOR FIRE APPARATUS IS 13 FEET, 6 INCHES FOR FULL WIDTH OF ACCESS DRIVE.

CONCRETE NOTES

(UNLESS SPECIFIED OTHERWISE)

1. ALL CONCRETE WORK, DETAILS, AND CONSTRUCTION METHODS SHALL CONFORM WITH THE PROVISIONS OF THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND LOCAL BUILDING CODES. IF CODES CONFLICT, LOCAL CODE SHALL TAKE PRECEDENCE.
2. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 3000PSI AT 28 DAYS. IN NO CASE SHALL THE PORTLAND CEMENT FACTOR BE LESS THAN 5.8 BAGS PER CUBIC YARD OF CONCRETE. THE MAXIMUM WATER-CEMENT RATIO SHALL BE 5.6 GALLONS PER BAG. THE AMOUNT OF WATER REQUIRED SHALL BE SUFFICIENT TO PRODUCE CONCRETE WITH A SLUMP OF 4 TO 6 INCHES.
3. ALL REINFORCING STEEL SHALL CONFORM TO THE CURRENT REQUIREMENTS OF ASTM A-615-60, EXCEPT WELDED STEEL WIRE MESH, WHICH SHALL MEET ASTM A-185. UNLESS OTHERWISE STATED, ALL REBAR SHALL BE GRADE 60.
4. CONCRETE COVER ON ALL REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
   - CONCRETE PLACED AGAINST SOIL - 3"
   - EXPOSED FORMED SURFACES - 2"
   - FLOOR SLABS - 2" FROM TOP SURFACES
6. PAVEMENT SUBBASE SHALL MEET TXDOT GRANULAR SUBBASE, GRADATION #12, COMPACTED TO 95% STANDARD PROCTOR,
7. EXTERIOR CONCRETE SHALL BE AIR ENTRAINED.
8. ANY DESIGN CHANGES SHALL BE APPROVED BY THE ARCHITECT.

EROSION CONTROL NOTES

(IF APPLICABLE)

1. INSTALL EROSION / SEDIMENTATION CONTROLS AND TREE / NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR EXCAVATION).
2. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.
3. THE PLACEMENT OF EROSION / SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY E&S CONTROLS TO KEEP PROJECT IN COMPLIANCE WITH CITY OF AUSTIN RULES AND REGULATIONS.
4. THE PLACEMENT OF TREE / NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING / TREE AND NATURAL AREA PLAN.
5. AN ON-SITE CONFERENCE SHALL BE HELD WITH THE ENGINEER AFTER INSTALLATION OF THE EROSION / SEDIMENTATION CONTROLS AND TREE / NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. NOTIFY THE ENGINEER AT LEAST THREE DAYS PRIOR TO THE MEETING.
6. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE A/E.
7. IT IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
8. PRIOR TO SUBSTANTIAL COMPLETION BY THE CONTRACTOR, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITE.
9. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IMMEDIATELY CONTACT THE ENGINEER FOR FURTHER INVESTIGATION.
10. TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.

    A. ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO RECEIVE A MINIMUM OF SIX INCHES OF TOPSOIL. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES THE TOPSOIL SHALL BE COMPOSED OF 3 PARTS OF SOIL MIXED WITH 1 PART COMPOST, BY VOLUME. THE COMPOST SHALL BE DILLO DIRT OR AN EQUAL APPROVED BY THE ENGINEER, OR DESIGNATED REPRESENTATIVE. THE APPROVED EQUAL, IF USED, SHALL MEET THE DEFINITION OF COMPOST (AS DEFINED BY THE U.S. COMPOSTING COUNCIL). THE SOIL SHALL BE LOCALLY AVAILABLE NATIVE SOIL THAT MEETS THE FOLLOWING SPECIFICATIONS:

* SHALL BE FREE OF TRASH, WEEDS, DELETERIOUS MATERIALS, ROCKS, AND DEBRIS.

*100% SHALL PASS THROUGH A 0.375 - INCH SCREEN.

* SOIL TEXTURE CLASS TO BE LOAM, SANDY CLAY LOAM, OR SANDY LOAM IN ACCORDANCE WITH THE USDA TEXTURE TRIANGLE. TEXTURAL COMPOSITION SHALL MEET THE FOLLOWING CRITERIA:

B. THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

TEMPORARY VEGETATIVE STABILIZATION

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH COOL SEASON COVER CROPS (WHEAT AT 0.5 POUNDS PER 1000 SF, OATS AT 0.5 POUNDS PER 1000 SF, CEREAL RYE GRAIN AT 0.5 POUNDS PER 1000 SF) WITH A TOTAL RATE OF 1.5 POUNDS PER 1000 SF. COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUNDS PER 1000 SF.

A. FERTILIZER SHALL BE WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF ½ POUND PER 1000 SF.

B. HYDROMULCH SHALL COMPLY WITH TABLE 1, BELOW.

C. TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET.

D. WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH THE ENVIRONMENTAL CRITERIA MANUAL.

PERMANENT VEGETATIVE STABILIZATION

1. FROM SEPTEMBER 15 TO MARCH 1, SEEDING IS CONSIDERED TO BE TEMPORARY STABILIZATION ONLY. IF COOL SEASON COVER CROPS EXIST WHERE PERMANENT VEGETATIVE STABILIZATION IS DESIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ON-HALF INCH AND THE AREA SHALL BE RE-SEEDED IN ACCORDANCE WITH 2 BELOW.
2. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUNDS PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION. BERMUDA GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL.

A. FERTILIZER SHALL BE WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF ½ POUND PER 1000 SF.

B. HYDROMULCH SHALL COMPLY WITH THE TABLE BELOW.

C. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT DAILY INTERVALS (MINIMUM) DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF ½ INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.

D. PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 ½ INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 FEET EXIST.

E. WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH THE REQUIREMENTS OF THE ENVIRONMENTAL CRITERIA MANUAL.

TABLE 1-3 HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	LONGEVITY	TYPICAL APPLICATIONS	APPLICATION RATES
BONDED FIBER MATRIX (BFM)	80% THERMALLY REFINED WOOD 10% TACKIFIER	6 MONTHS	ON SLOPES UP TO 2:1 AND EROSIVE SOIL CONDITIONS	68.9 LBS/SF TO 80.3 LBS/1000SF
FIBER REINFORCED MATRIX (FRM)	75% THERMALLY REFINED WOOD 5% REINFORCING FIBERS 10% TACKIFIER	12 MONTHS	ON SLOPES UP TO 1:1 AND EROSIVE SOIL CONDITIONS	68.9 LBS/SF TO 80.3 LBS/1000SF

GENERAL NOTES

1. REVIEW ALL DOCUMENTS AND VERIFY ALL DIMENSIONS AND FIELD CONDITIONS. CONTRACTOR SHALL CONFIRM THAT WORK IS BUILDABLE AS SHOWN. ANY CONFLICTS OR OMISSIONS SHALL BE IMMEDIATELY REPORTED TO THE A/E FOR CLARIFICATION PRIOR TO THE PERFORMANCE OF ANY WORK IN QUESTION.
2. NOTIFY THE ENGINEER IMMEDIATELY OF ALL UNMARKED UTILITIES DISCOVERED IN COURSE OF CONSTRUCTION AND DETERMINED AS NECESSARY TO BE ADJUSTED. CONTRACTOR SHALL ADJUST SUCH UTILITIES ONLY AFTER CONSULTATION WITH THE ENGINEER. WHETHER PREDETERMINED IN THE CONSTRUCTION DOCUMENTS OR DETERMINED LATER IN FIELD, DISCONNECT, CUT BACK TO SOURCE, AND CAP ALL UTILITY SERVICES REMOVED. SEAL ALL PENETRATIONS CREATED BY THE REMOVAL OF UTILITIES TO MATCH ADJACENT CONSTRUCTION FINISHES.
3. ANY CONFLICT BETWEEN DRAWINGS AND SPECIFICATION, SPECIFICATION SHALL GOVERN.
4. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING SCHEDULE AND ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A) OR AS DIRECTED BY ENVIRONMENTAL INSPECTOR.
6. THE CONTRACTOR SHALL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROAD A MINIMUM OF ONCE DAILY.

ENGINEER'S PROJECT INTENT

1. THIS PROJECT IS INTENDED TO CONSTRUCT A PARKING LOT TO SERVE THE CHARITABLE WORK OF MANOS DE CRISTO. THE PARKING LOT IS FOR THE PATIENTS THAT VISIT THE CLINIC.
2. THE PARKING LOT WILL BE THE LOCATION OF THE COMMUNITY GARDEN.
3. THE LAYOUT AND DESIGN OF THE PARKING LOT WAS DONE BY MANOS DE CRISTO AND THE COMMUNITY AS A TEAM. THE PROPOSED LAYOUT AND THE FINAL IMPLIMENTS IN THE PARKING LOT WERE THEN GIVEN TO THE ENGINEER TO OBTAIN PERMITS.

SEQUENCE OF CONSTRUCTION

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED FOR ALL DEVELOPMENT. THE APPLICANT IS ENCOURAGED TO PROVIDE ANY ADDITIONAL DETAILS APPROPRIATE FOR THE PARTICULAR DEVELOPMENT.

1. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION AND INITIATE TREE MITIGATION MEASURES.
2. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE WATERSHED PROTECTION DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512-974-2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING.
3. THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
4. ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S).
5. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
6. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
7. IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE A MID-CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE THE CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR. THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR.
8. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
9. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
10. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE TO THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
11. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
12. AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.

WEBBERVILLE MAINTENANCE FACILITY

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WEBBERVILLE MAINTENANCE FACILITY

GENERAL NOTES 1

PRELIMINARY
NOT FOR REGULATORY APPROVAL, PERMITTING OR CONSTRUCTION

Texas Registered Engineering Firm # F-000053

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STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION

1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
2. PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO STANDARDS FOR TREE PROTECTION.
3. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
4. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
5. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE), FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:

5A SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
5B ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL), OR TRENCHING NOT REVIEWED AND AUTHORIZED BY CONTRACTING OFFICER;
5D WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
5D OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING,AND FIRES.

6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIP LINES MAY BE PERMITTED IN THE FOLLOWING CASES:

6A WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED;
6B WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIP LINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZED ROOT DAMAGE);
6C WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING;
6D WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER `SPECIAL REQUIREMENTS,

SPECIAL NOTE: FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.

7. WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8FT (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
9. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.).
13. ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES).
14. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED VIOLATIONS IF A TREE SUSTAINS DAMAGE AS A RESULT.

SITE MANAGEMENT

A. PHASING- PHASING IS A PREVENTIVE MEASURE DEFINED AS: ONE PORTION OF THE SITE IS DISTURBED AT ANY ONE TIME TO CONSTRUCT THE INFRASTRUCTURE NECESSARY TO COMPLETE THAT PHASE. SUBSEQUENT PHASES ARE NOT STARTED UNTIL EARLIER PHASES ARE SUBSTANTIALLY COMPLETE AND EXPOSED SOILS ARE STABILIZED. THE PLAN REVIEWERS WILL NOT ALLOW A SITE PLAN TO PROCEED WITHOUT THE APPLICANT DEMONSTRATING THAT ALL FEASIBLE OPPORTUNITIES FOR PHASING HAVE BEEN IMPLEMENTED. CONSTRUCTION SITES GREATER THAN 25 ACRES ARE REQUIRED TO SHOW PHASING OF DISTURBANCE TAILORED TO THE SPECIFIC SITE CONDITIONS. ITEMS THAT SHALL BE CONSIDERED TO DETERMINE THE EFFECTIVENESS IN PHASING INCLUDE: SIZE OF DISTURBED AREA, COMPATIBILITY WITH CONSTRUCTION SEQUENCE (E.G. STORMWATER CONTROLS, THEN UTILITIES, THEN ROADS, THEN PADS), PROXIMITY TO CEFS OR WATERWAYS, SLOPE STEEPNESS. SITES LESS THAN 25 ACRES MUST DEMONSTRATE ON THE GRADING PLAN THE AREAS TO BE DISTURBED AND HOW IT WAS MINIMIZED.

B. TEMPORARY STABILIZATION- THE CONSTRUCTION SEQUENCE MUST INDICATE THE LENGTH OF TIME THAT PHASES WILL REMAIN DISTURBED. THE DESIGNER MUST ANTICIPATE THE CONSTRUCTION PROCESS AND IDENTIFY TIMES WHEN DISTURBED AREAS WILL BE DORMANT (I.E. NOT MAKING PROGRESS TOWARD A BENCHMARK PHASE) FOR 14 DAYS OR LONGER. THESE AREAS MUST BE IDENTIFIED ON THE ESCP AND THE TEMPORARY STABILIZATION PRACTICES DESCRIBED. INSPECTORS WILL MAKE NOTE OF LENGTH OF TIME OF DORMANT DISTURBED AREAS AND REQUIRE COVERAGE ON DAY 15. APPROVED PRACTICES INCLUDE: ROCK RIP RAP FOR CONCENTRATED FLOW AREAS AND VEHICLE ACCESS; FLEXIBLE GROWTH MEDIUM,
BONDED FIBER MATRIX, TURF REINFORCEMENT MAT OR ROLLED EROSION CONTROL PRODUCT FOR SLOPES STEEPER THAN 4:1, AND BARK OR WOOD CHIP MULCH OR SOD FOR AREAS FLATTER THAN 2:1 SPOIL PILES WILL REQUIRE DAILY COVER OR DEMONSTRATION OF ADEQUATE PERIMETER CONTAINMENT TO PREVENT THE MIGRATION OF SPOILS OUTSIDE OF THE DEFINED SPOIL PILE FOOTPRINT. UNACCEPTABLE PRACTICES INCLUDE BROADCASTING SEED, PAPER BASED HYDROMULCH, WOOD FIBER BASED HYDROMULCH WITHOUT A TACKIFIER. INSPECTORS WILL REQUIRE INVOICE FROM APPLICATOR SHOWING CERTIFICATION OF MIX AS FRM OR BFM. INSPECTORS HAVE AUTHORITY TO REQUIRE ADDITIONAL
APPLICATION OF TEMPORARY STABILIZER IF VISUAL INSPECTION SHOWS INADEQUATE COVERAGE.

C. NO OFF SITE FLOW CAN FLOW ONTO THE LIMITS OF CONSTRUCTION OF THE DISTURBED PHASE. ESCP MUST SHOW LOCATIONS WHERE PASS-THROUGH FLOWS MAY BE SAFELY DIVERTED AROUND DISTURBED AREAS AND ROUTED AT A PROPERLY STABILIZED DISCHARGE POINT TO DOWNSTREAM DRAINAGE CONVEYANCE. PROPER STABILIZATION SHALL BE DETERMINED BY THE ENVIRONMENTAL INSPECTOR.

D. ESCP MUST SHOW ALL DESIGNATED CONSTRUCTION ACCESS POINTS AND EQUIPMENT TRAVEL PATHS. IN PARTICULAR, IF THERE ARE ANY CEFS, PROTECTED WATER WAYS OR TREES, THE ESCP MUST DEMONSTRATE THAT CONSTRUCTION ACCESS IS DIVERTED AT LEAST 25 FEET FROM SUCH FEATURES. IN ADDITION TO TEMPORARY STABILIZATION MEASURES FOR CONSTRUCTION ACCESS, PLANS MUST DEMONSTRATE METHODS FOR ENSURING THAT CONSTRUCTION VEHICLES DO NOT TRACK SEDIMENT ONTO ROADWAYS.

E. SPOILS MAY NOT BE LOCATED IN THE 100 YEAR FLOOD PLAIN, CRITICAL WATER QUALITY ZONE, WITHIN 150 FEET OF A CEF OR WITHIN 25 FT. OF A CONCENTRATED FLOW PATH WITH MORE THAN 5 ACRES CONTRIBUTING DRAINAGE AREA.

SPECIAL CONSTRUCTION TECHNIQUES.

IN CONJUNCTION WITH REMEDIAL CARE, MITIGATION FOR TREES REMOVED MAY INCLUDE SPECIAL CONSTRUCTION TECHNIQUES NOT NORMALLY REQUIRED IN STANDARD SPECIFICATIONS. SOME OF THESE TECHNIQUES INCLUDE THE FOLLOWING:

- PRIOR TO EXCAVATION WITHIN TREE DRIPLINES OR THE REMOVAL OF TREES ADJACENT TO OTHER TREE THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.'
- IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURINGCONSTRUCTION WITH FENCING AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED. COVER THOSE AREAS WITH A MINIMUM OF 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION. IN AREAS WITH HIGH SOIL PLASTICITY GEOTEXTILE FABRIC, PER STANDARD SPECIFICATION 620S, SHOULD BE PLACED UNDER THE MULCH TO PREVENT EXCESSIVE MIXING OF THE SOIL AND MULCH . ADDITIONALLY, MATERIAL SUCH AS PLYWOOD AND METAL SHEETS, COULD BE REQU IRED BY THE CITY ARBORIST TO MINIMIZE ROOT IMPACTS FROM HEAVY EQUIPMENT. ONCE THE PROJECT IS COMPLETED, ALL MATERIALS SHOULD BE REMOVED, AND THE MULCH SHOULD BE REDUCED TO A DEPTH OF 3 INCHES.
- PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIM IZE ROOT DAMAGE.
- WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
- WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL

REMEDIAL TREE CARE NOTES AERATION AND SUPPLEMENTAL NUTRIENT REQUIREMENTS FOR TREES WITHIN CONSTRUCTION AREAS

AS A COMPONENT OF AN EFFECTIVE REMEDIAL TREE CARE, PRESERVED TREES WITHIN THE LIMITS OF CONSTRUCTION MAY REQUIRE SOIL AERATION AND SUPPLEMENTAL NUTRIENTS. SOIL AND/OR FOLIAR ANALYSIS SHOULD BE USED TO DETERMINE THE NEED FOR SUPPLEMENTAL NUTRIENTS. AS PART OF A COMPREHENSIVE TREE CARE PLAN. SOIL PH SHALL BE CONSIDERED WHEN DETERMINING THE FERTILIZATION COMPOSITION AS SOIL PH INFLUENCES THE TREE'S ABILITY TO UPTAKE NUTRIENTS FROM THE SOIL. IF ANALYSIS INDICATE THE NEED FOR SUPPLEMENTAL NUTRIENTS, THEN HUMATE/NUTRIENT SOLUTIONS WITH MYCORRHIZAE COMPONENTS ARE HIGHLY RECOMMENDED. IN ADDITION , SOIL ANALYSIS MAY BE NEEDED TO DETERMINE IF ORGANIC MATERIAL OR BENEFICIAL MICROORGANISMS ARE NEEDED TO IMPROVE SOIL HEALTH. THE OWNER OR
GENERAL CONTRACTOR SHALL SELECT A FERTILIZATION CONTRACTOR AND I ENSURE COORDINATION WITH THE CONTRACTING OFFICER.

PRE-CONSTRUCTION TREATMENT SHOULD BE APPLIED IN THE APPROPRIATE SEASON, IDEALLY THE SEASON PRECEDING THE PROPOSED CONSTRUCTION. MINIMALLY, AREAS TO BE TREATED INCLUDE THE ENTIRE CRITICAL ROOT ZONE OF TREES AS DEPICTED ON THE CITY APPROVED PLANS. TREATMENT SHOULD INCLUDE, BUT NOT LIMITED TO, FERTILIZATION , SOIL TREATMENT, MULCHING, AND PROPER PRUNING. POST-CONSTRUCTION TREATMENT SHOULD OCCUR DURING FINAL REVEGETATION OR AS DETERMINED BY A QUALIFIED ARBORIST AFTER CONSTRUCTION. CONSTRUCTION ACTIVITIES OFTEN RESULT IN A REDUCTION IN SOIL
MACRO AND MICRO PORES AND AN INCREASE IN SOIL BULK DENSITY. TO AMELIORATE THE DEGRADED SOIL CONDITIONS, AERATION VIA WATER AND/OR AIR INJECTED INTO THE SOIL IS NEEDED OR BY OTHER METHODS. THE PROPOSED NUTRIENT MIX SPECIFICATIONS AND SOIL AND/OR FOLIAR ANALYSIS RESULTS NEED TO BE PROVIDED TO AND APPROVED CONTRACTING OFFICER. CONSTRUCTION WHICH Will BE COMPLETED IN LESS THAN 90 DAYS MAY USE MATERIALS AT
1/2 RECOMMENDED RATES. ALTERNATIVE ORGANIC FERTILIZER MATERIALS ARE ACCEPTABLE WHEN APPROVED BY THE CONTRACTING OFFICER WITHIN 7 DAYS AFTER FERTILIZATION IS PERFORMED, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE WORK PERFORMED.

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GENERAL NOETS 2

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description

GENERAL NOETS 2

number

15001

G-003

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LEGEND:

- SET 60D NAIL
- BENCHMARK
- MAINTENANCE SIGN
- WV WATER VALVE
- CO WASTEWATER CLEANOUT
- T TELEPHONE PEDESTAL
- WP WOOD POST (BOLLARD)
- MAILBOX
- AC AIR CONDITIONER
- MH ELECTRIC MANHOLE
- LIGHT POLE
- POWER POLE
- DOWN GUY
- OVERHEAD ELECTRIC
- EDGE OF DRIVEWAY
- EDGE OF CONCRETE
- BACK OF CURB
- BUILDING
- CENTERLINE
- SECURITY LIGHTING
- SECURITY FENCE
- 16' ROLLING GATE
- GRASS

A1 SURVEY PLAN - FULL SITE

SCALE: 1" = 20'

NORTH

0 10' 20' 40' 60'

SCALE: 1" = 20'

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SURVEY PLAN - FULL SITE

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description

SURVEY PLAN - FULL SITE

number

15001

V-100

XX XX

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A1 SURVEY PLAN- PRIMARY SITE

SCALE: 1" = 10'

NORTH

0 5' 10' 20' 30'

SCALE: 1" = 10'

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SURVEY PLAN - PRIMARY SITE

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SURVEY PLAN - PRIMARY SITE

number

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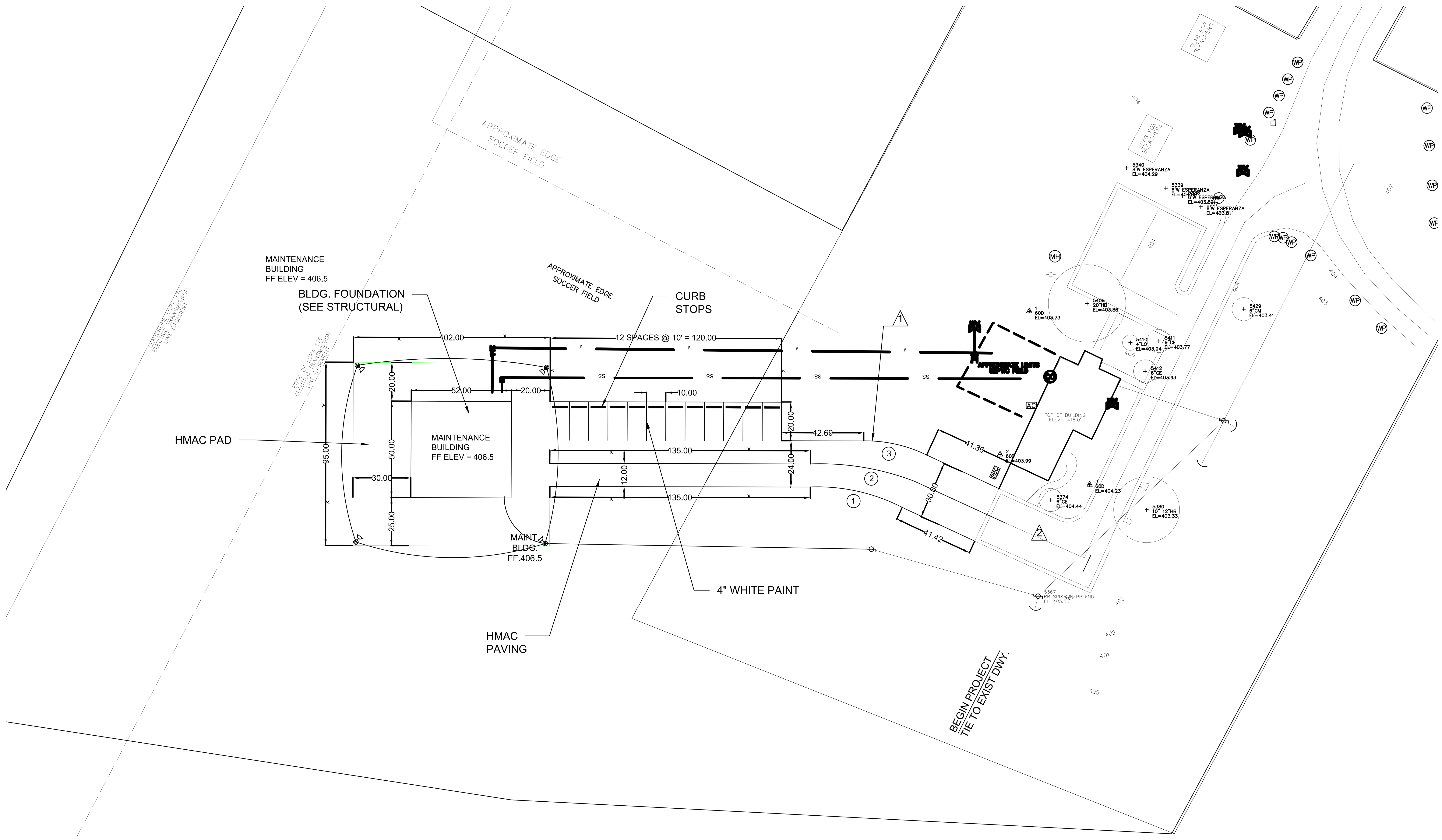

KEYED NOTES:

1. EDGE OF PVMT
2. CENTERLINE FOR DESIGN ONLY

LEGEND:

SET 60D NAIL
BENCHMARK
MAINTENANCE SIGN
WATER VALVE
WASTEWATER CLEANOUT
TELEPHONE PEDESTAL
WOOD POST (BOLLARD)
MAILBOX
AIR CONDITIONER
ELECTRIC MANHOLE
LIGHT POLE
POWER POLE
DOWN GUY
OVERHEAD ELECTRIC
EDGE OF DRIVEWAY
EDGE OF CONCRETE
BACK OF CURB
BUILDING
CENTERLINE
SECURITY LIGHTING
SECURITY FENCE
16' ROLLING GATE
GRASS

DRIVEWAY CURVE DATA			
	1	2	3
Δ	30	23	26.5
R	96	137.37	72.36
L	50	55	33.69

TREE LIST				
#	NORTH	EAST	ELEV	TYPE
5374	10052761.32	3192614.13	404.44	6"CE (CEDAR ELM)
5380	10052756.44	3192663.67	403.33	10" 12"HB (HACKBERRY)
5409	10052862.98	3192632.7	403.88	20"HB
5410	10052842.81	3192655.07	403.94	4"LO (LIVE OAK)
5411	10052843.71	3192669.81	403.77	6"CE
5412	10052827.97	3192662.75	403.93	6"CE
5429	10052860.22	3192713.59	403.41	6"CM (CREPE MYRTLE)

A1 SITE PLAN
SCALE: 1" = 20'
NORTH

0 10' 20' 40' 60'
SCALE: 1" = 20'

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description
SITE PLAN

number
15001
C-100
XX XX

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COORDINATE POINTS		
PVMT	NORTHERLY	EASTERLY
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
BLDG	NORTHERLY	EASTERLY
A		
B		
C		
D		

LEGEND:

- SET 60D NAIL
- BENCHMARK
- MAINTENANCE SIGN
- WATER VALVE
- WASTEWATER CLEANOUT
- TELEPHONE PEDESTAL
- WOOD POST (BOLLARD)
- MAILBOX
- AIR CONDITIONER
- ELECTRIC MANHOLE
- LIGHT POLE
- POWER POLE
- DOWN GUY
- OVERHEAD ELECTRIC
- EDGE OF DRIVEWAY
- EDGE OF CONCRETE
- BACK OF CURB
- BUILDING
- CENTERLINE
- SECURITY LIGHTING
- SECURITY FENCE
- 16' ROLLING GATE
- GRASS

DRIVEWAY CURVE DATA			
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R	96	137.37	72.36
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5410	10052842.81	3192655.07	403.94	4"LO (LIVE OAK)
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5412	10052827.97	3192662.75	403.93	6"CE
5429	10052860.22	3192713.59	403.41	6"CM (CREPE MYRTLE)

A1 CIVIL COGO PLAN
SCALE: 1" = 20'

NORTH

0 10' 20' 40' 60'
SCALE: 1" = 20'

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CIVIL COGO PLAN

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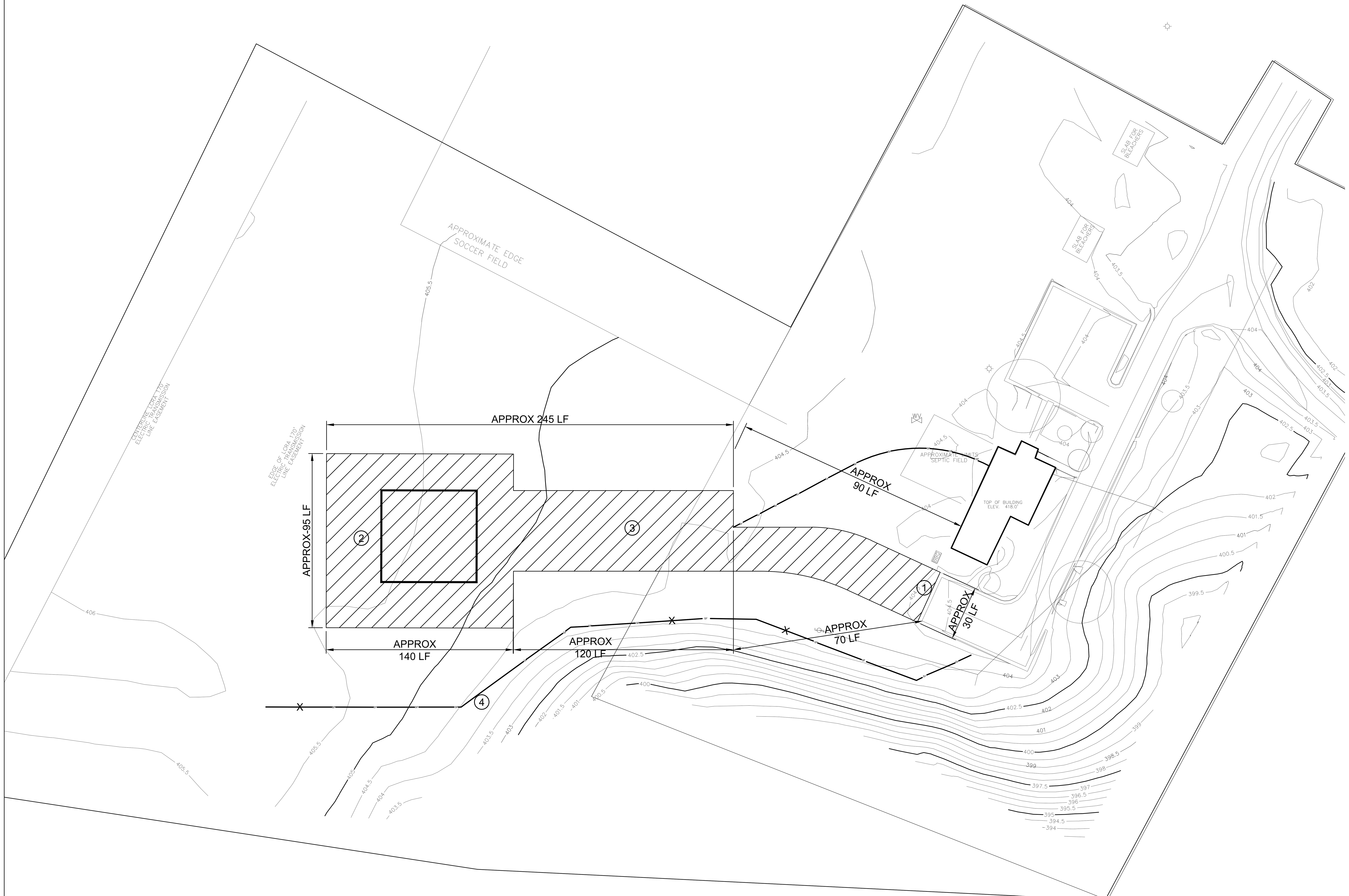

KEYED NOTES:

1. CLEAR AND GRUB AREA FOR HMAC PAVEMENT
2. CLEAR AREA FOR BUILDING FOUNDATION (SEE STRUCTURAL)
3. DEMO EXISTING CURB, GUTTER AND PAVEMENT FOR CONNECTING TO NEW PAVEMENT
4. INSTALL APPROX. 380 LF OF SILT FENCE

LEGEND:

MINOR CONTOURS

MAJOR CONTOURS

EXIST CONTOURS

SF — SILT FENCE

A1 DEMO AND E&S CONTROL PLAN

SCALE: 1" = 20'

NORTH

0 10' 20' 40' 60'

SCALE: 1" = 20'

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DEMO AND E&S CONTROL PLAN

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description

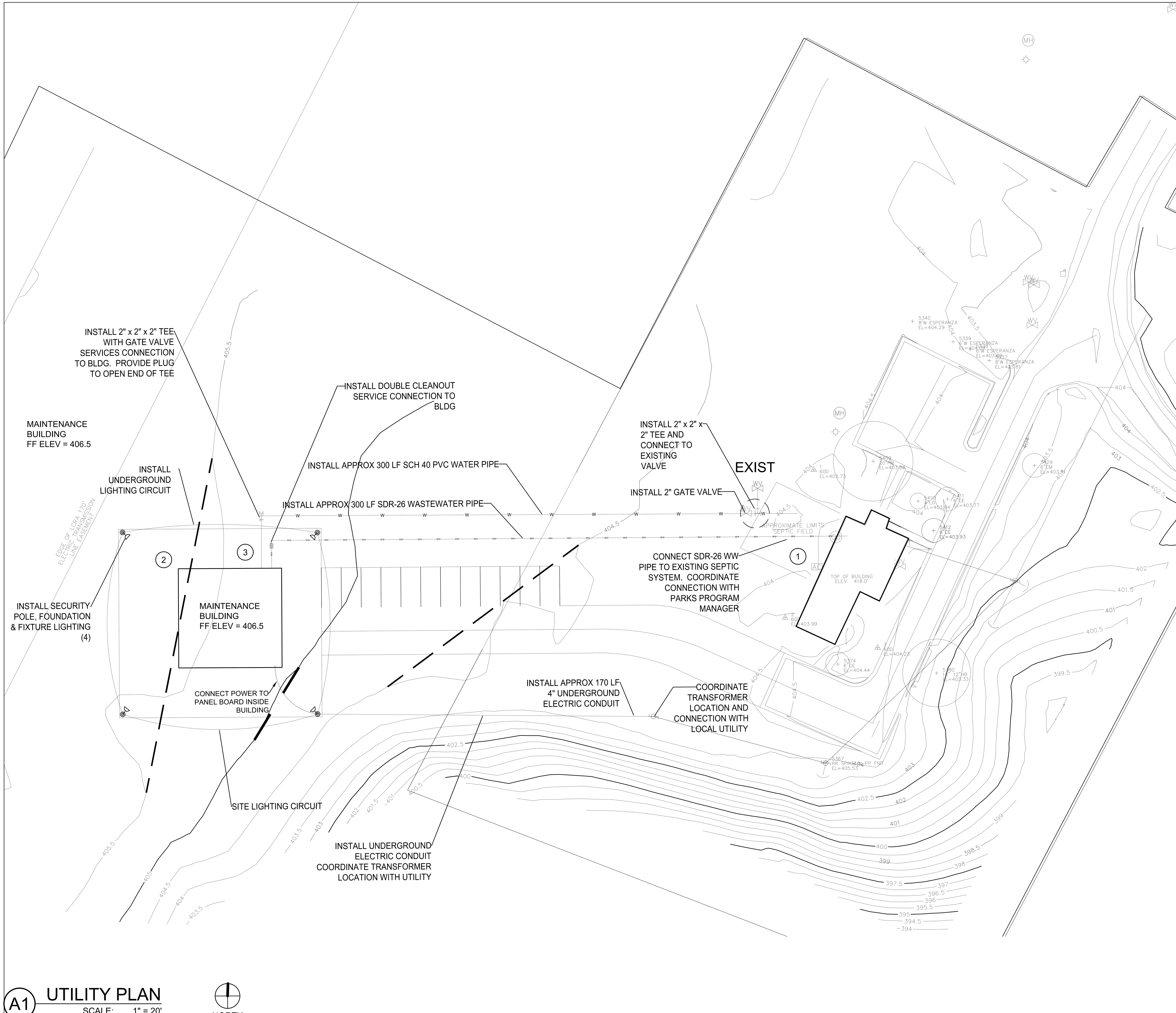
DEMO AND E&S CONTROL PLAN

number

15001

C-102

XX XX



GENERAL NOTES:

CALL LOCAL ONE CALL CENTER FOR UTILITY LOCATION SERVICE PRIOR TO ANY DIGGING IN THE PROJECT.

KEYED NOTES:

1. CONNECT SDR-26 WW PIPE TO EXISTING SEPTIC SYSTEM. COORDINATE TIE IN WITH PROJECT MGR.
2. CONNECT APPROX. 30 LF NEW 2" SCH 40 WATER PIPE TO BLDG INCLUDE 2"X2"X7" TEE WITH VALVE. ADD 2" PLUG TO OPEN END OF TEE.
3. CONNECT APPROX. 30 LF SDR-26 WATER PIPE TO BLDG. INCLUDE DOUBLE CLEAN-OUT.

LEGEND:

WV	WATER VALVE
CO	WASTEWATER CLEANOUT
T	TELEPHONE PEDESTAL
WP	WOOD POST (BOLLARD)
	MAILBOX
AC	AIR CONDITIONER
MH	ELECTRIC MANHOLE
	LIGHT POLE
	POWER POLE
	DOWN GUY
	AREA SITE LIGHTING
	POTABLE WATER LINE
	WASTE WATER LINE (FORCE MAIN)
	ELEC. CIRCUIT
	UNDERGROUND ELECTRIC

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UTILITY PLAN

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C-103
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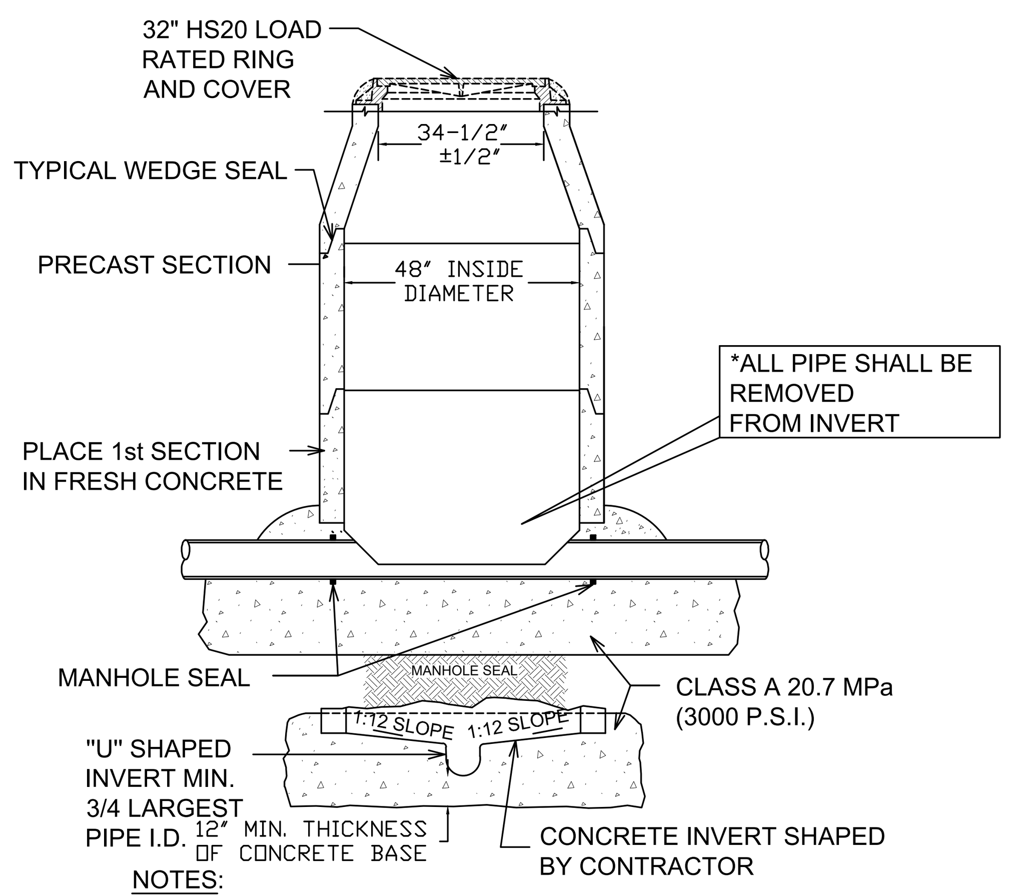
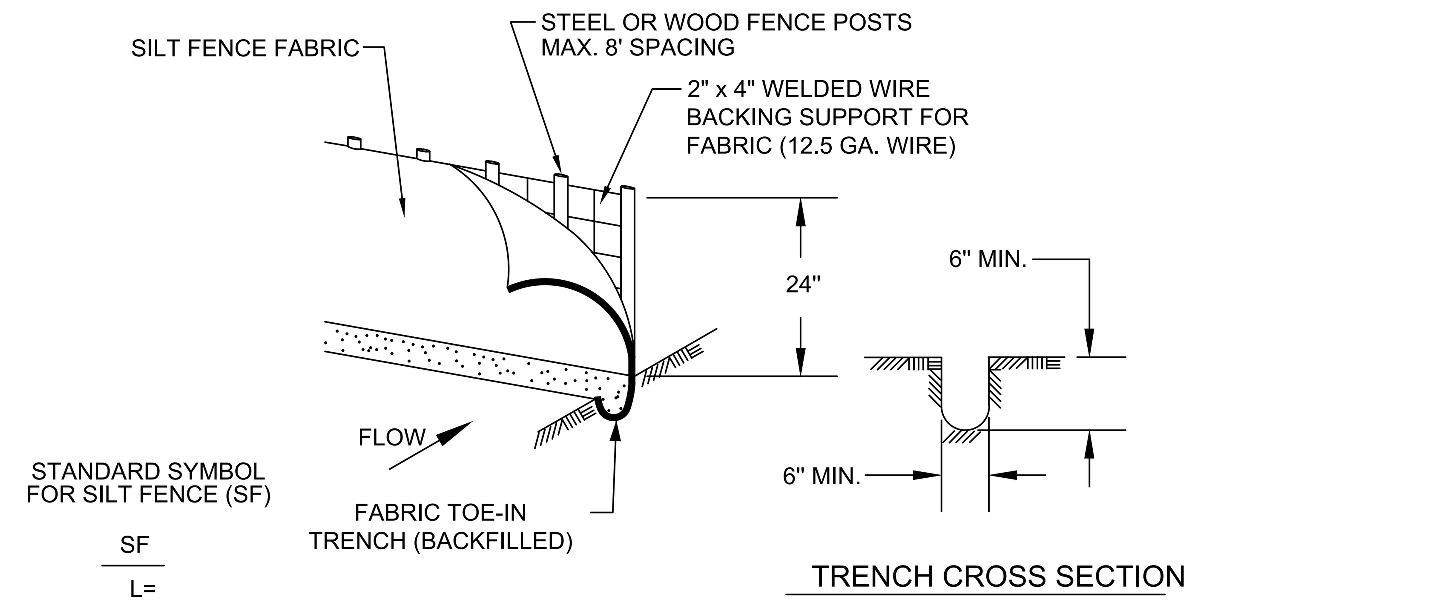


NOTES:
1. FOR EXISTING WW LINES ONLY.
2. FIRST RISER SECTION SHALL BE PLACED PLUMB & LEVEL PRIOR TO SETTING ANY ADDITIONAL SECTIONS.

A1 4' DIA. STD MANHOLE DETAIL
SCALE: NONE



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 12 INCHES. IF WOOD POSTS CANNOT ACHIEVE 12 inches DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 6 inches DEEP AND 6 inches WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

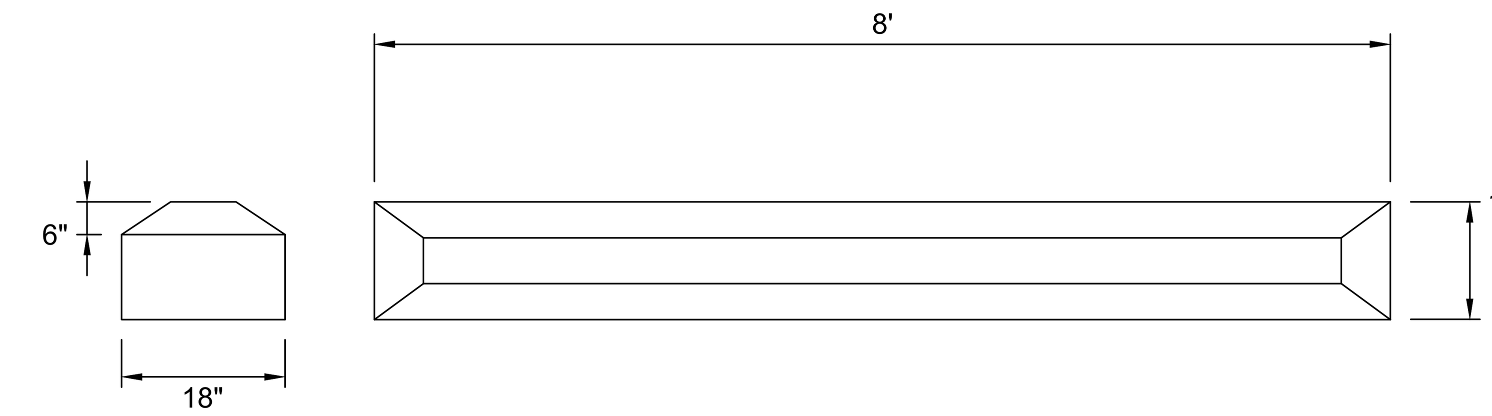
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

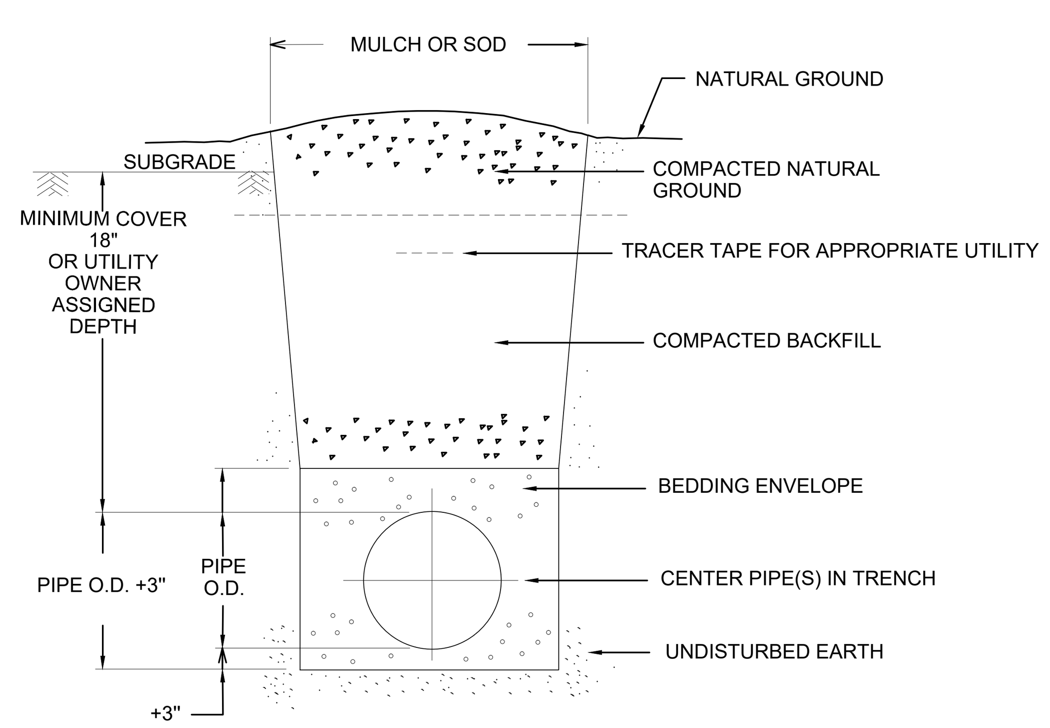
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 inches. THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

A2 SILT FENCE DETAIL
SCALE: NONE

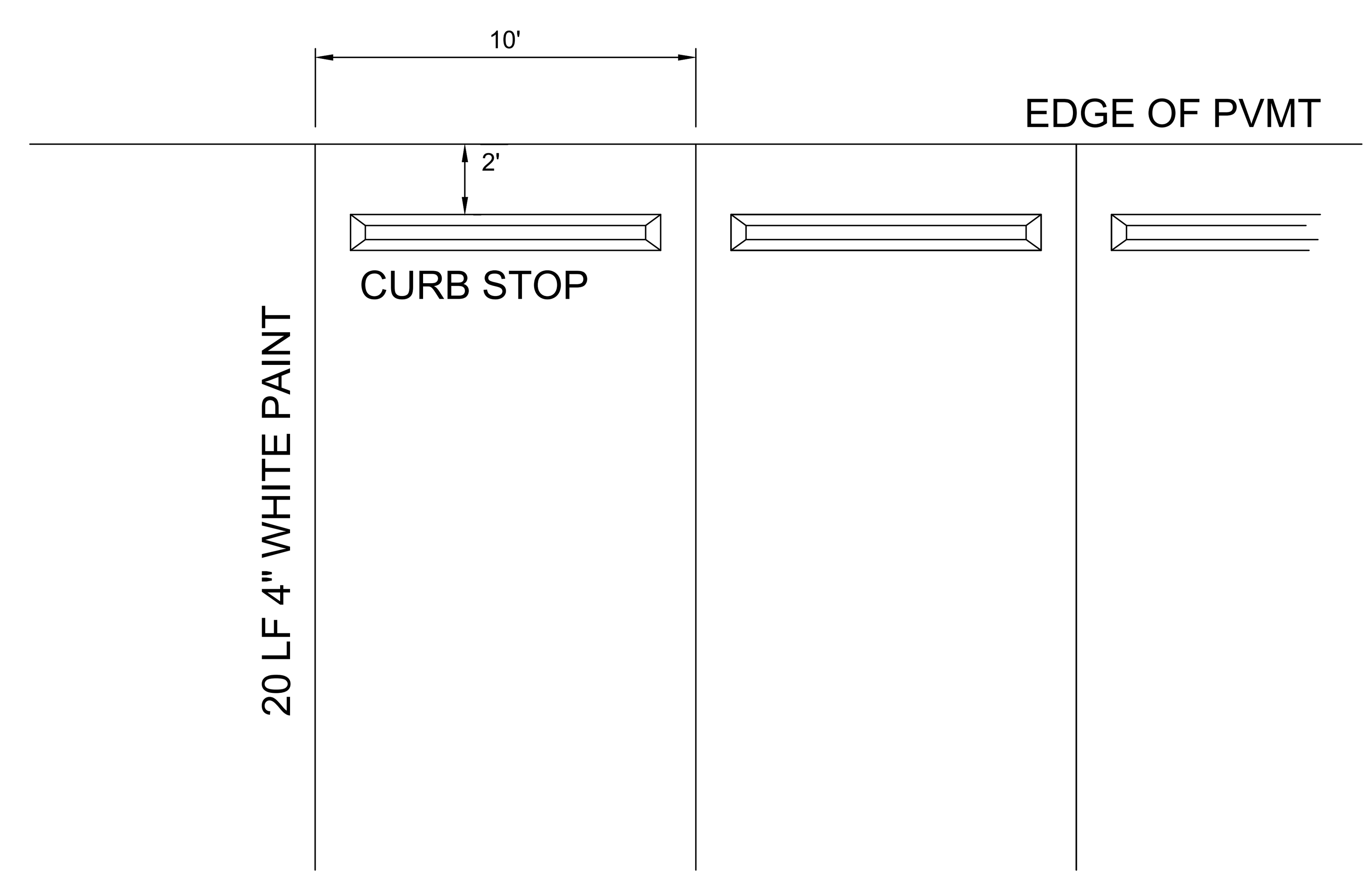


A3 CURB STOP DETAIL
SCALE: NONE



NOTES:
1. SPACING BETWEEN MULTIPLE PIPES, ONE PIPE O.D. SPACING BETWEEN PIPES
2. BEDDING ENVELOPE WILL CONTAIN THE FOLLOWING MATERIAL
   A: FOR PLASTIC WATER OR SEWER LINE : BEDDING SHALL BE GRAVEL
   B: FOR ELECTRICAL : SHALL BE RED DYED CLSM
   C: FOR COMMUNICATION : BEDDING SHALL BE NATURAL EARTH
3. ALL NON-METALLIC PIPE, DIRECTLY ABOVE THE PIPE AND A MINIMUM OF 12" BELOW THE SUBGRADE OR A MINIMUM OF 18" BELOW FINISHED GRADE. PLASTIC JACKET WILL BE BE COLOR CODED PER APWA UNIFORM COLOR CODE.

A4 UTILITY TRENCH DETAIL
SCALE: NONE



A5 20' PARKING STALLS (TYP.)
SCALE: NONE

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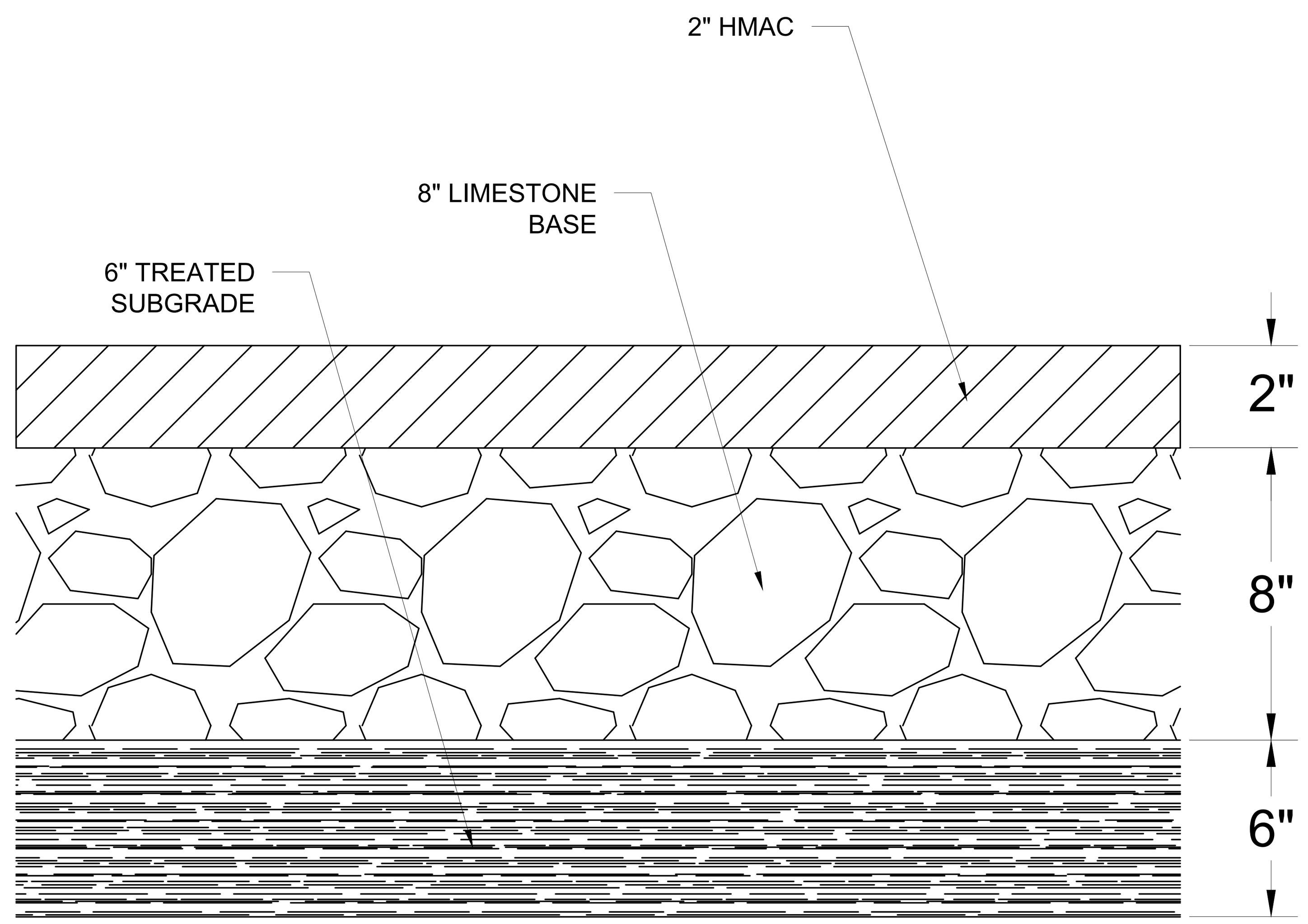
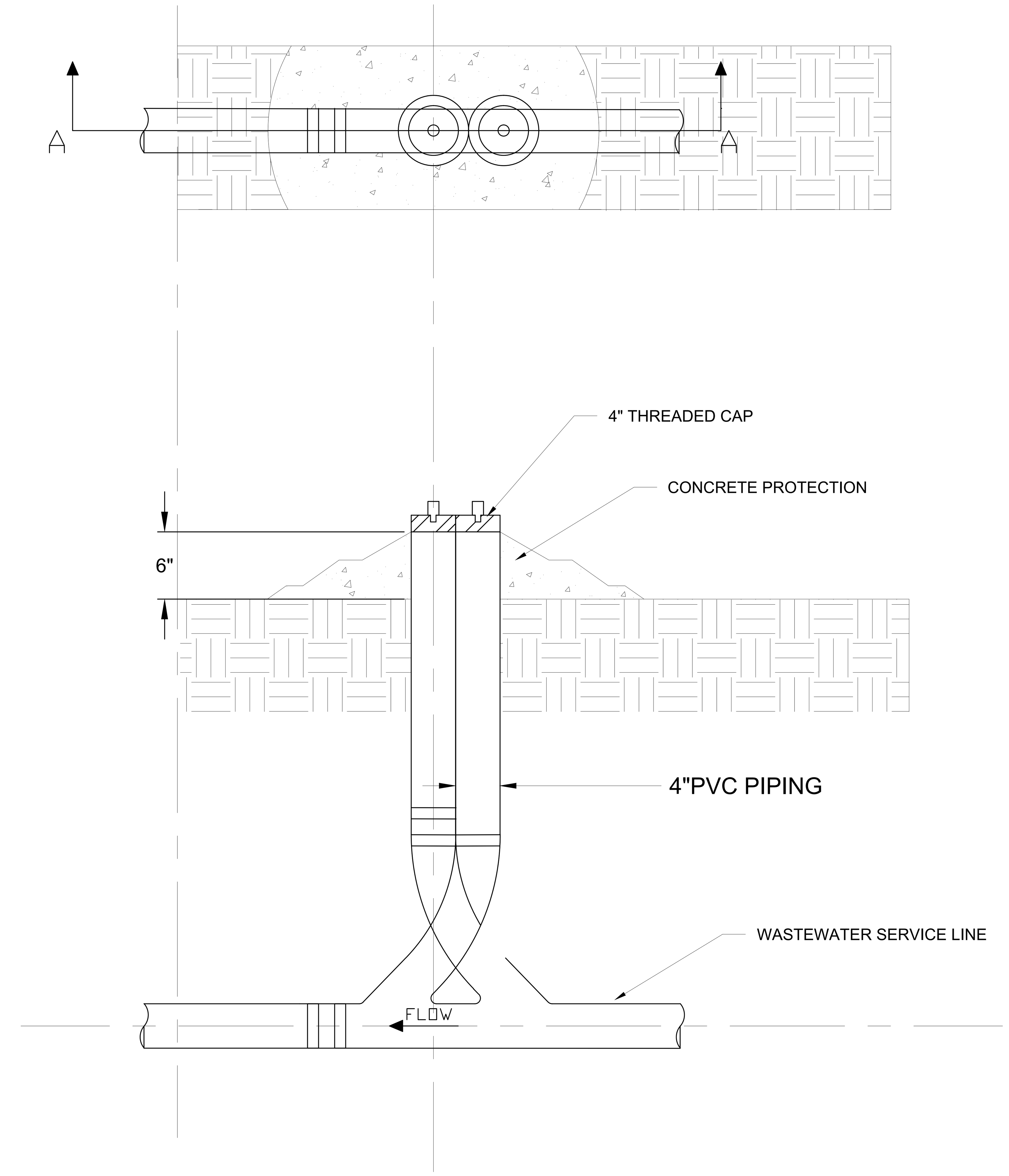


A1 PAVEMENT DETAIL
SCALE: NONE



SECTION A-A PROFILE

A2 DOUBLE CLEANOUT DETAIL
SCALE: NONE

NOTES:

1. ALL PIPE TO BE SDR 26.
2. ALL FITTINGS TO BE SDR 35 SOLVENT WELD FITTINGS.

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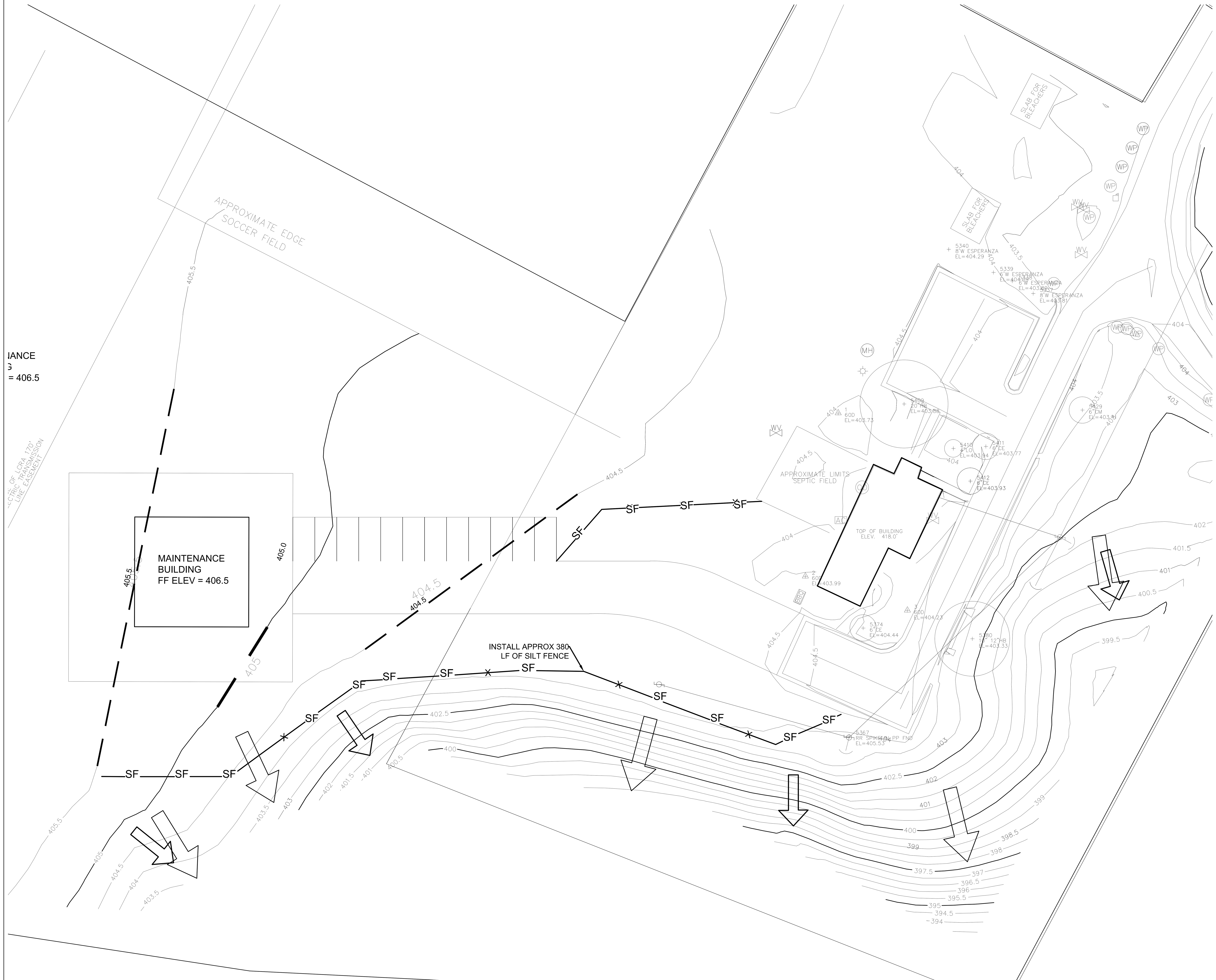

LEGEND:

- CONTOUR-MJR(5')
- CONTOUR-MNR(1')
- FLOW DIRECTION ARROWS

A1 GRADING AND DRAINAGE PLAN

SCALE: 1" = 10'

NORTH

0 5' 10' 20' 30'

SCALE: 1" = 10'

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GRADING AND DRAINAGE PLAN

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GRADING AND DRAINAGE PLAN

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APPENDIX B

SHOVEL TEST DATA

Table B-1. Shovel Test					
Shovel Test	Location	Depth (cmbs)	Munsell Color	Description	Cultural Material
WP01	Northwest corner of APE	0-10	7.5YR 3/2	Clay Loam	None
		10-70	7.5YR 3.5/2	Silty Loam w/ a bit of clay 2.5YR 4/4 mottled inclusions increasing from 3% at 10-20 cmbs to 8% at 60-70 cmbs	
WP02	20m south of STWP01	0-15	7.5YR 3/2	Clay Loam	None
		15-70	7.5YR 3.5/2	Silty Loam w/ a bit of clay 2.5YR 4/4 mottled inclusions increasing from 3% at 15-25 cmbs to 8% at 60-70 cmbs	
WP03	20m east of STWP02	0-10	7.5YR 3/2	Clay Loam	None
		10-70	7.5YR 3.5/2	Silty Loam w/ a bit of clay 2.5YR 4/4 mottled inclusions increasing from 3% at 10-20 cmbs to 8% at 60-70 cmbs	
WP04	20m south of STWP02	0-15	7.5YR 3/2	Clay Loam	None
		15-60	7.5YR 3.5/2	Silty Loam w/ a bit of clay 2.5YR 4/4 mottled inclusions increasing from 3% at 15-25 cmbs to 8% at 50-60 cmbs	
WP05	20m east of STWP04	0-10	7.5YR 3/2	Clay Loam	None
		10-60	7.5YR 3.5/2	Silty Loam w/ a bit of clay 2.5YR 4/4 mottled inclusions increasing from 3% at 10-20 cmbs to 8% at 50-60 cmbs	
WP06	28m southwest of STWP04	0-20	7.5YR 3/2	Clay Loam	2 Pieces of debitage @ 30-40 cmbs
		20-70	7.5YR 3.5/2	Silty Loam w/ a bit of clay 2.5YR 4/4 mottled inclusions increasing from 3% at 20-30 cmbs to 8% at 60-70 cmbs	
WP07	20m south of STEM04	0-5	7.5YR 3/2	Clay Loam	None
		5-10	7.5YR 7/6	Caliche gravel (old park trail)	
		10-12	7.5YR 3/2	Clay Loam	
		12-20	7.5YR 7/6	Caliche gravel (old park trail)	
		20-60	7.5YR 3.5/2	Silty Loam w/ a bit of clay 2.5YR 4/4 mottled inclusions increasing from 3% at 20-30 cmbs to 8% at 50-60 cmbs	
WP08	East corner of APE near back parking lot. 20m east of STJH01	0-70	7.5YR 3/3	Clay loam with a bit of silt	4 Pieces of debitage, FCR, Mussel Shell @ 10-20 cmbs; FCR, 1 Piece of debitage @ 20-30; Mussel Shell @ 30-40 cmbs; 2 Pieces of debitage @ 40-50 cmbs
WP09	20m south of STJH01	0-10	7.5YR 3/3	Silty clay loam	1 Core Fragment @ 20-30 cmbs
		10-70	5YR 4/3	Silty sandy loam	
WP10	20m south of STWP12	0-30	7.5YR 3/3	Silty clay loam	None

Table B-1. Shovel Test					
Shovel Test	Location	Depth (cmbs)	Munsell Color	Description	Cultural Material
		30-60	7.5YR 3.5/2	Clay loam	
WP11	20m south of STWP04	0-50	7.5YR 3/3	Loamy clay with very rare gravels/pebbles.	None
		50-70	7.5YR 3/3	Silty clay loam mottled with 7.5YR 3.5/2	
WP12	20m south of STEM03	0-35	7.5YR 3/3	Silty clay loam	1 Piece of debitage @0-10 cmbs; 1 Stone Pestle @ 10-20 cmbs
		35-70	7.5YR 3/3	Silty clay loam mottled with 7.5YR 3.5/2	
EM01	20m east of STEM04	0-70	7.5YR 3/2	Silty clay loam	1 Piece of debitage @ 10-24 cmbs
EM02	20m east of STWP03	0-25	7.5YR 3/2	Silty clay loam	None
		25-70	7.5YR 4/4	Silt Clay mottled with 7.5YR 3/2	
EM03	20m south of STEM02	0-20	7.5YR 3/2	Silty clay loam	None
		20-60	7.5YR 4/4	Silty clay loam	
EM04	20m east of STEM03	0-25	7.5YR 3/2	Silty clay loam	None
		25-60	7.5YR 3/2	Silty clay loam mottled with 7.5YR 4/4	
EM05	20m south of STWP05	0-25	7.5YR 3/2	Silty clay loam with occasional cobbles and intense root mass and large root. Charcoal present.	None
		25-60	7.5YR 4/4	Silty clay loam mottled with 7.5YR 4/4	
EM06	20m south of STWP11	0-55	7.5YR 3/2	Silty clay loam	2 Pieces of debitage @ 20-30 cmbs; 7 Bone Fragments, 1 Core, @ 30 cmbs; Mussel Shell @ 33 cmbs; 1 Piece of debitage @ 36 cmbs; Quartzite Cobble Fragments @ 43 cmbs
		55-70	7.5YR 4/4	Silty clay	
JH01	20m east of STWP07	0-60	7.5YR 3/2	Silt Clay Loam	2 Pieces of debitage @ 10-20 cmbs

FIGURE REDACTED DUE TO SENSITIVE LOCATIONAL DATA

APPENDIX C

REGULATORY CORRESPANDANCE

ANTIQUITIES PERMIT APPLICATION FORM
ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) Webberville Park Improvements Project
County (ies) Travis
USGS Quadrangle Name and Number Utley 30097-B4
UTM Coordinates Zone 14R E 644637.68 N 3343388.63
Location Webberville Park 2305 Park Lane, Webberville, Texas 78621
Federal Involvement ❑ Yes x No
Name of Federal Agency
Agency Representative

II. OWNER (OR CONTROLLING AGENCY)

Owner Travis County Transportation and Natural Resources
Representative Odette Tan, P.E. Senior Engineer
Address 700 Lavaca Street
City/State/Zip Austin, Texas 78701
Telephone (include area code) (512) 854-7587 Email Address Odette.Tan@traviscountytx.gov

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

Sponsor same as above
Representative
Address
City/State/Zip
Telephone (include area code) Email Address

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Josh Haefner
Affiliation Hicks & Company
Address 1504 W. 5th Street
City/State/Zip Austin, Tx. 78703
Telephone (include area code) 512-478-0858 Email Address jhaefner@hicksenv.com

(OVER)

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork December 23, 2015
Requested Permit Duration 2 Years ____________ Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) Eligibility Testing (see attached scope of work)

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility Hicks & Company
Permanent Curatorial Facility Center for Archaeological Studies, San Marcos

IV. LAND OWNER'S CERTIFICATION

I, Odette Tan, as legal representative of the Land Owner, Travis County, do certify that I have reviewed the plans and research design, and that no investigations will be preformed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Owner, Sponsor, and Principal Investigator are responsible for completing the terms of the permit.
Signature ______________________ Date ____________

V. SPONSOR'S CERTIFICATION

I, ______________________, as legal representative of the Sponsor, ______________________, do certify that I have review the plans and research design, and that no investigations will be performed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Sponsor, Owner, and Principal Investigator are responsible for completing the terms of this permit.
Signature ______________________ Date ____________

VI. INVESTIGATOR'S CERTIFICATION

I, Josh Haefner, as Principal Investigator employed by ____________ Hicks & Company (Investigative Firm), do certify that I will execute this project according to the submitted plans and research design, and will not conduct any work prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Principal Investigator (and the Investigative Firm), as well as the Owner and Sponsor, are responsible for completing the terms of this permit.
Signature [signature] Date 12-16-2015

Principal Investigator must attach a research design, a copy of the USGS quadrangle showing project boundaries, and any additional pertinent information. Curriculum vita must be on file with the Division of Antiquities Protection.

FOR OFFICIAL USE ONLY

Reviewer ______________________ Date Permit Issues ______________________
Permit Number ______________________ Permit Expiration Date ______________________
Type of Permit ______________________ Date Received for Data Entry ______________________

Texas Historical Commission
Archeology Division
P.O. Box 12276, Austin, TX 78711-2276
Phone 512/463-6096
www.thc.state.tx.us

THE STATE OF TEXAS
TEXAS HISTORICAL COMMISSION
The State Agency for Historic Preservation

Hicks & Company's Scope of Work
for
Travis County's Webberville Park Improvements Project
December 16, 2015

Travis County (the County) is currently proposing to construct a new maintenance facility at Webberville Park located in northeast Austin, Texas. Proposed improvements include the construction of a new facility building and associated infrastructure (paving, lighting, etc.). Though exact location is yet to be determined, the County has selected a 1.94 acre tract for the proposed project location (**Figure 1**). Because the proposed project will occur on land owned by the County, a political subdivision of the state of Texas, the County has contracted with Hicks & Company to conduct Antiquities Code of Texas Coordination (ACT) with the Texas Historical Commission (THC) and, as the northern portion of the area of potential effects (APE) lies within the mapped boundaries of Site 41TV222, designated as eligible as a State Antiquities Landmark (SAL), eligibility testing. This scope of work describes eligibility testing for the **Webberville Park Improvements Project** in Travis County, Texas.

According to the Geologic Atlas of Texas, Austin Sheet, the underlying geology of the proposed project area consists of alluvium (Qal) and fluviatile terrace deposits (Qt) (Barnes 1981) (**Figure 2**). Both represent relatively late geologic formations with alluvial deposits having formed recently and fluviatile terrace deposits dating to the early Pleistocene. As such, cultural deposits areas can be expected to be potentially deeply buried throughout the project area. Soils mapped for the project area belong to the Bergstrom series (USDA 2015). Bergstrom soils are described as being deep, silt loam to silty clay loam soils formed on flood-plain steps parented from residuum of Holocene-age.

Site 41TV222 is a multiple component historic and lithic scatter site located on an eroded alluvial terrace of the Colorado River and has been noted in several different surveys over the years (**Figure 3**). The site was first recorded in 1955 by Dale Exley and Dee Ann Suhm who noted its existence but preformed no other work (THC 2015). In 1978, Arthur Black and George B. Kegley conducted a surficial survey of the then proposed Webberville Park during which they realized that Site 41TV222 overlapped previously recorded Site 41BP74. In their report, Black and Kegley noted that the 1965 survey of Site 41BP74 by R. L. Carlisle and Lacy Kirkman utilized maps with "discrepancies of at least 750 feet" in their Travis County line boundaries determining that Site 41TV222 and Site 41BP74 were, in actuality, the same site (Black and Kegley 1978:4). Black and

Kegley recorded the presence of diagnostic historic artifacts such as blue painted featheredged earthenware, pressed glass tableware, and cut nails which they attributed to a pre-Civil War historic component (Black and Kegley 1978:6-7). In addition to diagnostic historic artifacts, Darl projectile points as well as Perdiz and Scallorn points, markers for Toyah and Austin phases, respectively, have also been documented on site (Black and Kegley 1978:9-10). In 1998, Hicks & Company conducted a survey of 41TV222 for the Travis County Transportation and Natural Resources Division. During their survey, Hicks & Company supplemented shovel testing with backhoe trenching to determine the stratigraphy of the site and the depth of cultural deposits (Karbula and Seibel 1998:3). Karbula and Seibel established that, within the APE of their project, Site 41TV222 was a very low density scatter of lithic materials with good organic preservation, but lacking in features or activity areas.

Though there is potential for very deep buried archeological deposits in the above-described setting, the to-be-revisited Site 41TV222 is noted as having deposits no more than 60 centimeters below surface (Karbula and Seibel 1998:21). Hicks & Company is proposing shovel testing to assess the proposed project's potential to impact archeological resources/sites for segments of the proposed project that are located outside of the current mapped boundary of Site 41TV222. For segments of the proposed project area that are located within or immediately adjacent to Site 41TV222, Hicks & Company is proposing to conduct shovel testing at intervals spaced from 10 to 20 meters apart (see **Figure 4** for an approximation of this spacing). Depending on artifact recovery, data from these shovel tests will be utilized to determine location of approximately two to four 1 x 1 meter hand excavated units, conducted to determine if the footprint of the proposed project will adversely affect cultural deposits that contribute to Site 41TV222's eligibility. If such deposits are noted during the investigations, the immediate area will be shovel tested to locate a potential suitable alternative location for any elements of the proposed project that affect eligible deposits. Investigators will record their observations and the results of shovel tests and test units through notes, standardized forms, and photographs. Sediment from all shovel tests will be screened through ¼-inch hardware cloth. Locations of all excavations will be recorded utilizing GPS technology. The survey will follow a no-collection policy in which artifacts will be recorded, identified, and quantified in the field but returned to their find location. Additionally, a revisit form will be prepared for Site 41TV222 and submitted to Texas Archeological Research Laboratory.

The results of the investigation will be compiled into a professional report as required under Chapter 26 of the THC's Rules of Practice and Procedure. The report will include a summary of background information, results of field investigations, and recommendations about the need for further investigations (if any) and will be submitted to THC for review and comment. In accordance with revised ACT requirements, hard copies and digital files of the final report will be submitted to the THC and other recommended libraries and repositories across Texas. Additionally, all project-generated forms, notes, photographs, etc. will be formally curated at the Center for Archeological Studies in San Marcos, Texas.

REFERENCES

Barnes, V. E.

1981 *Geologic Atlas of Texas, Austin Sheet*. Bureau of Economic Geology, the University of Texas at Austin.

Black, A.B. and G.B. Kegley

1978 *An Archeological Survey of a Proposed 100 acre Travis County Park, Precinct One.* Austin Architectural Associates. Austin.

Karbula, J.W. and S. Seibel

1998 *Archeological Investigations of Site 41TV222; In Webberville Park, Travis County, Texas.* Archeology Series No. 65. Hicks & Company. Austin.

Texas Historical Commission (THC)

2015 Texas Historical Commission's Online Sites Atlas Site Form: 41TV222. Accessed online on December 15, 2015.

United States Department of Agriculture (USDA)

2015 Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx, Accessed online on December 15, 2015.

TEXAS HISTORICAL COMMISSION
real places telling real stories

December 31, 2015

JAN - 6 2016

Josh Haefner
Hicks and Company
1504 West 5th Street
Austin, TX 78703

Re: Project review under the Antiquities Code of Texas
Webberville Park Improvements Project, Travis County, Texas
Texas Antiquities Permit Application **#7513**

Dear Colleague:

Thank you for your Antiquities Permit Application for the above referenced project. This letter presents the final copy of the permit from the Executive Director of the Texas Historical Commission (THC), the state agency responsible for administering the Antiquities Code of Texas.

Please keep this copy for your records. The Antiquities Permit investigations requires the production and submittal of one printed copy of the final report, a completed abstract form submitted via our online system, two copies of the tagged PDF final report on CD (one with site location information & one without), and verification that any artifacts recovered and records produced during the investigations are curated at the repository listed in the permit. The abstract form maybe submitted via the THC website (www.thc.state.tx.us) or use url: http://xapps.thc.state.tx.us/Abstract/login.aspx Additionally, you must send the THC shapefiles showing the boundaries of the project area *and* the areas actually surveyed via email to archeological_projects@thc.state.tx.us.

If you have any questions concerning this permit or if we can be of further assistance, please contact Lillie Thompson at 512/463-1858. The reviewer for this project is Tiffany Osburn, 512/463-6096.

Sincerely,

Mark H Denton

for
Mark Wolfe
Executive Director

MW/lft

Enclosures

Cc: Odette Tan, Travis County

State of Texas

TEXAS ANTIQUITIES COMMITTEE

ARCHEOLOGY PERMIT # *7513*

This permit is issued by the Texas Historical Commission, hereafter referred to as the Commission, represented herein by and through its duly authorized and empowered representatives. The Commission, under authority of the Texas Natural Resources Code, Title 9, Chapter 191, and subject to the conditions hereinafter set forth, grants this permit for:

Intensive Survey

To be performed on a potential or designated landmark or other public land known as:

Title: ***Webberville Park Improvements Project***

County: ***Travis***

Location: ***Webberville Park 2305 Park Lane, Webberville, Texas 78621***

Owned or Controlled by: (hereafter known as the Permittee):

Travis County Transportation and Natural Resources

700 Lavaca Street
Austin, TX 78701

Sponsored by (hereafter known as the Sponsor

Travis County Transportation and Natural Resources

700 Lavaca Street
Austin, TX 78701

The Principal Investigator/Investigation Firm representing the Owner or Sponsor is:

Josh Haefner

Hicks and Company

1504 West 5th Street

Austin, TX 78703

This permit is to be in effect for a period of:

2 Years and 0 Months

and Will Expire on:

12/22/2017

During the preservation, analysis, and preparation of a final report or until further notice by the Commission, artifacts, field notes, and other data gathered during the investigation will be kept temporarily at:

Hicks and Company

Upon completion of the final permit report, the same artifacts, field notes, and other data will be placed in a permanent curatorial repository at:

Texas State Univ.-CAS

Scope of Work under this permit shall consist of:

Eligibility testing. For details, see scope of work submitted with permit application.

ARCHEOLOGY PERMIT # 7513

This permit is granted on the following terms and conditions:

1) This project must be carried out in such a manner that the maximum amount of historic, scientific, archeological, and educational information will be recovered and preserved and must include the scientific, techniques for recovery, recording, preservation and analysis commonly used in archeological investigations. All survey level investigations must follow the state survey standards and the THC survey requirements established with the projects sponsor(s).
2) The Principal Investigator/Investigation Firm, serving for the Owner/Permittee and/or the Project Sponsor, is responsible for insuring that specimens, samples, artifacts, materials and records that are collected as a result of this permit are appropriately cleaned, and cataloged for curation. These tasks will be accomplished at no charge to the Commission, and all specimens, artifacts, materials, samples, and original field notes, maps, drawings, and photographs resulting from the investigations remain the property of the State of Texas, or its political subdivision, and must be curated at a certified repository. Verification of curation by the repository is also required, and duplicate copies of any requested records shall be furnished to the Commission before any permit will be considered complete.
3) The Principal Investigator/Investigation Firm serving for the Owner/Permittee, and/or the Project Sponsor is responsible for the publication of results of the investigations in a thorough technical report containing relevant descriptions, maps, documents, drawings, and photographs. A draft copy of the report must be submitted to the Commission for review and approval. Any changes to the draft report requested by the Commission must be made or addressed in the report, or under separate written response to the Commission. Once a draft has been approved by the Commission, one (1) printed, unbound copy of the final report containing at least one map with the plotted location of any and all sites recorded and two copies of the report in tagged PDF format on an archival quality CD or DVD shall be furnished to the commission. One copy must include the plotted location of any and all sites recorded and the other should not include the site location data. A paper copy and an electronic copy of the completed Abstracts in Texas Contract Archeology Summary Form must also be submitted with the final report to the Commission. (Printed copies of forms are available from the Commission or also online at www.thc.state.tx.us.)
4) If the Owner/Permittee, Project Sponsor or Principal Investigator/Investigation Firm fails to comply with any of the Commission's Rules of Practice and Procedure or with any of the specific terms of this permit, or fails to properly conduct or complete this project within the allotted time, the permit will fall into default status. A notification of Default status shall be sent to the Principal Investigator/Investigation Firm, and the Principal Investigator will not be eligible to be issued any new permits until such time that the conditions of this permit are complete or, if applicable, extended.
5) The Owner/Permittee, Project Sponsor, and Principal Investigator/Investigation Firm, in the conduct of the activities hereby authorizes, must comply with all laws, ordinances and regulations of the State of Texas and of its political subdivisions including, but not limited to, the Antiquities Code of Texas; they must conduct the investigation in such a manner as to afford protection to the rights of any and all lessees or easement holders or other persons having an interest in the property and they must return the property to its original condition insofar as possible, to leave it in a state which will not create hazard to life nor contribute to the deterioration of the site or adjacent lands by natural forces.
6) Any duly authorized and empowered representative of the Commission may, at any time, visit the site to inspect the fieldwork as well as the field records, materials, and specimens being recovered.
7) For reasons of site security associated with historical resources, the Project Sponsor (if not the Owner/Permittee), Principal Investigator, Owner, and Investigation Firm shall not issue any press releases, or divulge to the news media, either directly or indirectly, information regarding the specific location of, or other information that might endanger those resources, or their associated artifacts without first consulting with the Commission, and the State agency or political subdivision of the State that owns or controls the land where the resource has been discovered.
8) This permit may not be assigned by the Principal Investigator/Investigation Firm, Owner/Permittee, or Project Sponsor in whole, or in part to any other individual, organization, or corporation not specifically mentioned in this permit without the written consent of the Commission.
9) Hold Harmless: The Owner/Permittee hereby expressly releases the State and agrees that Owner/Permittee will hold harmless, indemnify, and defend (including reasonable attorney's fees and cost of litigation) the State, its officers, agents, and employees in their official and/or individual capacities from every liability, loss, or claim for damages to persons or property, direct or indirect of whatsoever nature arising out of, or in any way connected with, any of the activities covered under this permit.The provisions of this paragraph are solely for the benefit of the State and the Texas Historical Commission and are not intended to create or grant any rights, contractual or otherwise, to any other person or entity.
10) Addendum: The Owner/Permittee, Project Sponsor and Principal Investigator/Investigation Firm must abide by any addenda hereto attached.

Upon a finding that it is in the best interest of the State, this permit is issued on 12/22/2015.

Pat Mercado-Allinger

Pat Mercado-Allinger, for the
Texas Historical Commission

TEXAS HISTORICAL COMMISSION

real places telling real stories

June 6, 2016

JUN 10 2016

Josh Haefner
Hicks & Company
1504 West 5th Street
Austin, TX 78703

Re: Draft report review: Draft Report on the Results of Archeological Testing of Site 41TV222 Travis County, Texas (Travis County; Track #201607428)

Dear Mr. Haefner:

Thank you for your correspondence describing the above referenced project. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The review staff, led by Tiffany Osburn, has reviewed the draft report. In general, we concur with your recommendations regarding the expansion of the boundaries of site 41TV222 and that the southern portion of this extension is also eligible for designation as a State Antiquities Landmark. Our concurrence with your recommendation that no further archeological investigations are required is contingent upon confirmation from Travis County that construction will not occur within the recommended avoidance area or the northern original site area as depicted in Figure 12 of this report. In addition, we encourage Travis County to consult with the THC regarding the design plans for the proposed development. Please also address the attached comments in the final report.

Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have any questions concerning our review or if we can be of further assistance, please contact Tiffany Osburn at 512/463-8883 or tiffany.osburn@thc.state.tx.us.**

Sincerely,

William A. Martin

for
Mark Wolfe, State Historic Preservation Officer

MW/to