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Intensive Cultural Resources Survey of the Westpointe West Off-Site Sewer Extension Phase 3 Project, San Antonio, Bexar County, Texas

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WESTPOINTE WEST OFF-SITE SEWER EXTENSION PHASE 3 PROJECT

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Abstract

At the request of D. R. Horton and on behalf of San Antonio Water System (SAWS), Pape-Dawson Engineers, Inc. (Pape-Dawson) conducted an intensive cultural resources survey supplemented by shovel testing and mechanical trenching for the proposed Westpointe West Off-Site Sewer Extension Phase 3 Project (Project) in western San Antonio, Bexar County, Texas. The Project consists of the installation of a 1.5-mile (mi; 2.4-kilometer [km])-long, 36-inch (91-centimeter)-diameter sewer extension pipeline on privately-owned land northeast of Talley Road, between two tributaries to Medio Creek. The Project will originate 0.3 mi (0.5 km) northwest of the intersection of Louis Agusta Drive and Talley Road, directing northwest for 0.91 mi (1.46 km) along the northeastern right-of-way of Talley Road. The Project will then inflect approximately 45 degrees north-northeast and continue east another 0.61 mi (0.98 km) before terminating southeast of a large pond. Pape-Dawson archaeologists surveyed a 50-foot (ft; 15.2-meter [m]) corridor along the length of the Project, including 25 ft (7.6 m) along each side of the proposed centerline. This corridor is commensurate with the Area of Potential Effect (APE) for the Project, totaling 9.2 acres (3.7 hectares) in size.

Although D.R. Horton will construct the new utility line, SAWS will be the grantee of the easement once the line is constructed. As a result, compliance with the Antiquities Code of Texas is required. In addition, since the Project will require a Section 404 permit from the United States Army Corps of Engineers, compliance with Section 106 of the National Historic Preservation Act (NHPA) is necessary. At the municipal level, the Project also falls under the City of San Antonio's (COSA) Unified Development Code (Article 6 35-630 to 35-634), as it is within the COSA City Limits.

In accordance with Section 106 of the NHPA, the Project proponent must make a reasonable and good faith effort to identify historic properties within the APE and to take into account any direct or indirect effects the proposed Project could have on properties listed or considered *Eligible* for listing in the National Register of Historic Places (NRHP). No NRHP-eligible sites are located within a 1-km (0.6-mi) radius of the proposed Project APE.

One isolated find, consisting of a single prehistoric lithic artifact, was encountered during the investigation. However, by Texas Historical Commission definition, isolated finds do not meet the requirements for site designation. The isolated find, therefore, is not eligible for listing in the NRHP, or for designation as a State Archaeological Landmark (SAL). Additionally, a driveway to a historic-age residence intersects a portion of the APE. No artifacts were encountered on the surface of the driveway or in shovel tests excavated adjacent to the driveway. Pape-Dawson recommends that this portion of the driveway be considered a non-contributing element of the structure that is outside of the Project APE and is Not Eligible for NRHP or SAL status.

Pape-Dawson surveyed the proposed Project APE for cultural resources on March 23rd, 2020. Additionally, Pape-Dawson excavated three backhoe trenches within the APE on March 25th, 2020. The fieldwork was conducted by Pape-Dawson Principal Investigator Adam Leroy and Pape-Dawson Archaeological Technician Mikayla Mathews. As no significant cultural resources were encountered during the investigation, Pape-Dawson recommends a finding of *No Historic Properties Affected* for the proposed

Project as inventoried, mapped, photographed, and described herein, provided that all Project construction occurs within the surveyed area.

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Chapter 1: Introduction

At the request of D. R. Horton and on behalf of San Antonio Water System (SAWS), Pape-Dawson Engineers, Inc. (Pape-Dawson) conducted an intensive cultural resources survey supplemented by shovel testing and mechanical trenching for the proposed Westpointe West Off-Site Sewer Extension Phase 3 Project (Project) in western San Antonio, Bexar County, Texas (**Figures 1** and **2**). The Project consists of the installation of a 1.52-mile (mi; 2.44 kilometer [km])-long, 36-inch (in; 91-centimeter [cm])-diameter sewer extension pipeline on privately-owned land northeast of Talley Road, between two tributaries to Medio Creek. The Project will originate 0.3 mi (0.5 km) northwest of the intersection of Louis Agusta Drive and Talley Road, directing northwest for 0.91 mi (1.46 km) along the northeastern right-of-way (ROW) of Talley Road. The Project will then inflect approximately 45 degrees north-northeast and continue east another 0.61 mi (0.98 km) before terminating southeast of a large pond. Pape-Dawson archaeologists surveyed a 50-foot (ft; 15.2-meter [m]) corridor along the length of the Project, including 25 ft (7.6 m) along each side of the proposed centerline. This corridor is commensurate with the Area of Potential Effect (APE) for the Project, totaling 9.2 acres (ac; 3.72 hectares [ha]) in size.

The Project is required to comply with the Antiquities Code of Texas (ACT). Additionally, the Project will require a Section 404 permit from the United States Army Corps of Engineers (USACE), necessitating compliance with Section 106 of the National Historic Preservation Act (NHPA). At the municipal level, the Project also falls under the City of San Antonio's (COSA) Unified Development Code (UDC; Article 6 35-630 to 35-634), as it is within the COSA City Limits.

The Project APE was surveyed on March 23rd, 2020 and subsequently backhoe trenched on March 25, 2020. The fieldwork was conducted by Pape-Dawson Principal Investigator Adam Leroy and Archaeological Technician Mikayla Mathews. One isolated find, consisting of a single prehistoric lithic artifact, and a portion of a driveway to a historic-age residence were encountered during the investigation. However, isolated finds do not constitute archaeological sites, and the portion of the driveway within the APE is considered a non-contributing element of the structure. Therefore, no significant cultural resources were encountered during either shovel testing or trenching of the Project APE. As no significant cultural resources were encountered during the investigation, and provided that the Project occurs within the surveyed APE, Pape-Dawson recommends a finding of *No Historic Properties Affected* for the proposed Project as inventoried, mapped, photographed, and described herein. All records associated with the Project will be permanently curated at the University of Texas at San Antonio-Center for Archaeological Research (UTSA-CAR).

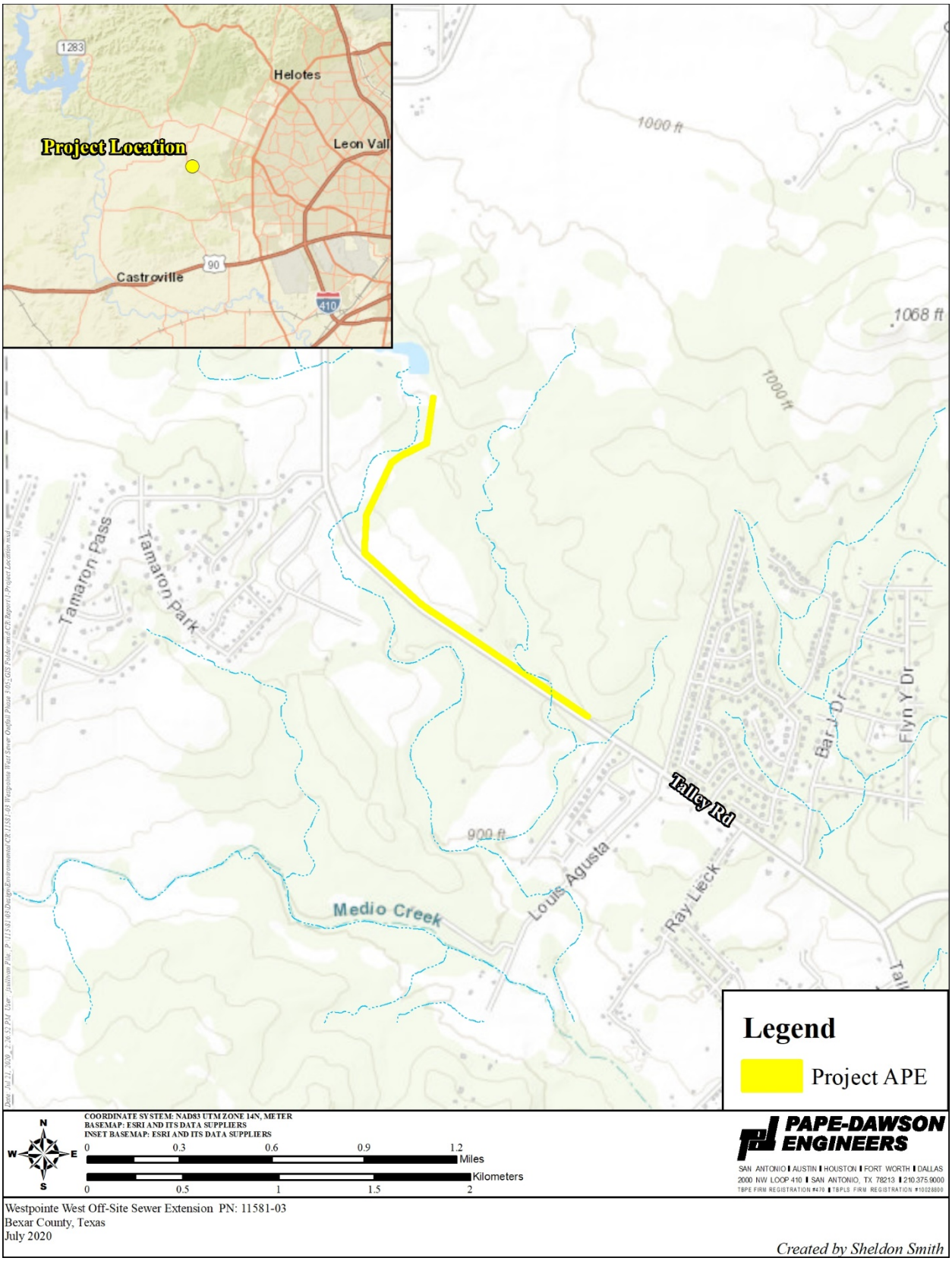

Figure 1. Project Location Map.

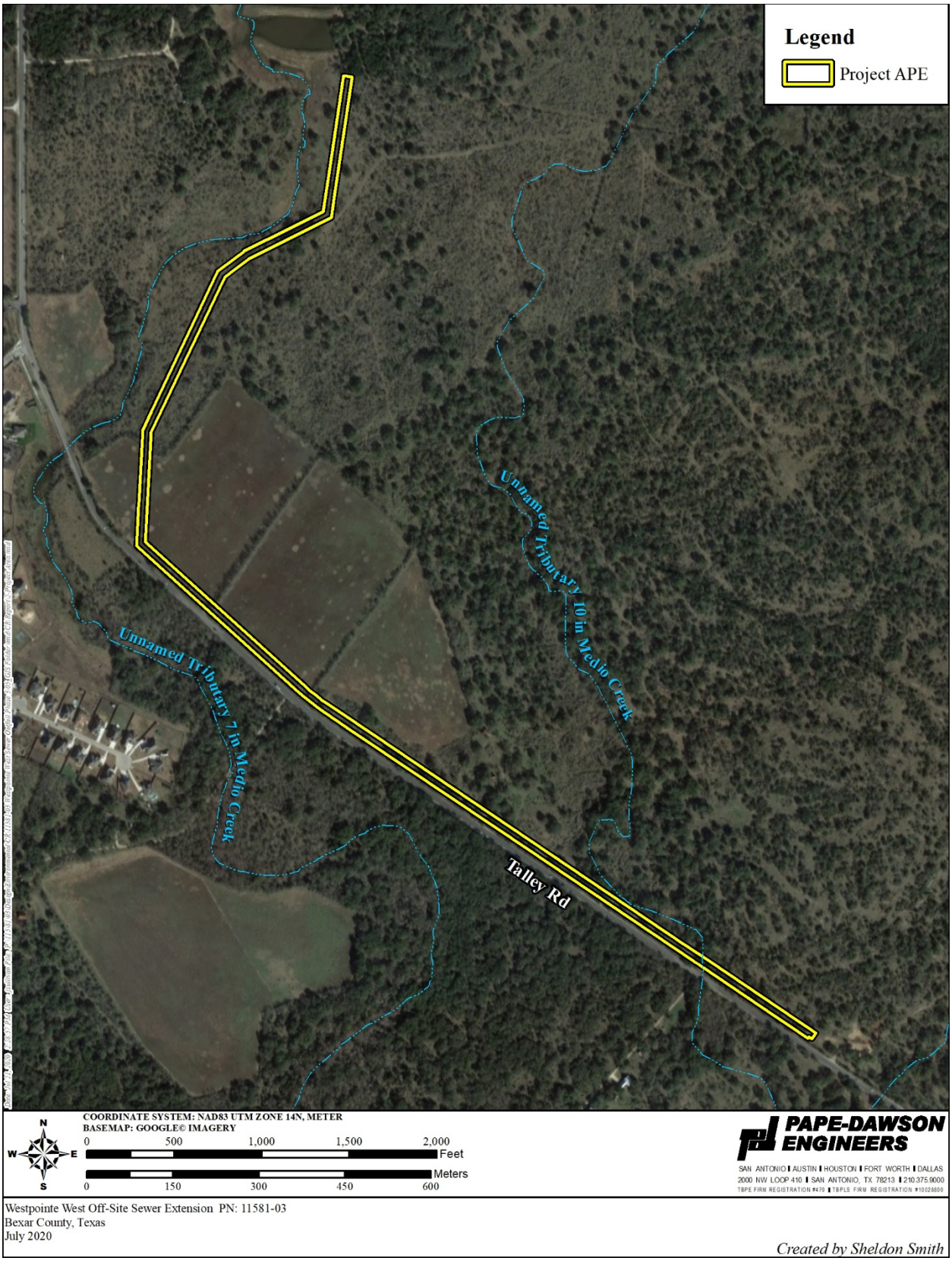

Figure 2. Project Aerial Overview Map.

Chapter 2: Project Setting

Located in western Bexar County, the Project APE runs primarily along the eastern ROW of Talley Road through undeveloped rangeland, plowed agricultural fields, and cattle pastures. The Project landscape is largely characterized by undulating uplands, which are dissected by two tributaries of Medio Creek (**Figures 3** to **8**). Medio Creek is approximately 1.4 mi (2.3 km) southwest of the APE. Medio Creek runs to the northwest and feeds into the San Geronimo Creek, which feeds into the Medina River farther west.

The APE is located within the Northern Blackland Prairie subregion of the greater Texas Blackland Prairies ecoregion of Central Texas (Griffith et al. 2007). The Texas Blackland Prairies are distinguishable from surrounding ecoregions by the fine-textured, clayey soils present that support natural prairie vegetation. The Northern Blackland Prairie historically contained little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (*Sorghastrum nutans*), tall dropseed (*Sporobolus asper*), eastern gamagrass (*Tripsacum dactyloides*), switchgrass (*Panicum virgatum*), Silveanus dropseed (*Sporobolus silveanus*), Mead's sedge (*Carex meadii*), longspike tridens (*Tridens strictus*), asters (*Aster* spp.), prairie bluet (*Hedyotis nigricans*), prairie clovers (*Dalea* spp.), and coneflowers (*Rudbeckia* spp.) (Griffith et al. 2007). Forested portions of the ecoregion (primarily stream bottoms) contained bur oak (*Quercus macrocarpa*), Shumard oak (*Q. shumardii*), sugar hackberry (*Celtis laevigata*), elm (*Ulmus* spp.), ash (*Fraxinus* spp.), eastern cottonwood (*Populus deltoides*), and pecan (*Carya illinoinensis*).

These vegetative communities provided habitat for a variety of animals, including bison (*Bison bison*), pronghorn antelope (*Antilocapra americana*), mountain lion (*Puma concolor*), bobcat (*Lynx rufus*), ocelot (*Leopardus pardalis*), black bear (*Ursus americanus*), collared peccary (*Pecari tajacu*), deer (*Odocoileus virginianus*), coyote (*Canis latrans*), fox (*Vulpes vulpes*), badger (*Meles meles*), and river otter (*Lontra canadensis*), mourning dove (*Zenaida macroura*) and northern bobwhite (*Colinus virginianus*) (Griffith et al. 2007). With the introduction of farming and ranching in the late 1800s, tallgrass prairie communities in the ecoregion were converted to either cropland or non-native pasture and effectively eliminated from the landscape. Non-native pasture grasses currently extant include Johnson grass (*Sorghum halepense*), Bermuda grass (*Cynodon dactylon*), and King Ranch bluestem (*Bothriochloa ischaemum*). Additionally, major urban centers around Dallas, Waco, Austin, and San Antonio continue to transform the prairie landscape with expanding urban and suburban land use (Griffith et al. 2007).

The APE is underlain by Cretaceous-aged Austin Chalk (Kau) and Pliocene-aged Uvalde Gravel (T-Qu). Austin Chalk consists of alternating chalk and marl, while Uvalde Gravel consists of caliche-cemented gravel, well-rounded cobbles of chert and of quartz, limestone, and igneous rock (Bureau of Economic Geology [BEG] 1983).

Seven soil units are mapped within the Project APE (**Table 1**), including Eckrant cobbly clay, Lewisville silty clay, Branyon clay (both 0 to 1 and 1 to 3 percent slopes), Anhalt clay, Patrick soils, and Tinn and Frio soils (Natural Resources Conservation Service, United States Department of Agriculture [NRCS-USDA] 2020). Most of the APE comprises upland and stream terrace soils (see **Table 1** and **Figures 3** to **8**). Patrick soils and Lewisville silty clay are located on stream terraces and are both derived from alluvium (NRCS-USDA 2020). Patrick soils are moderately deep, while the Lewisville series is very deep and moderately

permeable. The Eckrant series is typically found on ridges and is considered well-drained, slowly permeable, and shallow (**Figure 9**).

For those portions of the APE containing upland and stream terrace soils, archaeological deposits, if present, were expected to be shallowly buried or expressed at the ground surface. Floodplain deposits located along Medio Creek account for the remaining soils mapped within the APE. Tinn and Frio soils are very deep, well-drained, and slowly permeable soils derived from alluvium. These soil units are found in river valleys and on floodplains (NRCS-USDA 2020). These soil types could potentially contain deeply buried archaeological deposits requiring trenching.

Table 1. Soils Present within the Proposed Project APE

Soil Name	Slope	Parent Material	Landform	Thickness of A-Horizon
Branyon clay (HtA), 0 to 1 percent slopes	Very deep, moderately well drained, very slowly permeable	Calcareous clayey alluvium derived from mudstone of Pleistocene age	Treads of stream terraces	12 in (30.5 cm)
Branyon clay (HtB), 1 to 3 percent slopes	Very deep, moderately well drained, very slowly permeable	Calcareous clayey alluvium derived from mudstone of Pleistocene age	Treads of stream terraces	12 in (30.5 cm)
Patrick soils (PaB), 1 to 3 percent slopes	Well-drained, moderately deep to gravelly alluvium	Cretaceous-aged calcareous clayey over gravelly alluvium derived from shale, claystone, or siltstone	Treads of stream terraces	9.8 in (25 cm)
Lewisville silty clay, LvB), 1 to 3 percent slopes	Very deep, well-drained, moderately permeable	Loamy and clayey alluvium	Stream terraces	16.1 in (41 cm)
Eckrant cobbly clay (TaB), 1 to 8 percent slopes	Well-drained, moderately slowly permeable, very shallow to shallow over indurated limestone bedrock	Residuum weathered from limestone	Summits, shoulders, and backslopes of ridges	11.8 in (30 cm)
Tinn (Tf) (Mapped with Frio)	Very deep, moderately well-drained, very slowly permeable	Calcareous clayey alluvium	Nearly level floodplains	11.8 in (46 cm)
Frio (Tf) (Mapped with Tinn)	Very deep, well-drained, moderately slowly permeable	Cretaceous-aged calcareous loamy and clayey alluvium derived from claystone, limestone, and mudstone	River valley and dissected plains	22 in (56 cm)

Figure 3. Overview of disturbed portion of the Project APE near southern terminus, facing southeast.

Figure 4. Overview of the Project APE at the intersection with the southernmost Medio Creek tributary, facing south.

Figure 5. Overview of the Project APE near its midpoint, facing northwest.

Figure 6. Overview of Project APE at the southwest corner of agricultural fields, facing north.

Figure 7. Overview of the Project APE near shovel test AL14, overlooking the Medio Creek tributary flanking the northern half of the corridor, facing north.

Figure 8. Overview of the Project APE at the northern terminus, facing south.

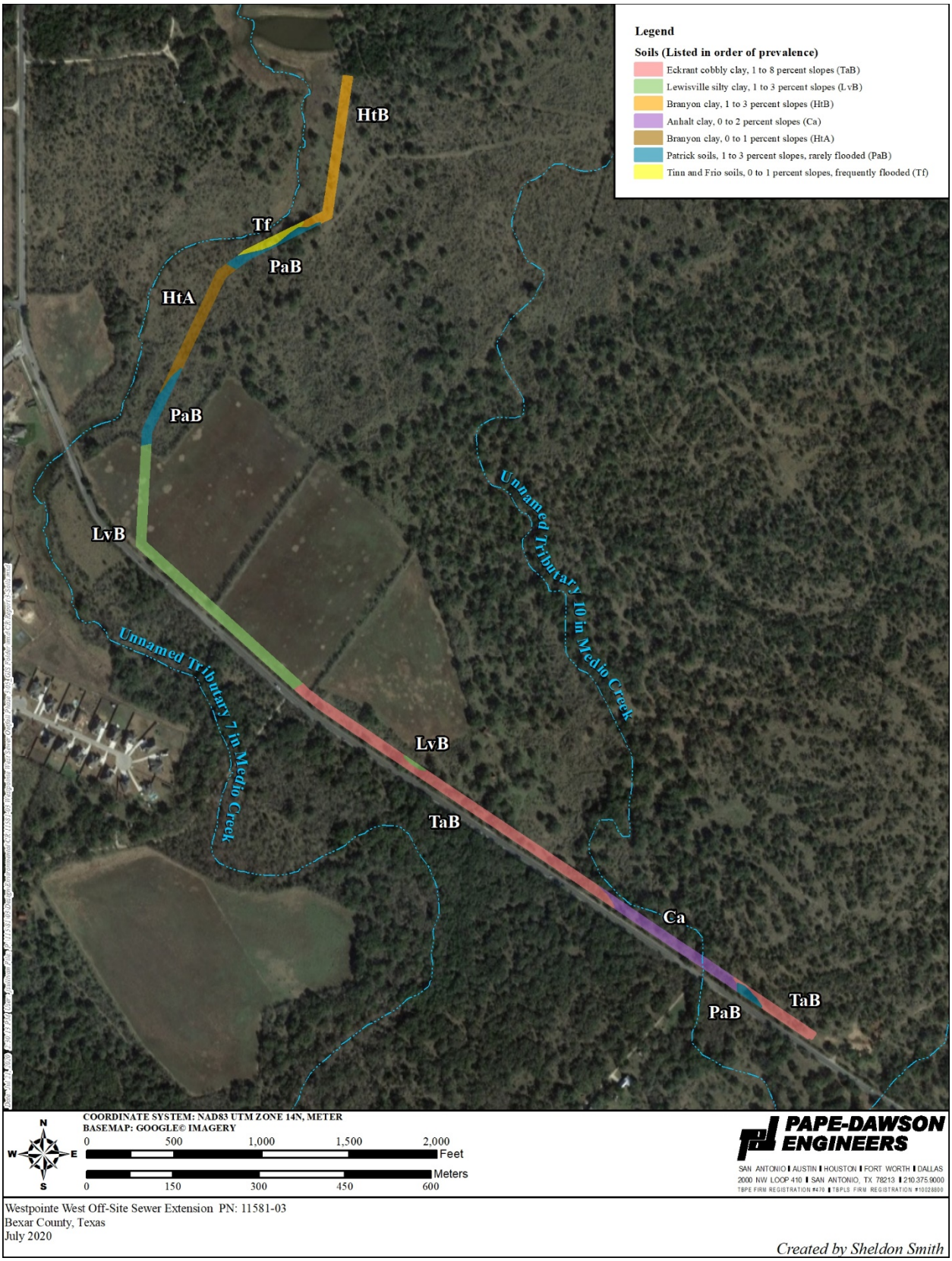

Figure 9. Project APE Soils Map.

Chapter 3: Cultural History

Bexar County is located within the Central Texas archaeological region as delineated by the Texas Historical Commission (THC) (Mercado-Allinger et al. 1996). Cultural developments in this region are typically divided into four primary time periods: Paleoindian, Archaic, Late Prehistoric, and Historic. These classifications are defined by changes in material culture and subsistence strategies over time, as evidenced through data recovered from archaeological sites. This cultural chronology provides a brief summary of each major cultural period with reference to significant archaeological work that has occurred within the region.

Paleoindian (11,500 – 8,800 B.P.)

Although there is some debate about whether pre-Clovis Paleoindian peoples lived in Texas, there is definitive evidence of a Paleoindian occupation within Texas by 11,500 Before Present (B.P.) Collins (1995) divides this period into early and late phases, with Dalton, San Patrice, and Plainview points possibly providing the transition between the subdivisions. Paleoindians gathered wild plants and hunted both large mammals (mammoth, bison, etc.) and smaller terrestrial and aquatic species (Bousman et al. 2004; Collins 1995). Projectile points characteristic of the Paleoindian period in Central Texas are lanceolate-shaped. Forms common to the region include Clovis, Plainview, and Folsom (Turner and Hester 1999). In Texas, most Paleoindian sites are classified as procurement or consumption sites (Bousman et al. 2004), but a few, such as the Wilson-Leonard site in Williamson County (Collins 1995) and the Pavo Real site in Bexar County (Collins et al. 2003; Figueroa and Frederick 2008; Henderson 1980), have produced burials (Collins 1995). Other Paleoindian sites discovered within Bexar County include 41BX47 on Leon Creek (Tennis 1996), the Richard Beene site (41BX831) (Thoms et al. 2005; Thoms and Mandel 2007), and the St. Mary's Hall site (41BX229), the latter of which indicates Paleoindian groups enjoyed a more diverse diet than previously thought (Hester 1978).

As the climate warmed and led to the extinction of megafauna, Paleoindian peoples shifted away from hunting large animals and subsisted on small game, including deer and rabbit, as well as gathering edible roots, nuts, and fruits (Black 1989). This change in food supply, as well as the manufacture of a different set of stone tools, marks the transition to the Archaic Period.

Archaic (8,800 – 1,200 B.P.)

Usually divided into early, middle, late (and sometimes transitional) subperiods, the Archaic marks a gradual shift from Paleoindian subsistence strategies to a focus on hunting medium and small animals and gathering wild plants. The period also includes an eventual transition to agriculture. Beginning with Clear Fork gouges and Guadalupe bifaces in the Early Archaic (8500 – 6000 B.P.), Archaic peoples produced a variety of point types (Collins 1995; Turner and Hester 1999). The variation in points and their scattered distribution in the Early Archaic may indicate smaller groups of people moved over larger territories (Prewitt 1981). In Bexar County, sites with Early Archaic components include the Housman Road site (41BX47), the Richard Beene site (41BX831) (Thoms et al. 2005; Thoms and Mandel 2007), the Higgins site (41BX184) (Black et al. 1998), and the Panther Springs site (41BX228) (Black and McGraw 1985).

Point types transitioned to Bell-Andice-Calf Creek, Taylor, and Nolan-Travis in the Middle Archaic (6000 – 4000 B.P.) and burned rock middens became commonplace (Collins 1995; Turner and Hester 1999). The Middle Archaic focus on constructing burned rock ovens to cook a diverse array of plant foods suggests a slightly more sedentary lifestyle emerged during the Middle Archaic (Black 1989). Bulverde, Pedernales, Ensor, Frio, and Marcos points in the Late Archaic (4000 – 1300 B.P.) mirror the diversity of point types found in the Early Archaic (Collins 1995; Turner and Hester 1999). During the Late Archaic, cemeteries, especially associated with rock shelters, became common in Central Texas (Dockall et al. 2006). While the Elm Waterhole site (41BX300) is representative of a Middle Archaic site within Bexar County (McNatt et al. 2000), the Granberg site (41BX17/41BX271) in San Antonio is a multi-component site with occupations from both the Middle and Late Archaic subperiods.

Late Prehistoric (1,200 – 250 B.P.)

Several technological changes are apparent in the transition from the Archaic period to the Late Prehistoric period. Most notably, the bow and arrow replaced the spear and atlatl, as evidenced by the production of smaller dart points and eventually arrow points. Another significant innovation was the creation and use of ceramic vessels. Some groups began to practice consistent agriculture during the Late Prehistoric as well. There is some evidence that peoples in Central Texas may have incorporated agriculture into their lives, but most remained hunter gatherers (Collins 1995). There are also indications that major population movements occurred during this period, along with changes in settlement patterns and perhaps decreased population densities (Black 1989). Archaeologists divide the Late Prehistoric into two phases: the Austin phase, followed by the Toyah phase.

Protohistoric and Historic (1600s – 1950)

While there is some overlap between the Late Prehistoric and Historic periods (sometimes called the Protohistoric), Europeans did not explore the Central Texas area until the seventeenth century. Alonso de Leon's 1689 and 1690 expeditions and Domingo Terán de los Rios' 1691 expedition were likely the some of the first interactions between European and Native groups in the state (de la Teja 1995). According to historical accounts of the expeditions, these early Spanish explorers encountered numerous indigenous groups residing in and near Central Texas (Mercado-Allinger et al. 1996). These groups likely included the Payaya and the Pamaya, who resided in the southern plains of Texas; as well as the Tonkawa, Karankawa, Lipan Apache, and Comanche, who entered the area from the northern plains in pursuit of food (Long 2010). In 1691, Spanish explorers traveling through Bexar County created what would become El Camino Real de los Tejas (The King's Highway, also known as the Old San Antonio Road in portions) (United States Department of the Interior 2011). This network of roadways, at least in part, followed existing trails established by the numerous highly mobile indigenous groups in the area.

These explorations helped the Spanish select locations to establish five missions in and around what would later become San Antonio. Don Martín de Alarcón established the first mission, San Antonio de Valero, in 1718 on the west bank of San Pedro Creek, followed by Presidio San Antonio de Bexar and Villa de Bexar (de la Teja 1995). However, the Marqués de San Miguel de Aguayo moved the presidio and villa to the west side of the San Antonio River by 1722 (Clark et al. 1975). Other missions, including Mission San José y San Miguel de Aguayo, Nuestra Señora de la Purísma Concepción, San Juan Capistrano, and San

Francisco de la Espada were established in the area between 1718 and 1731 (Wright 2016). The Native Americans recruited to live at these missions comprised many different groups, although it is difficult to identify all the groups that were present due to the variations in spellings of group affiliations recorded by the Spaniards due to the phonetic complexity of indigenous languages (Campbell 1977). The missions used the Native American labor force to construct *acequias*, or irrigation ditches, to develop self-sustaining communities bordered by farmland (Long 2010).

In 1731, Spain sent 16 families from the Canary Islands to establish the secular village of Villa de Bexar. With the arrival of these families, surveyors platted the city's main plaza, or Plaza de las Islas; a church, a designated spot for the Casas Reales and residential lots (Spell 1962). In 1773, San Antonio de Bexar was named the capital of Spanish Texas and had a population of about 2,000 (including mission Indians) by 1778 (Fehrenbach 2010).

During the 1820s and early 1830s, American settlers moved to San Antonio in increasing numbers, though the population remained predominately Mexican. In 1824, Texas and Coahuila were united into a single state with the capital at Saltillo. San Antonio fought for Mexican Independence in 1813, then for its own sovereignty during the Texas Revolution (1835 – 1836). The Siege of Bexar and the Battle of the Alamo, in 1835 and 1836, respectively, were both located within San Antonio. After Texas gained its independence from Mexico in 1836, Bexar County was created, and San Antonio was chartered as the county seat (Long 2010). However, this was not the end of conflict in the city; a dispute with Comanche Indians resulted in the Council House Fight in 1840, and Woll's invasion in 1842 precipitated Texas' entrance into the United States as the 28th state. By 1846, San Antonio's population had decreased to approximately 800 people (Fehrenbach 2010).

After the Civil War (1861 – 1865), Bexar County grew larger due to the arrival of the railroad in 1877 (Fehrenbach 2010). Industries in San Antonio, such as cattle, distribution, ranching, mercantile, gas, and oil, as well as military centers, prospered. The city served as the distribution point for the Mexico-United States border, as well as the rest of the southwest. At the turn of the twentieth century, San Antonio was the largest city in Texas with a population of more than 53,000. Much of the city's growth after the Civil War was a result of an influx of southerners fleeing the decimated, Reconstruction-era (1863 – 1877) south. An additional population increase came after 1910, when large numbers of Mexicans moved into Texas to escape the Mexican Revolution (1910 – 1924) (Fehrenbach 2010).

Modernization in San Antonio increased dramatically between the 1880s and 1890s compared to the rest of the United States. Civic government, utilities, railways, street paving and maintenance, the water supply, telephones, hospitals, and a city power plant were all built or planned around this time. The First United States Volunteer Cavalry was organized in San Antonio during the Spanish-American War (1898), and San Antonio was an important military center for the United States Army and Air Force during both world wars (1914 – 1918; 1939 – 1945). Its five military bases provided an important economic base and contributed to the evolution of the city's medical research industry (Fehrenbach 2010).

Chapter 4: Methodology

Background Review

Prior to conducting fieldwork for the Project, Pape-Dawson archaeologists reviewed data from the THC's online Texas Historic Sites Atlas database (Atlas) to identify any previously recorded cultural resources and/or previously conducted cultural resources investigations located within a 0.6-mi (1-km) radius of the Project APE, including historic properties and districts listed on the National Register of Historic Places (NRHP), State Antiquities Landmarks (SALs), Official State of Texas Historical Markers (OTHMs), Recorded Historic Texas Landmarks (RHTLs), cemeteries, and archaeological sites. In addition, archaeologists consulted the COSA geodatabase for COSA Local Historic Landmarks and Local Historic Districts. Additionally, Pape-Dawson archaeologists reviewed both modern and historic aerial photographs and topographic maps (National Environmental Title Research [NETR] Online 2020) to identify historic high probability areas (HHPAs) within the Project APE and to examine the APE for evidence of past disturbances. The results of this research indicated that one previously recorded archaeological site and one previously conducted archaeological survey are located within 0.6-mi (1-km) of the proposed Project APE.

Pape-Dawson archaeologists also consulted the Texas Department of Transportation (TxDOT) San Antonio Potential Archaeological Liability Map (PALM), which identifies areas with high probabilities of containing archaeological sites based on several factors, such as topography, soil type, hydrology, and geology. The PALM data indicates that the proposed Project APE is in an area with a low potential for containing archaeological sites at shallow depths but has moderate potential for containing deeply buried archaeological sites. For this reason, all shovel tests (STs) were excavated to a depth of 31.5 in (80 cm) below surface (where possible).

Field Methods

Pape-Dawson personnel conducted an intensive pedestrian survey of the proposed Project APE, including a visual assessment of the entire ground surface, supplemented by exploratory STs excavated every 328 ft (100 m) in accordance with the Council of Texas Archaeologists (CTA) Minimum Survey Standards. As the APE was limited to a 50-ft (15.2-m) corridor, only a single transect placed over the proposed centerline was excavated. Pape-Dawson also conducted mechanical trenching at three locations along the proposed APE where STs indicated deeper soils where buried cultural resources might have been present.

Vegetation in the Project APE consisted of sparse grasses, shrubs, live oak trees, and interspersed weeds. Most of the corridor contained undeveloped brushland. A portion of the Project APE intersects agricultural fields near the center of the APE. These fields appear to be fallow. The southern terminus of the APE is being developed and was previously disturbed by construction equipment, including bulldozers and wheel tractor-scrapers. Ground surface visibility (GSV) in the APE ranged from 10 to 80 percent, with greater visibility on the terraces of the Medio Creek tributaries and two-track roads (**Figures 10** and **11**). Disturbances in the APE include both natural and artificial impacts. Natural impacts include bioturbation and erosion associated with cattle grazing, feral hog wallows, tree falls, animal burrows, and game and cattle trails. Artificial impacts include fence construction, vegetation clearing (push and burn piles), and

residential development. The weather during the survey was cool and overcast, with sparse rain and a steady breeze. Weather during trenching was warm and sunny; therefore, field conditions were optimal at the time of the investigation.

Pedestrian Survey

The pedestrian survey of the Project APE consisted of an examination of the ground surface within an 8,000-ft (2,438-m)-long, 50-ft (15.2-m)-wide survey corridor. The corridor included 25 ft (7.6 m) on each side of the proposed Project centerline. An isolated find of a single patinated chert core was found on the surface during the pedestrian survey. Backhoe Trench (BHT) 2 was excavated directly adjacent to the isolated find to examine the area for subsurface cultural deposits; however, none were encountered.

Shovel Testing

Pape-Dawson archaeologists excavated a total of 24 STs within the Project APE. STs averaged 14 in (35.5 cm) deep and approximately 13.7 in (35 cm) in diameter. Most STs encountered a shallow limestone bedrock layer between 7.9 and 11.8 in (20 and 30 cm) below surface. All excavated soils were screened through ¼-in mesh. All STs were photographed, recorded, and mapped with a handheld Trimble Global Positioning System (GPS) unit. STs were backfilled and leveled upon completion. No cultural materials were encountered during shovel testing.

Backhoe Trenches

Additionally, Pape-Dawson archaeologists monitored the excavation of three BHTs within the Project APE. BHT locations focused on testing the upper creek terraces of both bisecting tributaries of Medio Creek, where, as was proven by the STs, deeper soils were present. BHTs averaged 22.3 ft (6.8 m) long and 2.6 ft (0.8 m) wide. The BHTs averaged 3.3 ft (1.02 m) deep and were terminated upon encountering impenetrable limestone bedrock. All three BHTs were negative for cultural materials and are discussed in detail below.

Figure 10. Average high GSV within the Project APE, facing east.

Figure 11. Average low GSV within the Project APE, facing southeast.

Chapter 5: Results

Background Review

Pape-Dawson archaeologists conducted a background literature and records search of the proposed Project APE. The background review indicates that no previously documented NRHP properties or districts, SALs, OTHMs, RTHLs, cemeteries, or COSA Local Historic Landmarks or Districts are recorded within 0.6 mi (1 km) of the Project APE (**Figure 12**).

One previously recorded archaeological site (41BX2240) is situated within 0.6 mi (1 km) of the APE (see **Table 2** and **Figure 12**). Site 41BX2240 is located approximately 262.5 ft (80 m) southwest of the APE on a low stream terrace along a tributary to Medio Creek. Initially recorded by Pape-Dawson in 2019, the site consists of a low-density, near-surface prehistoric lithic scatter of indeterminate temporal affiliation. The site contains bifaces, cores, tested cobbles, and lithic debitage. Due to the paucity of artifacts and lack of temporally diagnostic materials, 41BX2240 was recommended Not Eligible for NRHP listing or designation as a SAL (THC 2020).

According to the Atlas, the APE was not previously surveyed for cultural resources. One previous investigation was conducted within 0.6 mi (1 km) of the APE (**Table 3**). In 2018, SAWS sponsored a cultural resource survey for the Westpointe Medio Sewer Extension Phase II project. Although sites 41BX2240, 41BX2241, and 41BX2242 were documented during the investigation, they were all recommended ineligible for NRHP listing (Nichols 2018).

Table 2. Previously Recorded Archaeological Sites within 0.6 mi (1 km) of the Project APE

Archaeological Site Trinomial/Name	Site Type	Age of Deposits	Depth of Deposits	NRHP Eligibility per THC Atlas
41BX2240	Lithic Scatter	Undetermined Prehistoric	0-3.9 in (0-10 cm)	Not Eligible

Table 3. Previous Cultural Resources Inventoried Conducted within 0.6 mi (1 km) of the Project APE

Atlas ID#	Cultural Resources Survey Description	Author	Sponsor	Year	Distance and Direction from APE?
8500080750	Intensive Archaeological Survey of the Proposed Westpointe Medio Sewer Extension Phase II Project, Bexar County, Texas	Pape-Dawson	SAWS	2018	50 m South

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HISTORIC MAP REVIEW

Pape-Dawson examined recent (Google Earth 2020) and historic-age (NETR Online 2020) topographic maps (2016, 2013, 1982, and 1961) and aerial photographs (2016, 2014, 2012, 2010, 2008, 2004, 1995, and 1955) to identify HHPAs where historic-age archaeological resources may exist within or directly adjacent to the Project. Archaeologists also reviewed PALM data provided by TxDOT to assess the potential of finding NRHP-eligible prehistoric archaeological sites within the Project APE (TxDOT 2020). In addition, archaeologists sought to identify previous impacts that may have adversely affected cultural resources (if present) within the APE prior to the Project.

According to these resources, land within the proposed APE has remained relatively unaltered since 1955. The Project APE primarily consists of undeveloped rangeland, apart from a series of agricultural fields situated along Talley Road. While the APE has a low potential to contain historic resources, the PALM data (**Figure 13**) indicates that the APE has moderate to high potential to contain prehistoric archaeological resources (NETR 2020).

The aerial photograph and topographic map review identified one potential HHPA (HHPA1) within and directly adjacent to the Project APE. This HHPA consists of a historic-age house and driveway. Field reconnaissance of the HHPA verified that the house is located approximately 200 ft (61 m) outside of the Project APE. A portion of the driveway, however, bisects the Project APE (**Figure 14**). No historic artifacts were observed on the ground surface or within STs near the HHPA. The portion of the driveway within the APE is not associated with events or people significant to the past, therefore it is considered a non-contributing portion of the HHPA under Criteria A and B of the NRHP. There are no structures present within the driveway to embody the characteristics of a type, period, or method of construction, so it is also considered a non-contributing element of the HHPA under Criterion C. Since no artifacts were found within the driveway, nor in adjacent STs, the portion of the driveway within the APE is unlikely to yield any additional archaeological or historical information regarding the past. It is thus recommended as a non-contributing portion of the HHPA under Criterion D for the NRHP.

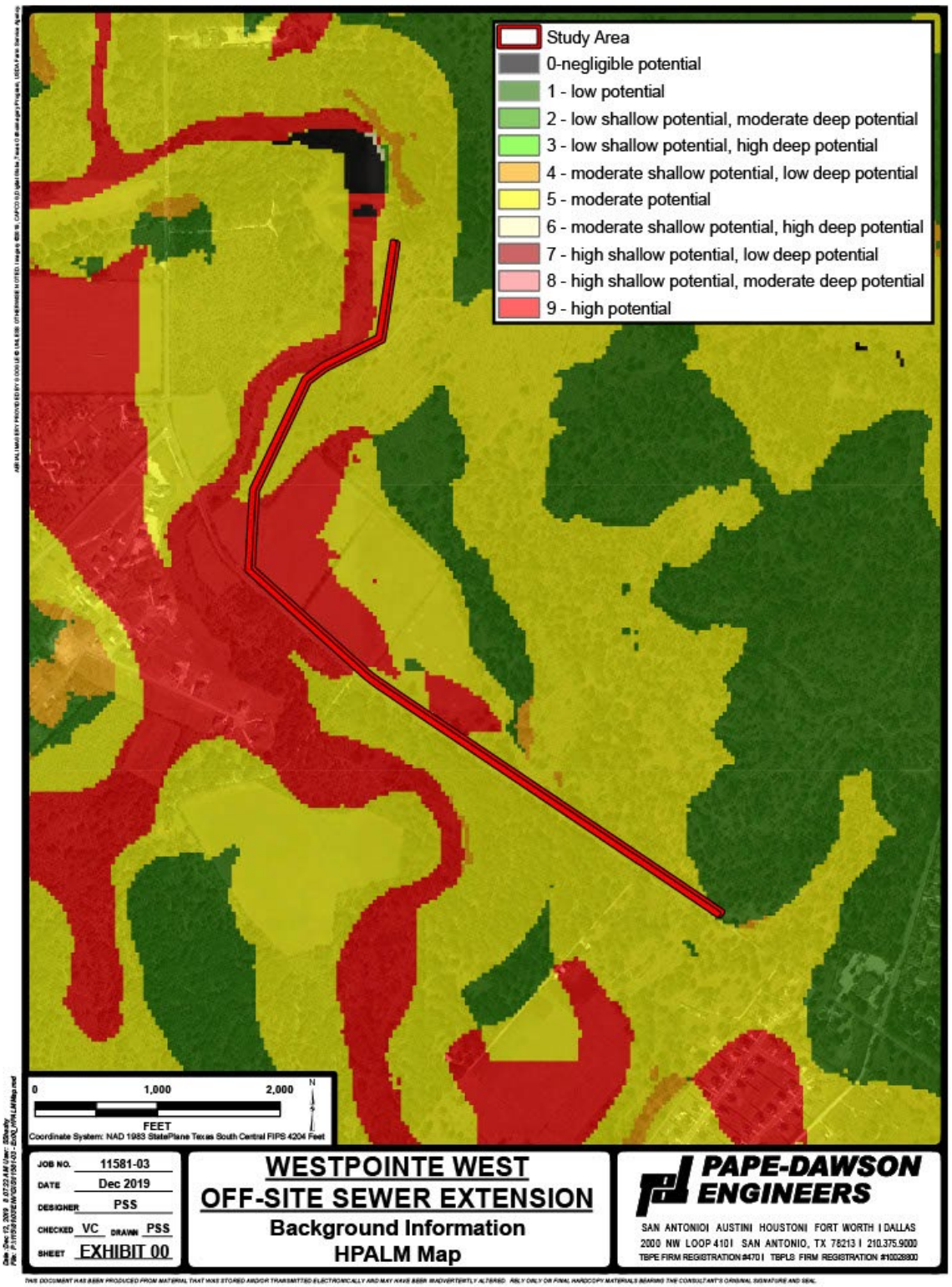

Figure 13. San Antonio PALM Depicting High Probability Areas within the Project APE.

Figure 14. Overview of HHPA1 historic driveway from Project APE, facing northeast.

FIELDWORK RESULTS

In addition to the pedestrian survey of the Project APE, Pape-Dawson archaeologists excavated 24 STs and three BHTs along the proposed APE (**Figure 15**). A summary and results of the pedestrian survey and the results of the STs and BHT investigations are presented below.

Shovel Tests

A total of 24 STs were excavated on March 23, 2020 along the proposed Project APE. STs were placed at a rate of 16 per 1 mi (1.6 km) of the APE, where soils were conducive to STs and may have had a potential to contain buried cultural deposits. STs measured approximately 1 ft (30 cm) in diameter and were excavated to a maximum depth of 2.6 ft (80 cm) below surface where possible. A majority of the STs encountered limestone cobbles and/or bedrock between 7.9 and 11.8 in (20 and 30 cm) below surface, at which point they became manually unexcavatable. Several STs also encountered dense layers of clay which could not be effectively penetrated by shovel. Two STs contained deep soil deposits and were excavated to 2.6 ft (80 cm) below surface. A typical ST profile, on average, consisted of a 0 to7.9 in (0 to 20 cm) thick top layer composed of 10YR 2/1 black to 7.5YR 3/2 dark brown silty clay atop a 7.9 in to 11.8 in (20 to 30 cm) thick impenetrable layer of 10YR4/3 brown limestone and chert gravel or limestone bedrock. All STs tested negative for cultural materials. Plan views of representative STs are presented in **Figures 16** to **19** below. Details of each of the ST profiles are also presented in **Table 4**.

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Table 4. ST Data

ST#	Zone (cmbs)	Soil Boundary	Color	Texture	Artifacts	Reason for Termination of STP	Fill/Disturbed/ Natural
ST01	1 (0-10)	Abrupt/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (10-20)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST02	1 (0-11)	Clear/Smooth	10YR3/1- Very Dark Grey	Clay	None	N/A	Natural
	2 (11-20)	Abrupt/ Smooth	10YR3/1- Very Dark Grey	Silty Clay	None	Limestone Bedrock	Natural
ST03	1 (0-10)	Gradual/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (10-80)	Unobserved	10YR2/2- Very Dark Brown	Clay	None	Depth	Natural
ST04	1 (0-10)	Gradual/ Smooth	10YR3/1- Very Dark Grey	Clay	None	N/A	Natural
	2 (10-38)	Unobserved	10YR2/2- Very Dark Brown	Clay	None	Compact Clay Layer	Natural
ST05	1 (0-25)	Gradual/ Smooth	7.5YR2.5/2- Very Dark Brown	Silty Clay	None	N/A	Natural
	2 (25-80)	Unobserved	7.5YR3/3- Dark Brown	Sandy Clay	None	Depth	Natural
ST06	1 (0-15)	Gradual/ Smooth	10YR2/2- Very Dark Brown	Clay	None	N/A	Natural
	2 (15-45)	Abrupt/ Smooth	7.5YR3/2- Dark Brown	Silty Clay	None	Limestone Bedrock	Natural
ST07	1 (0-18)	Abrupt/ Smooth	7.5YR2.5/2- Very Dark Brown	Silty Clay	None	N/A	Natural
	2 (18-23)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST08	1 (0-2)	Abrupt/ Smooth	10YR2/2- Very Dark Brown	Silty Clay	None	N/A	Natural
	2 (2-40)	Unobserved	7.5YR2.5/2- Very Dark Brown	Silty Clay	None	Limestone Bedrock	Natural
ST09	1 (0-22)	Abrupt/ Smooth	10YR3/1- Very Dark Grey	Loamy Clay	None	Limestone Bedrock/Tree Roots	Natural
ST10	1 (0-11)	Abrupt/ Smooth	7.5YR2.5/2- Very Dark Brown	Silty Clay	None	N/A	Natural
	2 (11-21)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST11	1 (0-8)	Gradual/ Smooth	10YR3/1- Very Dark Grey w/	Clay	None	N/A	Natural

Table 4. ST Data							
ST#	**Zone (cmbs)**	**Soil Boundary**	**Color**	**Texture**	**Artifacts**	**Reason for Termination of STP**	**Fill/Disturbed/ Natural**
			10YR4/1 Dark Grey Mottles				
	2 (8-23)	Abrupt/ Smooth	10YR3/1- Very Dark Grey	Loamy Clay	None	Limestone Bedrock	Natural
ST12	1 (0-17)	Abrupt/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (17-18)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST13	1 (0-18)	Abrupt/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (18-25)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST14	1 (0-38)	Abrupt/ Smooth	10YR2/1- Black	Clay	None	Limestone Bedrock	Natural
ST15	1 (0-9)	Abrupt/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (9-20)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST16	1 (0-20)	Abrupt/ Smooth	10YR2/1- Black	Loamy Clay	None	Limestone Bedrock	Natural
ST17	1 (0-37)	Abrupt/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (37-38)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST18	1 (0-41)	Gradual/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (41-46)	Unobserved	10YR2/1- Black	Clay	None	Dense Clay	Natural
ST19	1 (0-40)	Unobserved	10YR2/1- Black	Silty Clay	None	Compact Clay Layer	Natural
ST20	1 (0-18)	Abrupt/ Smooth	10YR3/2- Very Dark Greyish Brown	Silty Clay	None	N/A	Natural
	2 (18-22)	Unobserved	10YR4/3- Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural
ST21	1 (0-45)	Gradual/ Smooth	10YR2/1- Black	Silty Clay	None	N/A	Natural
	2 (45-48)	Unobserved	10YR2/1- Black	Clay	None	Dense Clay/Fire Ants	Natural
ST22	1 (0-38)	Unobserved	10YR2/2- Very Dark Brown	Silty Clay	None	Compact Clay Layer	Natural
ST23	1 (0-27)	Abrupt/ Smooth	5YR3/3- Dark Reddish Brown	Sandy Clay	None	N/A	Natural
	2 (27-58)	Unobserved	5YR5/4- Reddish Brown	Limestone gravels and bedrock	None	Limestone Bedrock	Natural

Table 4. ST Data							
ST#	**Zone (cmbs)**	**Soil Boundary**	**Color**	**Texture**	**Artifacts**	**Reason for Termination of STP**	**Fill/Disturbed/ Natural**
ST24	1 (0-30)	Unobserved	10YR3/1- Very Dark Grey	Silt	None	Compact Clay Layer	Natural

Figure 16. Plan view of ST01. Note shallowness of limestone bedrock layer.

Figure 17. Plan view of excavated ST03. Note deep soil deposit near Medio Creek tributary.

Figure 18**. Plan view of ST02.**

Figure 19. Plan view of ST23.

Backhoe Trenches

A total of three BHTs were excavated along the proposed Project APE on March 25, 2020. All three BHTs were negative for cultural materials. Details of each BHT are provided below.

BHT1

BHT 1 was excavated into the southern terrace of the southernmost tributary of Medio Creek that bisects the Project APE (**Figure 20**). BHT 1 measured 25.3 ft (7.7 m) long, 2.6 ft (0.8 m) wide, and 2.2 ft (0.67 m) deep (**Figure 21**). BHT 1 was oriented east-northwest to west-southeast. The surrounding environment comprised sparse mesquite and oak trees, prickly pear cactus, and short to medium-high grasses. Four distinct strata were noted in the BHT 1 wall profile. Zone 1 (0 to 9 in [0 to 23 cm] below surface) consisted of a very dark grayish brown (10YR 3/2) silty clay. Zone 1 contained no rocks, gravel, or other noticeable inclusions. The lower boundary of Zone 1 was clearly defined and wavy. Zone 1 gave way to a dark grayish brown (10YR 4/2) silty loam in Zone 2 (2.3 to 11.8 in [6 to 30 cm] below surface). Like Zone 1, Zone 2 contained no rocks, gravel, or other noticeable inclusions. The lower boundary of Zone 2 was also clearly defined and wavy. Zone 3 was visible between 7.9 and 23.6 in (20 and 60 cm) below surface. It was composed of a dense, very dark gray (10YR 3/1) silty clay. Zone 3 contained no rocks, gravel, or other noticeable inclusions in the top portions of the zone, however, limestone gravel was mixed in with the soil as the bedrock below decomposed near the base of the zone. The lower boundary of Zone 3 was abrupt and wavy. Zone 4 is composed of solid limestone bedrock. Zone 4 has a 10YR 7/2 Munsell color. The lower boundary of Zone 4 was not observed, as the backhoe could not penetrate the bedrock layer. No cultural materials were recovered from any of the four zones of BHT 1.

Figure 20. Overview of BHT 1, facing south.

Figure 21. BHT 1 profile view.

BHT 2

BHT 2 was excavated into the northern terrace of the southernmost tributary of Medio Creek that bisects the Project APE (near where the prehistoric lithic core was found), approximately 131.2 ft (40 m) northwest of BHT 1 (**Figure 22**). BHT 2 measured 17.4 ft (5.3 m) long, 2.6 ft (0.8 m) wide, and 4.5 ft (1.38 m) deep (**Figure 23**). BHT 2 was oriented east-northwest to west-southeast. The surrounding environment comprised sparse mesquite and oak trees, prickly pear cactus, and short to medium-high grasses. Five distinct soil strata were noted in the BHT 2 wall profile. Zone 1 (0 to 10.2 in [0 to 26 cm] below surface) consisted of a black (10YR 2/2) silty clay. Zone 1 contained no rocks, gravel, or other noticeable inclusions. The lower boundary of Zone 1 was gradually defined and relatively smooth. Zone 1 gave way to a thick, dense, black (10YR 2/2) clay in Zone 2 (6.3 to 31.1 in [(16 to 79 cm] below surface). Like Zone 1, Zone 2 contained no rocks, gravel, or other noticeable inclusions. The lower boundary of Zone 2 was also gradually defined and wavy. Zone 3 was encountered between 16.9 and 35.8 in (43 and 91 cm) below surface. Zone 3 was composed of a dense, very dark gray (10YR 3/1) clay. Zone 3, like Zones 1 and 2, also contained no rocks, gravel, or other noticeable inclusions. The lower boundary of Zone 3 was clearly defined and wavy. Zone 4 was encountered between 32.3 and 49.6 in (82 and 126 cm) below surface. Zone 4 was composed of a very dark grayish brown (10YR 3/2) gravely clay mixed with limestone stone and pebble inclusions. The lower boundary of Zone 3 was abrupt, as it abutted solid bedrock, and wavy. Zone 5 is composed of solid limestone bedrock with a very pale brown (10YR 7/4) color. The lower boundary of Zone 5 was not observed, as the backhoe could not penetrate the bedrock layer. No cultural materials were recovered from any of the five zones of BHT 2.

Figure 22. Overview of BHT 2, facing northwest.

Figure 23. BHT 2 profile view.

BHT 3

BHT 3 was excavated into the lower portion of the southern terrace of the northernmost tributary of Medio Creek that parallels the northern portion of Project APE (**Figure 24**). BHT 3 measured 24.3 ft (7.4 m) in length, 2.6 ft (0.8 m) in width, and 3.9 ft (1.19 m) deep (**Figure 25**). BHT 3 was oriented east-northeast to southwest. The surrounding environment comprised thick groves of mesquite and oak trees on the upper terraces, and various shrubs and medium to high grasses on the lower terrace and in the channel of the tributary. Four distinct soil strata were noted in the BHT 3 wall profile. Zone 1 (0 to 22.8 in [0 to 58 cm] below surface) consisted of a thick layer of dark grayish brown (10YR 4/2) loamy clay. Zone 1 contained few rocks, gravel, or other noticeable inclusions. The lower boundary of Zone 1 was gradually defined and wavy. Zone 2 (16.1 to 30.7 in [41 to 78 cm] below surface) was composed of brown (10YR 4/3) sandy loam. Approximately half of Zone 2 was composed of a fine-grained sand, none of which was apparent in Zone 1. The lower boundary of Zone 2 was also gradually defined and wavy. Zone 3 was visible between 25.2 and 36.6 in (64 and 93 cm) below surface. Zone 3 was composed of a loose, very pale brown (10YR 8/2) sandy clay. Zone 3 was also mixed with limestone and pebble inclusions, primarily concentrated near the base of the zone, which abutted decomposing limestone bedrock. The lower boundary of Zone 3 was abrupt and wavy. Zone 4 was composed of a solid limestone bedrock. Zone 4 had a white (7.5YR 8/1) Munsell color. The lower boundary of Zone 4 was not observed, as the backhoe could not penetrate the bedrock layer. No cultural materials were recovered from any of the 4 zones of BHT 3.

Figure 24**. Overview of BHT 3, facing northeast.**

Figure 25. BHT 3 profile view.

Table 5. Backhoe Trench Data						
BHT#	**Zone (cm below surface)**	**Boundary**	**Color**	**Texture**	**Artifacts**	**Fill/Disturbed/ Natural**
BHT 1	1 (0-23)	Gradual/Wavy	10YR 3/2-Very Dark Grayish Brown	Silty Clay	None	Natural and Disturbed
	2 (6-30)	Gradual/Wavy	10YR 4/2- Dark Grayish Brown	Loamy Clay	None	Natural
	3 (20-60)	Abrupt/Wavy	10YR 3/1-Very Dark Gray	Silty Clay	None	Natural
	4 (40-67)	Unobserved	10YR 7/2-Light Gray	Limestone Bedrock Layer	None	Natural
BHT 2	1 (0-26)	Gradual/ Smooth	10YR 2/2-Very Dark Brown	Silty Clay	None	Natural
	2 (16-79)	Gradual/Wavy	10YR 2/2-Very Dark Brown	Clay	None	Natural
	3 (43-91)	Clear/Wavy	10YR 3/1-Very Dark Gray	Clay	None	Natural
	4 (82-126)	Abrupt/Wavy	10YR 3/2-Very Dark Grayish Brown	Gravely Clay with Limestone Pebble Inclusions	None	Natural
	5 (114-138)	Unobserved	10YR 7/4-Very Pale Brown	Limestone Bedrock Layer	None	Natural
BHT 3	1 (0-58)	Gradual/Wavy	10YR 4/2-Dark Grayish Brown	Loamy Clay	None	Natural
	2 (41-78)	Gradual/Wavy	10YR 4/3-Brown	Sandy Loam	None	Natural
	3 (64-93)	Abrupt/Wavy	10YR 8/2-Very Pale Brown	Sandy Clay	None	Natural
	4 (80-119)	Unobserved	7.5YR 8/1-White	Limestone Bedrock Layer	None	Natural

Artifacts Observed

No new or previously recorded archaeological or historic sites were encountered within the Project APE during the pedestrian survey, shovel testing, or during backhoe trenching efforts. During the pedestrian survey, one prehistoric lithic artifact, a chert core of unknown cultural and temporal affiliation, was recovered. The core was collected so that it could be analyzed and will be either discarded or returned to the landowner at their request.

Lithics

The lithic core was recovered from the surface atop the northern terrace of the southernmost Medio Creek tributary, approximately 98.4 ft (30 m) northwest of the point where the tributary bisects the proposed Project APE centerline. The core is heavily patinated (covering approximately 70 percent of the surfaces) and contains some of its original cortex (covering approximately 20 percent of the surfaces) on the proximal end of the dorsal side (**Figures 26** to **30**). The core exhibits multiple flake scars in a multi-directional pattern, with most scars on the dorsal side. The cortex on the core is a pale yellowish color (10YR 8/6), while the worked, patinated surface is an ash, very pale brown color (10YR 8/2) with flecks of light brownish gray (10YR 6/2). A small impurity in the chert is visible on the ventral surface of the core. This impurity consists of a more granular, crystalline quartzite. No diagnostic artifacts were recovered in association with the core and its cultural affiliation and approximate age cannot be determined.

Figure 26. Profile view of core, right face. Note cortex on proximal end.

Figure 27. Profile view of core, left face. Note cortex on proximal end.

Figure 28. Ventral side of core. Note cortex on proximal end and quartzite impurity in center-right portion of core.

Figure 29. Dorsal side of core. Note cortex on top and proximal end.

Figure 30. Dorsal side of core. Note cortex on top of proximal end.

Chapter 6: Summary and Recommendations

At the request of D. R. Horton, on behalf SAWS, Pape-Dawson conducted an intensive cultural resources survey, supplemented by shovel testing and backhoe trenching, for the installation of a 1.52-mi (2.44-km)-long, 36-in (91-cm)-diameter sewer extension pipeline on privately-owned land in western San Antonio, Bexar County, Texas. This corridor is commensurate with the APE for the Project, totaling 9.2 ac (3.72 ha) in size.

Although D.R. Horton will construct the new utility line, SAWS will be the grantee of the easement once the line is constructed. As a result, compliance with the ACT is required. Additionally, the Project will require a Section 404 permit from the USACE. Therefore, compliance with Section 106 of the NHPA will also be necessary. The Project also falls under the COSA UDC.

The background review revealed that one previously recorded archaeological site (41BX2240) is situated within 0.6 mi (1 km) of the APE. According to the Atlas, no parts of the proposed APE were previously surveyed for archaeological resources, therefore, Pape-Dawson archaeologists performed pedestrian survey of the Project APE on March 23, 2020. During the pedestrian survey, one prehistoric chert core of unknown cultural or temporal affiliation and a portion of a driveway to a historic-age residence were encountered. The core is considered an isolated find and does not qualify as a site. It is *Not Eligible* for listing in the NRHP. The historic-age driveway intersects a portion of the APE. Pape-Dawson recommends that this portion of the driveway be considered a non-contributing element of the HHPA (that is outside of the Project APE) and that it is Not Eligible for the NRHP or designation as a SAL.

Pape-Dawson archaeologists also excavated three BHTs on March 25, 2020. All STs and BHTs excavated for the Project were negative for cultural materials. As no significant cultural resources were encountered during the investigation, and provided that all Project construction occurs within the surveyed APE, Pape-Dawson recommends a finding of *No Historic Properties Affected* for the proposed Project as inventoried, mapped, photographed, and described herein.

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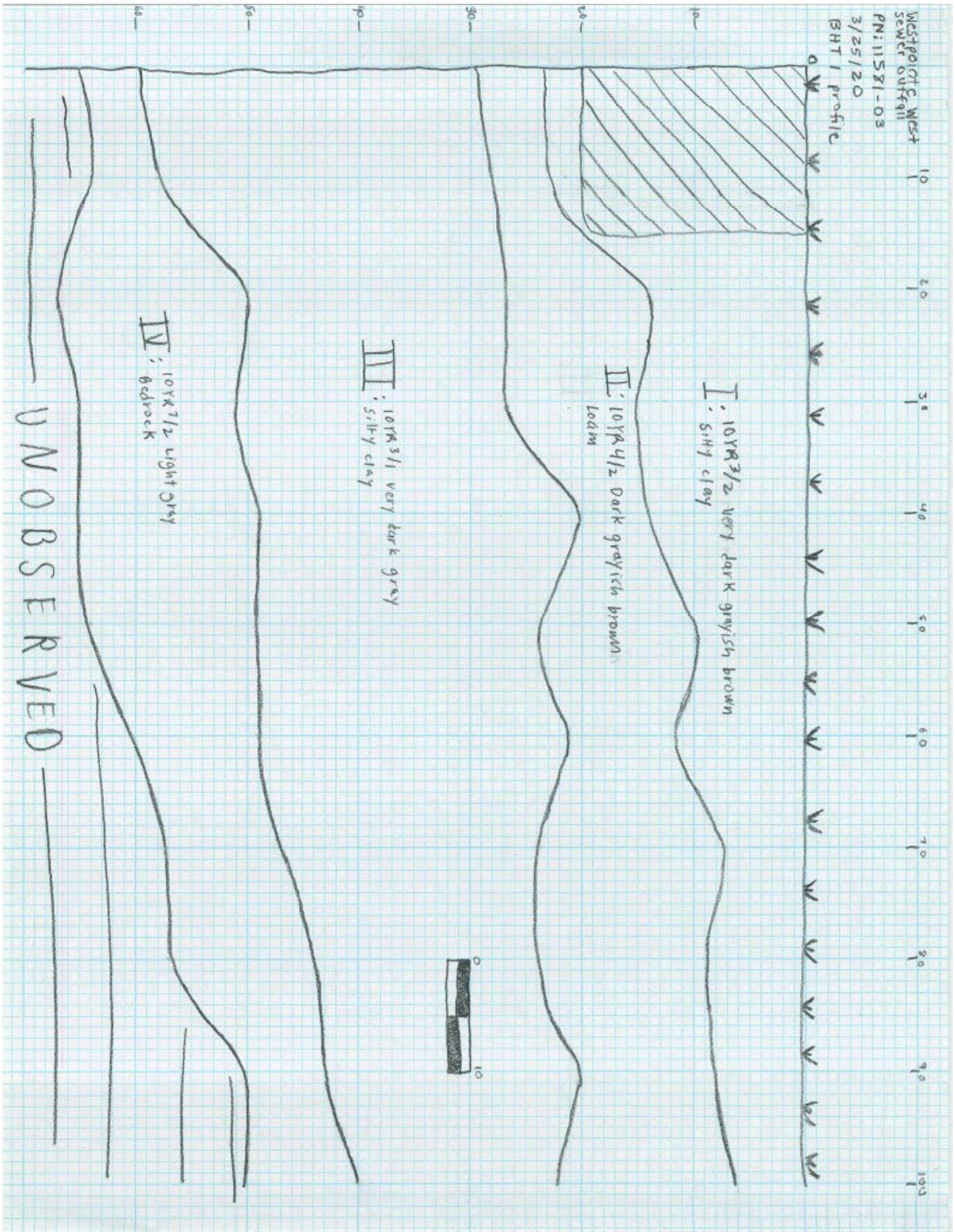
APPENDIX A: BHT PROFILE DRAWINGS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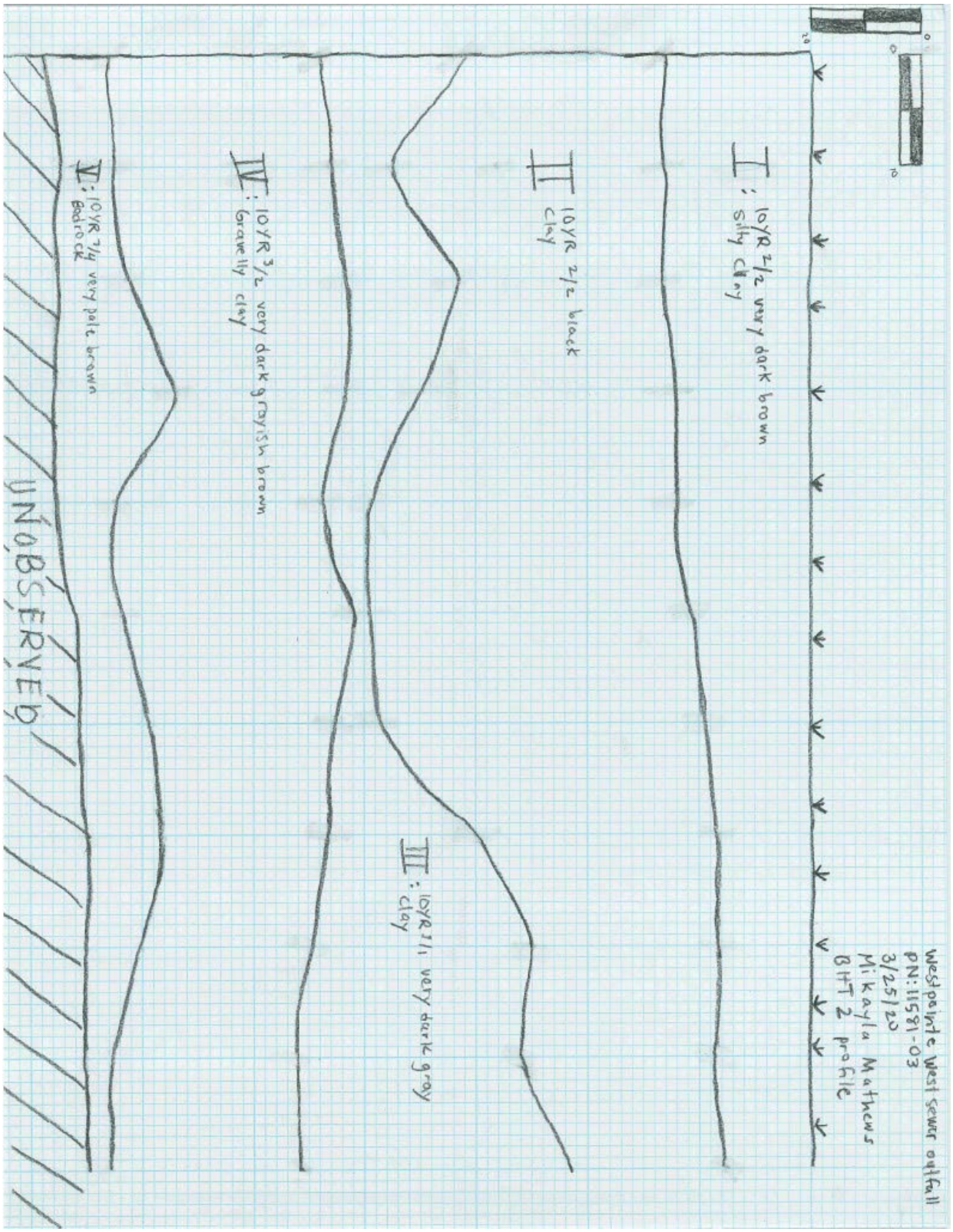
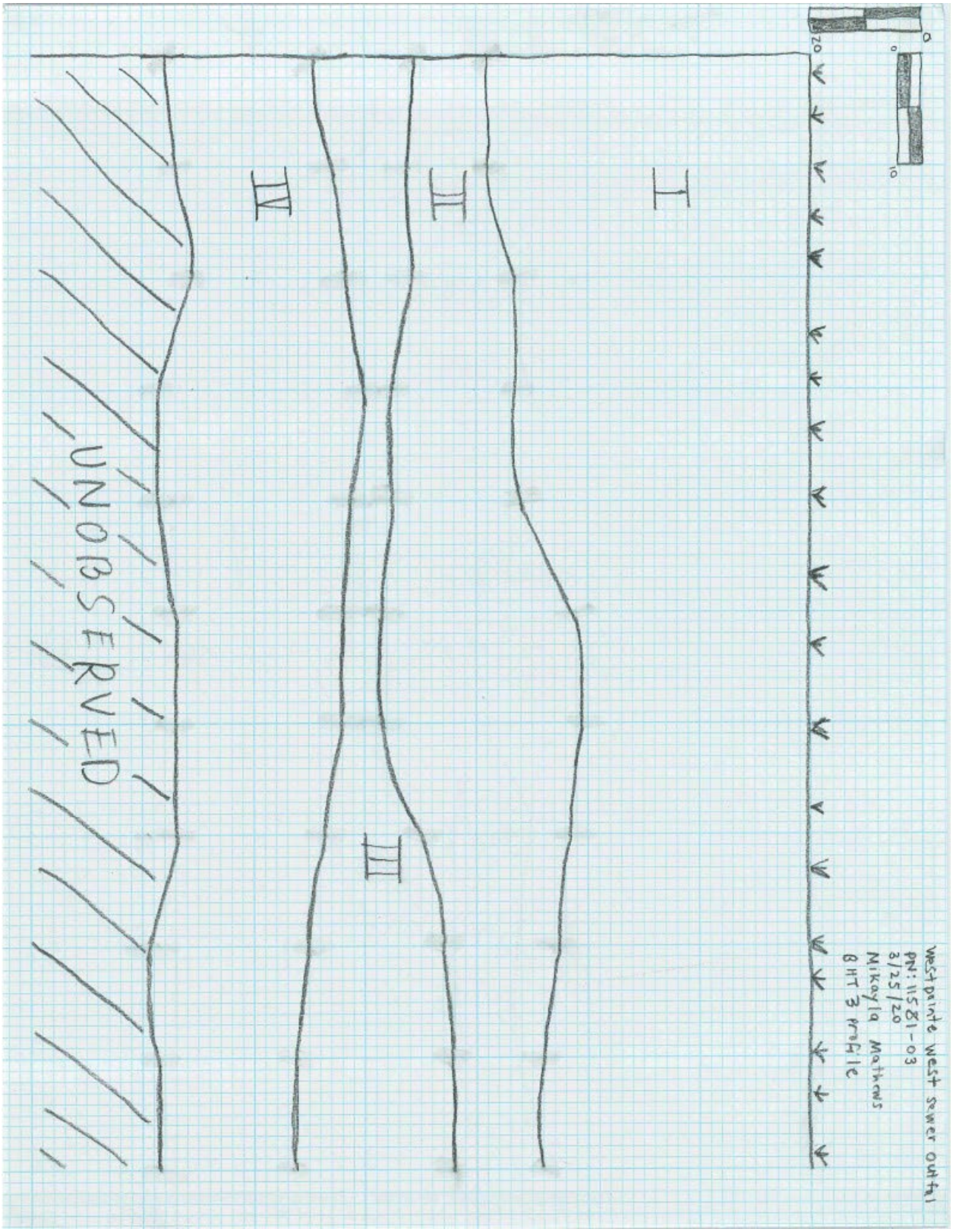
I: 10YR3/2 very dark grayish brown
silty clay
II: 10YR4/2 Dark grayish brown
loam
III: 10YR3/1 very dark grey
silty clay
IV: 10YR7/2 light grey
Bedrock
UNOBSERVED
0
10


Westpointe West sewer outfall
PN: 11581-03
3/25/20
Mikayla Mathews
BHT 2 profile
0
20
10
I: 10YR 2/2 very dark brown silty clay
II 10YR 2/2 black clay
III: 10YR 3/1 very dark gray clay
IV: 10YR 3/2 very dark grayish brown gravelly clay
V: 10YR 7/4 very pale brown Bedrock
UNOBSERVED


Westpointe West sewer outfall
PN: 11581-03
3/25/20
Nikayla Mathews
8 HT 3 profile
0
20
0
10
I
II
III
IV
UNOBSERVED