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Banita Creek Sanitary Sewer Replacement Nacogdoches County, Texas

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Banita Creek Sanitary Sewer Replacement Nacogdoches County, Texas

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**Banita Creek Sanitary Sewer Replacement
Nacogdoches County, Texas**

Texas Antiquities Permit #5967

Prepared for:
Texas Historical Commission
Archeology Division
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DETAC Project Number 398

July 2017

ABSTRACT

In June of 2011, Deep East Texas Archaeological Consultants (DETAC) conducted a cultural resource management survey of the proposed City of Nacogdoches Banita Creek Sanitary Sewer Replacement Project. The replacement project was to be approximately 9.5-kilometers long and was to consist of a 6-meter wide permanent Right-Of-Way (ROW). The proposed project was located within the Banita Creek floodplain in Nacogdoches County, Texas. The survey was conducted under Texas Antiquities Permit #5967. The proposed project area was covered by a pedestrian survey to locate, describe and record any cultural resources within the project area boundaries. The survey was conducted with a combination of visual examination of the property and sub-surface exposure through shovel testing. Because of the proposed project's proximity to known cultural resource locations, special importance was given to locating sub-surface and surface prehistoric and historic features and/or materials. DETAC conducted a 100 percent pedestrian survey of approximately 57% of the sanitary sewer replacement project. The remaining 43% was inaccessible due to not having landowner permission, having restricted access, or large areas of packed gravel, concrete, and asphalt. All shovel tests were negative and no artifacts were collected. In May of 2017, DETAC was notified that the proposed project was suspended indefinitely and that although multiple ROW alignment changes were considered, no final alignment alternative was chosen. Based on the testing limitations discussed above, DETAC is recommending that if this proposed project resumes that the newly considered alignments be surveyed to evaluate the potential impacts to cultural resources important to the State of Texas.

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INTRODUCTION

In June of 2011, Deep East Texas Archaeological Consultants (DETAC) conducted a cultural resource management survey of the proposed City of Nacogdoches Banita Creek Sanitary Sewer Replacement Project. The proposed project is located within the Banita Creek floodplain in Nacogdoches County, Texas (Figure 1). The survey was conducted under Texas Antiquities Permit #5967 and is reviewed by the Texas Historical Commission (THC). Jeffrey M. Williams was the Principle Investigator for the sanitary sewer replacement project.

The purpose of this survey was to locate, describe and record any cultural resources within the project area boundaries. The report was prepared following the short report format outlined by the Council of Texas Archaeologist (CTA) (1995a) with modifications requested by the THC (Martin 2017). No cultural resources were found during the survey and no artifacts were collected.

DEFINITION OF THE STUDY AREA

The proposed Banita Creek Sanitary Sewer Replacement Project crosses the Banita Creek floodplain and is wholly within the jurisdictional limits of the City of Nacogdoches in Nacogdoches County, Texas. The proposed replacement project is approximately 9.5-kilometers long and consists of a 6-meter wide permanent Right-Of-Way (ROW). The proposed project crosses floodplain woodlots, untended pastures, gravel and paved parking areas, and City park land adjacent to Banita Creek. The soils consist of frequently flooded bottomland soils.

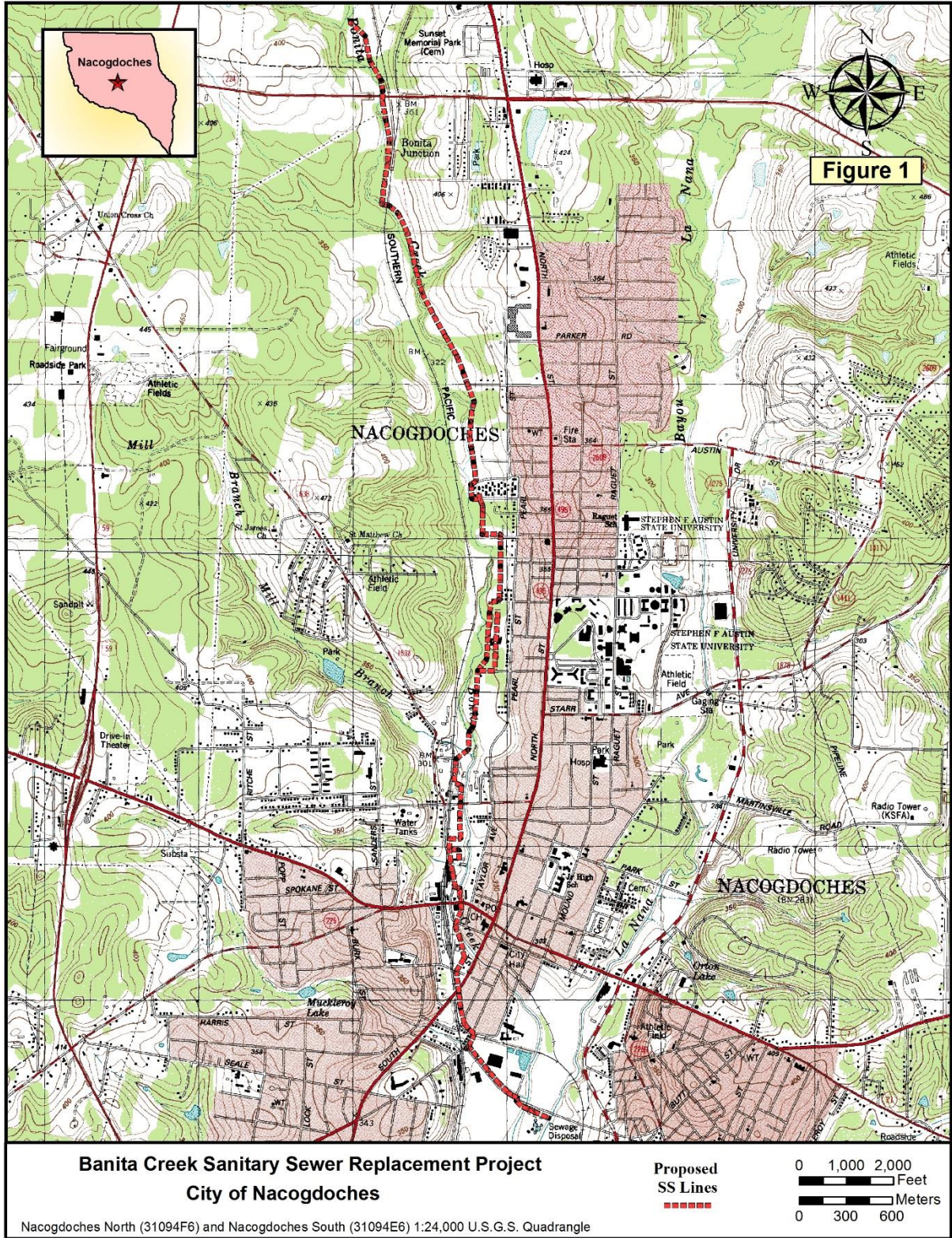


Figure 1. Project Area on Nacogdoches North (31094F6) and Nacogdoches South (31094E6) 7.5' U.S.G.S. Quadrangles .

RESEARCH DESIGN

The investigations were performed in compliance with the National Historic Preservation Act of 1966 (PL89-665), as amended in 1974, 1976, 1980, and 1992; the National Environmental Policy Act of 1969 (PL91-190, 83 Stat. 915, 42 USC 4231, 1970); the Archaeological Protection Act of 1979 (PL96-95; 16 U.S.C. 470aa-mm); and the guidelines set forth by the Council of Texas Archaeologists (1995b), the Texas Antiquities Code, and the Register of Professional Archaeologists.

The objectives of the survey were to locate prehistoric and historic cultural resources within the survey area. Before initiating fieldwork, DETAC conducted a records and literature review using maps and files at the Texas Archeological Research Laboratory (TARL) and at the Texas Archaeological Site Atlas (THC 2010) to identify the location, types, and both State Archaeological Landmarks (SAL) and NRHP eligibility of previously recorded sites within or in close proximity to the project areas. Additionally, volumes I and II of the *Nacogdoches Historic Site Survey: Archaeological Survey and Assessment of Nacogdoches* was consulted for identification of archaeological potential within the City limits (Corbin 1986).

Shovel testing was conducted with emphasis on locating buried cultural resource deposits in accordance with the Texas Historic Commission's guidelines for cultural resource surveys. According to these guidelines, linear project areas that are less than 30-meters wide require a minimum of 16 shovel tests per mile. Shovel testing included excavating an area approximately 30-centimeters in diameter, in 10-centimeter levels, down to the clay substrate. The excavated matrix was screened through a 0.635-centimeter wire mesh screen. The GPS location, the depth, the soil type, and the color of each shovel test were recorded.

RESULTS

No previously recorded archaeological sites are within the proposed project area, and no sites were documented during the survey. However, because of the proposed project's proximity to both known prehistoric and historic locations, special importance was given to locating sub-surface and surface prehistoric and historic features and/or materials.

In June of 2011, DETAC conducted a 100 percent pedestrian survey of approximately 57% of the sanitary sewer replacement project to locate, describe and record any cultural resources within the project area boundaries. The survey was conducted with a combination of visual examination of the property and the inspection of sub-surface exposures through shovel testing. The remaining 43% of the sanitary sewer replacement project was inaccessible due not having landowner permission, having restricted access, or large areas of packed gravel, concrete, and asphalt. Over the course of the month-long project there were multiple ROW alignment changes including the addition and exclusion of various alternatives.

DETAC excavated 150 shovel tests across 5.4-kilometers of the proposed project area for a spacing density of approximately 44 per mile with an individual spacing of approximately 36-meters (Figure 2). According to the Natural Resource Conservation Service's (NRCS) Official Soil Series Description (OSD), the soils within the proposed project area include the Hannahatchee – Urban Complex that is frequently flooded. Shovel testing found soil conditions similar to the NRCS soil survey with varying depths, colors, and textures (Table 1).

No cultural resources were located during the survey. All of the shovel tests were negative and no artifacts were collected.

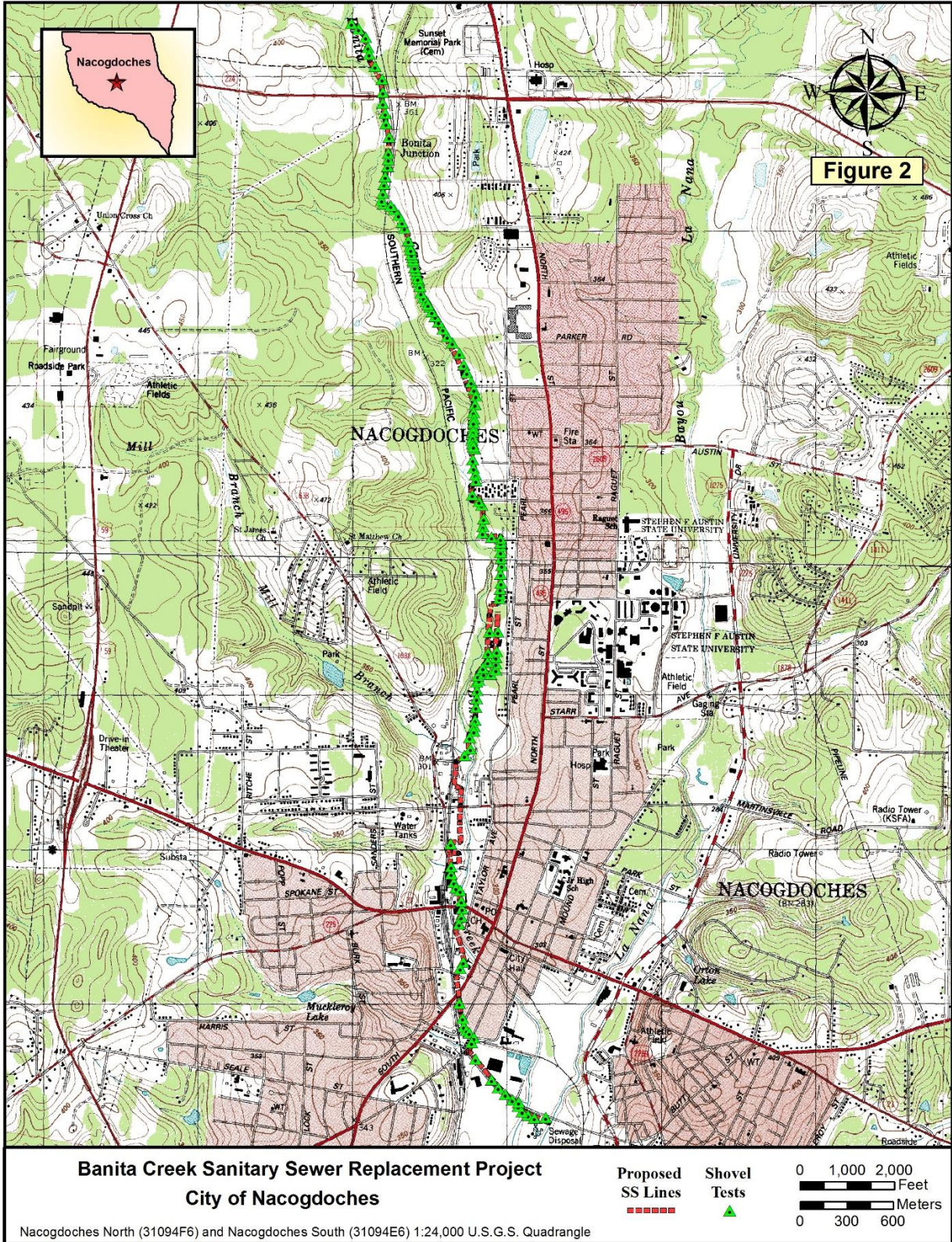


Figure 2. Project area with Shovel Tests.

ST_#	Soil_color	Soil_texture	TD_cm
1	Reddish Brown	Sandy Clay Loam	5
2	Reddish Brown	Sandy Clay Loam	10
3	Reddish Brown	Sandy Clay Loam	5
4	Reddish Brown	Sandy Clay Loam	5
5	Reddish Brown	Sandy Clay Loam	10
6	Reddish Brown	Sandy Clay Loam	10
7	Red	Sandy Clay Loam	5
8	Reddish Brown	Sandy Clay Loam	10
9	Reddish Brown	Sandy Clay Loam	10
10	Reddish Brown	Sandy Clay Loam	15
11	Reddish Brown	Sandy Clay Loam	10
12	Reddish Brown	Sandy Clay Loam	10
13	Reddish Brown	Sand	5
14	Reddish Brown	Sandy Clay Loam	15
15	Reddish Brown	Sandy Clay Loam	10
16	Reddish Brown	Sandy Clay Loam	10
17	Reddish Brown	Sandy Clay Loam	15
18	Reddish Brown	Sandy Clay Loam	15
19	Reddish Brown	Sandy Clay Loam	5
20	Reddish Brown	Sandy Clay Loam	5
21	Reddish Brown	Sandy Clay Loam	5
22	Reddish Brown	Sandy Clay Loam	5
23	Reddish Brown	Sandy Clay Loam	5
24	Reddish Brown	Sandy Clay Loam	15
25	Reddish Brown	Sandy Clay Loam	15
26	Yellowish Brown	Sandy Clay Loam	10
27	Yellowish Brown	Sandy Clay Loam	10
28	Yellowish Brown	Sandy Clay Loam	10
29	Yellowish Brown	Sandy Clay Loam	10
30	Yellowish Brown	Sandy Clay Loam	10
31	Yellowish Brown	Sandy Clay Loam	10
32	Yellowish Brown	Sandy Clay Loam	10
33	Yellow	Sand	15
34	Yellowish Brown	Sandy Clay Loam	15
35	Yellowish Brown	Sandy Clay Loam	15
36	Yellowish Brown	Sandy Clay Loam	10
37	Yellowish Brown	Sandy Clay Loam	10
38	Reddish Brown	Sandy Clay Loam	20
39	Reddish Brown	Sandy Clay Loam	15
40	Reddish Brown	Sandy Clay Loam	15
41	Reddish Brown	Sandy Clay Loam	15
42	Reddish Brown	Sandy Clay Loam	15
43	Reddish Brown	Sandy Clay Loam	15
44	Reddish Brown	Sandy Clay Loam	40
45	Reddish Brown	Sandy Clay Loam	30
46	Reddish Brown	Sandy Clay Loam	35
47	Reddish Brown	Sandy Clay Loam	15
48	Reddish Brown	Sandy Clay Loam	15
49	Reddish Brown	Sandy Clay Loam	20
50	Red	Gravel	5

ST_#	Soil_color	Soil_texture	TD_cm
51	Reddish Brown	Sandy Clay Loam	30
52	Reddish Brown	Sandy Clay Loam	15
53	Dark Brown	Gravel	30
54	Dark Brown	Clay Loam	20
55	Dark Brown	Clay Loam	15
56	Dark Brown	Clay Loam	10
57	Dark Brown	Clay Loam	15
58	Brown	Sandy Clay Loam	15
59	Brown	Sandy Clay Loam	15
60	Reddish Brown	Sandy Clay Loam	15
61	Dark Brown	Sandy Clay Loam	20
62	Dark Brown	Loam	10
63	Yellowish Brown	Sand	100
64	Yellowish Brown	Sand	90
65	Yellowish Brown	Sand	100
66	Yellowish Brown	Sand	100
67	Yellowish Brown	Sand	100
68	Yellowish Brown	Sand	100
69	Reddish Brown	Sandy Clay Loam	5
70	Reddish Brown	Sandy Clay Loam	50
71	Reddish Brown	Sandy Clay Loam	30
72	Reddish Brown	Sandy Clay Loam	5
73	Reddish Brown	Sandy Clay Loam	5
74	Reddish Brown	Sandy Clay Loam	25
75	Reddish Brown	Sandy Clay Loam	5
76	Reddish Brown	Sandy Clay Loam	5
77	Reddish Brown	Sandy Clay Loam	5
78	Reddish Brown	Sandy Clay Loam	15
79	Reddish Brown	Sandy Clay Loam	15
80	Reddish Brown	Sandy Clay Loam	10
81	Reddish Brown	Sandy Clay Loam	30
82	Reddish Brown	Sandy Clay Loam	10
83	Reddish Brown	Sandy Clay Loam	35
84	Reddish Brown	Sandy Clay Loam	10
85	Reddish Brown	Sandy Clay Loam	20
86	Reddish Brown	Sandy Clay Loam	30
87	Reddish Brown	Sandy Clay Loam	20
88	Reddish Brown	Sandy Clay Loam	15
89	Reddish Brown	Sandy Clay Loam	30
90	Reddish Brown	Sandy Clay Loam	20
91	Reddish Brown	Sandy Clay Loam	15
92	Reddish Brown	Sandy Clay Loam	10
93	Reddish Brown	Sandy Clay Loam	10
94	Reddish Brown	Sandy Clay Loam	15
95	Reddish Brown	Sandy Clay Loam	5
96	Reddish Brown	Sandy Clay Loam	10
97	Reddish Brown	Sandy Clay Loam	15
98	Red	Sandy Clay Loam	10
99	Reddish Brown	Sandy Clay Loam	10
100	Reddish Brown	Sandy Clay Loam	15

ST_#	Soil_color	Soil_texture	TD_cm
101	Reddish Brown	Sandy Clay Loam	15
102	Reddish Brown	Sandy Clay Loam	15
103	Red	Clay	10
104	Reddish Brown	Sandy Clay Loam	25
105	Reddish Brown	Sandy Clay Loam	10
106	Reddish Brown	Sandy Clay Loam	15
107	Reddish Brown	Sandy Clay Loam	15
108	Reddish Brown	Sandy Clay Loam	15
109	Reddish Brown	Fine Sandy Loam	45
110	Red	Fine Sandy Loam	50
111	Red	Fine Sandy Loam	60
112	Red	Fine Sandy Loam	55
113	Reddish Brown	Sandy Clay Loam	30
114	Reddish Brown	Sandy Clay Loam	40
115	Reddish Brown	Sandy Clay Loam	15
116	Reddish Brown	Sandy Clay Loam	40
117	Reddish Brown	Sandy Clay Loam	50
118	Reddish Brown	Sandy Clay Loam	45
119	Reddish Brown	Sandy Clay Loam	35
120	Reddish Brown	Sandy Clay Loam	35
121	Reddish Brown	Sandy Clay Loam	30
122	Reddish Brown	Sandy Clay Loam	25
123	Reddish Brown	Sandy Clay Loam	45
124	Reddish Brown	Sandy Clay Loam	20
125	Reddish Brown	Sandy Clay Loam	10
126	Reddish Brown	Sandy Clay Loam	15
127	Reddish Brown	Sandy Clay Loam	45
128	Reddish Brown	Sandy Clay Loam	35
129	Reddish Brown	Sandy Clay Loam	40
130	Reddish Brown	Sandy Clay Loam	20
131	Reddish Brown	Sandy Clay Loam	20
132	Reddish Brown	Sandy Clay Loam	20
133	Reddish Brown	Sandy Clay Loam	10
134	Reddish Brown	Sandy Clay Loam	20
135	Reddish Brown	Sandy Clay Loam	10
136	Reddish Brown	Sandy Clay Loam	10
137	Reddish Brown	Sandy Clay Loam	15
138	Reddish Brown	Sandy Clay Loam	10
139	Reddish Brown	Sandy Clay Loam	20
140	Reddish Brown	Sandy Loam	30
141	Reddish Brown	Sandy Loam	20
142	Reddish Brown	Sandy Loam	30
143	Reddish Brown	Sandy Loam	30
144	Reddish Brown	Sandy Loam	30
145	Reddish Brown	Sandy Clay Loam	10
146	Reddish Brown	Sandy Clay Loam	10
147	Reddish Brown	Sandy Clay Loam	40
148	Reddish Brown	Sandy Clay Loam	35
149	Reddish Brown	Sandy Clay Loam	25
150	Reddish Brown	Sandy Clay Loam	30

Table 1. Shovel Test Data

RECOMMENDATIONS

The proposed City of Nacogdoches Banita Creek Sanitary Sewer Replacement project was to be approximately 9.5-kilometers long and was to consist of a 6-meter wide permanent ROW located totally within the Banita Creek floodplain. In June of 2011, DETAC conducted a 100 percent pedestrian survey of approximately 57% of the sanitary sewer replacement project. The remaining 43% was inaccessible due to not having landowner permission, having restricted access, or large areas of packed gravel, concrete, and asphalt.

The survey was conducted with a combination of historical research, visual examination of the property, and sub-surface exposure through shovel testing. DETAC excavated 150 shovel tests across 5.4-kilometers of the proposed project area for a spacing density of approximately 44 per mile with an individual spacing of approximately 36-meters. All of the shovel tests were negative and no artifacts were collected.

In May of 2017, DETAC was notified that the proposed project was suspended indefinitely and that although multiple ROW alignment changes were considered, no final alignment alternative was chosen. Based on the testing limitations discussed above, DETAC is recommending that if this proposed project resumes that the newly considered alignments be surveyed to evaluate the potential impacts to cultural resources important to the State of Texas.

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