US Army Corps of Engineers

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): September 17, 2018

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: SAJ-2018-02466-RGH (PINELLAS COUNTY / 126TH AVE LANDFILL REDEVELOPMENT SITE)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:FL County/parish/borough: Pinellas City: Clearwater
Center coordinates of site (lat/long in degree decimal format): Lat. 27.888122° **N**, Long. -82.713669° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: Cross Bayou Canal
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Tampa Bay
Name of watershed or Hydrologic Unit Code (HUC): 031002060602 Cross Bayou Canal-Grassy Creek Frontal

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: September 17, 2018
☒ Field Determination. Date(s): September 17, 2018

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Appear to be** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☒ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: The onsite canal, Cross Bayou Canal has signs of tidal fluctuation and salt tolorent vegetation (Red Mangroves). .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **are and are not** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or 0.30 acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **The Corps reviewed historic aerials from 1942, 1943, 1951, 1957, 1975, 1994-2018, and performed a field inspection in September 2018, and made the following determinations of non-jurisdiction:**
   Wetland A, Feature 2, and Feature 4 appear to have been excavated from uplands, based on the historic aerials. A recent field inspection revealed that these wetlands are relics of an abandoned landfill that has high amounts of clay. The clay is

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

ponding water on the site, and does not connect waters of the U.S. These wetlands are considered non-jurisdictional based on the preamble to 33 CFR Part 328 in the November 13, 1986, Federal Register (51 FR 41217, Section 328.3)..

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: **Pick List**
Drainage area: **Pick List**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: .
Tributary stream order, if known: .

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[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is:
- ☐ Natural
- ☐ Artificial (man-made). Explain: .
- ☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):
- ☐ Silts
- ☐ Sands
- ☐ Concrete
- ☐ Cobbles
- ☐ Gravel
- ☐ Muck
- ☐ Bedrock
- ☐ Vegetation. Type/% cover:
- ☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
- ☐ Dye (or other) test performed: .

Tributary has (check all that apply):
- ☐ Bed and banks
- ☐ OHWM[6] (check all indicators that apply):
  - ☐ clear, natural line impressed on the bank
  - ☐ changes in the character of soil
  - ☐ shelving
  - ☐ vegetation matted down, bent, or absent
  - ☐ leaf litter disturbed or washed away
  - ☐ sediment deposition
  - ☐ water staining
  - ☐ other (list):
  - ☐ the presence of litter and debris
  - ☐ destruction of terrestrial vegetation
  - ☐ the presence of wrack line
  - ☐ sediment sorting
  - ☐ scour
  - ☐ multiple observed or predicted flow events
  - ☐ abrupt change in plant community
- ☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
- ☐ High Tide Line indicated by:
  - ☐ oil or scum line along shore objects
  - ☐ fine shell or debris deposits (foreshore)
  - ☐ physical markings/characteristics
  - ☐ tidal gauges
  - ☐ other (list):
- ☐ Mean High Water Mark indicated by:
  - ☐ survey to available datum;
  - ☐ physical markings;
  - ☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

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[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Aerial photos dating back to 1941 all show the canal with water. The canal has a continuous connection from Boca Ciega Bay to Old Tampa Bay, roughly 7.8 miles long, both Section 10 waters. At time of observation in September 17, 2018, the canal was approximately 2-3 feet deep with water, averaging 20-30 feet in width. Fluctuation of the water in the canal seems to depend on a variety of factors such as tide and recent rainfall.
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
  Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
   - ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional waters within the review area (check all that apply):
   - ☐ Tributary waters: linear feet width (ft).
   - ☐ Other non-wetland waters: acres.
     Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
     - ☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
     - ☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

   Provide acreage estimates for jurisdictional wetlands in the review area: **300** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
   - ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

   Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
   - ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

   Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
   As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
   - ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
   - ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
   - ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .

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[8] See Footnote # 3.

[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☒ Other: (explain, if not covered above): **Wetlands were created from uplands.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:SM&E.
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☒ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: .
☒ USGS NHD data.
☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:1:24,000; Saftey Harbor, FL.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:Florida Soils Map digital data from the Natural Resources Conservation Service. Date (September 17, 2018). Web Soil Survey website. U.S. Department of Agriculture, Natural Resources Conservation Service, Washington, D.C.
☒ National wetlands inventory map(s). Cite name:Wetland digital data from U. S. Fish and Wildlife Service. Date (September 17, 2018). National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):1942, 1943, 1951, 1957, 1975, 1994-2018,.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: See attached Maps, Photos, and Forms..

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 44847243 126th Ave Landfill City/County: Pinellas Sampling Date: 1/4/2016

Applicant/Owner: State: FL Sampling Point: SP-1

Investigator(s): Tony Miller / Nicole Wright Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%):

Subregion (LRR or MLRA): U Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____		Is the Sampled Area within a Wetland? Yes X No ____
Hydric Soil Present? Yes X No ____		
Wetland Hydrology Present? Yes X No ____		

Remarks:

Taken in north SWA

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): ~0"

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water present in other areas of ~~site~~ stormwater Pond

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: 1/4/2018 SP-1

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____ = Total Cover		
50% of total cover: ____	20% of total cover: ____		

Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____ = Total Cover		
50% of total cover: ____	20% of total cover: ____		

Herb Stratum (Plot size: ____)			
1. Ludwigia (Primrose)	100	Yes	OBL
2. Leersia hex	20	No	OBL
3. Chick weed (Cerastium fontana)	20	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	140 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
50% of total cover: ____	20% of total cover: ____		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	120	x 1 =	120
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		180 (B)

Prevalence Index = B/A = 1.29

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100						muck

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- [ ] Histosol (A1)
- [ ] Histic Epipedon (A2)
- [x] Black Histic (A3)
- [ ] Hydrogen Sulfide (A4)
- [ ] Stratified Layers (A5)
- [ ] Organic Bodies (A6) (LRR P, T, U)
- [x] 5 cm Mucky Mineral (A7) (LRR P, T, U)
- [x] Muck Presence (A8) (LRR U)
- [x] 1 cm Muck (A9) (LRR P, T)
- [ ] Depleted Below Dark Surface (A11)
- [ ] Thick Dark Surface (A12)
- [ ] Coast Prairie Redox (A16) (MLRA 150A)
- [ ] Sandy Mucky Mineral (S1) (LRR O, S)
- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Dark Surface (S7) (LRR P, S, T, U)
- [ ] Polyvalue Below Surface (S8) (LRR S, T, U)
- [ ] Thin Dark Surface (S9) (LRR S, T, U)
- [ ] Loamy Mucky Mineral (F1) (LRR O)
- [ ] Loamy Gleyed Matrix (F2)
- [ ] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)
- [ ] Marl (F10) (LRR U)
- [ ] Depleted Ochric (F11) (MLRA 151)
- [ ] Iron-Manganese Masses (F12) (LRR O, P, T)
- [ ] Umbric Surface (F13) (LRR P, T, U)
- [ ] Delta Ochric (F17) (MLRA 151)
- [ ] Reduced Vertic (F18) (MLRA 150A, 150B)
- [ ] Piedmont Floodplain Soils (F19) (MLRA 149A)
- [ ] Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- [ ] 1 cm Muck (A9) (LRR O)
- [ ] 2 cm Muck (A10) (LRR S)
- [ ] Reduced Vertic (F18) (outside MLRA 150A,B)
- [ ] Piedmont Floodplain Soils (F19) (LRR P, S, T)
- [ ] Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- [ ] Red Parent Material (TF2)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 448417043 - 126th Ave Landfill City/County: Pinellas Sampling Date: 1/4/2018

Applicant/Owner: State: FL Sampling Point: SP-2

Investigator(s): Tony Miller / Nicole Wright Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): None Slope (%):

Subregion (LRR or MLRA): U Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X

Are Vegetation No, Soil Yes, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15) (LRR U)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ____	No ____	Depth (inches): ____
Water Table Present?	Yes ____	No ____	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No ____	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appears to be oxidized rhizospheres, but these are not around living roots, could be from fill / bark.

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: SP-2

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	

50% of total cover: _____ 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: N/A)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	

50% of total cover: _____ 20% of total cover: _____

Herb Stratum (Plot size: 20×20)			
1. Bidens (Beggars tick)	100	Yes	Up
2. Crow foot? (Dactyloctenium aegyptium)	50	Yes	Up
3. Various sedges	20	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		= Total Cover	

50% of total cover: _____ 20% of total cover: _____

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	20	x 2 = 40
FAC species	0	x 3 = 0
FACU species	0	x 4 = 0
UPL species	150	x 5 = 750
Column Totals:	170 (A)	790 (B)

Prevalence Index = B/A = ~~5.00~~ 4.65

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-0.3"	10YR 8/1	100					Sand	white sand, roots/debris
0.3-3"	10YR 6/2	100					Sand/clay	fill material, rocks, plastic

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) (LRR P, T, U)
- ☐ 5 cm Mucky Mineral (A7) (LRR P, T, U)
- ☐ Muck Presence (A8) (LRR U)
- ☐ 1 cm Muck (A9) (LRR P, T)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) (MLRA 150A)
- ☐ Sandy Mucky Mineral (S1) (LRR O, S)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR P, S, T, U)
- ☐ Polyvalue Below Surface (S8) (LRR S, T, U)
- ☐ Thin Dark Surface (S9) (LRR S, T, U)
- ☐ Loamy Mucky Mineral (F1) (LRR O)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) (LRR U)
- ☐ Depleted Ochric (F11) (MLRA 151)
- ☐ Iron-Manganese Masses (F12) (LRR O, P, T)
- ☐ Umbric Surface (F13) (LRR P, T, U)
- ☐ Delta Ochric (F17) (MLRA 151)
- ☐ Reduced Vertic (F18) (MLRA 150A, 150B)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149A)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) (LRR O)
- ☐ 2 cm Muck (A10) (LRR S)
- ☐ Reduced Vertic (F18) (outside MLRA 150A,B)
- ☐ Piedmont Floodplain Soils (F19) (LRR P, S, T)
- ☐ Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Rejected at 3 inches. Appears to be various fill materials. Plastic, rock/concrete [illegible] piece of metal

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 448417043 – 126th Ave Landfill City/County: Pinellas Sampling Date: 1/4/2018

Applicant/Owner: State: FL Sampling Point: SP-3

Investigator(s): Tony Miller, Nicole Wright Section, Township, Range:

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Concave Slope (%):

Subregion (LRR or MLRA): U Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	Is the Sampled Area within a Wetland?	Yes X No ____
Hydric Soil Present?	Yes X No ____		
Wetland Hydrology Present?	Yes X No ____		

Remarks:

Took sample in WA near waypoint 3

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- [ ] Surface Water (A1)
- [ ] High Water Table (A2)
- [x] Saturation (A3)
- [ ] Water Marks (B1)
- [ ] Sediment Deposits (B2)
- [ ] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] Marl Deposits (B15) (LRR U)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres along Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Drainage Patterns (B10)
- [ ] Moss Trim Lines (B16)
- [ ] Dry-Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Geomorphic Position (D2)
- [ ] Shallow Aquitard (D3)
- [ ] FAC-Neutral Test (D5)
- [ ] Sphagnum moss (D8) (LRR T, U)

Field Observations:

Surface Water Present?	Yes ____ No ____	Depth (inches): ____	
Water Table Present?	Yes X No ____	Depth (inches): 6" BSG	
Saturation Present? (includes capillary fringe)	Yes X No ____	Depth (inches): ~1" BSG	Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: SP-3

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
50% of total cover:		20% of total cover:	

Sapling/Shrub Stratum (Plot size: 20 x 20)	Absolute % Cover	Dominant Species?	Indicator Status
1. Cordia Willow	10	No	OBL
2. Castra beam	20	No	FACU
3. Ludwigia Peruviana	90	Yes	OBL
4. Leaf Tree	10	No	FACU
5.			
6.			
7.			
8.			
	130	= Total Cover	
50% of total cover:		20% of total cover:	

Herb Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
		= Total Cover	
50% of total cover:		20% of total cover:	

Woody Vine Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
50% of total cover:		20% of total cover:	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	130 (A)		220 (B)

Prevalence Index = B/A = 1.69

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1	100						muck, then mucky mineral
5-12+	10YR 2/1	85						
5-12+	10YR 6/2	15						Sand, not diffuse Soil/Prepar

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Organic Bodies (A6) **(LRR P, T, U)**
- ☐ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ☒ Muck Presence (A8) **(LRR U)**
- ☒ 1 cm Muck (A9) **(LRR P, T)**
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Coast Prairie Redox (A16) **(MLRA 150A)**
- ☐ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR P, S, T, U)**
- ☐ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ☐ Thin Dark Surface (S9) **(LRR S, T, U)**
- ☐ Loamy Mucky Mineral (F1) **(LRR O)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Marl (F10) **(LRR U)**
- ☐ Depleted Ochric (F11) **(MLRA 151)**
- ☐ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ☐ Umbric Surface (F13) **(LRR P, T, U)**
- ☐ Delta Ochric (F17) **(MLRA 151)**
- ☐ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ☐ 1 cm Muck (A9) **(LRR O)**
- ☐ 2 cm Muck (A10) **(LRR S)**
- ☐ Reduced Vertic (F18) **(outside MLRA 150A, B)**
- ☐ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ☐ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No _____

Remarks:

Legend

Parcel 08-30-16-70974-100-1401

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

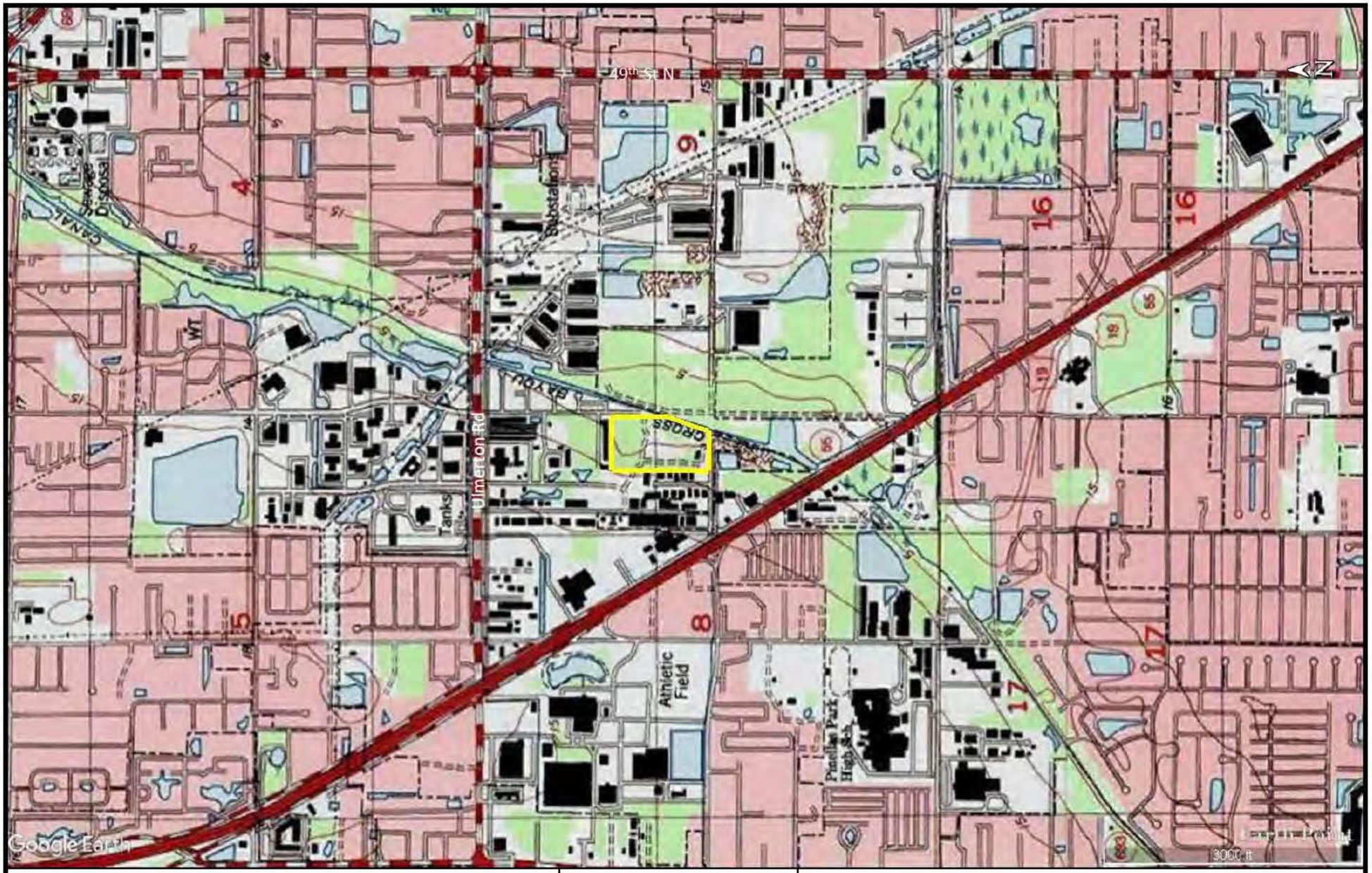
Figure 5: Sample Point & Photo Point Locations
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.THERE ARE NO GUARANTEES ABOUT IT'S ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA



Legend

Parcel 08-30-16-70974-100-1401

Source

Google Earth Pro™ (USGS Quadrangles, ©2018 Earth Point)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 1: Site Location
126th Ave Redevelopment Site

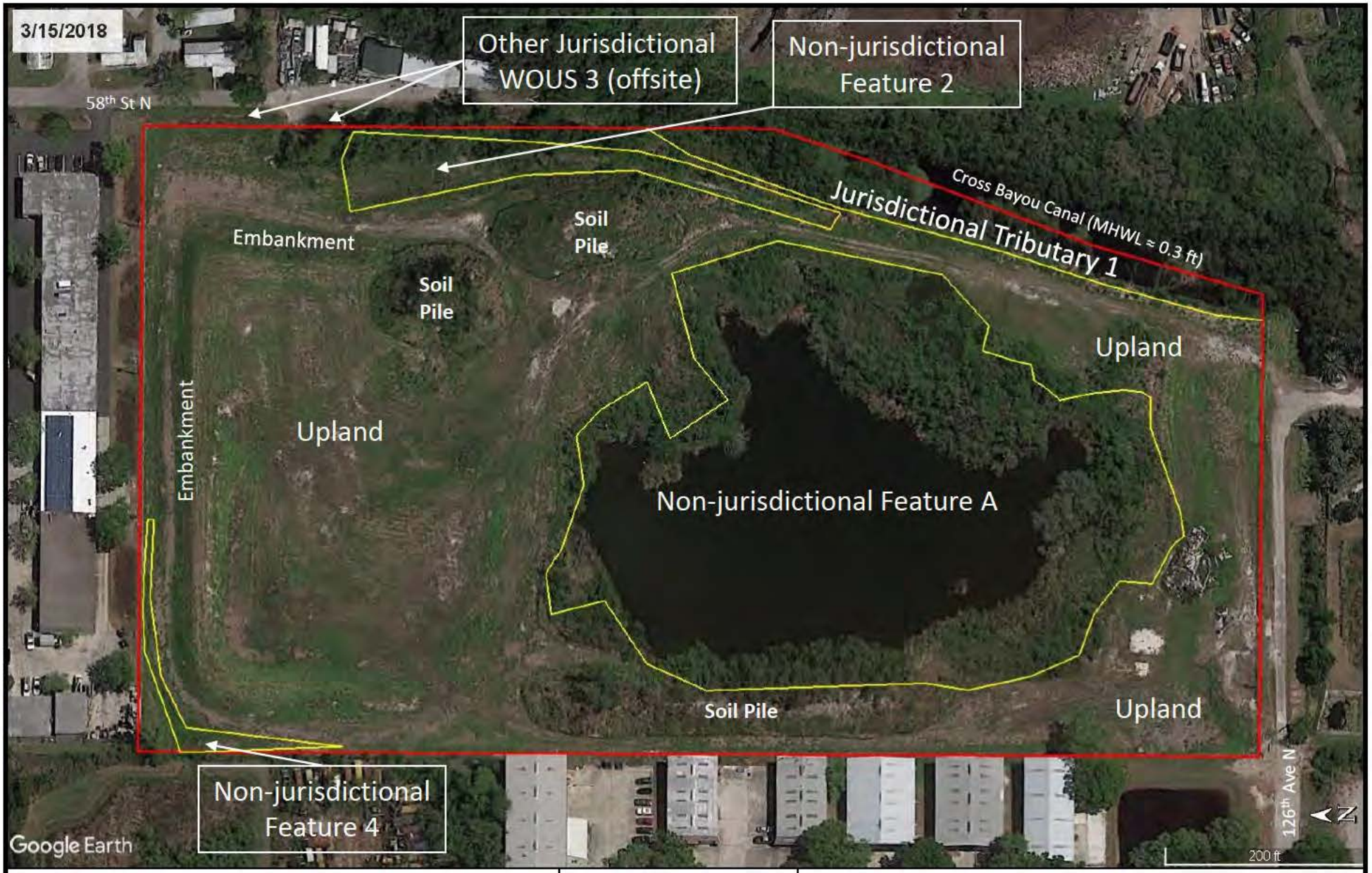
Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018

Prepared by: RAM

PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.THERE ARE NO GUARANTEES ABOUT IT'S ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA



Legend

Parcel 08-30-16-70974-100-1401

FDEP Approved Delineated Wetlands & Surface Waters

Source:

Google Earth Pro™ (Image date 3/15/2018)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 2A: Aerial
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

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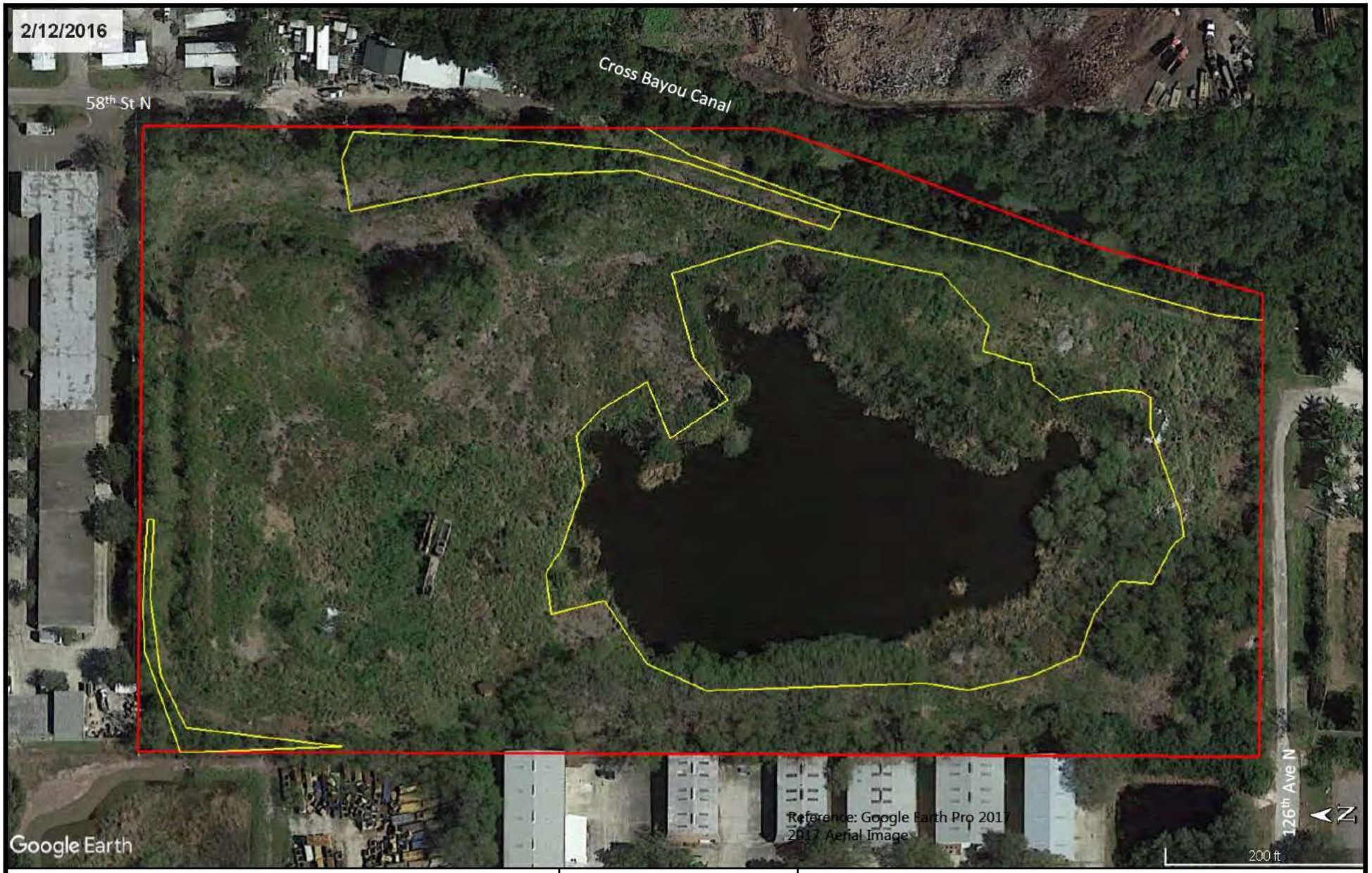

Legend

Parcel 08-30-16-70974-100-1401

FDEP Approved Delineated Wetlands & Surface Waters

Source

Google Earth Pro™ (Image date 2/12/2016)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 2B: Historical Aerial
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

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Legend

Parcel 08-30-16-70974-100-1401

FDEP Approved Delineated Wetlands & Surface Waters

Source

Google Earth Pro™ (Image date 4/4/2010)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 2C: Historical Aerial
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

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Legend

Parcel 08-30-16-70974-100-1401

FDEP Approved Delineated Wetlands & Surface Waters

Source:

Google Earth Pro™ (Image date 11/29/2007)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 2D: Historical Aerial
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.THERE ARE NO GUARANTEES ABOUT IT'S ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA

Legend

Parcel 08-30-16-70974-100-1401

FDEP Approved Delineated Wetlands & Surface Waters

Source

Google Earth Pro™ (Image date 4/30/2002)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 2E: Historical Aerial
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.THERE ARE NO GUARANTEES ABOUT IT'S ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA

Legend

Parcel 08-30-16-70974-100-1401

FDEP Approved Delineated Wetlands & Surface Waters

Source

Google Earth Pro™ (Image date 2/14/1994)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 2F: Historical Aerial
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

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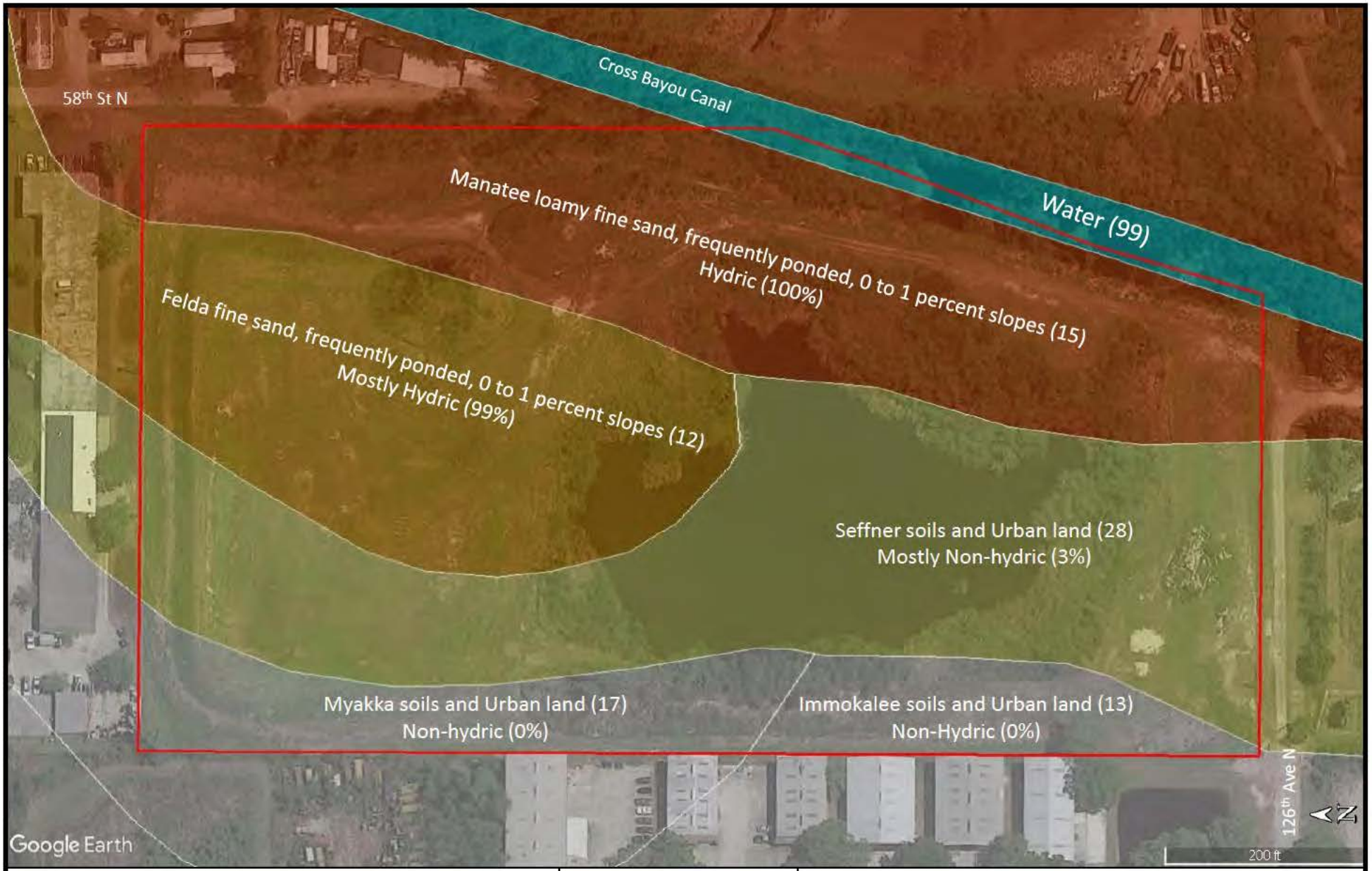
1942

1943

1951

1957



Legend

Parcel 08-30-16-70974-100-1401

Source

Google Earth Pro™ (SoilWeb © Ca Soil Resource Lab, 2008)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 3: NRCS Soils
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.THERE ARE NO GUARANTEES ABOUT IT'S ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA

Legend

Parcel 08-30-16-70974-100-1401

Source

Google Earth Pro™ (USFWS NWI KML file dated 2/27/2018)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 4: National Wetland Inventory
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

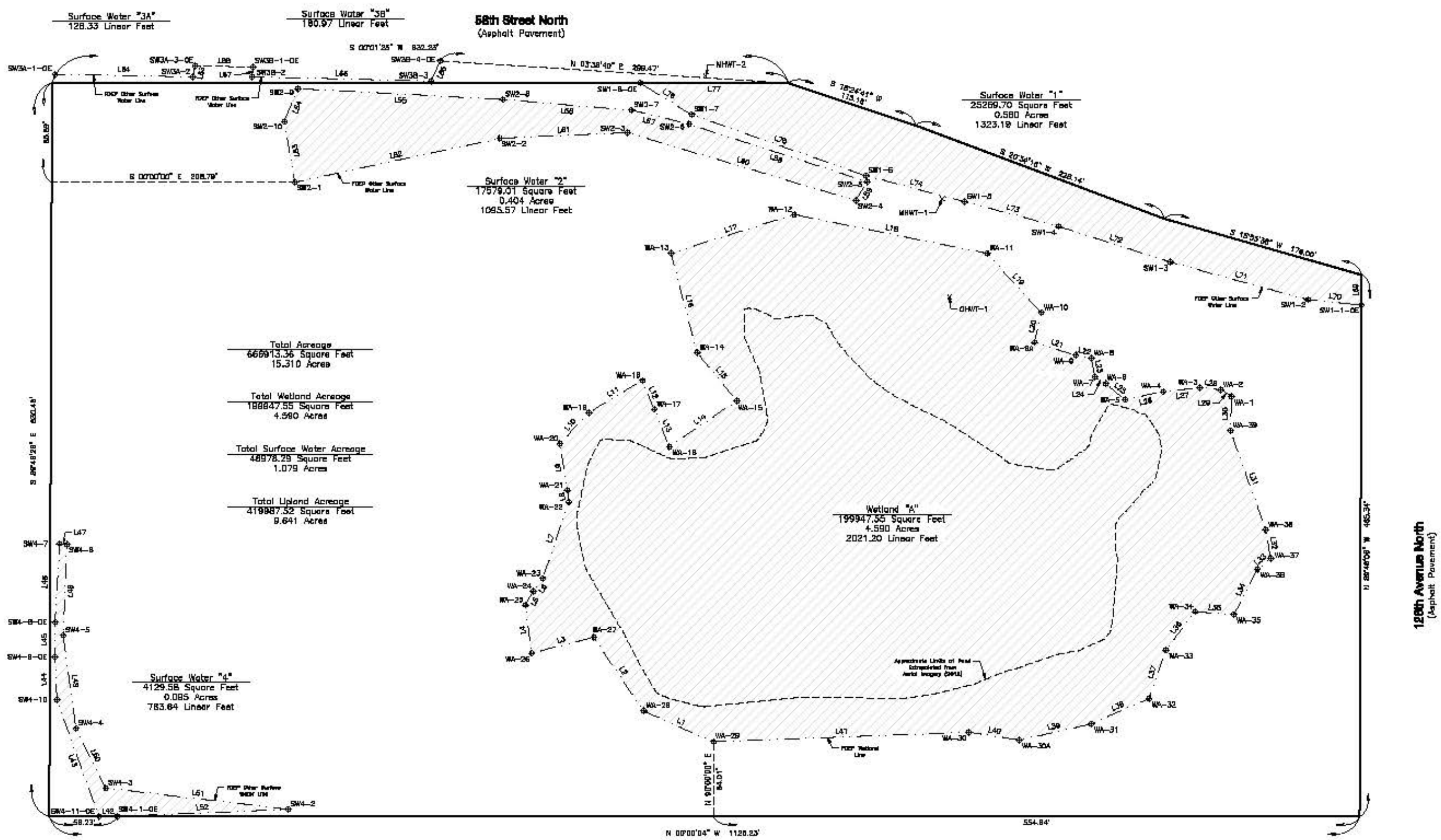
Figure Date: 7/9/2018 Prepared by: RAM

PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.THERE ARE NO GUARANTEES ABOUT IT'S ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA

Wetland Survey
126th Avenue Redevelopment Site
Section 8, Township 30 South, Range 16 East
Pinellas County, Florida

Legend & Abbreviations

P.S.M.	Professional Surveyor and Mapper
LB	Licensed Business
FDEP	Florida Department of Environmental Protection
WA	Wetland 'A'
SW	Surface Water '1, 2, 3A, 3B & 4'
MHWT	Mean High Water
OHWT	Ordinary High Water
OE	Open End
⊕	FDEP Verified Wetland Point
×	Biological Indicator



Line Information:

LINE	BEARING	DISTANCE
L1	N 23°33'24" E	65.63'
L2	N 33°33'42" E	76.36'
L3	N 14°18'36" W	66.23'
L4	N 82°42'00" E	41.61'
L5	S 39°03'12" E	13.58'
L6	S 64°24'06" E	13.67'
L7	S 71°11'33" E	89.67'
L8	N 83°38'02" E	10.38'
L9	N 80°52'24" E	40.26'
L10	S 47°07'04" E	38.35'
L11	S 31°01'06" E	53.72'
L12	S 67°29'50" W	28.75'
L13	S 66°00'09" W	34.57'
L14	S 34°06'34" E	70.13'
L15	N 30°28'16" E	53.64'
L16	N 78°14'47" E	66.32'
L17	S 17°24'20" E	111.06'
L18	S 11°25'01" W	168.81'
L19	S 47°34'43" W	69.06'
L20	N 78°58'46" W	28.20'
L21	S 17°08'36" W	38.90'
L22	S 11°38'59" W	13.88'
L23	S 76°56'51" W	18.49'
L24	S 31°11'22" W	10.62'
L25	S 39°22'00" W	21.44'
L26	S 11°48'33" E	33.36'
L27	S 06°01'22" E	31.72'
L28	S 06°07'05" W	16.03'
L29	S 32°30'30" W	10.65'
L30	N 88°43'04" W	26.41'
L31	S 70°20'41" W	90.29'
L32	S 80°30'01" W	20.01'
L33	N 38°57'26" W	14.87'
L34	N 82°23'44" W	43.98'
L35	N 04°02'30" E	33.10'
L36	N 52°32'39" W	41.30'
L37	N 70°39'06" W	44.24'
L38	N 23°34'16" W	34.10'
L39	N 12°30'30" W	63.46'
L40	N 08°44'36" E	43.88'
L41	N 02°10'16" W	218.23'
L42	N 00°00'04" W	13.57'
L43	N 70°13'16" E	106.67'
L44	N 87°08'03" E	38.82'
L45	S 89°33'26" E	29.82'
L46	S 86°40'49" E	87.72'
L47	S 07°50'52" W	8.35'
L48	N 87°35'38" W	78.14'
L49	S 82°05'27" W	80.71'
L50	S 63°32'40" W	57.12'
L51	S 06°42'36" W	137.77'
L52	N 02°20'30" W	147.08'
L53	N 80°18'18" E	62.88'
L54	S 67°43'04" E	30.88'
L55	S 03°00'10" W	178.26'
L56	S 04°51'10" W	110.76'
L57	S 13°23'22" W	80.07'
L58	S 17°56'57" W	180.88'
L59	N 50°32'37" W	18.90'
L60	N 16°33'34" E	204.76'
L61	N 03°34'27" W	109.82'
L62	N 12°08'37" W	178.80'
L63	N 78°40'24" W	9.91'
L64	N 01°08'01" E	118.04'
L65	N 85°08'38" W	18.03'
L66	N 01°21'32" E	133.38'
L67	S 84°33'51" E	8.38'
L68	N 01°13'04" E	49.82'
L69	N 88°48'08" W	25.83'
L70	N 06°38'54" E	48.04'
L71	N 15°13'56" E	122.52'
L72	N 17°48'17" E	100.74'
L73	N 14°42'26" E	83.46'
L74	N 14°46'17" E	87.80'
L75	N 18°21'21" E	136.44'
L76	N 31°32'34" E	31.61'
L77	S 00°01'26" W	127.20'

Wetland "A" Point Information:

Designation	Northing	Easting
	Florida West	Florida West
	NAD 1983	NAD 1983
	US Survey Feet	US Survey Feet
WA-1	1292226.2	425600.6
WA-2	1292235.2	425696.5
WA-3	1292253.1	425696.5
WA-4	1292284.7	425694.0
WA-5	1292317.4	425666.1
WA-6	1292292.9	425701.7
WA-7	1292342.2	425707.3
WA-8	1292346.4	425723.5
WA-9	1292365.9	425726.3
WA-9A	1292386.2	425737.3
WA-10	1292386.3	425762.7
WA-11	1292436.9	425613.7
WA-12	1292601.4	425547.1
WA-13	1292707.4	425513.9
WA-14	1292684.9	425728.5
WA-15	1292650.7	425686.9
WA-16	1292706.7	425647.6
WA-17	1292721.7	425679.7
WA-18	1292731.9	425704.4
WA-19	1292777.9	425676.7
WA-20	1292802.7	425650.1
WA-21	1292788.3	425610.5
WA-22	1292796.1	425600.0
WA-23	1292817.6	425534.1
WA-24	1292826.5	425523.0
WA-25	1292832.6	425511.4
WA-26	1292827.2	425470.1
WA-27	1292773.7	425465.7
WA-28	1292730.9	425420.0
WA-29	1292670.9	425393.9
WA-30	1292461.8	425402.2
WA-30A	1292408.4	425396.5
WA-31	1292346.4	425406.2
WA-32	1292297.0	425431.2
WA-33	1292282.9	425472.0
WA-34	1292257.2	425506.7
WA-35	1292224.2	425503.5
WA-36	1292202.8	425542.3
WA-37	1292182.4	425551.5
WA-38	1292196.6	425576.2
WA-39	1292226.9	425661.2

Surface Water "1" Point Information:

Designation	Northing	Easting
	Florida West	Florida West
	NAD 1983	NAD 1983
	US Survey Feet	US Survey Feet
SW1-1-OE	1292114.5	425782.4
SW1-2	1292180.4	425775.9
SW1-3	1292219.8	425806.1
SW1-4	1292374.5	425838.9
SW1-5	1292466.2	425868.1
SW1-6	1292540.1	425880.5
SW1-7	1292669.6	425600.2
SW1-8-OE	1292735.8	425960.1

Surface Water "2" Point Information:

Designation	Northing	Easting
	Florida West	Florida West
	NAD 1983	NAD 1983
	US Survey Feet	US Survey Feet
SW2-1	1293030.4	425874.7
SW2-2	1292854.5	425912.5
SW2-3	1292744.8	425917.4
SW2-4	1292548.5	425859.0
SW2-5	1292538.9	425875.3
SW2-6	1292601.8	425924.8
SW2-7	1292741.4	425936.6
SW2-8	1292851.7	425946.0
SW2-9	1293027.7	425955.2
SW2-10	1293039.3	425926.9

Surface Water "3A" Point Information:

Designation	Northing	Easting
	Florida West	Florida West
	NAD 1983	NAD 1983
	US Survey Feet	US Survey Feet
SW3A-1-OE	1293236.1	425967.5
SW3A-2	1293118.1	425965.2
SW3A-3-OE	1293115.9	425974.9

Surface Water "3B" Point Information:

Designation	Northing	Easting
	Florida West	Florida West
	NAD 1983	NAD 1983
	US Survey Feet	US Survey Feet
SW3B-1-OE	[illegible]	[illegible]
SW3B-2	[illegible]	[illegible]
SW3B-3	[illegible]	[illegible]
SW3B-4-OE	[illegible]	[illegible]

Surface Water "4" Point Information:

Designation	Northing	Easting
	Florida West	Florida West
	NAD 1983	NAD 1983
	US Survey Feet	US Survey Feet
SW4-1-OE	1293183.1	425330.3
SW4-2	1293036.1	425335.8
SW4-3	1293192.8	425354.3
SW4-4	1293218.3	425406.4
SW4-5	1293229.4	425485.4
SW4-6	1293226.1	425563.4
SW4-7	1293232.4	425564.3
SW4-8-OE	1293236.3	425496.7
SW4-9-OE	1293236.5	425468.9
SW4-10	1293234.7	425430.1
SW4-11-OE	1293198.6	425329.8

Ordinary/High Water Point Information:

Designation	Northing	Easting	Elevation
	Florida West	Florida West	
	NAD 1983	NAD 1983	NAVD 1988
	US Survey Feet	US Survey Feet	US Survey Feet
MHWT-1	1292474.4	425850.7	-
MHWT-2	1292677.8	425638.0	0.3
OHWT-1	1292408.1	425775.5	3.1

Note: At the time of survey, there was no "wire" found for MHWT-1. Field crew located a portion of ribbon found on the ground, presumably associated with said biological indicator.

Surveyor's Notes

1.) Not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper.
2.) The horizontal datum utilized for this project is NAD 1983 Florida West Zone, 2011 Adjustment, U.S. Survey Feet. Said datum was established by performing a rapid static GPS session and utilizing National Geodetic Survey's (NGS) Online Positioning User Service (OPUS).
3.) The vertical datum utilized for this project is NAVD 1988, U.S. Survey Feet. The benchmark utilized was NGS (National Geodetic Survey) Control Station "332 FLHD" with an elevation of 16.33 feet.
4.) The property boundary depicted hereon was derived from the Boundary & Bathymetric Survey entitled "Pinellas County Landfill", as prepared by SurvTech Solutions, bearing an approval date of November 4, 2016.
5.) The wetland points depicted hereon were flagged by S&ME, Inc. and verified by the Florida Department of Environmental Protection on January 30, 2018.
6.) THIS IS NOT A BOUNDARY SURVEY.

Stacy L. Brown P.S.M. No. 6515
SurvTech Solutions, Inc. LB No. 7340

Certifications:
S&ME, Inc.
Florida Department of Environmental Protection

Project Name: 126th Avenue Redevelopment Site — Project No.: 20160945
Address: 126th Avenue North — City: Pinellas Park — State: Florida

	REVISION	DATE	INITIALS
1	Revised per updated boundary.	05/21/18	C.E.
2	Updated location and elevation of OHWT-1 & 2.	06/15/18	C.E.
3	Updated location and elevation of OHWT-1. Removed OHWT-2 & added Approximate Limits of Pond.	07/06/18	C.E.

SURVEYING TODAY WITH TOMORROW'S TECHNOLOGY

Drafted By: C. Evans — Drawing Name: 20160945_SW
Date Drafted: 04/13/18 — Phase: 6
Approved By: S. Brown — Last Field Date: 03/28/18
Date Approved: 04/16/18 — Field Book/Page: 18-02/51

SURVTECH SOLUTIONS, INC.
10220 U.S. Highway 92 East
Tampa, FL 33610
phone: (813)-621-4929
fax: (813)-621-7194
Licensed Business #7340
email: sbrown@survtechsolutions.com
http://www.survtechsolutions.com

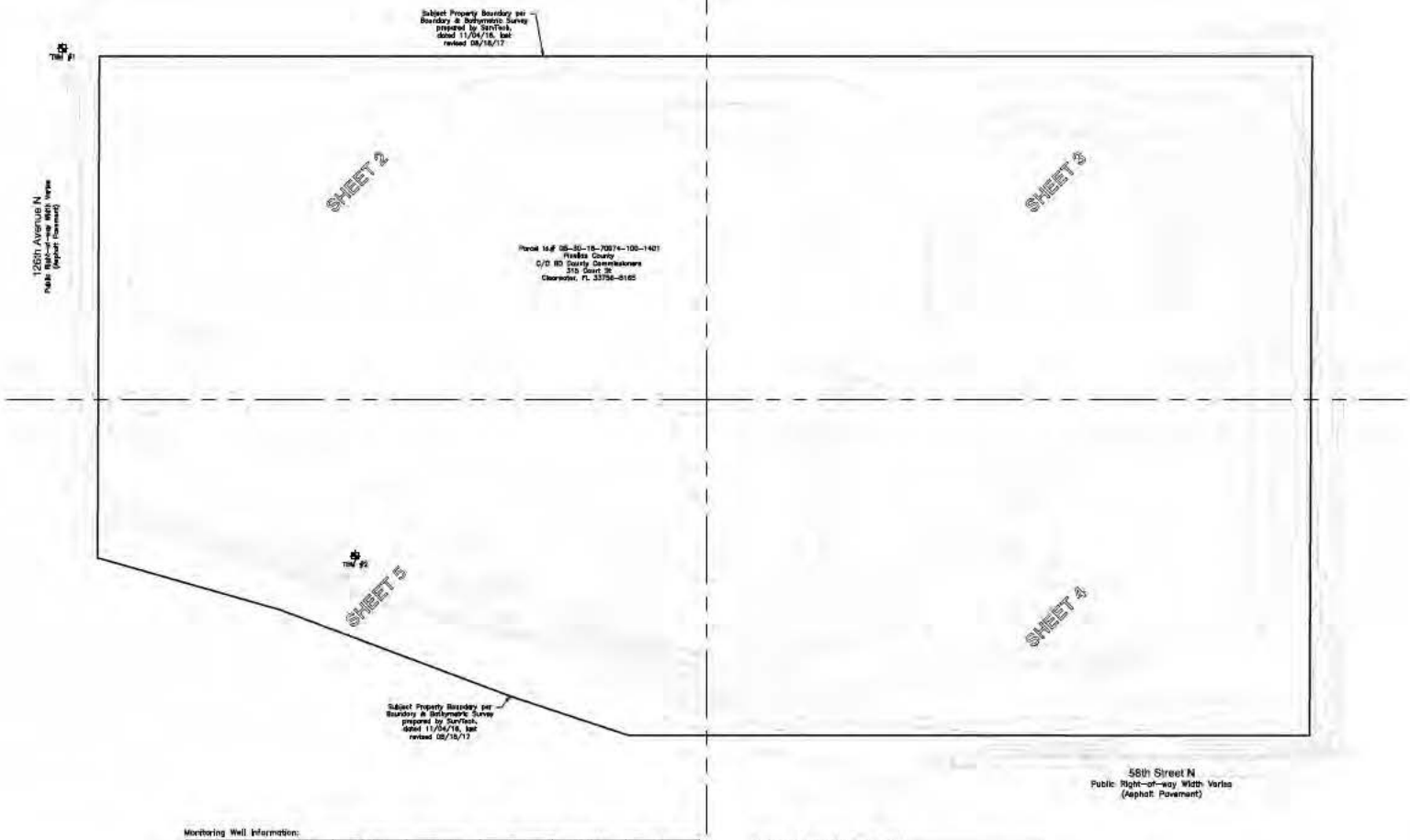
Date Plotted: 7/6/2018 10:08:58 AM By: Clay Evans

Topographic Survey
Pinellas County Dump
Section 8, Township 30 South, Range 16 East
Pinellas County, Florida

Legend & Abbreviations

- P.S.M. — Professional Surveyor and Mapper
- LB — Licensed Business
- Temporary Benchmark
- TBM — Temporary Benchmark
- Spot Elevation
- Spot Elevation on Hard Surface
- MW — Monitoring Well
- VMP — Vapor Monitoring Point
- PK — Parker Kalon
- EL — Elevation
- E — Invert Elevation
- BOS — Bottom of Structure Elevation
- RE — Rim Elevation
- TPE — Top of Pipe Elevation
- PVC — Polyvinyl Chloride Pipe
- RCP — Reinforced Concrete Pipe
- CMP — Corrugated Metal Pipe
- Fence
- Overhead Utility Line
- Gas
- Sanitary Sewer Pipe
- Drainage Pipe
- Monitoring Well
- Vapor Monitoring Point
- Light Pole
- Power Pole
- Guy Wire
- Miscellaneous Item
- Sanitary Manhole
- Reversal Post
- Fiber Optic Cable Marker
- Fire Hydrant
- Water Meter

Scale: 1" = 50'



Monitoring Well Information:

Designation	Northing	Easting	Ground Elevation	Rim Elevation	Ground Elevation	Rim Elevation
	Florida West	Florida West	NAVD 88	NAVD 88	NGVD 29	NGVD 29
	NAD 1983	NAD 1983				
	US Survey Feet	US Survey Feet	US Survey Feet	US Survey Feet	US Survey Feet	US Survey Feet
MW-1R	1202948.0	435341.1	10.4	13.14	11.9	14.20
MW-2R	1202953.0	435782.2	6.1	9.06	7.0	9.92
MW-3	1202851.0	435954.9	3.2	6.05	4.1	6.91

Vapor Monitoring Point Information:

Designation	Northing	Easting
	Florida West	Florida West
	NAD 1983	NAD 1983
	US Survey Feet	US Survey Feet
VMP-1	1202401.3	435764.3
VMP-2	1202843.9	436007.1
VMP-3	1203047.7	435943.4
VMP-4	1203062.3	435803.3
VMP-5	1202849.3	435701.7

Certifications:
SaaE, Inc.

Flood Zone Information:
Subject property is located in Flood Zone "AE"
Flood Insurance Rate Map: 12103C
Panel No.: 0139 G
Community Name/No.: Pinellas County/120139
Effective Date: September 3, 2003

Benchmark Information: NAVD 1988

TBM #1
Elevation = 7.87'
Set PK nail & disk labeled "SurvTech Tbm #1," in asphalt at 126th Avenue North near Southeast corner of subject property; 22'± Southeast of a sanitary manhole; 35'± Westerly of a round post for gate.

TBM #2
Elevation = 8.08'
Set PK nail & disk labeled "SurvTech Tbm #2," in the Northeast corner of concrete pad for MW-2R.

Surveyor's Notes

1.) Not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper.
2.) The horizontal datum utilized for this project is NAD 1983 Florida West Zone, 2011 Adjustment. U.S. Survey Feet. Said datum was established by performing a rapid static GPS session and utilizing National Geodetic Survey's (NGS) Online Positioning User Service (OPUS).
3.) All utilities depicted hereon are from visible evidence only. Surveyor did not contact subsurface utility locator service.
4.) No underground foundations or footers were excavated or located for this survey.
5.) The vertical datum utilized for this project is NAVD 1988, U.S. Survey Feet. The benchmark utilized was NGS (National Geodetic Survey) Control Station "332 FLHS" with an elevation of 15.33 feet. NGVD 1929 = NAVD 1988 + 0.88'
6.) THIS IS NOT A BOUNDARY SURVEY.

Stacy L. Brown P.S.M. No. 6516
SurvTech Solutions, Inc. L.B. No. 7340

Project Name: Pinellas County Dump — Project No: 30S08A6
Address: 11 (24th) Avenue — City: St. Petersburg — State: Florida

	REVISION	DATE	INITIALS
1	Added miscellaneous topo.	06/09/15	S.L.
2	Added additional topographic data.	08/16/17	C.E.
3	Added revised boundary	08/21/17	C.E.
4	Additional topographic data. Revised contours.	05/19/18	C.E.
5	Updated the Top of Water Elevation for the Pond.	07/06/18	C.E.

SURVEYING TODAY WITH TOMORROW'S TECHNOLOGY

Drafted By: B. Stearns & C. Evans — Drawing Name: 30S08A6_ST
Date Drafted: 06/23/15 — Plats: 5
Approved By: S. Brown — Last Field Date: 08/12/15
Date Approved: 06/27/15 — Field Book/Page: 17w/23

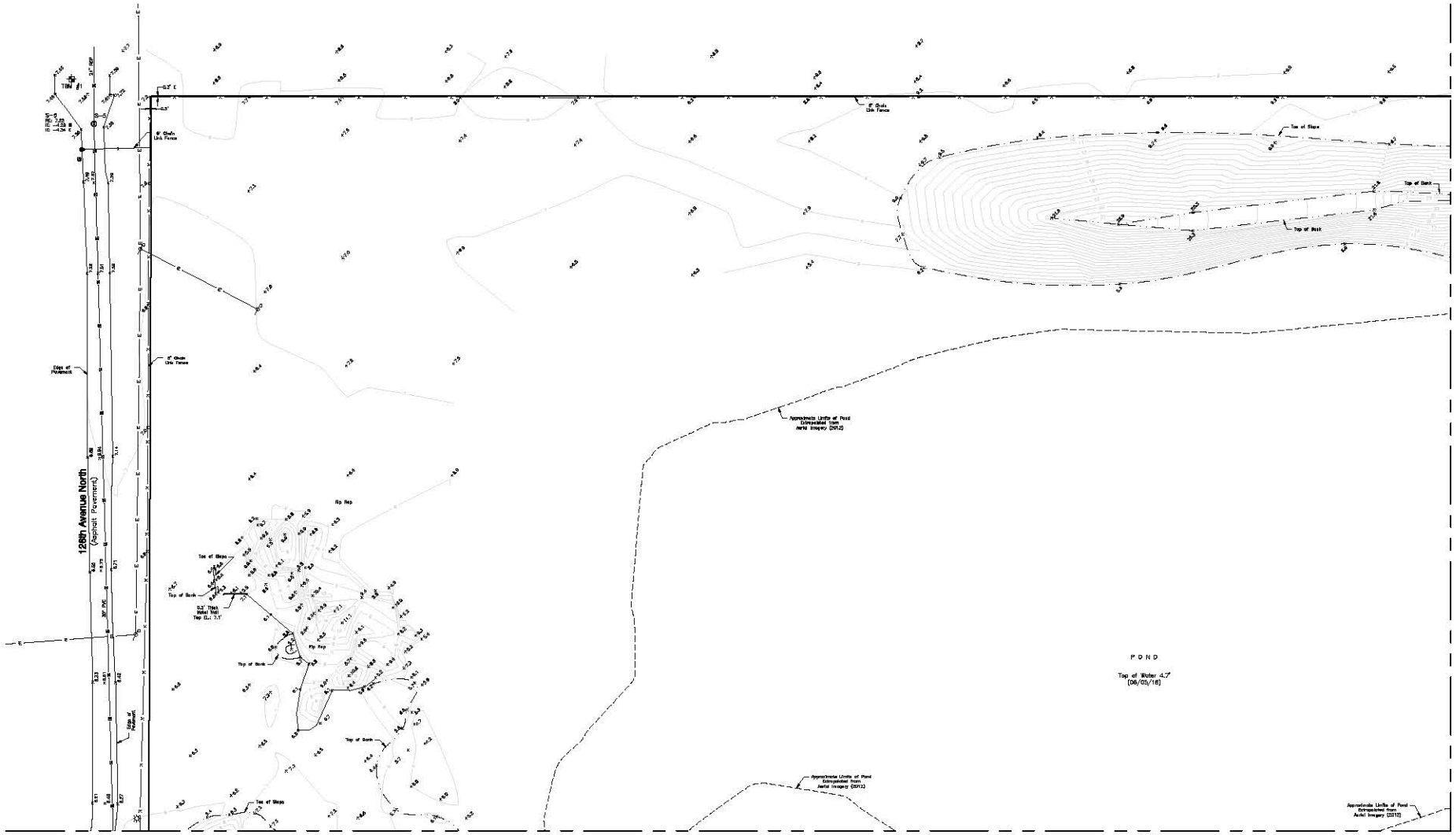
SURVTECH SOLUTIONS, INC.
10230 U.S. Highway 92 East
Tampa, FL 33610
phone: (813)-621-4929
fax: (813)-621-7194
Licensed Business #7340
email: skevin@survtechsolutions.com
http://www.survtechsolutions.com

Topographic Detail

Grid North

0' 20' 40' 60'

Scale: 1" = 20'



Benchmark Information: NAVD 1988

TBM #1
Elevation = 7.87'
Set PK nail & disk labeled "SurvTech Troy PL" in asphalt of 128th Avenue North near Southwest corner of subject property; 22'± Southwest of a sanitary manhole; 35'± Westerly of a round post for gate.

TBM #2
Elevation = 6.08'
Set PK nail & disk labeled "SurvTech Troy PL" in the Northeast corner of concrete pad for MW-2R.

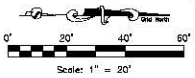
Topographic Survey

Pinellas County Dump

SurvTech Solutions, Inc.
10220 U.S. Highway 92 East
Tampa, FL 33610
Licensed Business #7340
phone: (813)-621-4928
fax: (813)-621-7195
email: admin@survtechsolutions.com
http://www.survtechsolutions.com

Drawing Name: 20150366_ST

Topographic Detail



SEE SHEET 2

POND

Top of Water 4.7'
(06/05/18)

Approximate Limits of Pond Extrapolated from Aerial Imagery (2015)

Top of Bank

Top of Slope

Edge of Concrete

Concrete

Sidewalk

VMP-1R

VMP-3

VMP-4

SEE SHEET 4

Topographic Survey

Pinellas County Dump

SURVTECH SOLUTIONS, INC.
10220 U.S. Highway 92 East
Tampa, FL 33610
Licensed Business #7340
phone: (813)-621-4928
fax: (813)-621-7195
email: admin@survtechsolutions.com
http://www.survtechsolutions.com

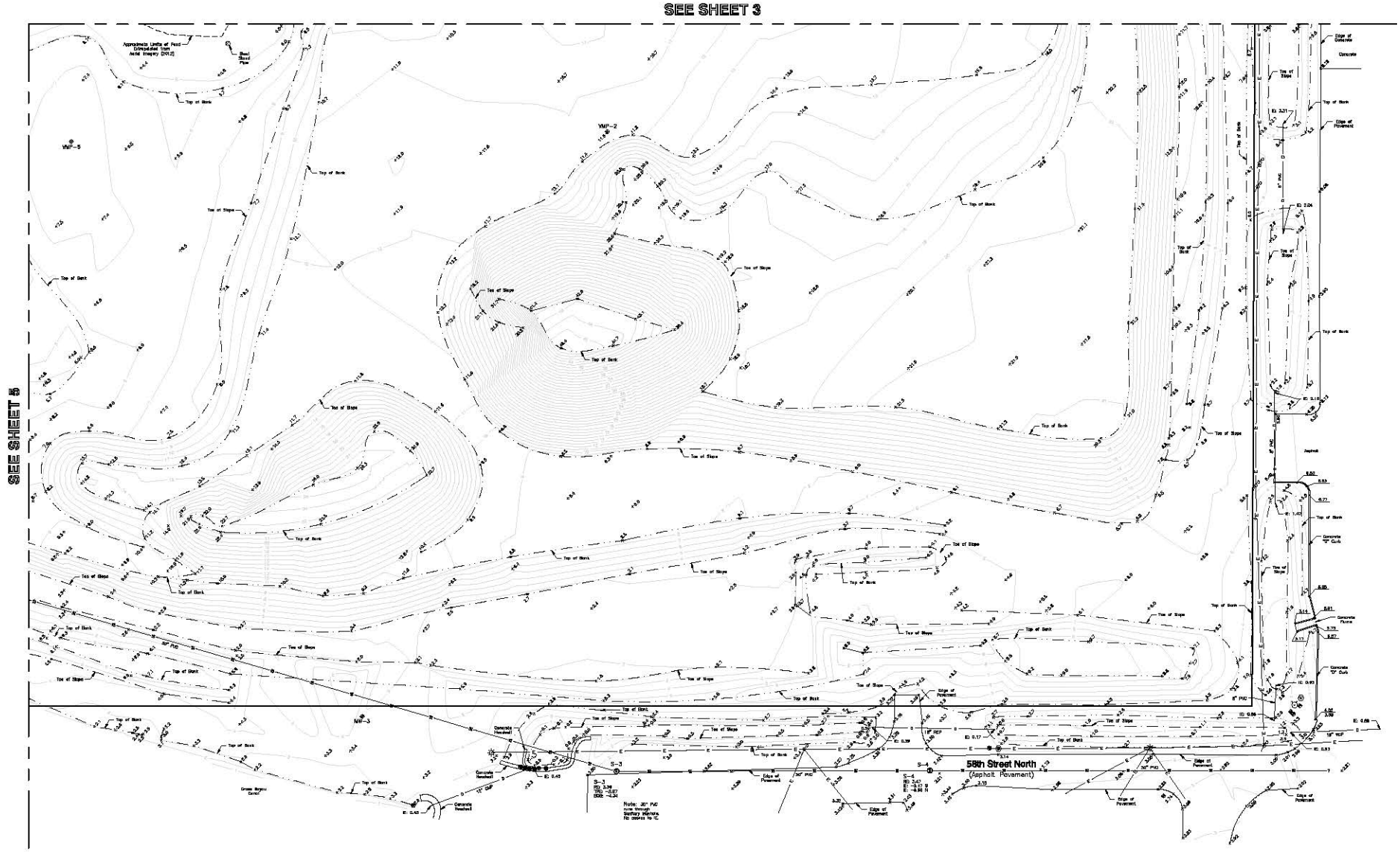
Drawing Name: 20150366_ST

Topographic Detail

Grid North

0' 20' 40' 60'

Scale: 1" = 20'



Topographic Survey

Pinellas County Dump

SURVTECH SOLUTIONS, INC.
10220 U.S. Highway 92 East
Tampa, FL 33610
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phone: (813)-621-4928
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email: admin@survtechsolutions.com
http://www.survtechsolutions.com

Drawing Name: 20150366_ST

Topographic Detail

Grid North

0' 20' 40' 60'

Scale: 1" = 20'

SEE SHEET 2

Benchmark Information: NAVD 1988

TBM #1
Elevation = 7.87'
Set PK nail & disk labeled "SurvTech Trav PL" in asphalt of 126th Avenue North near Southwest corner of subject property; 23'±: Southwest of a sanitary manhole; 35'±: Westerly of a round post for gate.

TBM #2
Elevation = 8.06'
Set PK nail & disk labeled "SurvTech Trav PL" in the Northeast corner of concrete pad for MW-2R.

Topographic Survey

Pinellas County Dump

SurvTech Solutions, Inc.
10220 U.S. Highway 92 East
Tampa, FL 33610
Licensed Business #7340
phone: (813)-621-4928
fax: (813)-621-7196
email: admin@survtechsolutions.com
http://www.survtechsolutions.com

Drawing Name: 20150366_ST

SITE PHOTOGRAPHS

Legend

Parcel 08-30-16-70974-100-1401

Wetlands & Surface Water Features

Source

Google Earth Pro™ (Image date 3/15/2018)

1615 Edgewater Drive, Suite 200
Orlando, Florida 32804

Figure 5: Sample Point & Photo Point Locations
126th Ave Redevelopment Site

Pinellas County Board of County Commissioners
Pinellas County, Florid

S&ME Project # 448417043

Figure Date: 7/9/2018 Prepared by: RAM

PLEASE NOTE THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.THERE ARE NO GUARANTEES ABOUT IT'S ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON INFORMATION OBTAINED FROM THE ABOVE DATA

1

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-1 / view north
Remarks	Field road between Feature A (L) and Feature 1 (R).

2

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-1 / view south
Remarks	Field road between Feature A (R) and Feature 1 (L).

Date: 1/4/2018

Photographer: Nicole Wright

3

Location / Orientation	PP-2 / view northeast
Remarks	Cross Bayou Canal (Jurisdictional Tributary 1).

Date: 1/4/2018

Photographer: Nicole Wright

4

Location / Orientation	PP-2 / view south
Remarks	Cross Bayou Canal (Jurisdictional Tributary 1).

5

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-3 / view north
Remarks	Uplands in southeast corner of parcel.

6

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-3 / view west
Remarks	Uplands in south of parcel.

7

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-4 / view east
Remarks	Feature 4.

8

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-4 / view south
Remarks	Feature 4.

9

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-5 / view north
Remarks	Retention Pond (Feature 2)

10

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-5 / view south
Remarks	Retention Pond (Feature 2)

11

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-6 / view north
Remarks	Uplands north-central portion of parcel.

12

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-6 / view east
Remarks	Uplands north-central portion of parcel.

13

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-6 / view south
Remarks	Uplands north-central portion of parcel (Feature A in distance)

14

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-6 / view west
Remarks	Uplands north-central portion of parcel.

15

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-7 / view north
Remarks	Non-jurisdictional Feature A.

16

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-7 / view east
Remarks	Feature A.

17

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-7 / view south
Remarks	Feature A.

18

Date: 1/4/2018

Photographer: Nicole Wright

Location / Orientation	PP-7 / view west
Remarks	Feature A.