



**FLORIDA SOUTHEAST CONNECTION PROJECT
WETLAND AND WATERBODY CONSTRUCTION AND
MITIGATION PROCEDURES**



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FLORIDA SOUTHEAST CONNECTION PROJECT WETLAND AND WATERBODY CONSTRUCTION AND MITIGATION PROCEDURES

I. APPLICABILITY

- A. Florida Southeast Connection (“FSC”) intends to adopt FERC’s Wetland and Waterbody Construction and Mitigation Procedures in its entirety. These adopted procedures will be referred to as FSC’s Wetland and Waterbody Construction and Mitigation Procedures (“FSC Procedures”). The FSC Procedures identify baseline mitigation measures for minimizing the extent and duration of project-related disturbance on wetlands and waterbodies.

FSC does not intend to seek any variances to the measures in these FSC Procedures. However, if site-specific conditions arise that necessitate a variance, FSC will provide to The Director of the Office of Energy Projects (Director) a written variance request providing the following about the variance:

1. how the variance provides equal or better environmental protection;
2. why the variance is necessary because a portion of these Procedures is infeasible or unworkable based on project-specific conditions; or
3. that the variance is specifically required in writing by another federal, state, or Native American land management agency for the portion of the project on its land or under its jurisdiction.

FSC will request and receive written approval for any variances in advance of construction.

Project-related impacts on non-wetland areas are addressed in FSC’s Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

B. DEFINITIONS

1. “Waterbody” includes any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as ponds and lakes:
 - a. “minor waterbody” includes all waterbodies less than or equal to 10 feet wide at the water’s edge at the time of crossing;
 - b. “intermediate waterbody” includes all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water’s edge at the time of crossing; and



- c. "major waterbody" includes all waterbodies greater than 100 feet wide at the water's edge at the time of crossing.
- 2. "Wetland" includes any area that is not in actively cultivated or rotated cropland and that satisfies the requirements of the current federal methodology for identifying and delineating wetlands.

II. PRECONSTRUCTION FILING

- A. FSC will file with the Secretary of the FERC (Secretary) prior to the beginning of construction, for the review and written approval by the Director:
 - 1. site-specific justifications for extra work areas that would be closer than 50 feet from a waterbody or wetland; and
 - 2. site-specific justifications for the use of a construction right-of-way greater than 75-feet-wide in wetlands.
- B. FSC will file with the Secretary prior to the beginning of construction the following:
 - 1. Spill Prevention and Response Procedures specified in section IV.A;
 - 2. a schedule identifying when trenching or blasting will occur within each waterbody greater than 10 feet wide, within any designated coldwater fishery, and within any waterbody identified as habitat for federally-listed threatened or endangered species. FSC will revise the schedule as necessary to provide FERC staff at least 14 days advance notice. Changes within this last 14-day period will be provided for at least 48 hours advance notice;
 - 3. plans for horizontal directional drills (HDD) under wetlands or waterbodies, specified in section V.B.6.d;
 - 4. site-specific plans for major waterbody crossings, described in section V.B.9;
 - 5. a wetland delineation report as described in section VI.A.1, if applicable; and
 - 6. the hydrostatic testing information specified in section VII.B.3.



III. ENVIRONMENTAL INSPECTORS

- A. At least one Environmental Inspector having knowledge of the wetland and waterbody conditions in the project area will be provided for each construction spread. The number and experience of Environmental Inspectors assigned to each construction spread shall be appropriate for the length of the construction spread and the number/significance of resources affected.
- B. The Environmental Inspector's responsibilities are outlined in the Upland Erosion Control, Revegetation, and Maintenance Plan (Plan).

IV. PRECONSTRUCTION PLANNING

- A. FSC will develop project-specific Spill Prevention and Response Procedures that meet applicable requirements of state and federal agencies. A copy will be filed with the Secretary prior to construction and made available in the field on each construction spread.
 - 1. FSC and its contractors will structure operations in a manner that reduces the risk of spills or the accidental exposure of fuels or hazardous materials to waterbodies or wetlands. FSC and its contractors will, at a minimum, ensure that:
 - a. all employees handling fuels and other hazardous materials are properly trained;
 - b. all equipment is in good operating order and inspected on a regular basis;
 - c. fuel trucks transporting fuel to on-site equipment travel only on approved access roads;
 - d. all equipment is parked overnight and/or fueled at least 100 feet from a waterbody or in an upland area at least 100 feet from a wetland boundary. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and FSC and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;
 - e. hazardous materials, including chemicals, fuels, and lubricating oils, are not stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does



not apply to normal operation or use of equipment in these areas;

- f. concrete coating activities are not performed within 100 feet of a wetland or waterbody boundary, unless the location is an existing industrial site designated for such use. These activities can occur closer only if the Environmental Inspector determines that there is no reasonable alternative, and FSC and its contractors have taken appropriate steps (including secondary containment structures) to prevent spills and provide for prompt cleanup in the event of a spill;
 - g. pumps operating within 100 feet of a waterbody or wetland boundary utilize appropriate secondary containment systems to prevent spills; and
 - h. bulk storage of hazardous materials, including chemicals, fuels, and lubricating oils have appropriate secondary containment systems to prevent spills.
2. FSC and its contractors will structure operations in a manner that provides for the prompt and effective cleanup of spills of fuel and other hazardous materials. At a minimum, FSC and its contractors will:
- a. ensure that each construction crew (including cleanup crews) has on hand sufficient supplies of absorbent and barrier materials to allow the rapid containment and recovery of spilled materials and knows the procedure for reporting spills and unanticipated discoveries of contamination;
 - b. ensure that each construction crew has on hand sufficient tools and material to stop leaks;
 - c. know the contact names and telephone numbers for all local, state, and federal agencies (including, if necessary, the U. S. Coast Guard and the National Response Center) that must be notified of a spill; and
 - d. follow the requirements of those agencies in cleaning up the spill, in excavating and disposing of soils or other materials contaminated by a spill, and in collecting and disposing of waste generated during spill cleanup.

B. AGENCY COORDINATION

FSC will coordinate with the appropriate local, state, and federal agencies as outlined in these Procedures and in the FERC's Orders.



V. WATERBODY CROSSINGS

A. NOTIFICATION PROCEDURES AND PERMITS

1. FSC will apply to the U.S. Army Corps of Engineers (COE), or its delegated agency, for the appropriate wetland and waterbody crossing permits.
2. FSC will provide written notification to authorities responsible for potable surface water supply intakes located within 3 miles downstream of the crossing at least 1 week before beginning work in the waterbody, or as otherwise specified by that authority.
3. FSC will apply for state-issued waterbody crossing permits and obtain individual or generic section 401 water quality certification or waiver.
4. FSC will notify appropriate federal and state authorities at least 48 hours before beginning trenching or blasting within the waterbody, or as specified in applicable permits.

B. INSTALLATION

1. Time Window for Construction

Unless expressly permitted or further restricted by the appropriate federal or state agency in writing on a site-specific basis, in-stream work, except that required to install or remove equipment bridges, will occur during the following time windows:

- a. coldwater fisheries - June 1 through September 30; and
- b. coolwater and warmwater fisheries - June 1 through November 30.

2. Extra Work Areas

- a. FSC will locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.
- b. FSC will file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from the water's edge, except where the adjacent upland consists of cultivated or



rotated cropland or other disturbed land. The justification will specify the conditions that will not permit a 50-foot setback and measures to ensure the waterbody is adequately protected.

- c. FSC will limit the size of extra work areas to the minimum needed to construct the waterbody crossing.

3. General Crossing Procedures

- a. FSC will comply with the COE, or its delegated agency, permit terms and conditions.

- b. FSC will construct crossings as close to perpendicular to the axis of the waterbody channel as engineering and routing conditions permit.

- c. Where pipelines parallel a waterbody, FSC will maintain at least 15 feet of undisturbed vegetation between the waterbody (and any adjacent wetland) and the construction right-of-way, except where maintaining this offset will result in greater environmental impact.

- d. Where waterbodies meander or have multiple channels, FSC will route the pipeline to minimize the number of waterbody crossings.

- e. FSC will maintain adequate waterbody flow rates to protect aquatic life, and prevent the interruption of existing downstream uses.

- f. Waterbody buffers (e.g., extra work area setbacks, refueling restrictions) will be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.

- g. Crossing of waterbodies when they are dry or frozen and not flowing will proceed using standard upland construction techniques in accordance with the Plan, provided that the Environmental Inspector verifies that water is unlikely to flow between initial disturbance and final stabilization of the feature. In the event of perceptible flow, FSC will comply with all applicable Procedure requirements for "waterbodies" as defined in section I.B.1.



4. Spoil Pile Placement and Control

- a. All spoil from minor and intermediate waterbody crossings, and upland spoil from major waterbody crossings, will be placed in the construction right-of-way at least 10 feet from the water's edge or in additional extra work areas as described in section V.B.2.
- b. Sediment barriers will be used to prevent the flow of spoil or silt-laden water into any waterbody.

5. Equipment Bridges

- a. Only clearing equipment and equipment necessary for installation of equipment bridges will be allowed to cross waterbodies prior to bridge installation. The number of such crossings of each waterbody will be limited to one per piece of clearing equipment.
- b. Equipment bridges will be constructed and maintained to allow unrestricted flow and to prevent soil from entering the waterbody. Examples of such bridges include:
 - (1) equipment pads and culvert(s);
 - (2) equipment pads or railroad car bridges without culverts;
 - (3) clean rock fill and culvert(s); and
 - (4) flexi-float or portable bridges.

Additional options for equipment bridges may be utilized that achieve the performance objectives noted above. Soil will not be used to construct or stabilize equipment bridges.

- c. Each equipment bridge will be designed and maintained to withstand and pass the highest flow expected to occur while the bridge is in place. Culverts will be aligned to prevent bank erosion or streambed scour. If necessary, energy dissipating devices will be installed downstream of the culverts.
- d. Equipment bridges will be designed and maintained to prevent soil from entering the waterbody.
- e. Temporary equipment bridges will be removed as soon as practicable after permanent seeding.
- f. If there will be more than 1 month between final cleanup and the beginning of permanent seeding and reasonable alternative access to the right-of-way is available, temporary equipment



bridges will be removed as soon as practicable after final cleanup.

- g. Any necessary approval from the COE, or the appropriate state agency will be obtained for permanent bridges.

6. Dry-Ditch Crossing Methods

- a. Unless approved otherwise by the appropriate federal or state agency, the pipeline will be installed using one of the dry-ditch methods outlined below for crossings of waterbodies up to 30 feet wide (at the water's edge at the time of construction) that are state-designated as either coldwater or significant coolwater or warmwater fisheries, or federally-designated as critical habitat.

- b. Dam and Pump

- (1) The dam-and-pump method may be used for crossings of waterbodies where pumps can adequately transfer streamflow volumes around the work area, and there are no concerns about sensitive species passage.

- (2) Implementation of the dam-and-pump crossing method will meet the following performance criteria:

- (i) use sufficient pumps, including on-site backup pumps, to maintain downstream flows;
- (ii) construct dams with materials that prevent sediment and other pollutants from entering the waterbody (e.g., sandbags or clean gravel with plastic liner);
- (iii) screen pump intakes to minimize entrainment of fish;
- (iv) prevent streambed scour at pump discharge; and
- (v) continuously monitor the dam and pumps to ensure proper operation throughout the waterbody crossing.

- c. Flume Crossing

The flume crossing method requires implementation of the following steps:

- (1) install flume pipe after blasting (if necessary), but before any trenching;



- (2) use sand bag or sand bag and plastic sheeting diversion structure or equivalent to develop an effective seal and to divert stream flow through the flume pipe (some modifications to the stream bottom may be required to achieve an effective seal);
- (3) properly align flume pipe(s) to prevent bank erosion and streambed scour;
- (4) do not remove flume pipe during trenching, pipelaying, or backfilling activities, or initial streambed restoration efforts; and
- (5) remove all flume pipes and dams that are not also part of the equipment bridge as soon as final cleanup of the stream bed and bank is complete.

d. Horizontal Directional Drill

For each waterbody or wetland that would be crossed using the HDD method, FSC will file with the Secretary for the review and written approval by the Director, a plan that includes:

- (1) site-specific construction diagrams that show the location of mud pits, pipe assembly areas, and all areas to be disturbed or cleared for construction;
- (2) justification that disturbed areas are limited to the minimum needed to construct the crossing;
- (3) identification of any aboveground disturbance or clearing between the HDD entry and exit workspaces during construction;
- (4) a description of how an inadvertent release of drilling mud would be contained and cleaned up; and
- (5) a contingency plan for crossing the waterbody or wetland in the event the HDD is unsuccessful and how the abandoned drill hole would be sealed, if necessary.

7. Crossings of Minor Waterbodies

Where a dry-ditch crossing is not required, minor waterbodies may be crossed using the open-cut crossing method, with the following restrictions:



- a. except for blasting and other rock breaking measures, instream construction activities (including trenching, pipe installation, backfill, and restoration of the streambed contours) will be completed within 24 hours. Streambanks and unconsolidated streambeds may require additional restoration after this period;
- b. use of equipment operating in the waterbody will be limited to that needed to construct the crossing; and
- c. equipment bridges are not required at minor waterbodies that do not have a state-designated fishery classification or protected status (e.g., agricultural or intermittent drainage ditches). However, if an equipment bridge is used it will be constructed as described in section V.B.5.

8. Crossings of Intermediate Waterbodies

Where a dry-ditch crossing is not required, intermediate waterbodies will be crossed using the open-cut crossing method, with the following restrictions:

- a. instream construction activities (not including blasting and other rock breaking measures) will be completed within 48 hours, unless site-specific conditions make completion within 48 hours infeasible;
- b. use of equipment operating in the waterbody will be limited to that needed to construct the crossing; and
- c. all other construction equipment will cross on an equipment bridge as specified in section V.B.5.

9. Crossings of Major Waterbodies

Before construction, FSC will file with the Secretary for the review and written approval by the Director a detailed, site-specific construction plan and scaled drawings identifying all areas to be disturbed by construction for each major waterbody crossing (the scaled drawings are not required for any offshore portions of pipeline projects). This plan will be developed in consultation with the appropriate state and federal agencies and shall include extra work areas, spoil storage areas, sediment control structures, etc., as well as mitigation for navigational issues.



The Environmental Inspector may adjust the final placement of the erosion and sediment control structures in the field to maximize effectiveness.

10. Temporary Erosion and Sediment Control

Sediment barriers (as defined in section IV.F.3.a of the Plan) will be installed immediately after initial disturbance of the waterbody or adjacent upland. Sediment barriers will be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench) until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan; however, the following specific measures will be implemented at stream crossings:

- a. sediment barriers will be installed across the entire construction right-of-way at all waterbody crossings, where necessary to prevent the flow of sediments into the waterbody. Removable sediment barriers (or driveable berms) will be installed across the travel lane. These removable sediment barriers can be removed during the construction day, but will be re-installed after construction has stopped for the day and/or when heavy precipitation is imminent;
- b. where waterbodies are adjacent to the construction right-of-way and the right-of-way slopes toward the waterbody, sediment barriers will be installed along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the waterbody; and
- c. temporary trench plugs will be used at all waterbody crossings, as necessary, to prevent diversion of water into upland portions of the pipeline trench and to keep any accumulated trench water out of the waterbody.

11. Trench Dewatering

The trench will be dewatered (either on or off the construction right-of-way) in a manner that does not cause erosion and does not result in silt-laden water flowing into any waterbody. The dewatering structures will be removed as soon as practicable after the completion of dewatering activities.



C. RESTORATION

1. Clean gravel or native cobbles will be used for the upper 1 foot of trench backfill in all waterbodies that contain coldwater fisheries.
2. For open-cut crossings, waterbody banks will be stabilized and temporary sediment barriers will be installed within 24 hours of completing instream construction activities. For dry-ditch crossings, streambed and bank stabilization will be completed before returning flow to the waterbody channel.
3. All waterbody banks will be returned to preconstruction contours or to a stable angle of repose as approved by the Environmental Inspector.
4. Erosion control fabric or a functional equivalent will be installed on waterbody banks at the time of final bank recontouring. Synthetic monofilament mesh/netted erosion control materials in areas designated as sensitive wildlife habitat will not be used unless the product is specifically designed to minimize harm to wildlife. Erosion control fabric will be anchored with staples or other appropriate devices.
5. Application of riprap for bank stabilization will comply with COE, or its delegated agency, permit terms and conditions.
6. Unless otherwise specified by state permit, the use of riprap will be limited to areas where flow conditions preclude effective vegetative stabilization techniques such as seeding and erosion control fabric.
7. Disturbed riparian areas will be revegetated with native species of conservation grasses, legumes, and woody species, similar in density to adjacent undisturbed lands.
8. A permanent slope breaker will be installed across the construction right-of-way at the base of slopes greater than 5 percent that are less than 50 feet from the waterbody, or as needed to prevent sediment transport into the waterbody. In addition, sediment barriers will be installed as outlined in the Plan.

In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the waterbody.

9. Sections V.C.3 through V.C.7 above also apply to those perennial or intermittent streams not flowing at the time of construction.

D. POST-CONSTRUCTION MAINTENANCE



1. Routine vegetation mowing or clearing will be limited adjacent to waterbodies to allow a riparian strip at least 25 feet wide, as measured from the waterbody's mean high water mark, to permanently revegetate with native plant species across the entire construction right-of-way. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees that are located within 15 feet of the pipeline that have roots that could compromise the integrity of the pipeline coating will be cut and removed from the permanent right-of-way. No routine vegetation mowing or clearing will be conducted in riparian areas that are between HDD entry and exit points.
2. Herbicides or pesticides will not be used in or within 100 feet of a waterbody except as allowed by the appropriate land management or state agency.
3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of riparian areas.

VI. WETLAND CROSSINGS

A. GENERAL

1. FSC will conduct a wetland delineation using the current federal methodology and file a wetland delineation report with the Secretary before construction.

This report will identify:

- a. by milepost all wetlands that would be affected;
- b. the National Wetlands Inventory (NWI) classification for each wetland;
- c. the crossing length of each wetland in feet; and
- d. the area of permanent and temporary disturbance that would occur in each wetland by NWI classification type.

The requirements outlined in this section do not apply to wetlands in actively cultivated or rotated cropland. Standard upland protective measures, including workspace and topsoiling requirements, apply to these agricultural wetlands.



2. The pipeline will be routed to avoid wetland areas to the maximum extent possible. If a wetland cannot be avoided or crossed by following an existing right-of-way, the new pipeline will be routed in a manner that minimizes disturbance to wetlands.
3. The width of the construction right-of-way will be limited to 75 feet or less. Prior written approval of the Director will be obtained where topographic conditions or soil limitations require that the construction right-of-way width within the boundaries of a federally delineated wetland be expanded beyond 75 feet. Early in the planning process FSC will identify site-specific areas where excessively wide trenches could occur and/or where spoil piles could be difficult to maintain because existing soils lack adequate unconfined compressive strength.
4. Wetland boundaries and buffers will be clearly marked in the field with signs and/or highly visible flagging until construction-related ground disturbing activities are complete.
5. In the event a waterbody crossing is located within or adjacent to a wetland crossing, FSC will implement the measures of sections V and VI. If all measures of sections V and VI cannot be met, FSC will file with the Secretary a site-specific crossing plan for review and written approval by the Director before construction. This crossing plan will address at a minimum:
 - a. spoil control;
 - b. equipment bridges;
 - c. restoration of waterbody banks and wetland hydrology;
 - d. timing of the waterbody crossing;
 - e. method of crossing; and
 - f. size and location of all extra work areas.
6. Aboveground facilities will not be located in any wetland, except where the location of such facilities outside of wetlands would prohibit compliance with U.S. Department of Transportation regulations.



B. INSTALLATION

1. Extra Work Areas and Access Roads

- a. All extra work areas (such as staging areas and additional spoil storage areas) will be located at least 50 feet away from wetland boundaries, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.
- b. FSC will file with the Secretary for review and written approval by the Director, site-specific justification for each extra work area with a less than 50-foot setback from wetland boundaries, except where adjacent upland consists of cultivated or rotated cropland or other disturbed land. The justification will specify the site-specific conditions that will not permit a 50-foot setback and measures to ensure the wetland is adequately protected.
- c. The construction right-of-way may be used for access when the wetland soil is firm enough to avoid rutting or the construction right-of-way has been appropriately stabilized to avoid rutting (e.g., with timber riprap, prefabricated equipment mats, or terra mats).

In wetlands that cannot be appropriately stabilized, all construction equipment other than that needed to install the wetland crossing shall use access roads located in upland areas. Where access roads in upland areas do not provide reasonable access, limit all other construction equipment to one pass through the wetland using the construction right-of-way.

- d. The only access roads, other than the construction right-of-way, that may be used in wetlands are those existing roads that can be used with no modifications or improvements, other than routine repair, and no impact on the wetland.

2. Crossing Procedures

- a. FSC will comply with COE, or its delegated agency, permit terms and conditions.
- b. FSC will assemble the pipeline in an upland area unless the wetland is dry enough to adequately support skids and pipe.
- c. FSC will use “push-pull” or “float” techniques to place the pipe in the trench where water and other site conditions allow.



- d. FSC will minimize the length of time that topsoil is segregated and the trench is open. The wetland will not be trenched until the pipeline is assembled and ready for lowering in.
- e. Construction equipment operating in wetland areas will be limited to that needed to clear the construction right-of-way, dig the trench, fabricate and install the pipeline, backfill the trench, and restore the construction right-of-way.
- f. Vegetation will be cut just above ground level, leaving existing root systems in place, and removed from the wetland for disposal.

FSC may burn woody debris in wetlands, if approved by the COE and in accordance with state and local regulations, ensuring that all remaining woody debris is removed for disposal.

- g. Pulling of tree stumps and grading activities will be limited to directly over the trenchline. Stumps or root systems will not be removed or degraded from the rest of the construction right-of-way in wetlands unless the Chief Inspector and Environmental Inspector determine that safety-related construction constraints require grading or the removal of tree stumps from under the working side of the construction right-of-way.
- h. The top 1 foot of topsoil will be segregated from the area disturbed by trenching, except in areas where standing water is present or soils are saturated. Immediately after backfilling is complete, the segregated topsoil will be restored to its original location.
- i. Rock, soil imported from outside the wetland, tree stumps, or brush riprap will not be used to support equipment on the construction right-of-way.
- j. If standing water or saturated soils are present, or if construction equipment causes ruts or mixing of the topsoil and subsoil in wetlands, low-ground-weight construction equipment will be used, or normal equipment will be operated on timber riprap, prefabricated equipment mats, or terra mats.
- k. All project-related material used to support equipment on the construction right-of-way will be removed upon completion of construction.



3. Temporary Sediment Control

Sediment barriers (as defined in section IV.F.3.a of the Plan) will be installed immediately after initial disturbance of the wetland or adjacent upland. Sediment barriers will be properly maintained throughout construction and reinstalled as necessary (such as after backfilling of the trench). Except as noted below in section VI.B.3.c, sediment barriers will be maintained until replaced by permanent erosion controls or restoration of adjacent upland areas is complete. Temporary erosion and sediment control measures are addressed in more detail in the Plan.

- a. Sediment barriers will be installed across the entire construction right-of-way immediately upslope of the wetland boundary at all wetland crossings where necessary to prevent sediment flow into the wetland.
- b. Where wetlands are adjacent to the construction right-of-way and the right-of-way slopes toward the wetland, sediment barriers will be installed along the edge of the construction right-of-way as necessary to contain spoil within the construction right-of-way and prevent sediment flow into the wetland.
- c. Sediment barriers will be installed along the edge of the construction right-of-way as necessary to contain spoil and sediment within the construction right-of-way through wetlands. These sediment barriers will be removed during right-of-way cleanup.

4. Trench Dewatering

The trench (either on or off the construction right-of-way) will be dewatered in a manner that does not cause erosion and does not result in silt-laden water flowing into any wetland. The dewatering structures will be removed as soon as practicable after the completion of dewatering activities.

C. RESTORATION

1. Where the pipeline trench may drain a wetland, trench breakers will be constructed at the wetland boundaries and/or the trench bottom will be sealed as necessary to maintain the original wetland hydrology.
2. Pre-construction wetland contours will be restored to maintain the original wetland hydrology.



3. For each wetland crossed, a trench breaker will be installed at the base of slopes near the boundary between the wetland and adjacent upland areas. A permanent slope breaker will be installed across the construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from the wetland, or as needed to prevent sediment transport into the wetland. In addition, sediment barriers will be installed as outlined in the Plan. In some areas, with the approval of the Environmental Inspector, an earthen berm may be suitable as a sediment barrier adjacent to the wetland.
4. Fertilizer, lime, or mulch will not be used unless required in writing by the appropriate federal or state agency.
5. FSC will consult with the appropriate federal or state agencies to develop a project-specific wetland restoration plan. The restoration plan will include measures for re-establishing herbaceous and/or woody species, controlling the invasion and spread of invasive species and noxious weeds (e.g., purple loosestrife and phragmites), and monitoring the success of the revegetation and weed control efforts. This plan will be provided to the FERC staff upon request.
6. Until a project-specific wetland restoration plan is developed and/or implemented, the construction right-of-way will be temporarily revegetated with annual ryegrass at a rate of 40 pounds/acre (unless standing water is present).
7. All disturbed areas will be successfully revegetated with wetland herbaceous and/or woody plant species.
8. Temporary sediment barriers located at the boundary between wetland and adjacent upland areas will be removed after revegetation and stabilization of adjacent upland areas are judged to be successful as specified in section VII.A.4 of the Plan.

D. POST-CONSTRUCTION MAINTENANCE AND REPORTING

1. Routine vegetation mowing or clearing will not be conducted over the full width of the permanent right-of-way in wetlands. However, to facilitate periodic corrosion/leak surveys, a corridor centered on the pipeline and up to 10 feet wide may be cleared at a frequency necessary to maintain the 10-foot corridor in an herbaceous state. In addition, trees within 15 feet of the pipeline with roots that could compromise the integrity of pipeline coating will be selectively cut and removed from the permanent right-of-way. No routine vegetation mowing or clearing in wetlands that are between HDD entry and exit points will occur.



2. Herbicides or pesticides will not be used in or within 100 feet of a wetland, except as allowed by the appropriate federal or state agency.
3. Time of year restrictions specified in section VII.A.5 of the Plan (April 15 – August 1 of any year) apply to routine mowing and clearing of wetland areas.
4. Monitoring and recording the success of wetland revegetation will be conducted annually until wetland revegetation is successful.
5. Wetland revegetation will be considered successful if all of the following criteria are satisfied:
 - a. the affected wetland satisfies the current federal definition for a wetland (i.e., soils, hydrology, and vegetation);
 - b. vegetation is at least 80 percent of either the cover documented for the wetland prior to construction, or at least 80 percent of the cover in adjacent wetland areas that were not disturbed by construction;
 - c. if natural rather than active revegetation was used, the plant species composition is consistent with early successional wetland plant communities in the affected ecoregion; and
 - d. invasive species and noxious weeds are absent, unless they are abundant in adjacent areas that were not disturbed by construction.
6. Within 3 years after construction, a report will be filed with the Secretary identifying the status of the wetland revegetation efforts and documenting success as defined in section VI.D.5, above.

For any wetland where revegetation is not successful at the end of 3 years after construction, a remedial revegetation plan will be developed and implemented (in consultation with a professional wetland ecologist) to actively revegetate wetlands. Revegetation efforts will be continued and a report filed annually documenting progress in these wetlands until wetland revegetation is successful.

VII. HYDROSTATIC TESTING

A. NOTIFICATION PROCEDURES AND PERMITS

1. FSC will apply for state-issued water withdrawal permits, as required.



2. FSC will apply for National Pollutant Discharge Elimination System (NPDES) or state-issued discharge permits, as required.
3. FSC will notify appropriate state agencies of intent to use specific sources at least 48 hours before testing activities unless they waive this requirement in writing.

B. GENERAL

1. FSC will perform 100 percent radiographic inspection of all pipeline section welds or hydrotest the pipeline sections, before installation under waterbodies or wetlands.
2. If pumps used for hydrostatic testing are within 100 feet of any waterbody or wetland, FSC will address secondary containment and refueling of these pumps in the project's Spill Prevention and Response Procedures.
3. FSC will file with the Secretary before construction a list identifying the location of all waterbodies proposed for use as a hydrostatic test water source or discharge location.

C. INTAKE SOURCE AND RATE

1. The intake hose will be screened to minimize the potential for entrainment of fish.
2. State-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, will not be used unless appropriate federal, state, and/or local permitting agencies grant written permission.
3. Adequate flow rates will be maintained to protect aquatic life, provide for all waterbody uses, and provide for downstream withdrawals of water by existing users.
4. Hydrostatic test manifolds will be located outside wetlands and riparian areas to the maximum extent practicable.

D. DISCHARGE LOCATION, METHOD, AND RATE

1. Discharge rate, will be regulated using energy dissipation device(s), and installed sediment barriers, as necessary, to prevent erosion, streambed scour, suspension of sediments, or excessive streamflow.



2. No discharge will occur into state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and local permitting agencies grant written permission.

1 Introduction

This plan provides procedures and steps to manage contingencies during the performance of horizontal directional drills (HDDs) for Florida Southeast Connection, LLC's (FSC) proposed Florida Southeast Connection pipeline project (herein the 'Project'). The Project proposes to utilize HDDs to install various portions of the natural gas transmission pipeline.

HDDs are commonly used in pipeline construction for crossing large waterbodies, transportation corridors, or other sensitive features. This technique allows for the pipeline to be placed using an underground drill without breaking the ground surface between the entry and exit locations.

This HDD Contingency Plan identifies procedures that will be implemented in the event an HDD is deemed not viable at any of the proposed locations and provides procedures for monitoring and containing an inadvertent release of drilling fluids or muds during the operation.

2 Alternative Construction to HDD

HDDs have been in use since the 1970s. The technology has become relatively common and is a proven method that is readily available for installing the pipeline that FSC proposes to use for the Project.

Problems with HDDs are generally associated with subsurface conditions where, in some cases, non-uniformity may exist in the underlying formations—notably those containing scattered rock, sands, or gravel—or cavities where the drilling fluid pressures on the drill head cannot be maintained. In these cases, the pilot hole or reaming hole may become unstable or collapse, causing a sudden increase or loss in bore hole pressure and associated loss of drilling fluid returns during the drilling operation.

If, for any reason, it becomes necessary to suspend HDD operations and/or abandon a partially completed drill hole, the drill will be withdrawn and the hole will be filled and plugged at the surface.

If it is determined necessary to abandon the original HDD location, the proposed alignment may be shifted and retried.

FSC may also adopt alternative construction methods to suit site-specific conditions including open-cut excavation, or conventional jack and bore. Such alternative methods would only be used after notifying applicable regulatory agencies and obtaining the necessary approvals as appropriate in accordance with the permit conditions. No alternative crossing methods will be implemented without proper agency notification and approval.

3 HDD Monitoring Procedures

During the HDD process, there is a potential risk of an inadvertent release of drilling muds or fluids to the surface. The HDD supervisory personnel will be on site at all times during HDD activities to continuously monitor all operations during drilling activities for any anomalous conditions.

The drilling mud likely to be used for the Project would generally consist of fresh water, with a high yield bentonite added to achieve the necessary properties, such as viscosity. Bentonite is composed of clay minerals, and it is not considered a hazardous material by the U.S. Environmental Protection Agency (USEPA) or Florida Department of Environmental Protection (FDEP). Therefore, in the event of a release into a wetland or waterbody, there would be a temporary impact due to an increase in turbidity from the bentonite and the efforts to contain and clean up the released drilling mud. Drilling parameters will be established to maximize circulation and minimize risk of inadvertent releases. Monitoring of HDD activities will be done in accordance with procedures to be provided by the Project's drilling contractor. Monitoring and sampling procedures will include:

- Visual inspection along the drill path, including monitoring the wetlands and waterbodies for evidence of a release;
- Continuous monitoring of drilling mud consistency, drilling mud pressures, and return flows;
- Periodic recording of drill status information regarding drill conditions, pressures, returns, and progress during the course of drilling activities; and
- A wetland scientist within a two-hour drive of any HDD crossings of wetlands or waterbody so that if a release occurred within a wetland or waterbody, the scientist can assess the impact to the wetland or waterbody and make recommendations to mitigate the impact.

Once the drilling activities are completed, the site will be inspected after equipment removal to identify any visual signs of release.

4 Drilling Fluids Control and Containment

4.1 Storage of Fluids and Lubricants

Storage of fluids and lubricants that could potentially harm the environment will be handled in accordance with applicable federal, state, and local regulations. A Spill Prevention, Control, and Countermeasures (SPCC) Plan will be developed.

4.2 Containment and Cleanup of Drilling Fluids

HDD procedures demand that highly accurate monitoring and control systems be used to track the progress and exact location of the drilling head at all times. Drilling fluid is used during the advancement of the drill string to penetrate the formation, aid in stabilizing the bore hole, and maintain cutting suspension. The specific weight of the drilling fluid is adjusted throughout the procedure to ensure hydrological stability of the drill hole, while effectively transporting the cuttings to the return pit. Only experienced personnel trained in the HDD process will be assigned the task of conducting and monitoring HDD drilling operations. If a release of drilling fluid should occur in the Project area, the following measures will be implemented.

4.2.1 Measures to Contain a Release of Drilling Fluid in a Wetland or Waterbody

- A sample of the drilling slurry will be collected and held for future analysis in the event that an analysis is requested by regulatory agencies.
- If an inadvertent release of drilling fluid occurs within a wetland, waterbody or sensitive area, appropriate regulatory agencies will be contacted in accordance with applicable regulations and requirements. Drilling fluid pressure will be reduced and operations will be suspended to assess the extent of the release and to implement necessary corrective actions.
- Inspection will be initiated to determine the potential movement of released drilling mud within the wetland or waterbody.
- The Project's drilling contractor will determine and implement modifications to the drilling technique or composition of drilling fluid (e.g., thickening of mud by increasing bentonite content) as appropriate to minimize or prevent further releases of drilling mud.
- The release will be evaluated to determine if containment structures, such as sediment barriers or erosion controls, are warranted and can effectively contain the release. When making this determination, the potential that placement of containment structures will cause additional adverse environmental impacts will also be considered.
- If accessible, the Project contractor will clean up and remove all drilling fluid from the site and dispose of it in accordance with the applicable regulations.
- Upon completion of the drilling operations, applicable regulatory agencies will be consulted to determine any final cleanup requirements for the inadvertent release.

4.2.2 Measures to Contain a Release of Drilling Fluid on Land

- If a land release is detected, corrective action will be taken to contain and recover the release.
- If public health and safety are threatened by an inadvertent release, drilling operations will be shut down until the threat is effectively addressed or eliminated.
- The Project's drilling contractor will determine and implement modifications to the drilling technique or composition of drilling fluid (e.g., thickening of mud by increasing bentonite content) as appropriate to minimize or prevent further releases of drilling mud.

5 Notification Procedures

Agency contact names and telephone numbers will be maintained by the FSC's Construction Manager. If a release occurs, the Project's contractor must immediately notify FSC's Construction Manager. Notifications will include any affected agencies with jurisdiction over the Project.

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FLORIDA SOUTHEAST CONNECTION

STORMWATER MANAGEMENT PLAN

Prepared for:

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Florida Board of Professional Engineers
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Sprinkle Project No. 1442-13
March 2014

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I. INTRODUCTION

It is the intent of this report to produce a quality surface water management plan for the Florida Southeast Connection natural gas pipeline project, which satisfies the requirements of the owner, the Florida Department of Environmental Protection (FDEP) and the US Army Corps of Engineers.

II. GENERAL INFORMATION

A. LOCATION

The pipeline starts at a point west of Intercession City in Osceola County, Florida and travels southeast for approximately 127 miles to the Martin Meter Station in Martin County, Florida.

B. SEWER SERVICE AND WATER SUPPLY

No water and sewer service are anticipated for this project. Sewer will rely on portable toilets and drinking water will be bottled.

Preliminary research indicated there are no existing wells within the construction activities. Any wells located will be removed in accordance with 62-532.500_(5)

C. ZONING, DRI, AND OTHER PERMITS

1. Zoning is either not applicable or compatible with the proposed land use.
2. DRIs – not required for proposed land use.
3. Other Permits – no other permits have been issued at this time.

D. REFERENCES

Topography Survey: Topography of the study area was based on LiDAR for the sites in Polk County and Osceola, Okeechobee, St. Lucie, and Martin Counties were based on USGS maps.

Soil Conditions: The soil conditions were provided by the use of County SCS

Soil Survey Manuals.

Floodplain: The Federal Emergency Management Agency, Flood Insurance Rate Maps were used for the contractor and pipe yards.

Wetlands: Wetland delineations for the pipeline, contractor yards and pipe yards were prepared by Environmental Consulting & Technology, Inc. (ECT).

III. BASIS OF ANALYSIS

A. PIPELINE

The pipeline starts at a point west of Intercession City in Osceola County, Florida and will travel through Osceola, Okeechobee, St. Lucie and Martin Counties. The total length is approximately 127 miles.

The construction of the pipeline will be underground with the exception of block valve operators and by-pass piping, launchers, receivers, and meter stations. These above ground facilities are proposed to be constructed at existing grade and are not anticipated to have impervious areas or hard paved areas.

After construction, the fill will be placed back to existing grade to the extent practicable so as not to affect offsite drainage patterns.

The construction of the pipeline is not anticipated to fill within existing floodplains, reduce or adversely affect natural flow patterns or increase rainfall peak discharge rates or volumes. Given this, no attenuation or treatment is proposed for this construction.

See ECT's Impact Assessment and Mitigation Plan.

B. CONTRACTOR YARDS

The construction of the pipeline will support four (4) temporary construction yards, two (2) are located in Polk County, one (1) in Osceola County, and one (1) in Martin County. The yards will be temporary and will be removed after construction is complete.

The contractor yards are not anticipated to be filled or displace any natural depressional storage. No fill is proposed to be placed in the floodplain.

Temporary pervious gravel will be placed on some of the yards to provide soil stabilization for vehicular and equipment support and minimize temporary vegetation growth. Vehicular use areas are anticipated to be limited to less than 4,000 square feet and the total impervious area will not exceed 9,000 square feet. All impervious areas will be removed at the completion of construction.

The construction and operation of the contractor yards shall be conducted in a manner that does not cause violations of the state water quality standards and the permittee shall implement best management practices for erosion, turbidity, and other pollution control to prevent violations of state water quality standards.

C. PIPE YARDS

The construction of the pipeline will support the temporary need for three (3) pipe laydown yards. One will be located in Polk County, one in Okeechobee County, and one in Martin County.

Temporary pervious rows of sand wrapped in geotex material will be placed on limited areas to stack the pipe. Vehicular use areas are anticipated to be limited to less than 4,000 square feet and total impervious area will not exceed 9,000 square feet.

The construction and operation of the pipe laydown yards shall be conducted in a manner that does not cause violations of the state water quality standards and the permittee shall implement best management practices for erosion, turbidity, and other pollution control to prevent violations of state water quality standards.

No fill is proposed to be placed within the 100-year floodplain, wetlands and within any natural depressional storage area.

D. STAGING AREAS

There is one (1) staging area to be located near Yeehaw Junction in Polk County. Temporary pervious gravel will be placed in limited areas. Vehicular use areas are anticipated to be limited to less than 4,000 square feet and the total impervious area will be less than 9,000 square feet.

The staging area shall be constructed and operated in a manner that does not cause violations of the state water quality standards and the permittee shall implement best management practices for erosion, turbidity, and other pollution control to prevent violations of state water quality standards.

No fill is proposed to be placed within the 100-year floodplain, wetlands or historic depressional storage areas.

IV. DEWATERING

Dewatering and hydrostatic testing is required for the construction of the pipeline. Dewatering for construction will be handled by open ditches with the water table pumped down. The water will typically be pumped into a straw bale lined containment area with silt fence to reduce the turbidity to acceptable levels prior to overland discharge. No water will be discharged directly to wetlands.

Per CFR Title 49 Part 192 Subpart J § 505 pipelines are required to be hydrostatically tested prior to service. Hydrostatic Pressure Testing is the process of filling, pressurizing, monitoring, and recording of a section of the pipe with clean water to a higher pressure than the pipe will ever operate with natural gas. The test will validate the maximum safe operating pressure of the pipeline. A section of pipe is capped at both ends and the pipe is pressurized with clean water to a pressure greater than the target maximum allowable operating pressure (MAOP). The pressurization is typically for a period of eight (8) continuous hours.

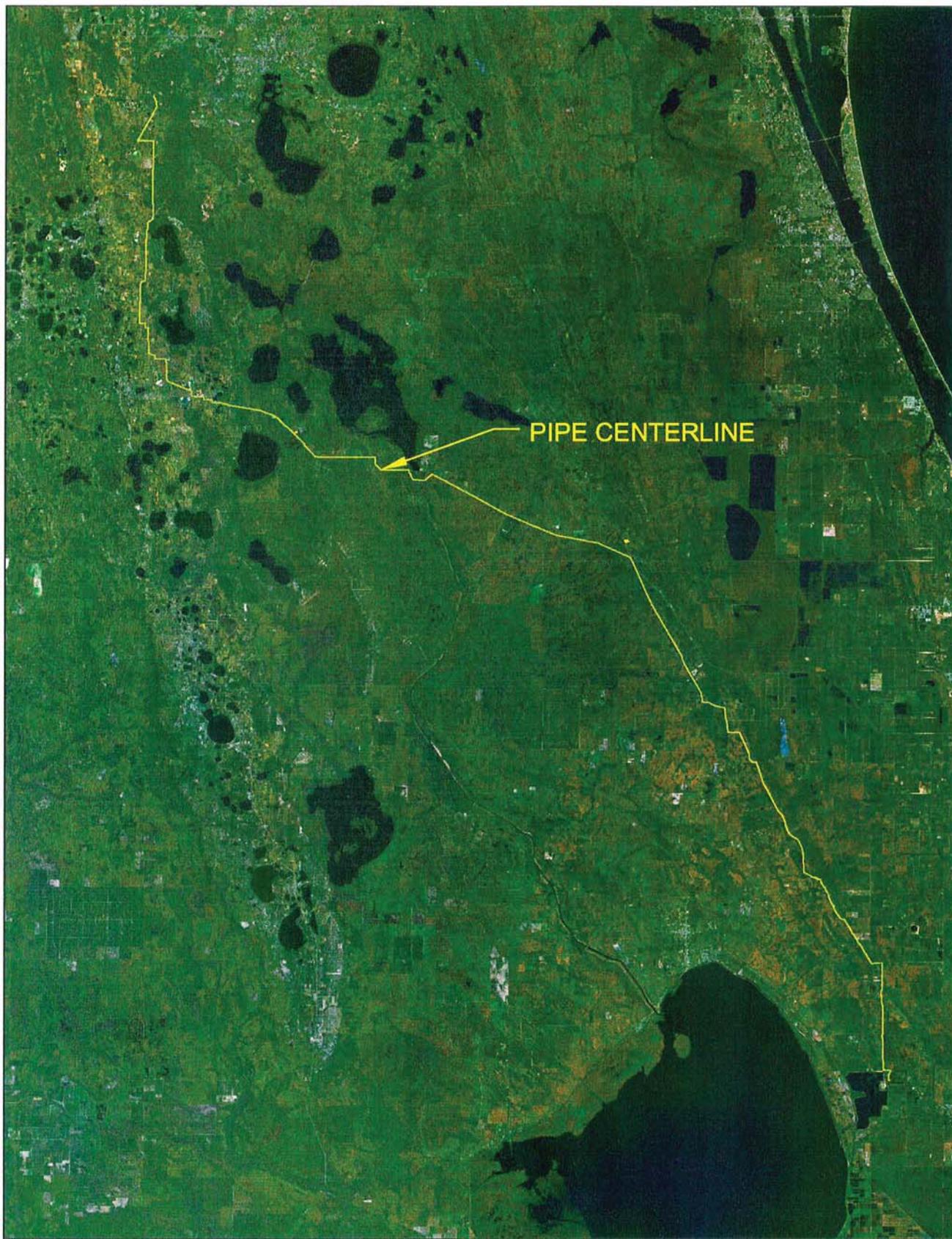
After testing, the section of pipe is emptied by discharging or transferring the test water to the next section of pipe. The water will be discharged in uplands through discharge control structure and erosion protection systems to reduce discharge velocity and turbidity. No water will be discharged directly to a wetland system.

Best Management Practices, BMP's will be followed at all discharge locations to reduce velocity and turbidity. In the event that discharge and or pump rates exceed the Water Management District limits, then a Water Use Permit, WUP, will be obtained from the appropriate District office.

V. APPENDIX

1. Location Map
2. Contractor Yard MP 4.4
3. Lake Wales Contractor Yard MP 30
4. Pipe Yard MP 41.1
5. Contractor Yard MP 72
6. Yeehaw Junction Staging Area MP 74
7. Pipe Yard MP 77.5
8. Contractor Yard MP 125
9. Pipe Yard MP 127

1. LOCATION MAP

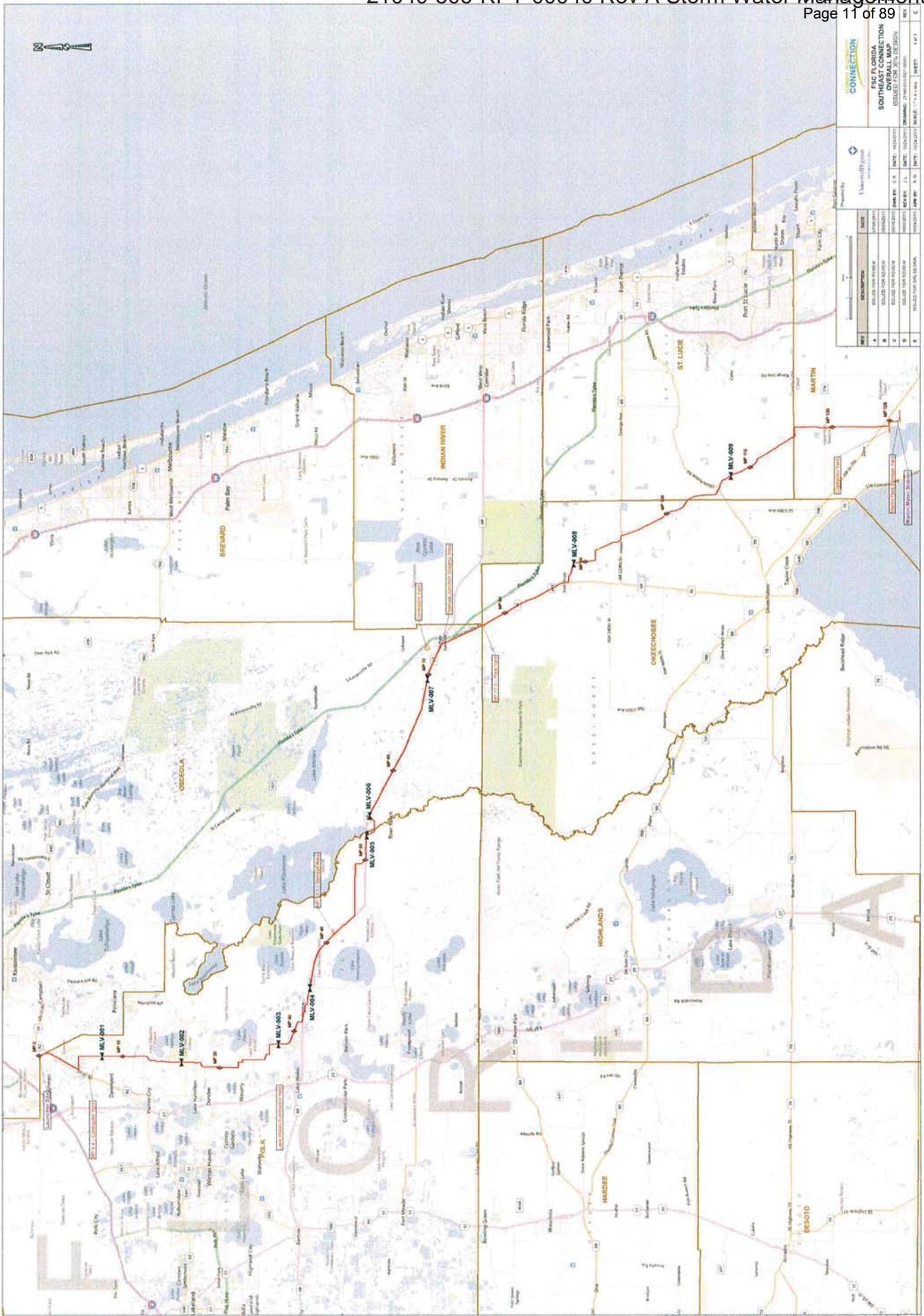


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Overall Pipe Layout

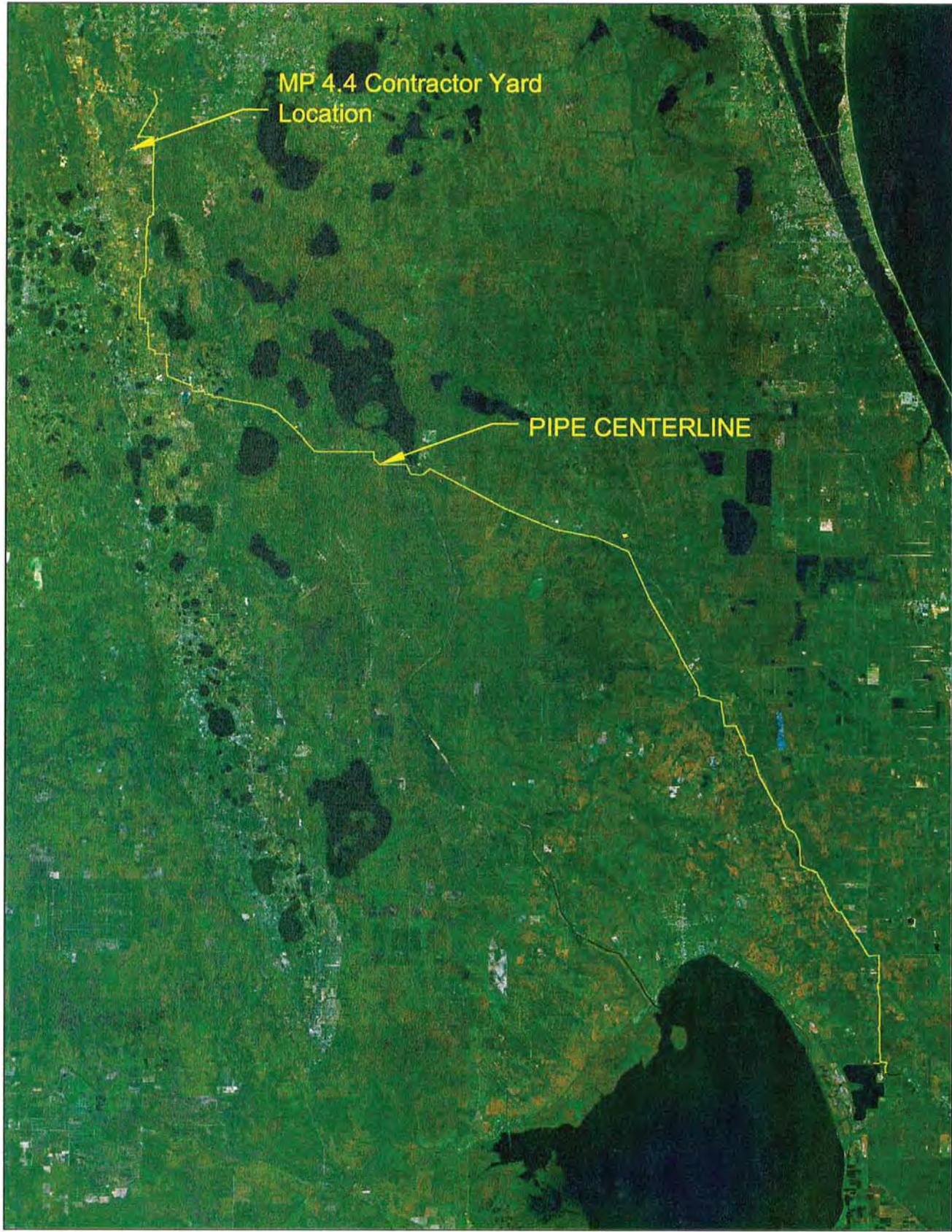


2. CONTRACTOR YARD MP 4.4

The yard is located north of Lem Carnes Road, west of US 92 and east of the CSX rail line, north of the City of Davenport in Polk County, Florida.

The site has been used for industrial applications in the past and contains an existing building. Soil type is Neilhurst, hydraulic group "A", with a seasonal high groundwater of over six (6) feet in depth. The site is not within the 100-year floodplain per FEMA Panel No.: 2105C0250G. No wetlands were identified by ECT or on the National Wetland Inventory Map.

Silt fence will be installed around all construction related activities to prevent erosion and turbid discharge of stormwater runoff.



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MP 4.4 Contractor Yard Overall Site Location



MP 4.4 Contractor Yard Vicinity Map

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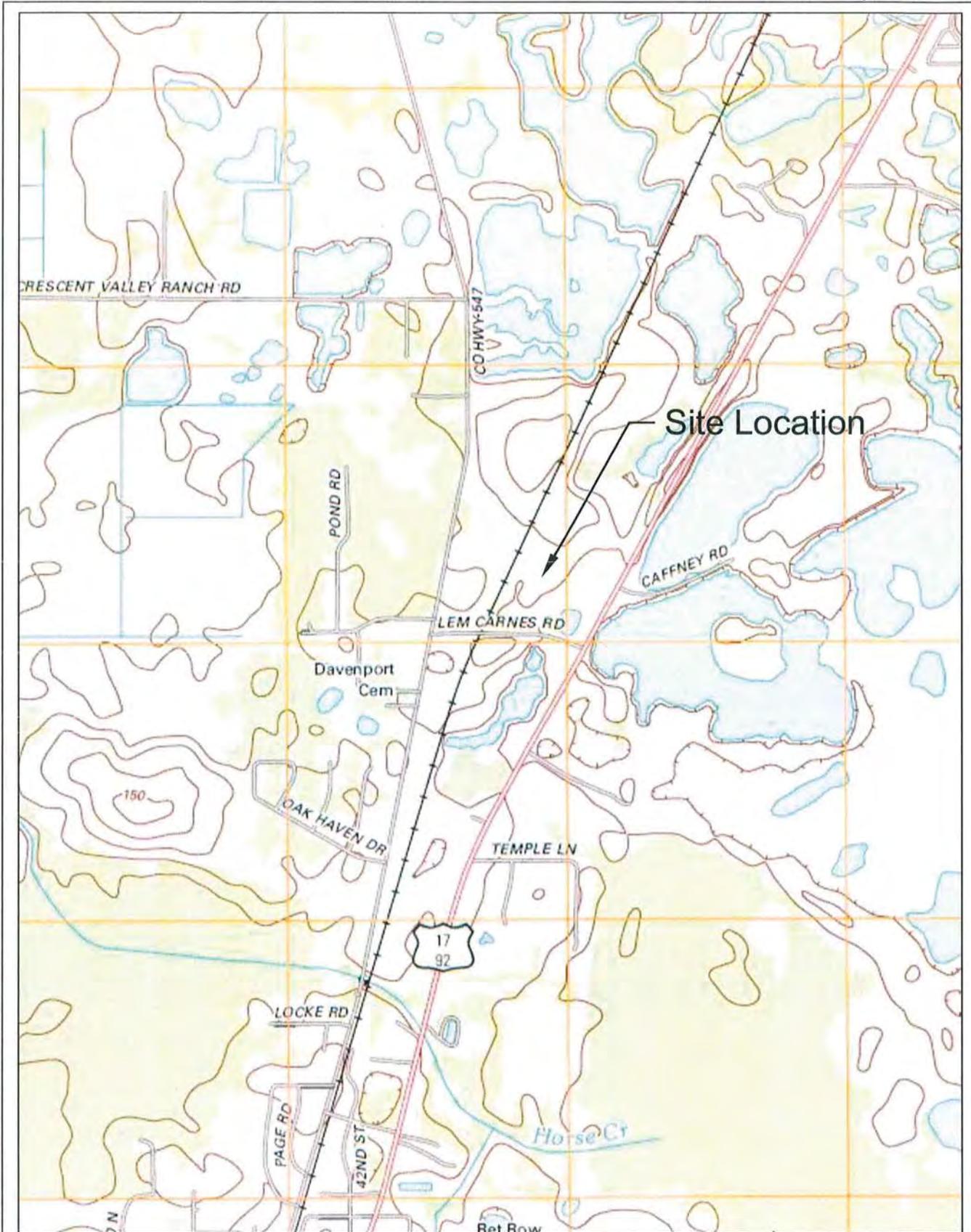
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MP 4.4 Contractor Yard Soils Map

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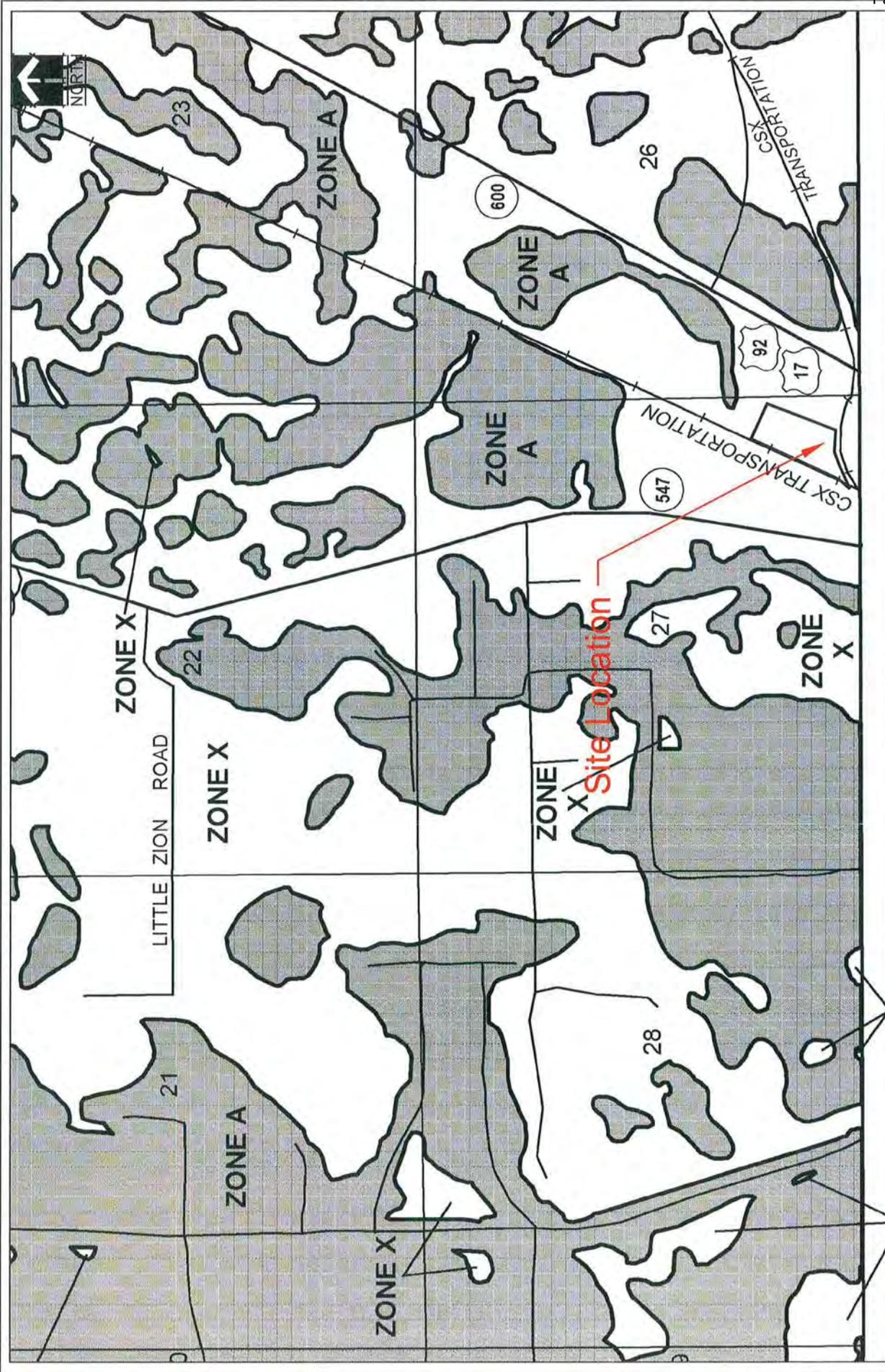
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MP 4.4 Contractor Yard USGS MAP

USGS 2012 DAVENPORT QUAD



**MP 4.4 Contractor Yard
 FEMA MAP**

FEMA PANEL # 2105C0250G

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MP 4.4 Contractor Yard National Wetland Inventory Map

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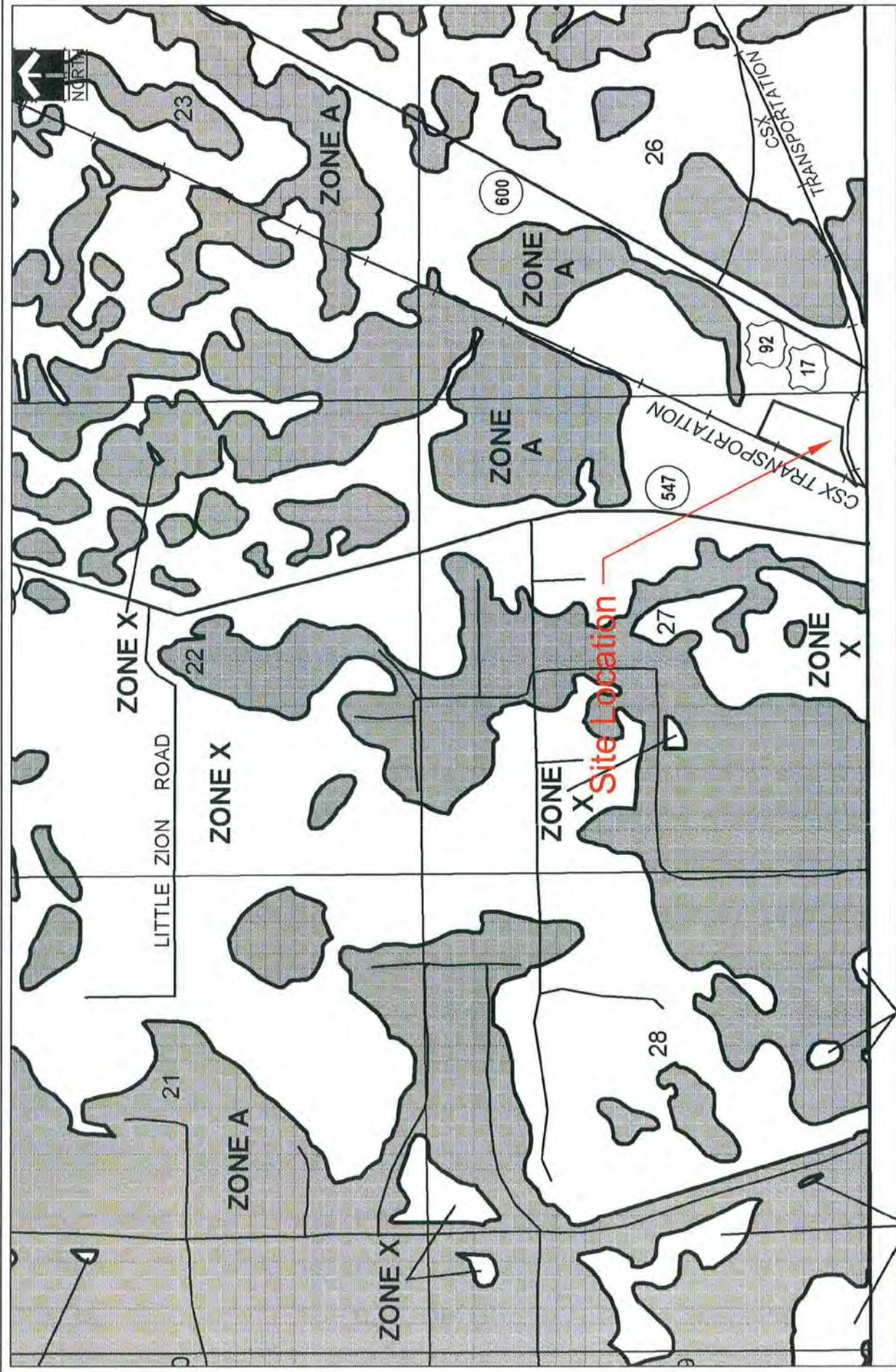
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MP 4.4 Contractor Yard Vicinity Map

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**MP 4.4 Contractor Yard
 FEMA MAP**

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MP 4.4 Contractor Yard
FDOT 2011 Aerial & Property Boundary

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MP 4.4 Contractor Yard LIDAR Contours

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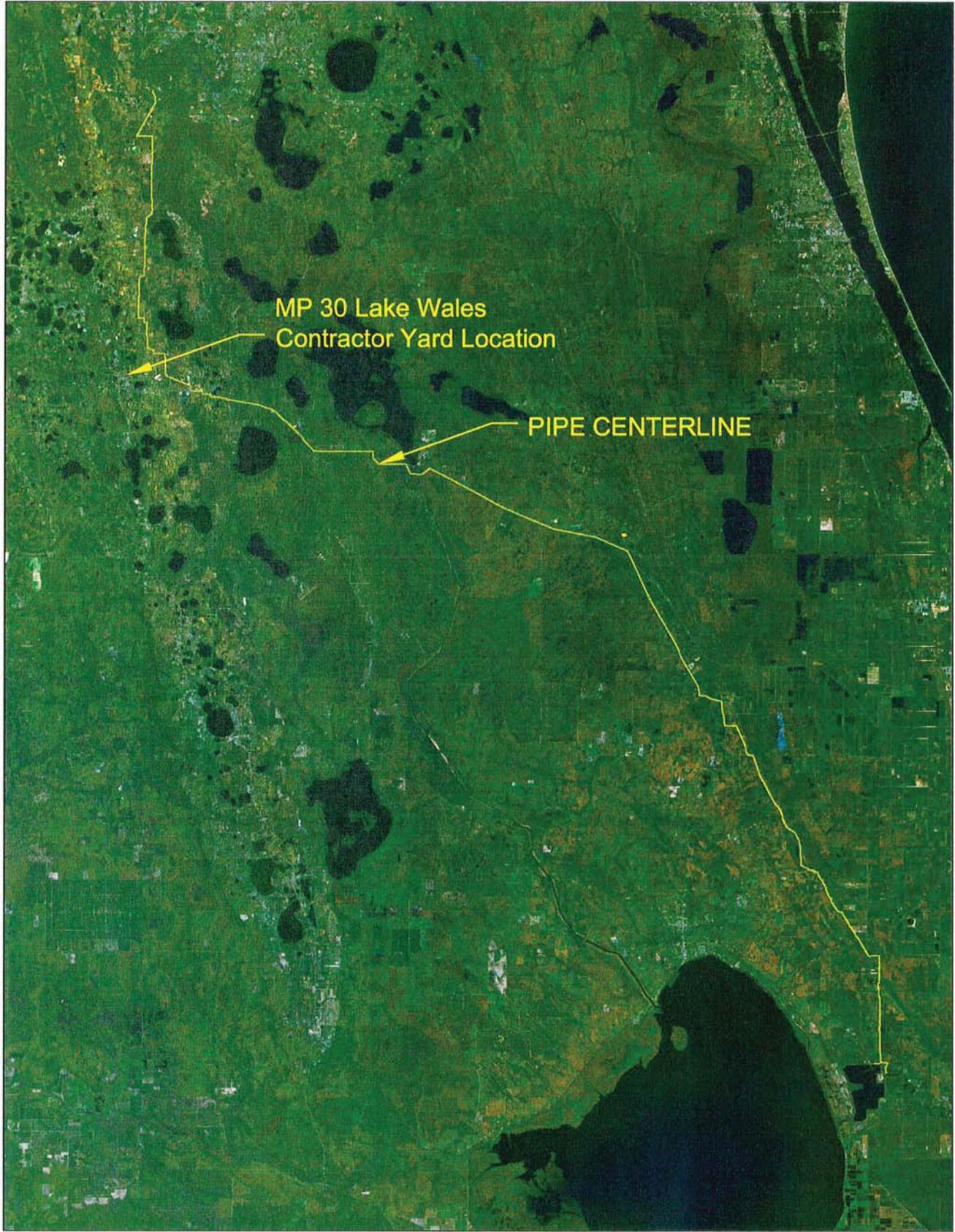
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3. LAKE WALES CONTRACTOR YARD MP 30

The yard is located at the northwest corner of Lincoln Avenue and US 17 near the City of Lake Wales, Polk County, Florida.

The site has been used for industrial applications in the past and contains two (2) existing buildings with large areas of paved/concrete. Soil type is Urban Land with an existing seasonal high groundwater of greater than six (6) feet in depth. The site is not within the 100-year floodplain per FEMA Panel No.: 2105C0565G. No wetlands were identified by ECT or on the National Wetland Inventory Maps.

Silt fence will be installed around all construction related activities to prevent erosion and turbid discharges of stormwater runoff.



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**MP 30 Lake Wales
Contractor Yard
Overall Site Location**



MP 30 Lake Wales Contractor Yard Vicinity Map

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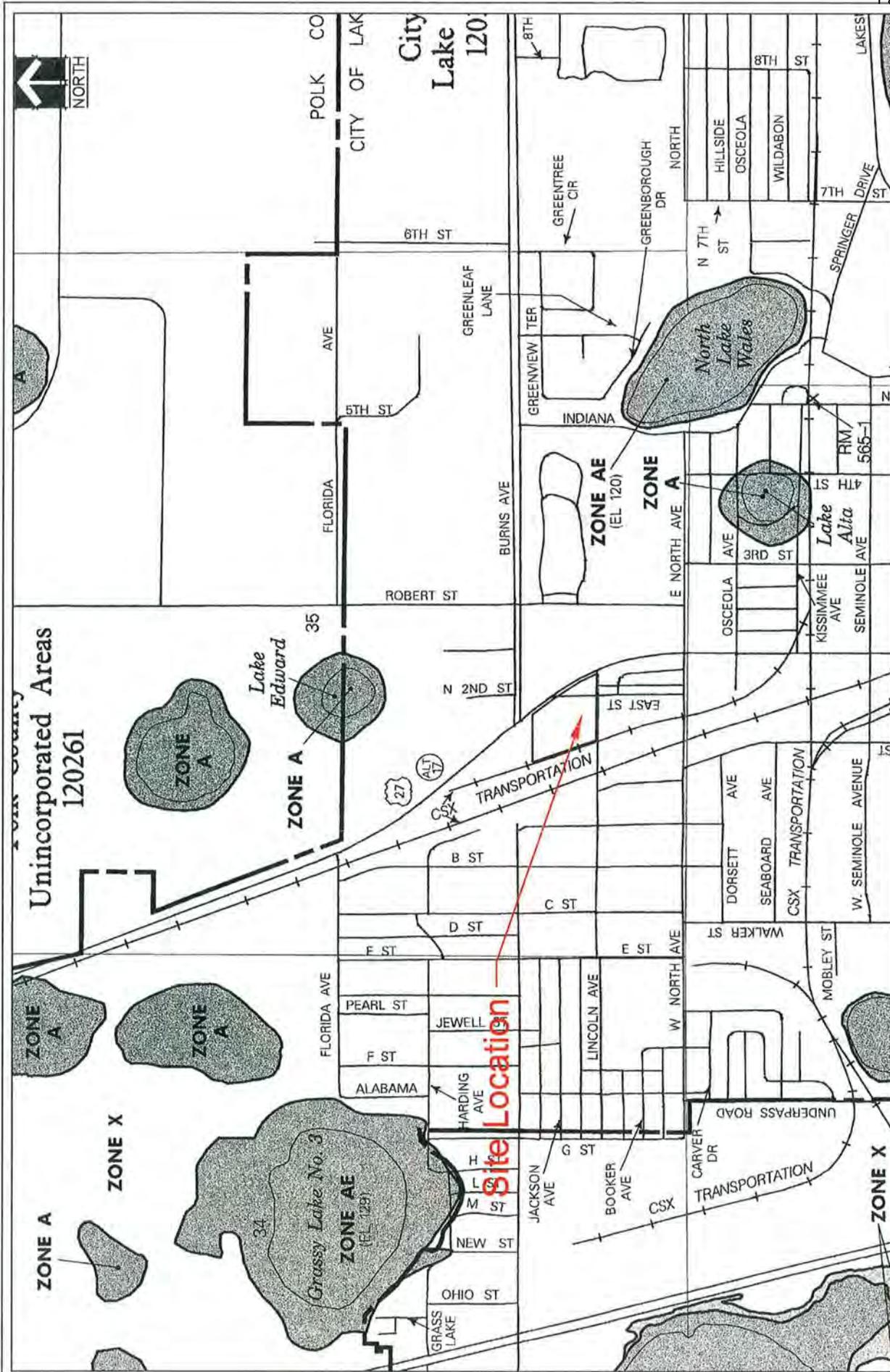
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**MP 30 Lake Wales Contractor
 Yard - USGS MAP**
 USGS 2012 DAVENPORT QUAD



**MP 30 Lake Wales Contractor Yard
 FEMA MAP**

FEMA PANEL # 2105C0565G

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MP 30 Lake Wales Contractor Yard Soils Map

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- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



MP 30 Lake Wales Contractor Yard National Wetland Inventory Map

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**MP 30 Lake Wales Contractor Yard
FDOT 2011 Aerial & Property Boundary**

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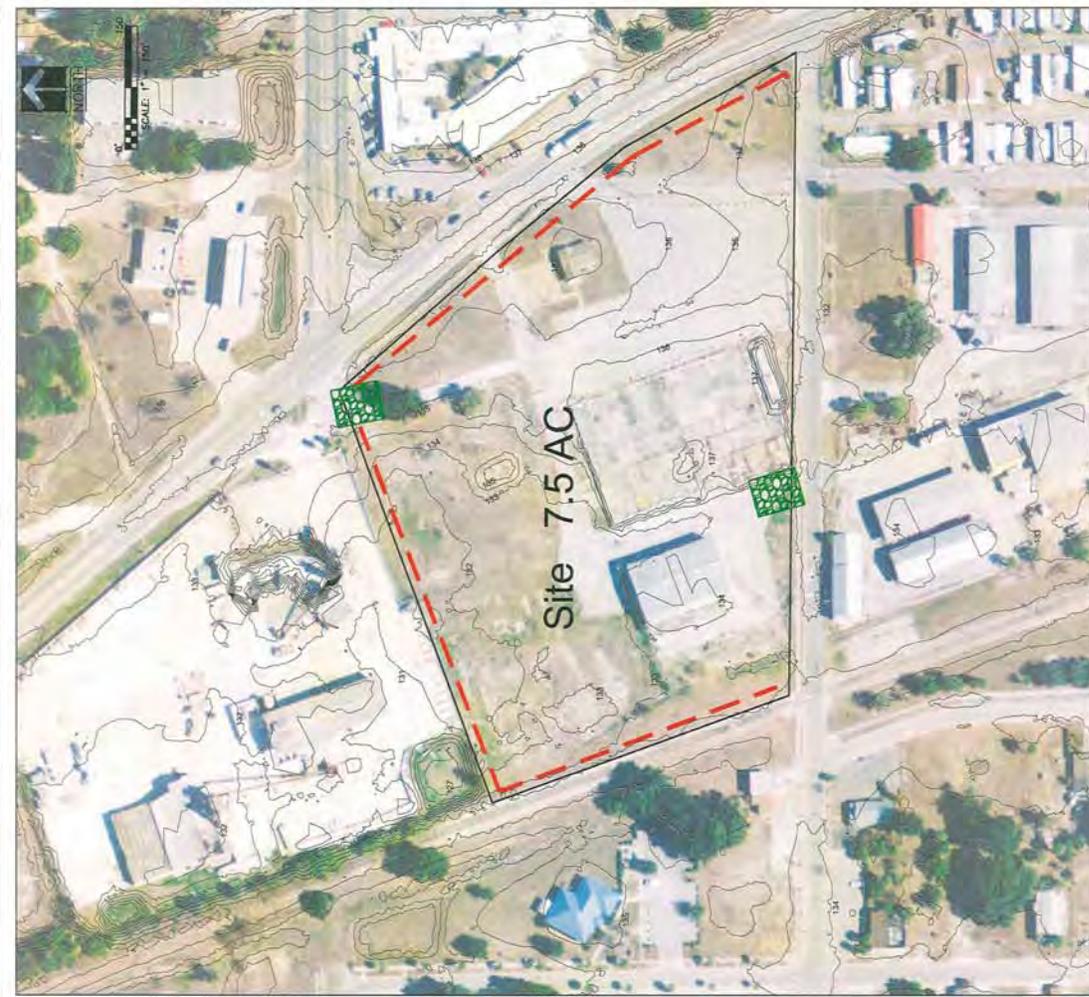


MP 30 Lake Wales Contractor Yard LiDAR Contours

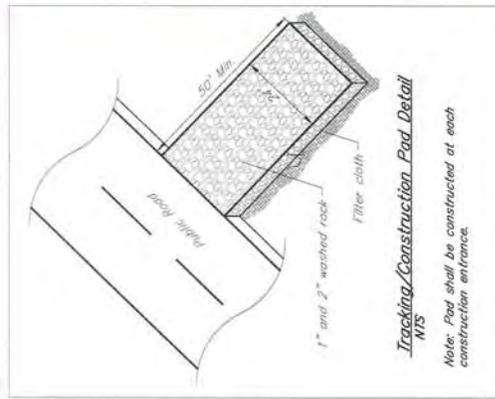
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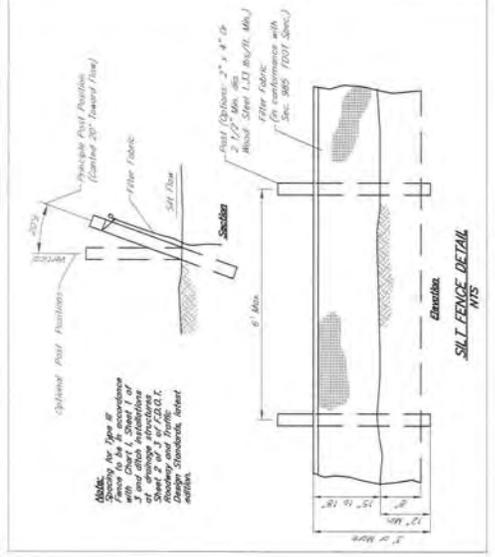
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MP 30 Contractor Yard
Site Layout



Tracking/Construction Pad Detail
NIS
Note: Pad shall be constructed at each construction entrance.



Construction Notes for Fabricated Silt Fence.

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by (6) inches and folded.
4. Locate posts downslope of fabric for fence support.
5. Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

POSTS: Either "T" type steel or 4" hardwood
 POSTS: Located maximum 8' on center.
 FENCE: Woven wire, 16 GA. 6" max. mesh opening
 FILTER CLOTH: Filter X, Mirafi 100X, stabli-linka T14ON or approved equal.
 PREFABRICATED UNIT: Envirofence, or approved equal.

No wetlands on site
 Property in Zone X per FEMA Panel No 2105C0565G

LEGEND

- Silt Fence
- Tracking/Construction Pad
- Contours
- Property Boundary

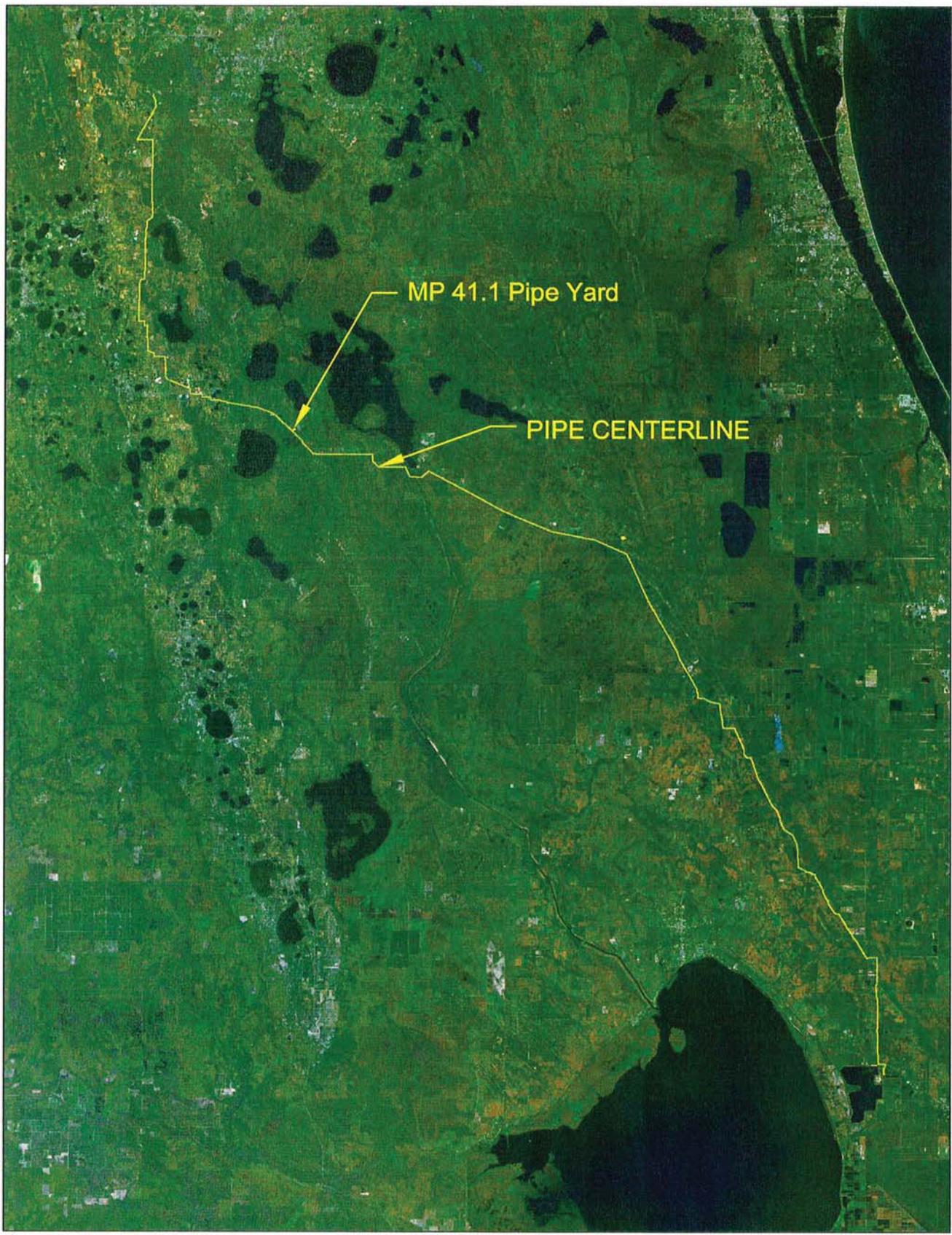
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4. PIPE YARD MP 41.1

The pipe yard is located south of Sam Keen Road and east of SR 60 in Polk County at approximately MP 41.4.

The site is being used to farm sod. The site contains two (2) depressional areas that have been mapped as Flood Zone A, within the 100-year flood zone, FEMA Panel No. 2105C0800G. Soil type is made up of Lynne Fine Sand, hydrologic group B/D and Pomona Fine Sand, hydrologic group C. The seasonal high groundwater can be expected to be from 1.0 to 3.5 feet below grade. The National Wetland Inventory Map shows these two depressions to be wetlands. However, the agricultural activities have removed most of the vegetation. Based on the LiDAR information, the site drains to the west via existing ditches.

Silt fence will be placed in the uplands at least 50 feet to buffer the existing depressions/wetlands.

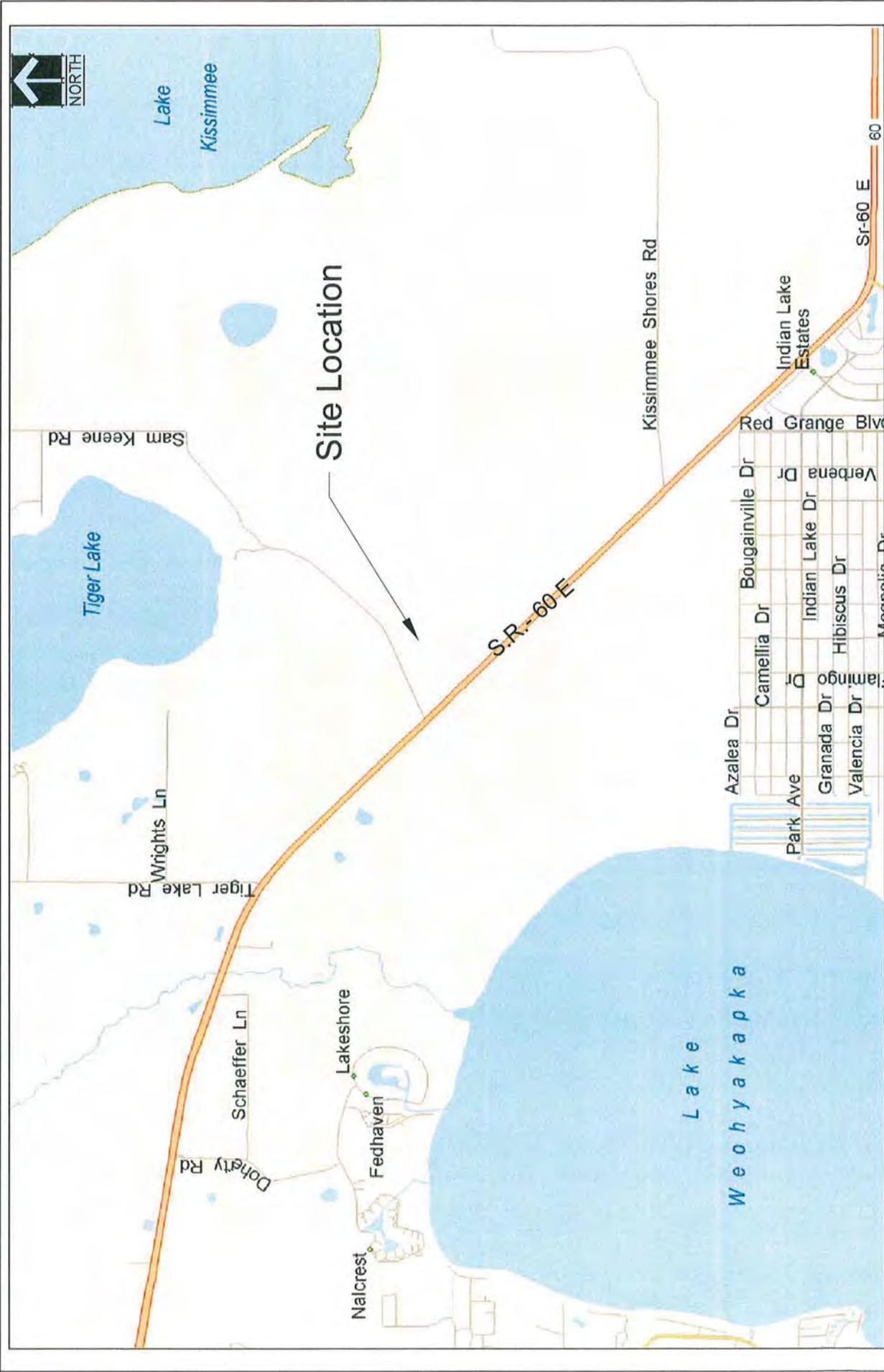


Jan 17, 2014 - 945a-Overall site location



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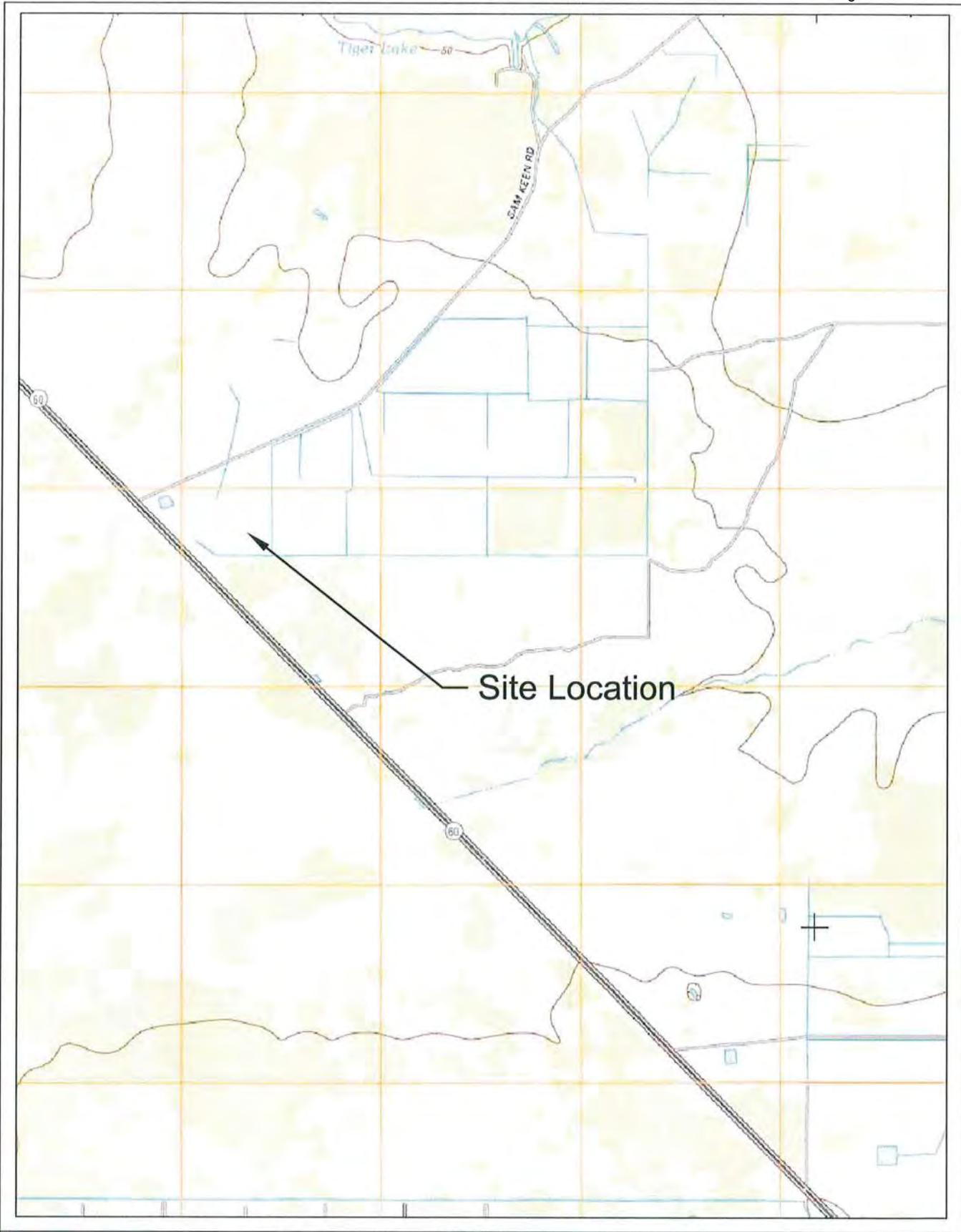
MP 41.1 Pipe Yard Overall Site Location



MP 41.1 Pipe Yard Vicinity Map

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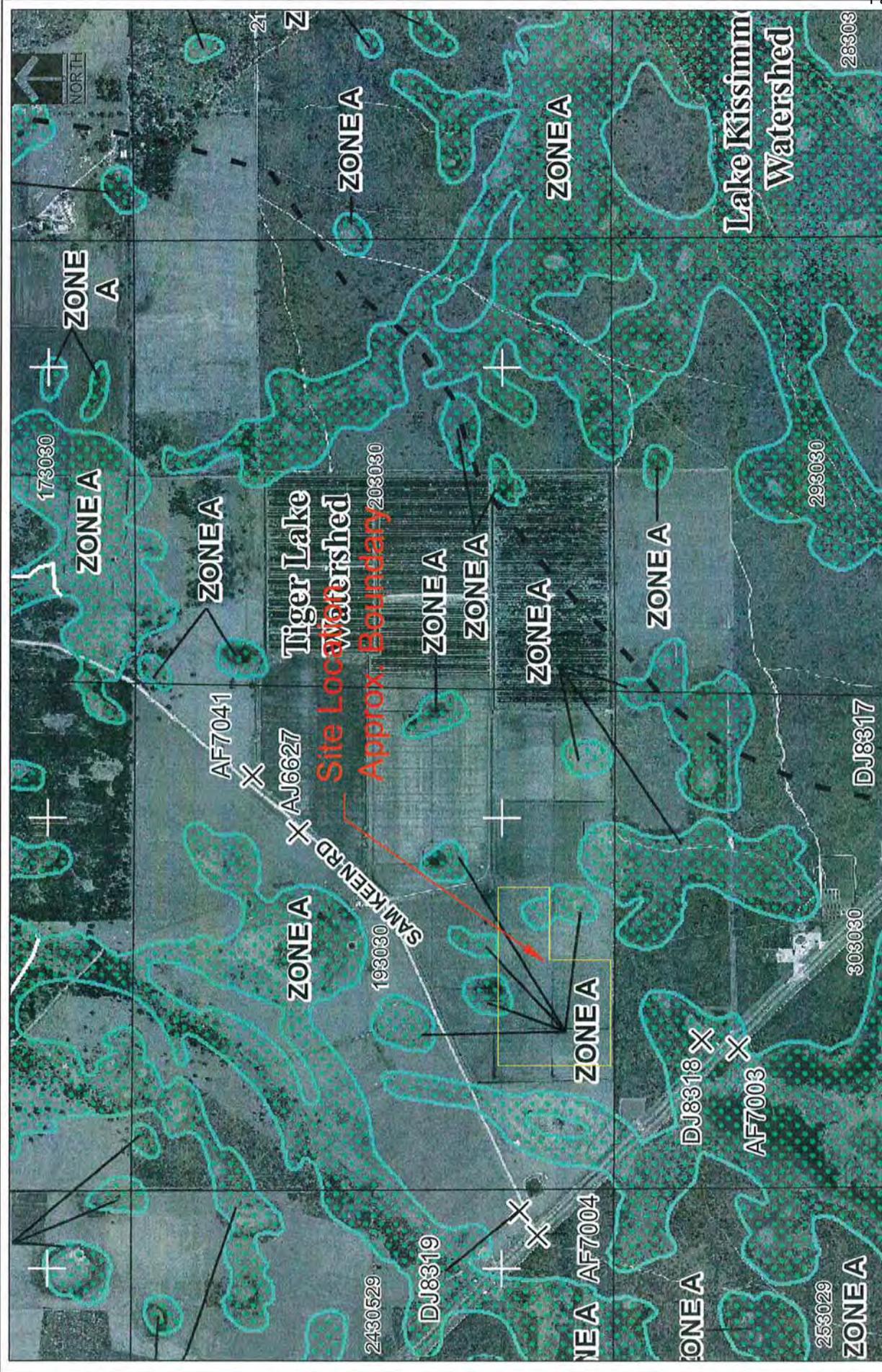
Jan 17, 2014 - 9:44am USGS lsc:cmg

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**MP 41.1 Pipe Yard
USGS MAP**

USGS 2012 Lake Weohyakapka SE Quad



**MP 41.1 Pipe Yard
 FEMA MAP**

FEMA PANEL # 2105C0800G

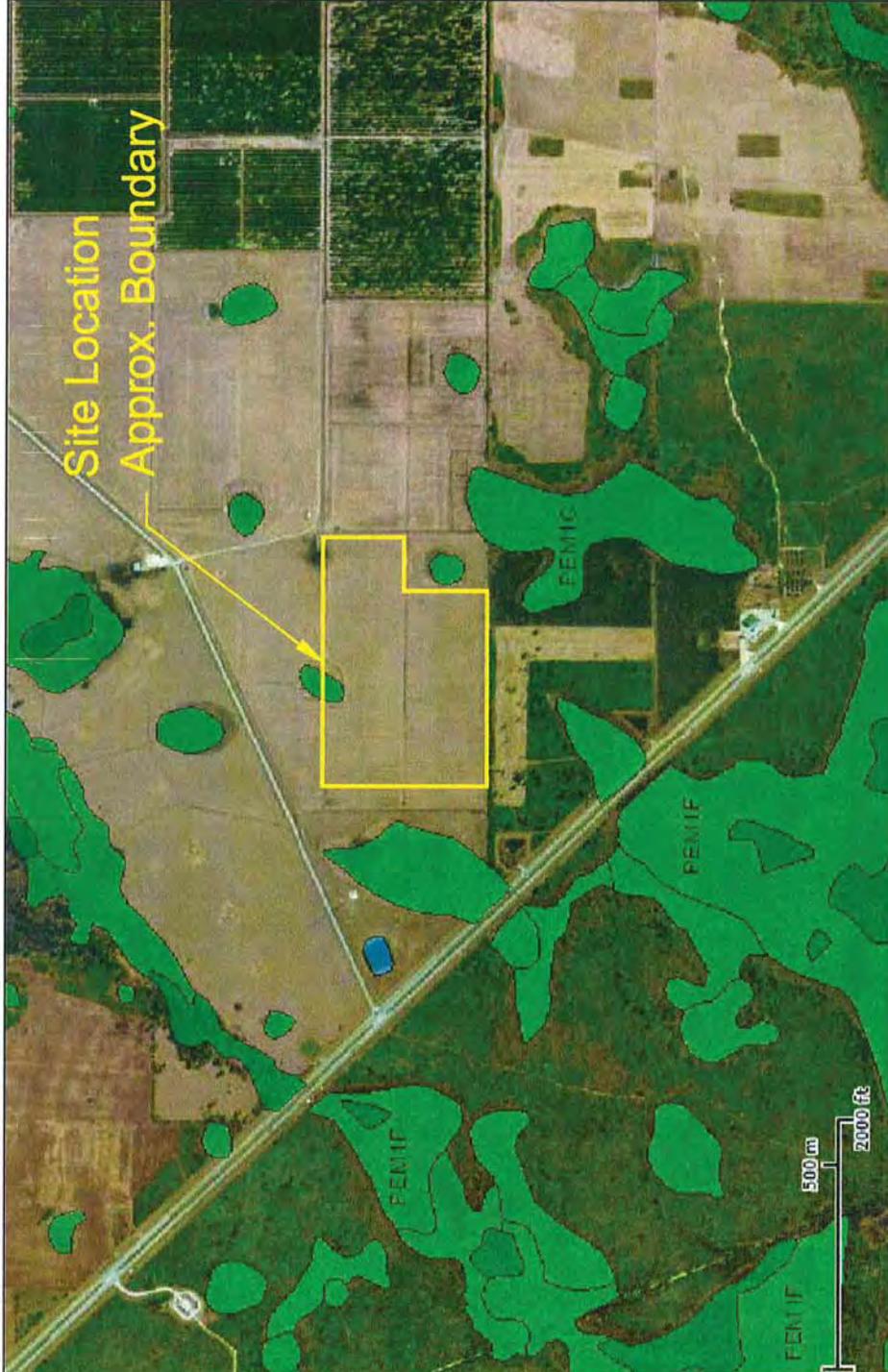
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Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



**MP 41.1 Pipe Yard
 National Wetland Inventory Map**

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**MP 41.1 Pipe Yard
 Soils Map**

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Jun 17, 2014 - 9449Soils 15c09a



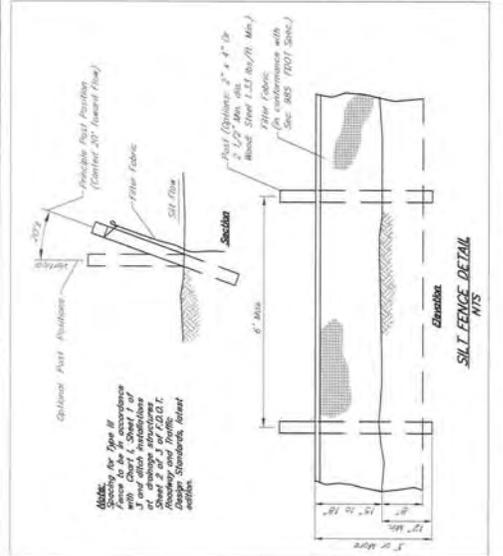
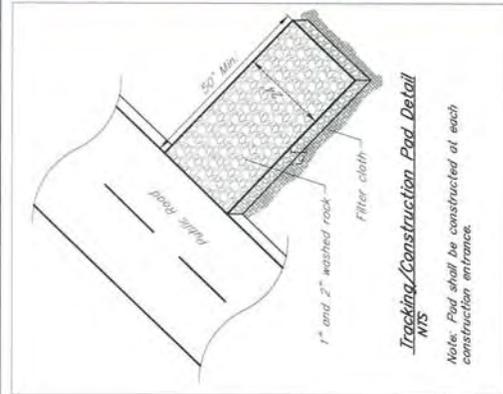
MP 41.1 Pipe Yard LiDAR Contours



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MP 41 Pipe Yard
Site Layout



Construction Notes for Fabricated Silt Fence

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by (6) inches and folded.
4. Ludo posts downscope of fabric for fence support.
5. Minor face shall be performed as needed and material removed when bulges develop in the silt fence.

POSTS: Either "T" type steel or 4" hardwood
 POSTS: Located maximum 8' on center
 FENCE: Woven wire, 16 GA, 6" max. mesh opening
 FILTER CLOTH: Filter X, Miraf 100X, stabli-linka T14CN or approved equal.

PREFABRICATED UNIT: Envirofence, or approved equal.

LEGEND

	Silt Fence
	Tracking/Construction Pad
	Contours
	Property Boundary
	Surveyed Wetland Lines
	Zone A Per FEMA Panel 2105C0800G

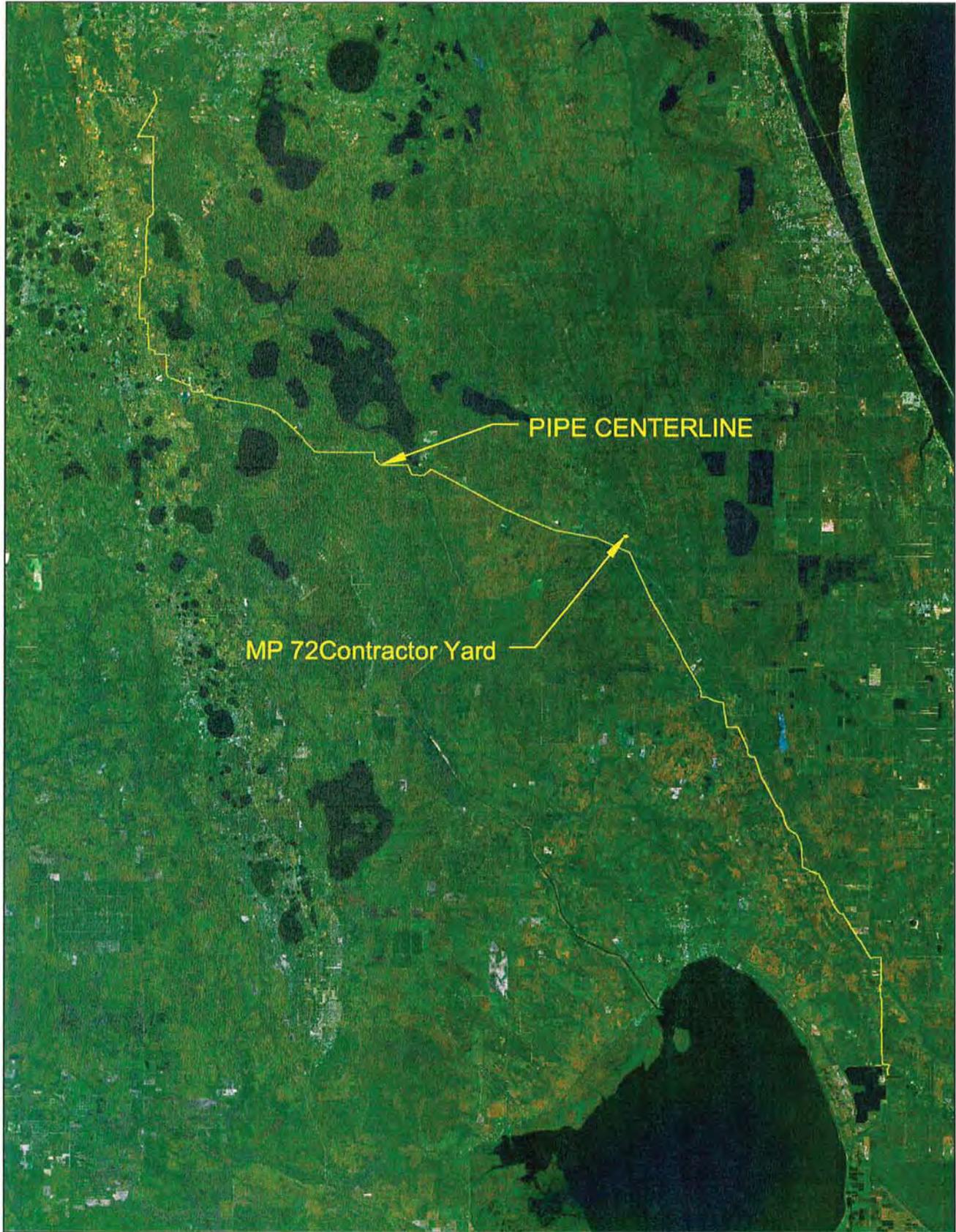
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5. CONTRACTOR YARD MP 72

The yard is located west of the Florida Turnpike, east of South Kenansville Road and north of Yeehaw Junction in Osceola County, Florida.

The site is being used for agriculture/cattle. A small portion of the northeast corner of the property is located within the 100-year floodplain per FEMA Panel No. 12097C0875G. Soil types are Basinger, Smyrna, Immokalee and Placid. Hydrologic soil groups are B/D and D. Seasonal high groundwater table can be expected to be within one foot of grade. The National Wetland Inventory Map and ECT show wetlands on the site. The natural drainage is west to east.

Silt fence will be placed around all construction related activities and wetlands to prevent erosion and turbid discharge of stormwater runoff.

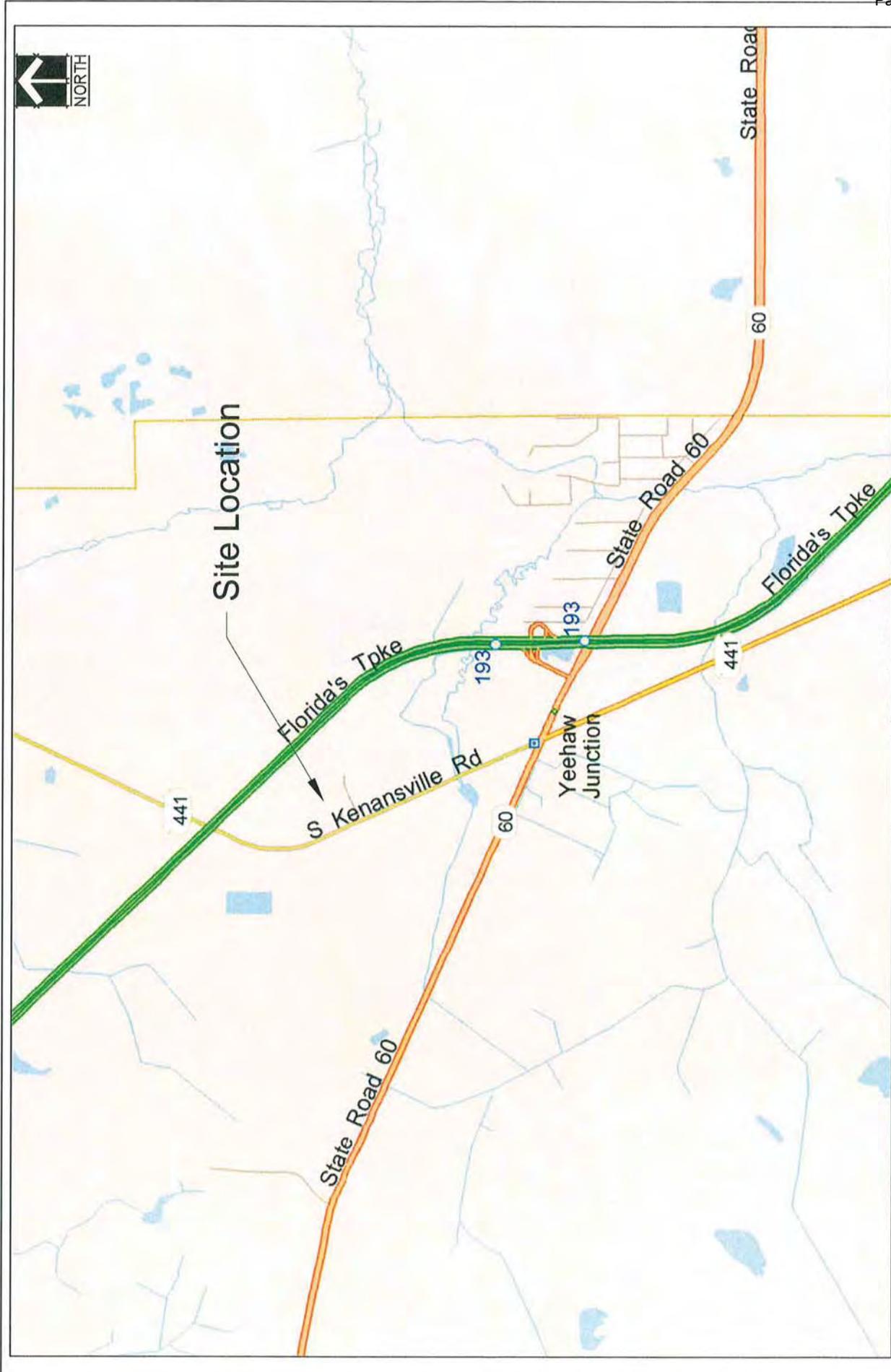


M:\1442\13 Florida Southeast Connector\Site\exhibits.dwg Jun 17, 2014 - 11:55am-Overall site location



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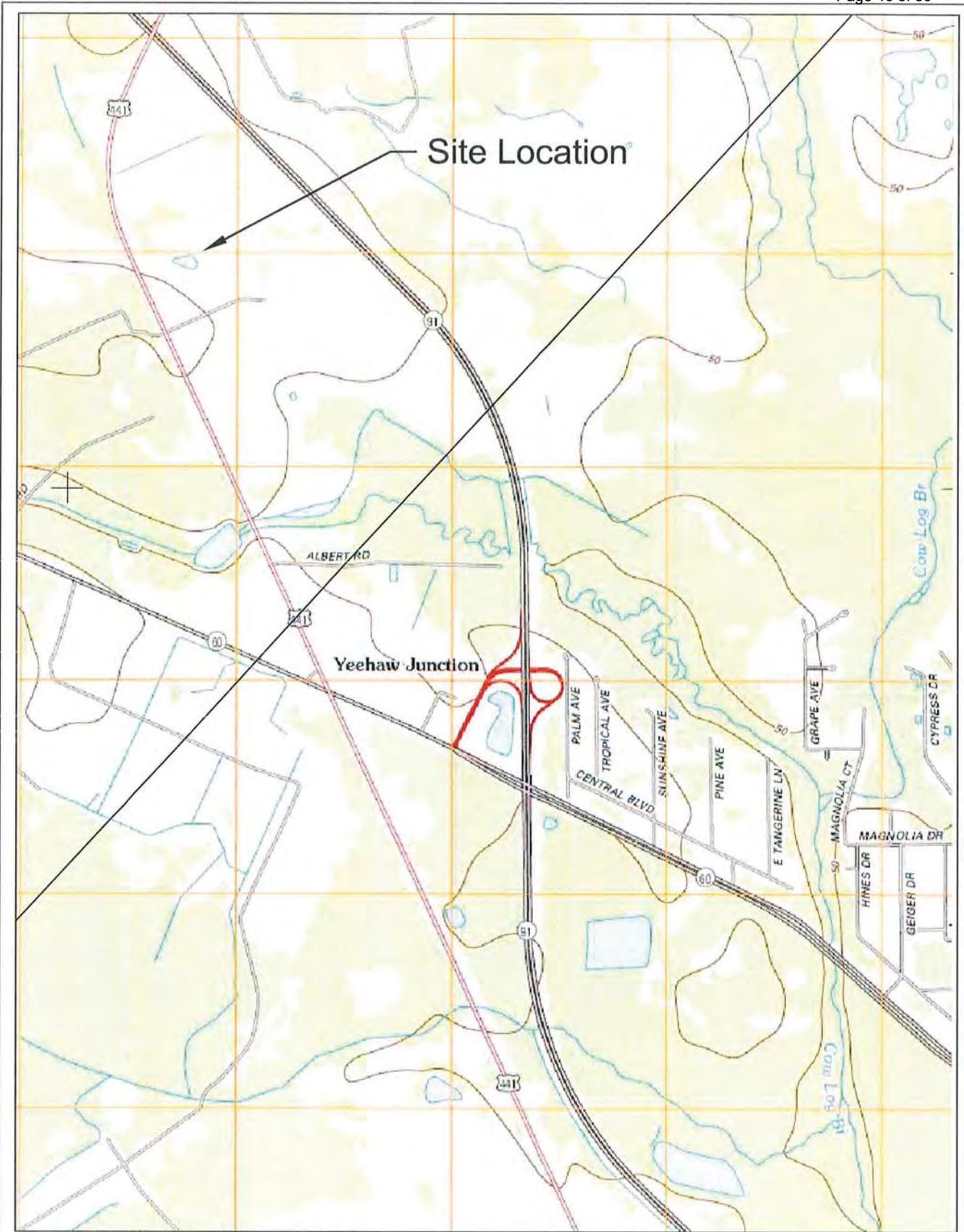
MP 72 Contractor Yard Overall Site Location



**MP 72 Contractor Yard
 Vicinity Map**

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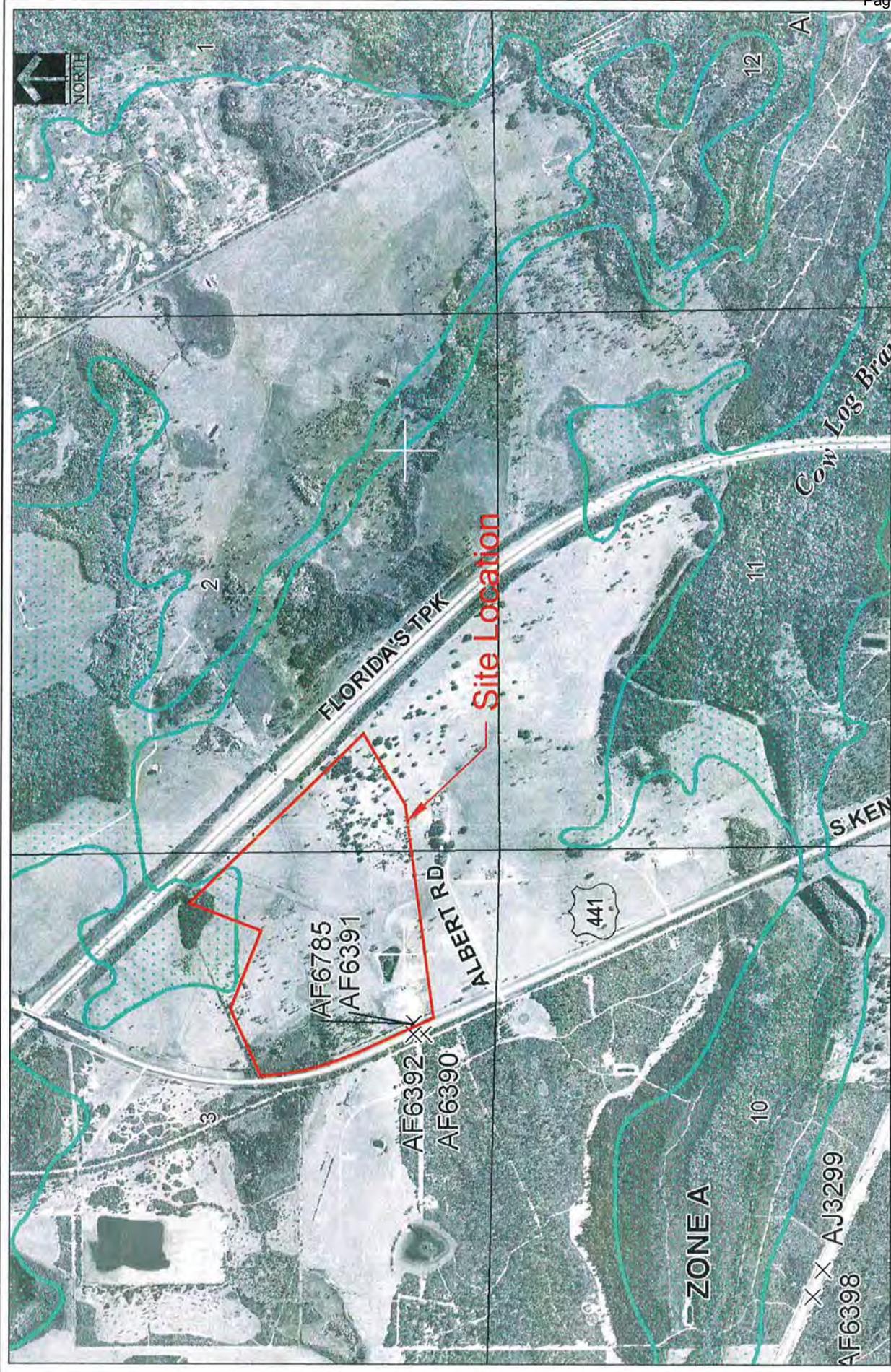
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MP 72 Contractor Yard USGS MAP

USGS 2012 Fort Drum NW Quad



**MP 72 Contractor Yard
 FEMA MAP**

FEMA PANEL # 12097C0875G

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MP 72 Contractor Yard Soils Map

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Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



**MP 72 Contractor Yard
 National Wetland Inventory Map**

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MP 72 Contractor Yard
FDOT 2011 Aerial & Property Boundary

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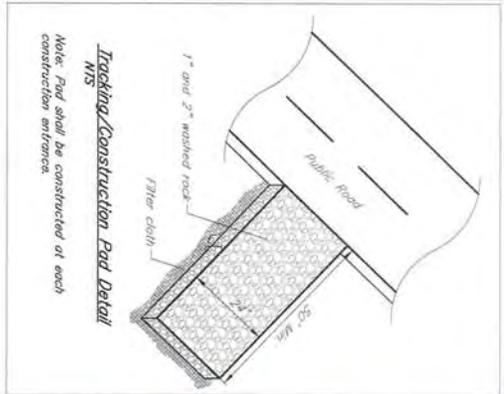
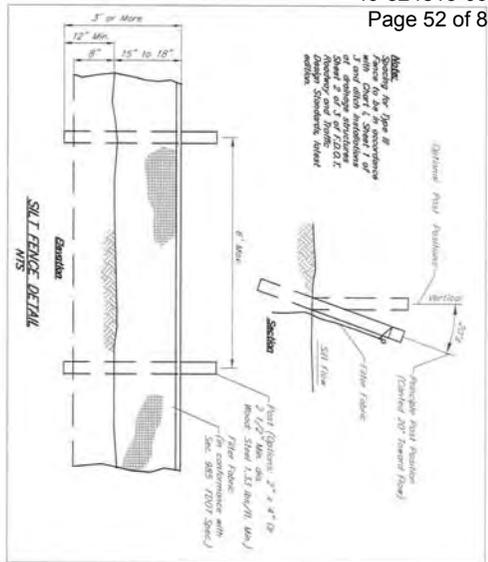
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MP 72 Contractor Yard
Google Earth Contours

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Construction Notes for Fabricated Silt Fence

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by (6) inches and folded.
4. Locate posts down slope of fabric for fence support.
5. Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

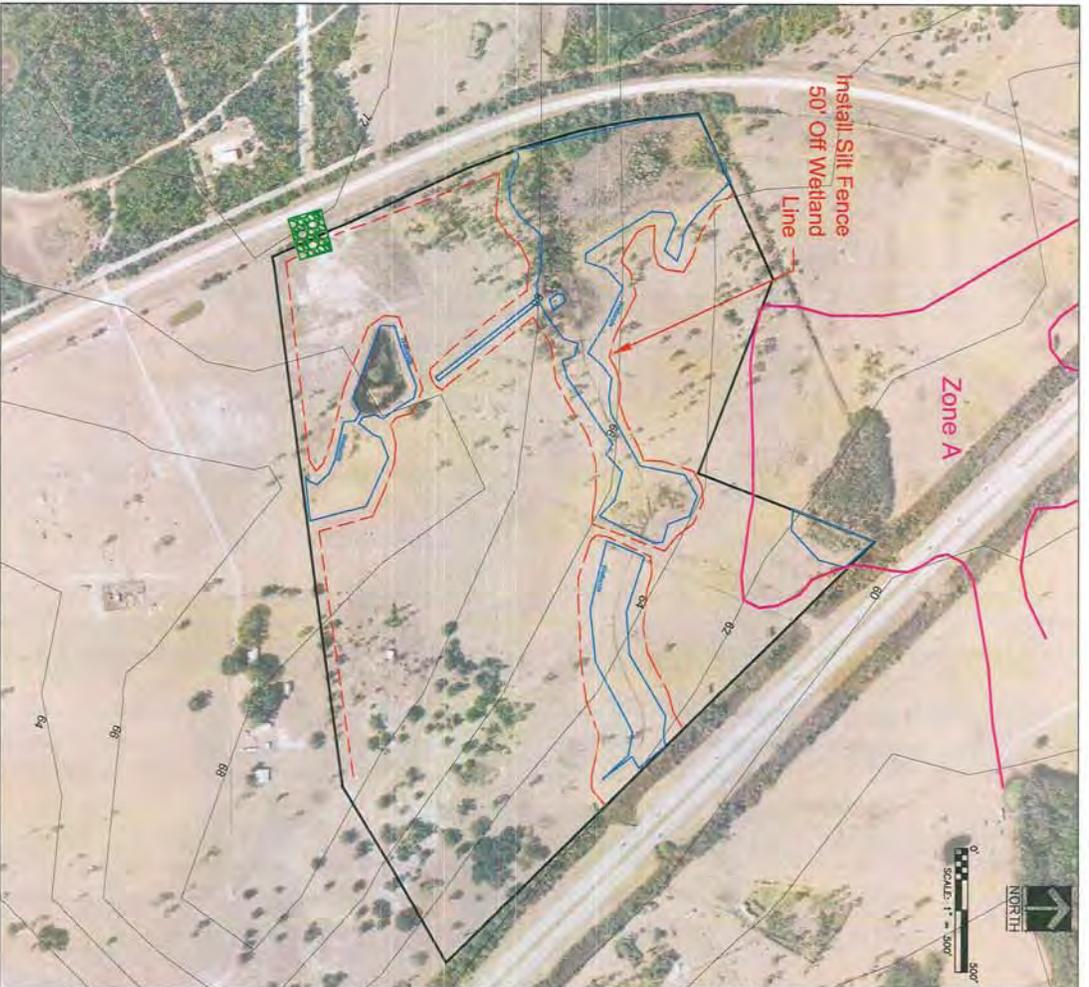
POSTS: Either 2" type steel or 4" hardwood
POSTS: Located maximum 6' on center.
FENCE: Woven wire, 16 GA, 6" max. mesh opening
FILTER CLOTH: Filter X, Miral 100X, stabi-linka T14ON or approved equal.
PREFABRICATED UNIT: Envirofence, or approved equal.

LEGEND

-  Silt Fence
-  Tracking/Construction Pad
-  Contours
-  Property Boundary
-  Wetlands
-  Surveyed Wetland Lines
-  Zone A Per FEMA Panel 12097C0875G



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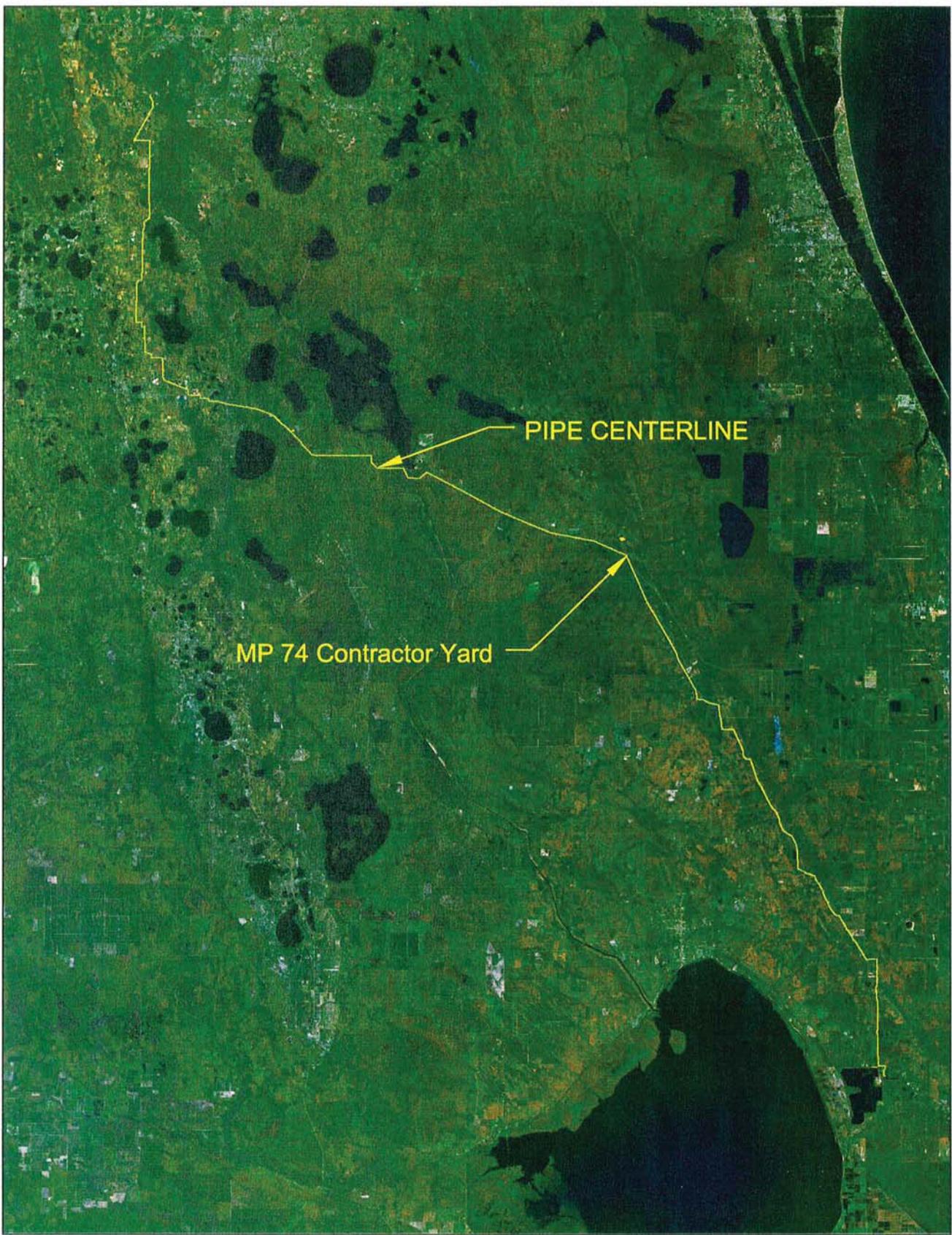
MP 72 Contractor Yard
 Site Layout

6. YEEHAW JUNCTION STAGING AREA MP 74

The staging area is located south of SR 60 and east of South Kenansville Road at what is known as Yeehaw Junction in Osceola County, Florida.

The site has been used in the past as a staging area for road construction. The site is located outside the 100-year floodplain per FEMA Panel No. 12097C0875G. The site has been filled in the past and the fill is underlined by Smyrna Fine Sand, hydrologic group B/D. The seasonal high groundwater table is estimated at 3.5 feet below grade. The natural flow is west to east to Cow Log Branch. The National Wetland Inventory and ECT do not show wetlands onsite.

Silt fence will be placed around all construction related activities to prevent erosion and turbid discharge from stormwater runoff.

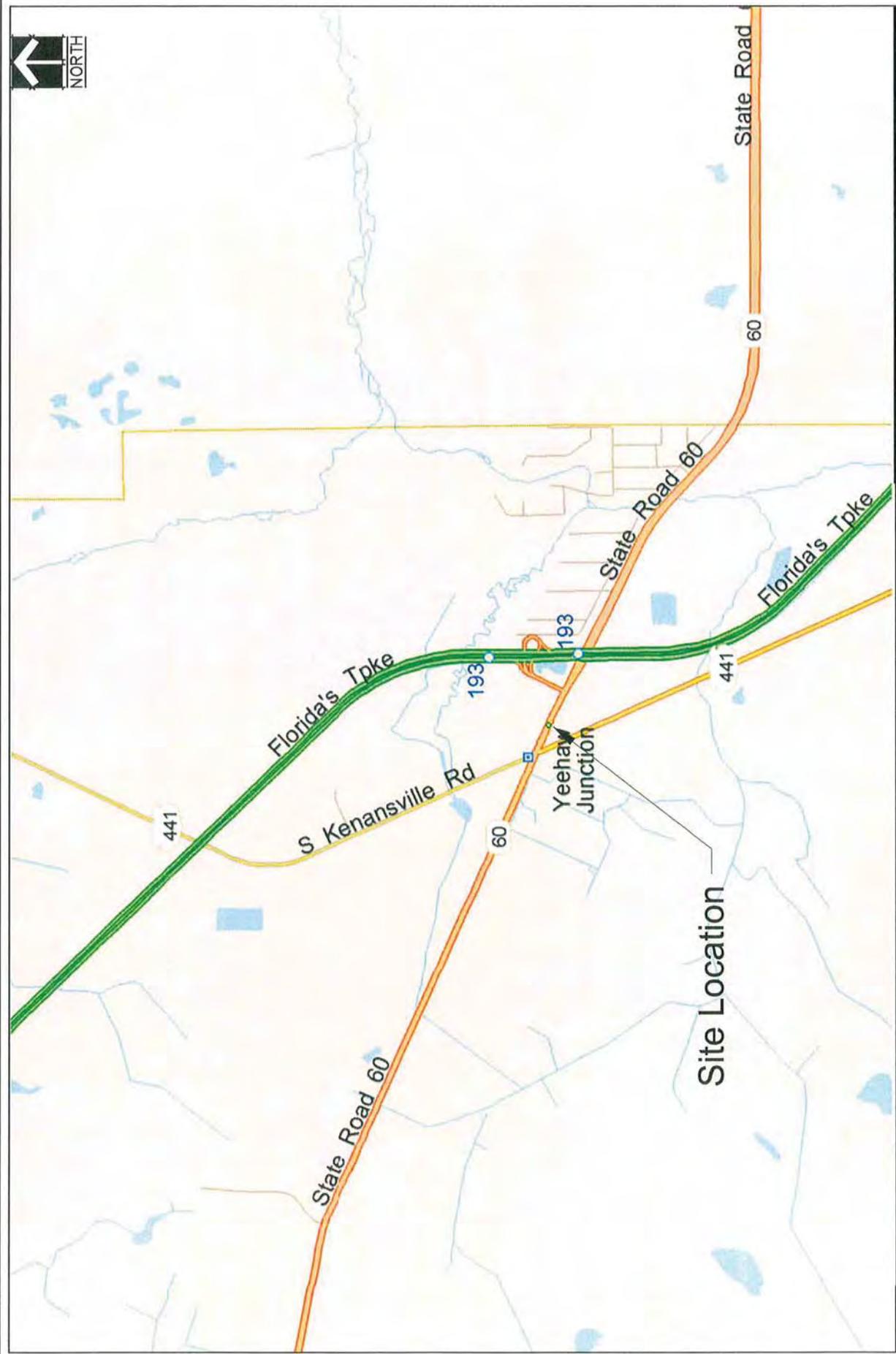


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**MP 74 Yeehaw Junction
Staging Area
Overall Site Location**



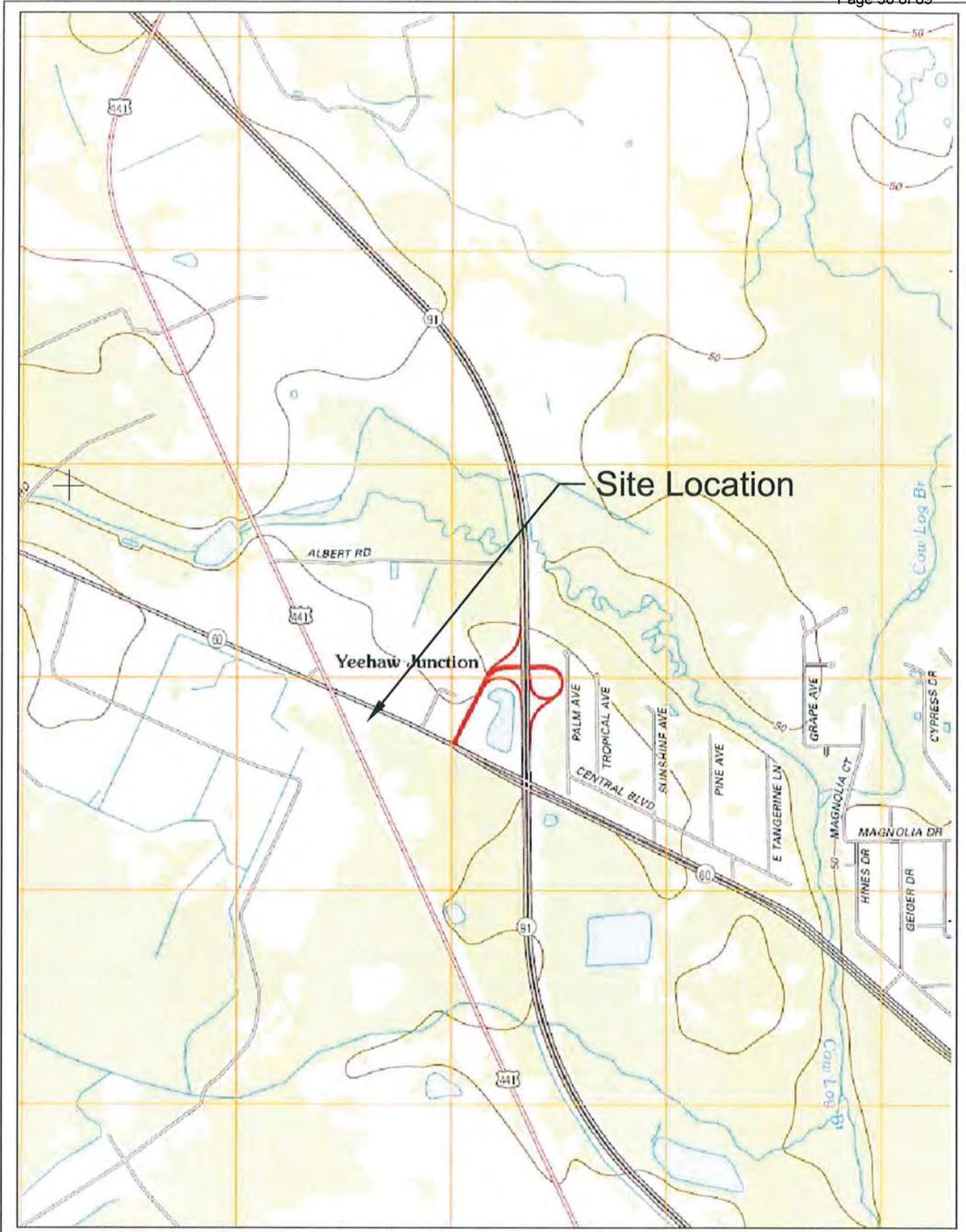
**MP 74 Yeehaw Junction Staging Area
 Vicinity Map**

Site Location

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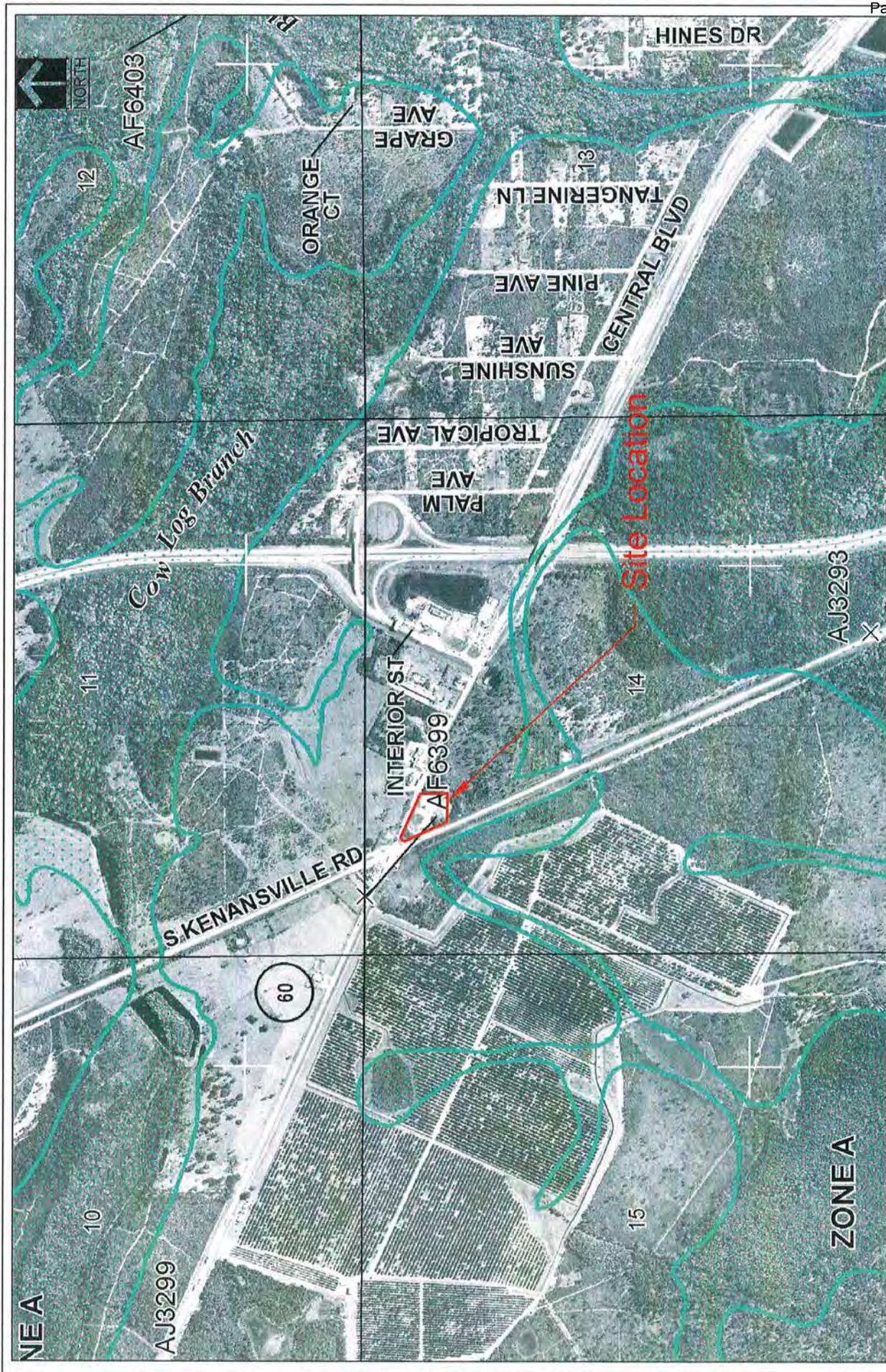
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MP 74 Yeehaw Junction
Staging Area
USGS MAP

USGS 2012 Fort Drum
NW Quad



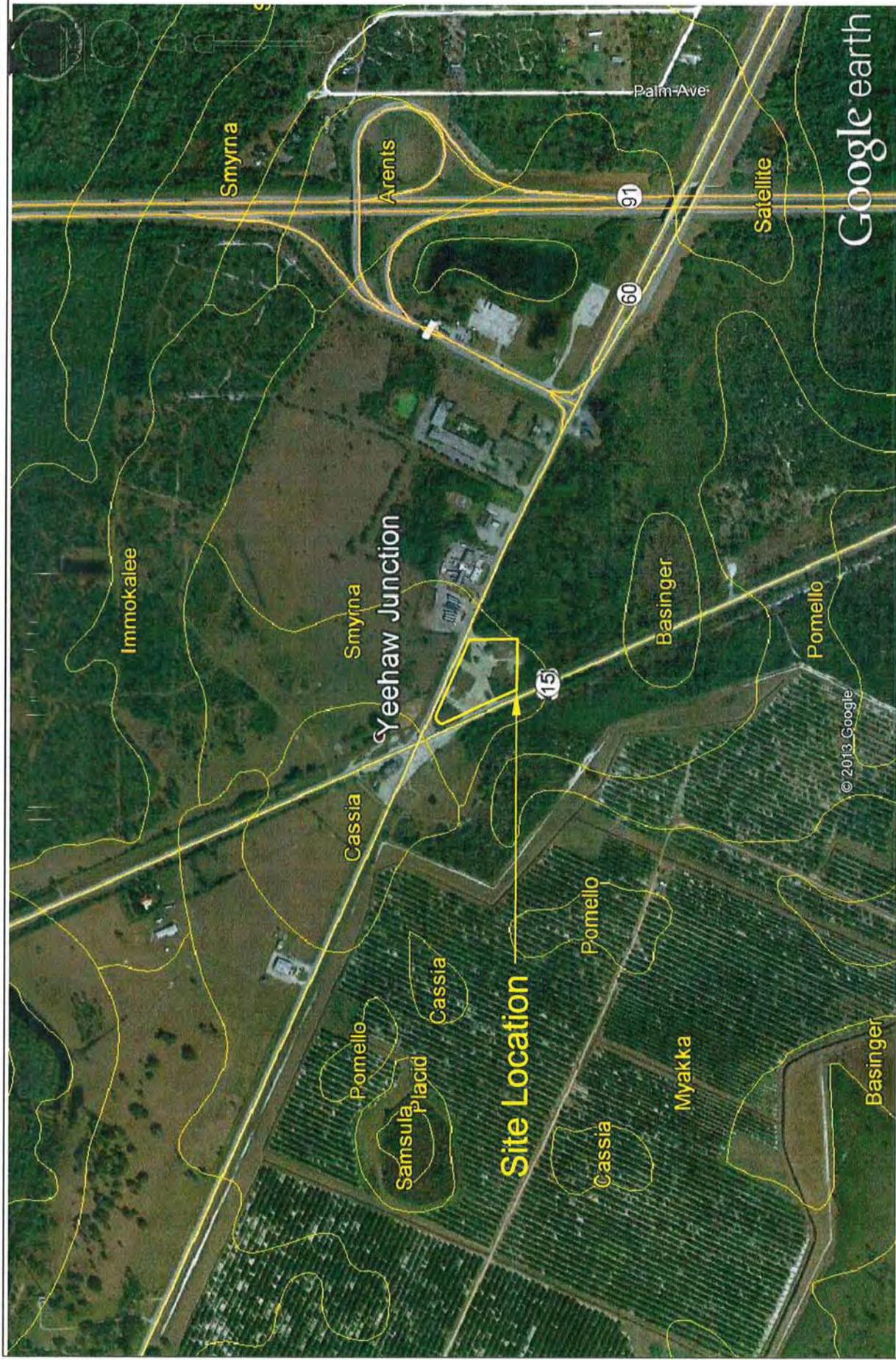
**MP 74 Yeehaw Junction Staging Area
 FEMA MAP**

FEMA PANEL # 12097C0875G

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Jan 17, 2016 - 10:28:13 AM (UTC-05:00)



MP 74 Yeehaw Junction Staging Area Soils Map

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- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



MP 74 Yeehaw Junction Staging Area National Wetland Inventory Map

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**MP 74 Yeehaw Junction Staging Area
FDOT 2011 Aerial & Property Boundary**

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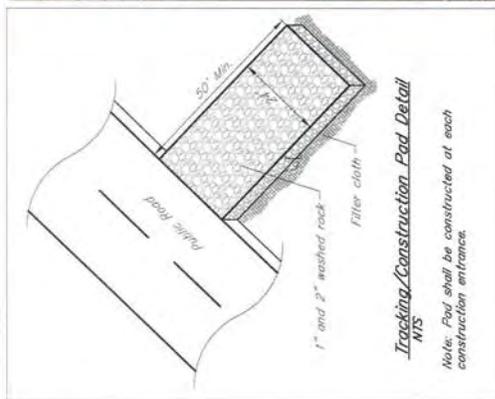


MP 74 Yeehaw Junction Staging Area

Google Earth Contours

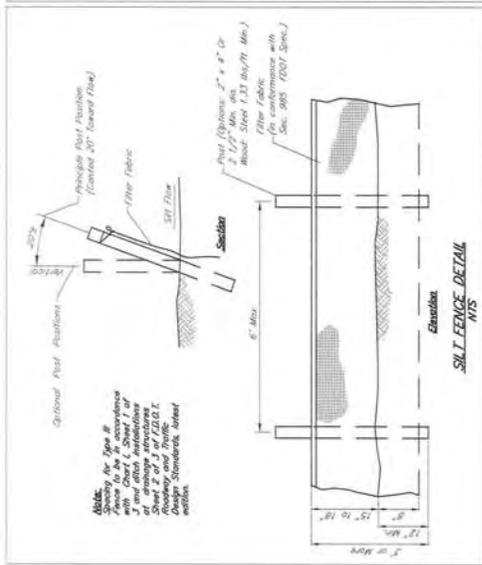
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Tracking/Construction Pad Detail
N/S

Note: Pad shall be constructed at each construction entrance.



SILT FENCE DETAIL
N/S

Construction Notes for Fabricated Silt Fence

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by (6) inches and folded.
4. Locate posts downslope of fabric for fence support.
5. Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

POSTS: Either "T" type steel or 4" hardwood

POSTS: Located maximum 8' on center.

FENCE: Woven wire, 16 GA, 6" max. mesh opening

FILTER CLOTH: Filter X, Mirafi 100X, stabli-linka T14ON or approved equal.

PREFABRICATED UNIT: Envirofence, or approved equal.

No wetlands on site

Property in Zone X per FEMA Panel No. 12097C0875G

LEGEND

— Silt Fence

■ Tracking/Construction Pad

— Contours

— Property Boundary



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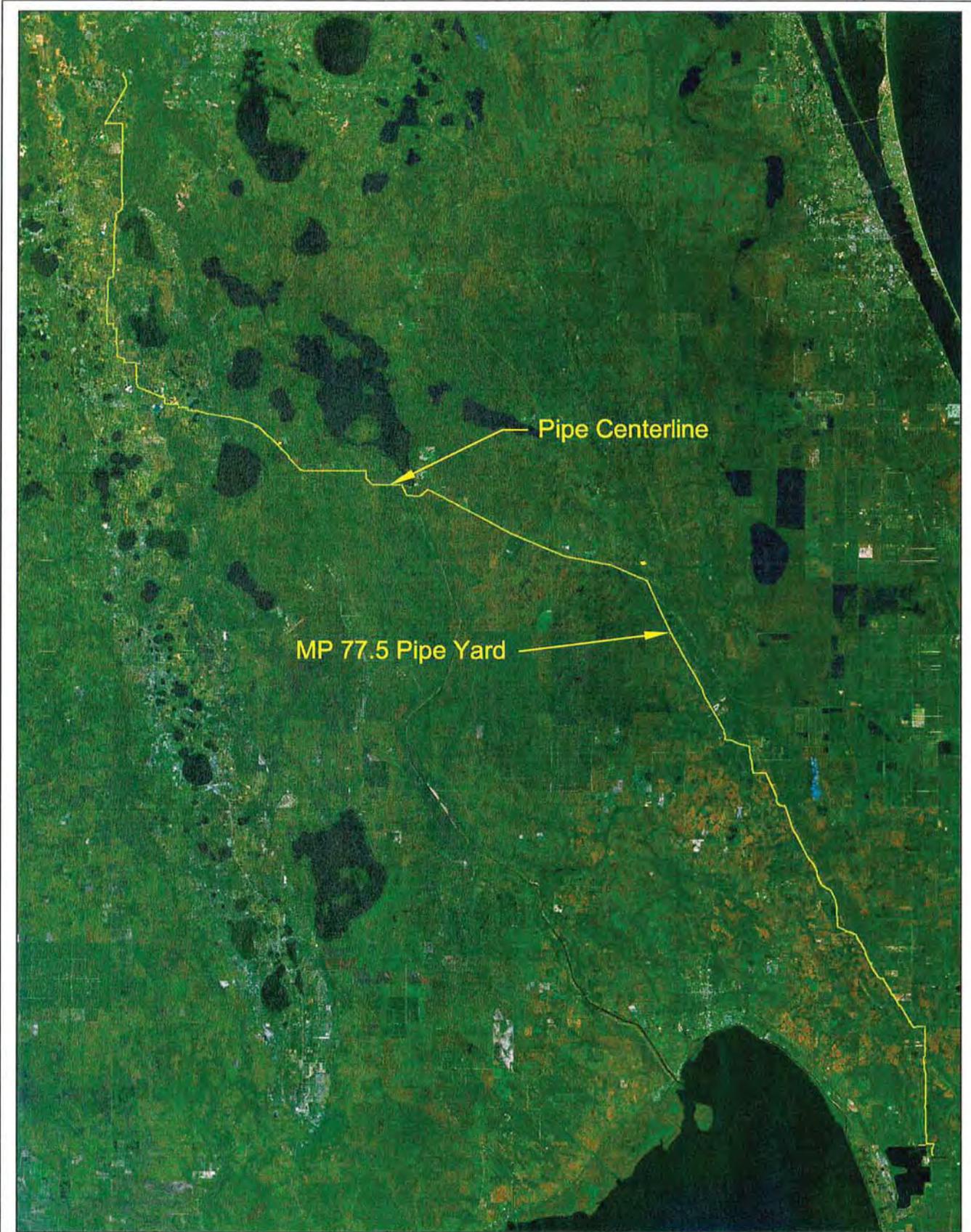
**MP 74 Staging Area
Site Layout**

7. PIPE YARD MP 77.5

The pipe yard is located west of US 441 just south of the Osceola/Okeechobee County line in an area known as Osowan Junction in Okeechobee County, Florida.

The site is presently being used for cattle. Per FEMA Panel No. 11201770050B, the site is not within the 100-year floodplain. The soil types are Pomello and Basinger Fine Sand of hydrologic group B/D. The seasonal high groundwater is 2 to 3 feet below grade. The National Wetland Inventory Map has indicated no wetlands onsite. ECT has field verified this. Natural flow is from east to west to a tributary of Lake Okeechobee.

Silt fence will be installed around all construction related activities to prevent erosion and turbid discharge from the site during rainfall events.



Jun. 17, 2014 - 205pm-Overall site location



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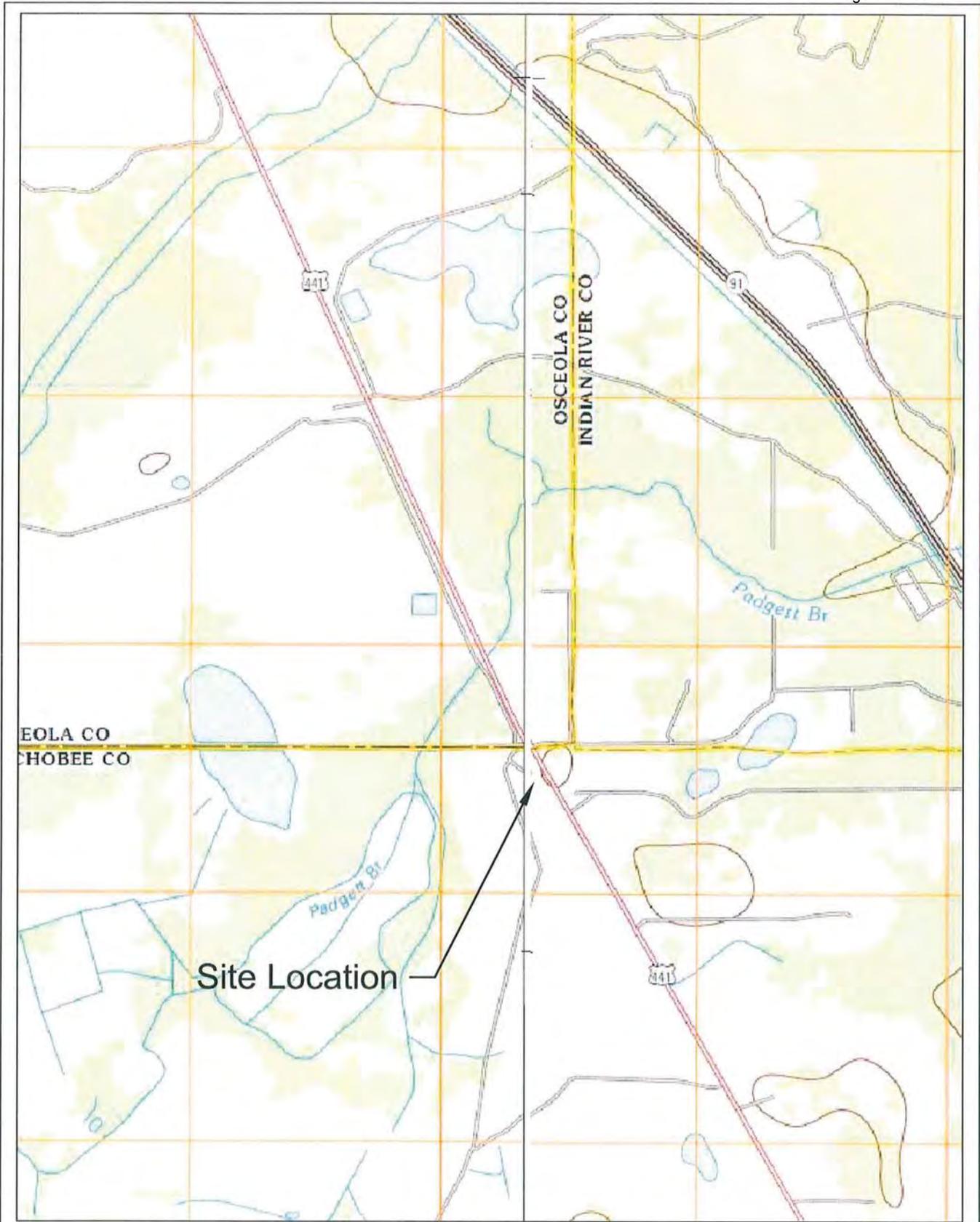
MP 77.5 Pipe Yard Overall Site Location



MMP 77.5 Pipe Yard Vicinity Map

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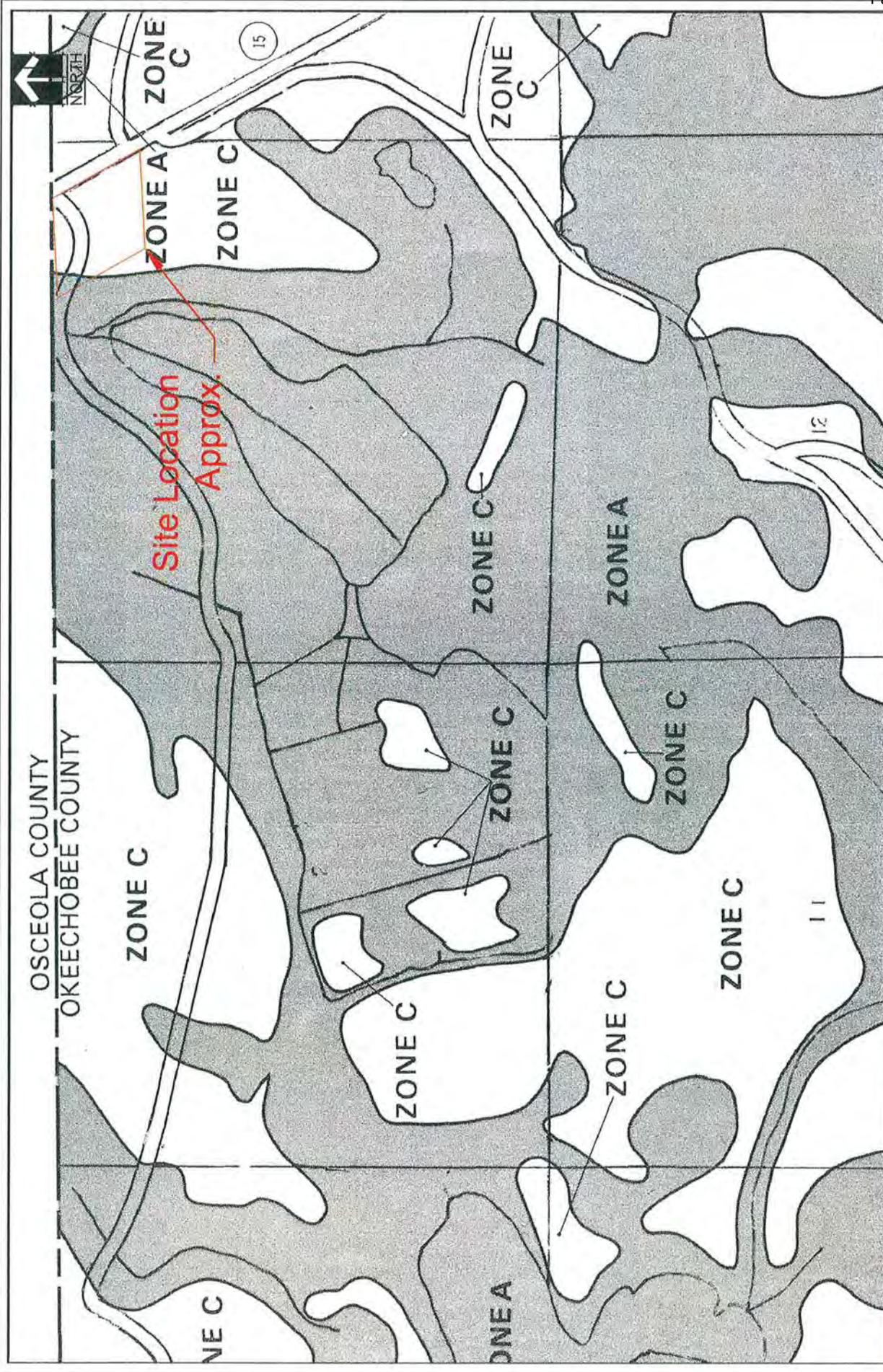
Jan 17, 2014 - 2:05pm-USGS lsk01a



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MP 77.5 Pipe Yard
USGS MAP

USGS 2012 Fort Drum
NW & NE Quad



MP 77.5 Pipe Yard
FEMA MAP

FEMA PANEL # 11201770050B

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**MP 77.5 Pipe Yard
 Soils Map**

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Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other



**MP 77.5 Pipe Yard
 National Wetland Inventory Map**

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MP 77.5 Pipe Yard
FDOT 2011 Aerial & Property Boundary

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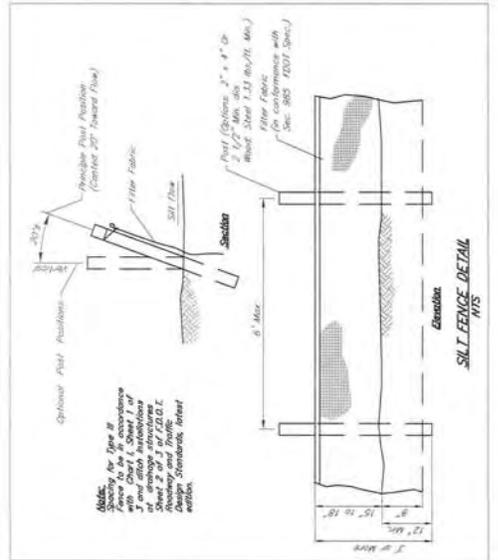
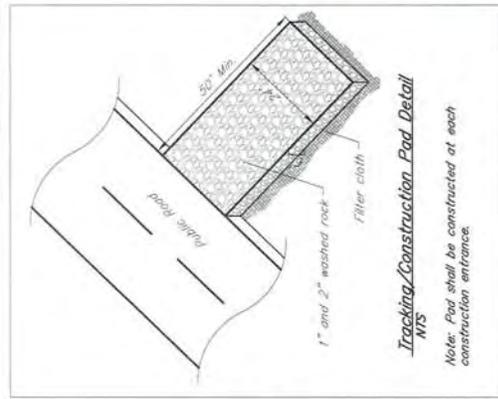
MP 77.5 Pipe Yard Google Earth Contours

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**MP 77.5 Pipe Yard
Site Layout**



Construction Notes for Fabricated Silt Fence

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by (6) inches and fabricate downslope of fabric for fence support.
4. Minor repairs shall be performed as needed and material removed when bulges develop in the silt fence.

POSTS: Either "T" type steel or 4" hardwood

POSTS: Located maximum 8' on center

FENCE: Woven wire, 16 GA. 6" max. mesh opening

FILTER CLOTH: Filter X, Mitrifi 100X, stabli-linka T14CN or approved equal.

PREFABRICATED UNIT: Envirofence, or approved equal.

Property in Zone C per FEMA Panel No. 1120770050B

LEGEND

-  Silt Fence
-  Tracking/Construction Pad
-  Contours
-  Property Boundary
-  Surveyed Wetland Lines

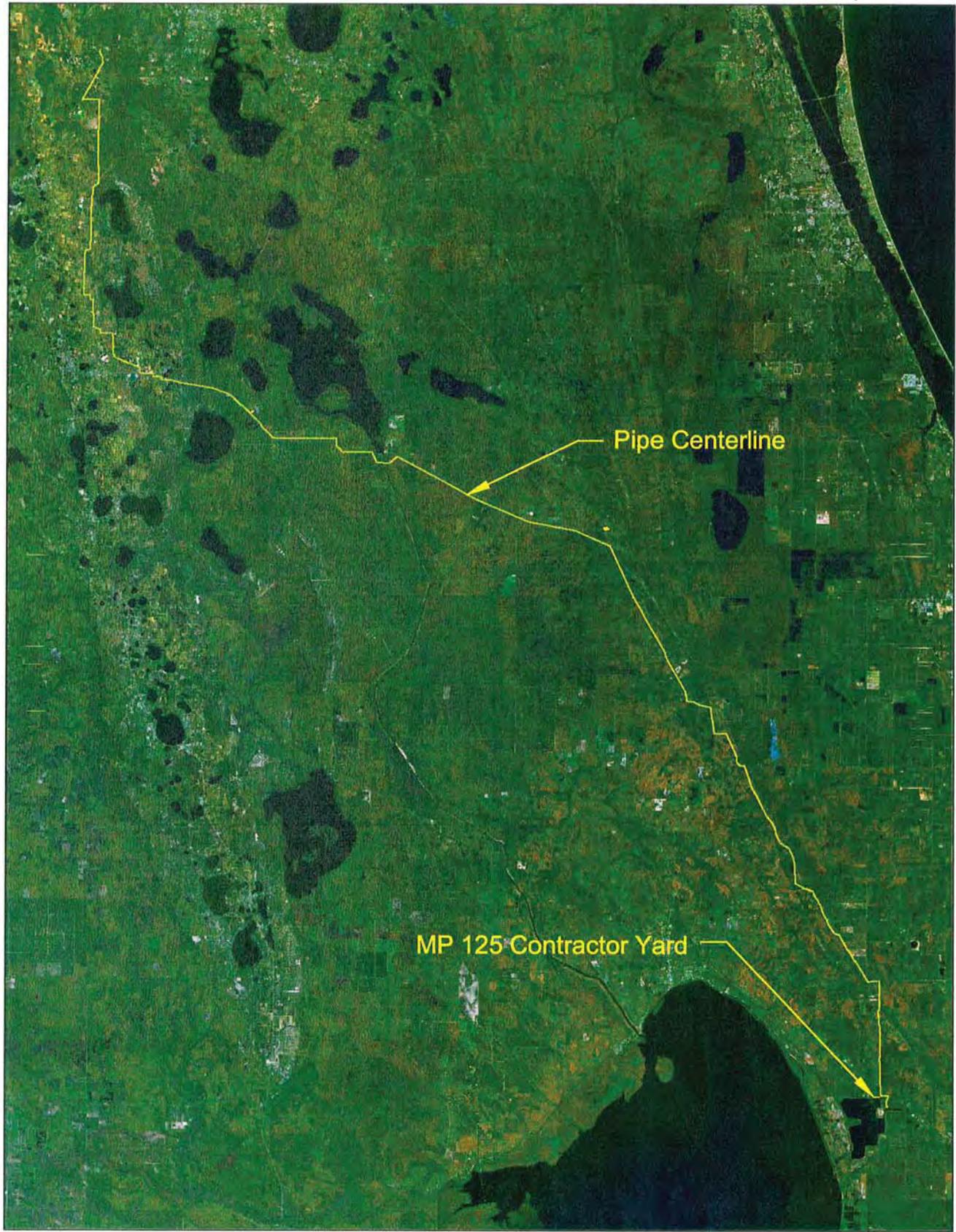
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8. CONTRACTOR YARD MP 125

The contractor yard is located south of SW Cardamine Street and east of Lake Okeechobee in Martin County, Florida.

The site has been filled and used for agriculture in the past. The property is located outside the 100-year floodplain, however, users should be aware that Herbert Hoover Dike is subject to possible overtopping and/or failure during significant flooding events. FEMA Panel No. 12085C0250F. Soil types are Arents (fill). The seasonal high water table is estimated at 3 to 4 feet below grade. The National Wetland Inventory Map has indicated no wetlands onsite. ECT has field verified this. Drainage flow patterns are to the south to a tributary of Lake Okeechobee.

Silt fence will be placed around all construction related activities to prevent erosion and turbid discharge of stormwater runoff.

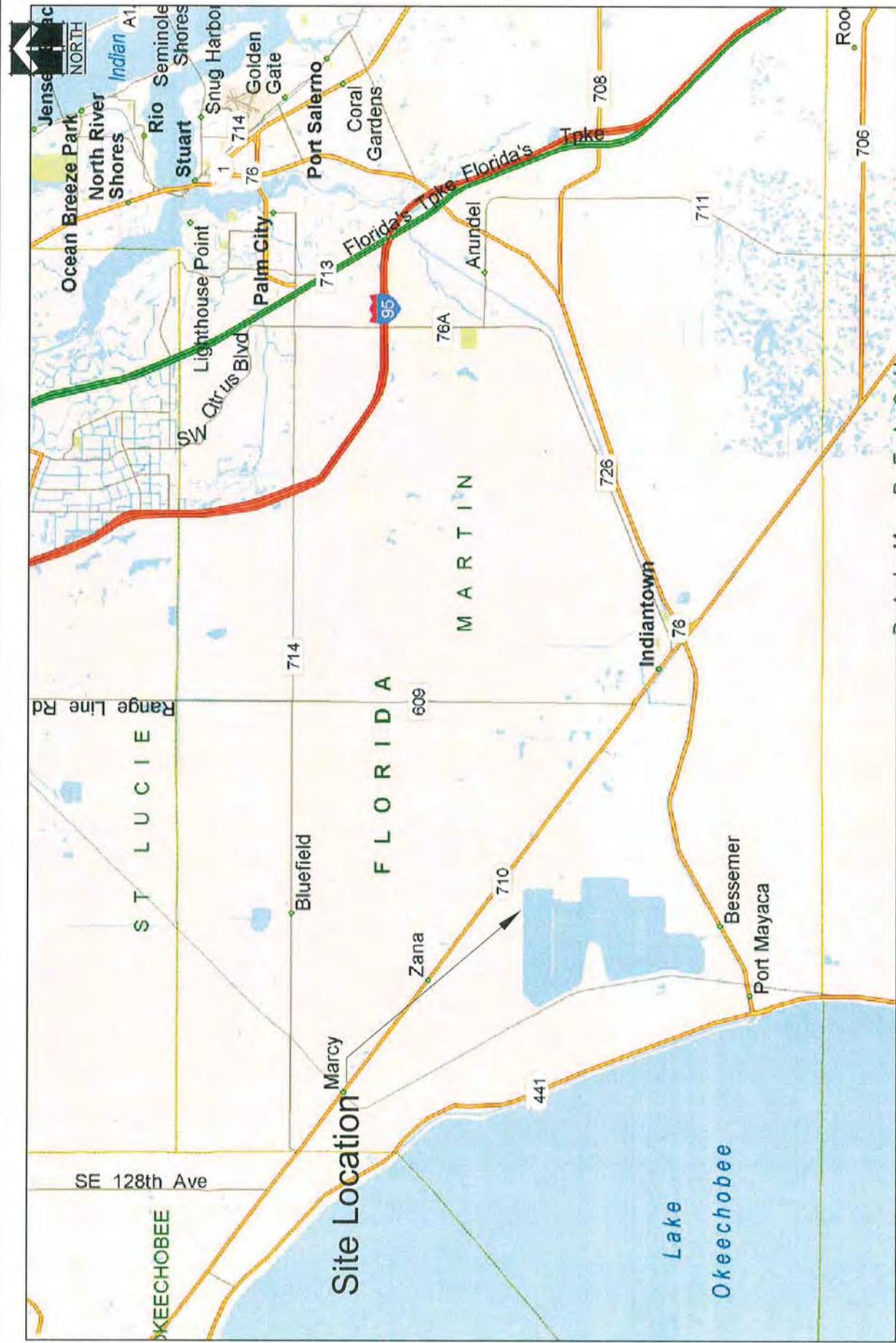


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MP 125 Contractor Yard Overall Site Location

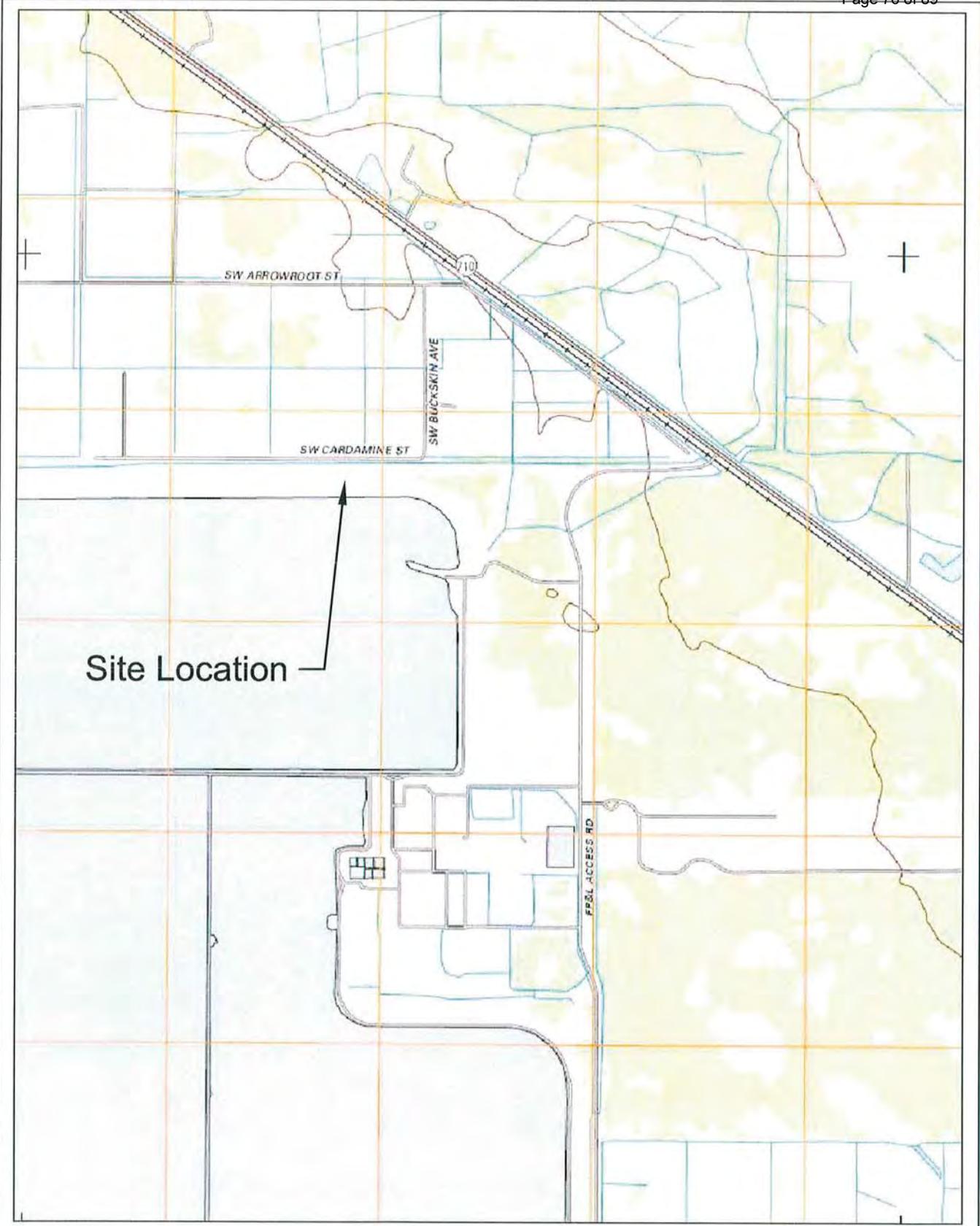


MP 125 Contractor Yard Vicinity Map

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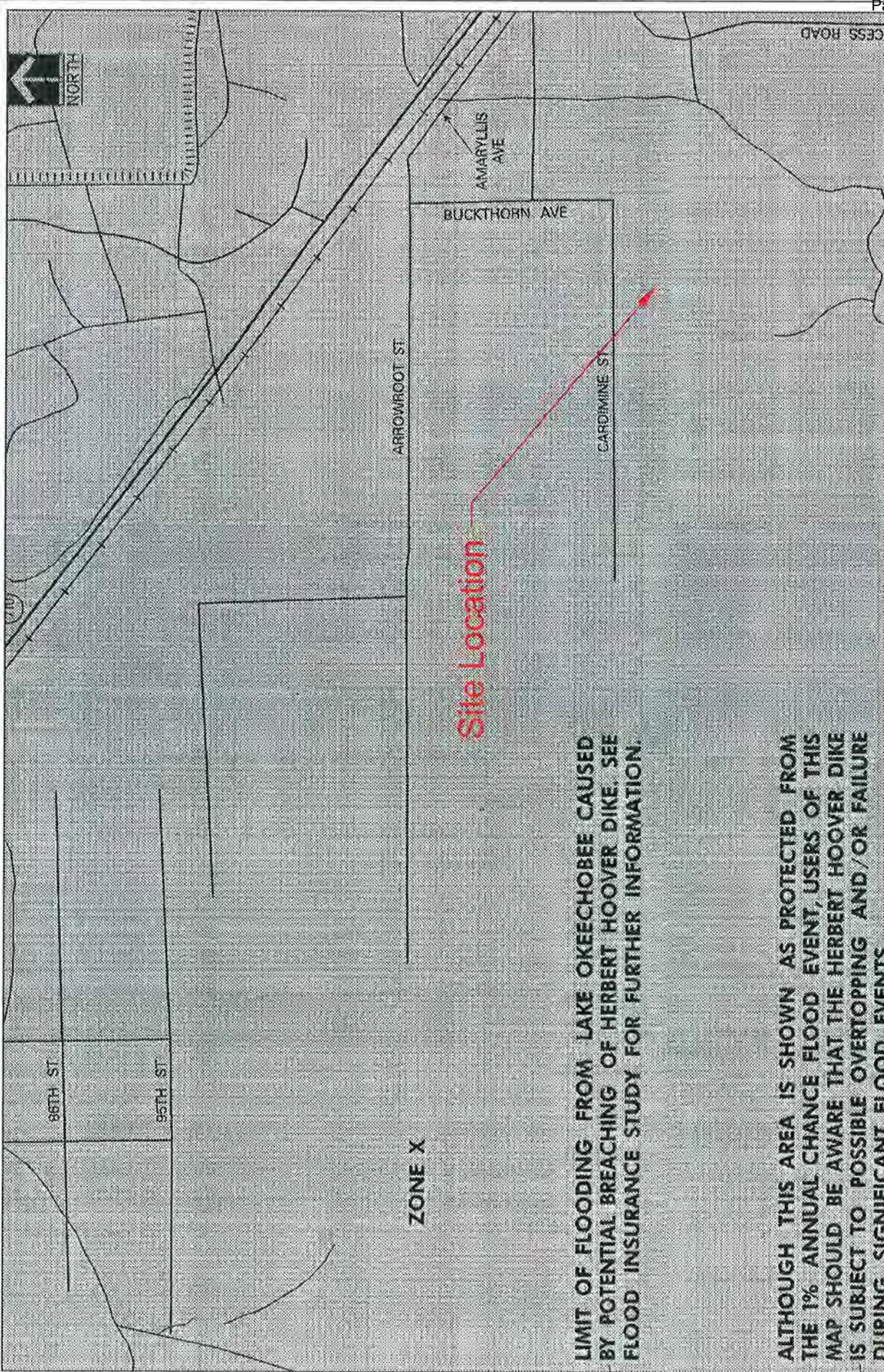
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MP 125 Contractor Yard USGS MAP

USGS 2012 FL Barley
Barber Swamp



Site Location

ZONE X

LIMIT OF FLOODING FROM LAKE OKEECHOBEE CAUSED BY POTENTIAL BREACHING OF HERBERT HOOVER DIKE. SEE FLOOD INSURANCE STUDY FOR FURTHER INFORMATION.

ALTHOUGH THIS AREA IS SHOWN AS PROTECTED FROM THE 1% ANNUAL CHANCE FLOOD EVENT, USERS OF THIS MAP SHOULD BE AWARE THAT THE HERBERT HOOVER DIKE IS SUBJECT TO POSSIBLE OVERTOPPING AND/OR FAILURE DURING SIGNIFICANT FLOOD EVENTS.



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MP 125 Contractor Yard FEMA MAP

FEMA PANEL # 12085C0250F



**MP 125 Contractor Yard
 Soils Map**

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MP 125 Contractor Yard
 National Wetland Inventory Map

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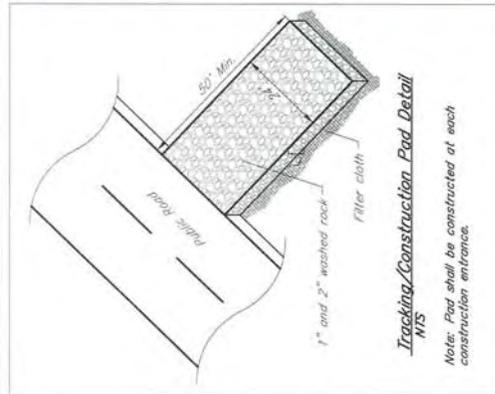




MP 125 Contractor Yard
FDOT 2013 Aerial & Property Boundary

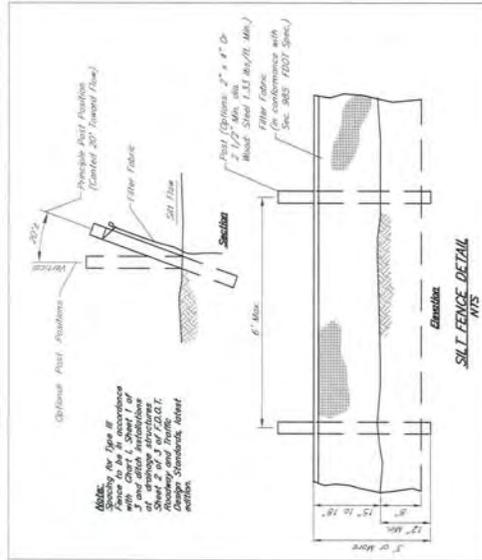
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Tracking/Construction Pad Detail
N/S

Note: Pad shall be constructed at each construction entrance.



SILT FENCE DETAIL
N/S

Construction Notes for Fabricated Silt Fence

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. When two sections of filter cloth adjoin each other they shall be overlapped by (6) inches and folded.
4. Locate posts downslope of fabric for fence support.
5. Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

POSTS: Either "T" type steel or 4" hardwood

POSTS: Located maximum 8' on center

FENCE: Woven wire, 16 GA, 6" max. mesh opening

FILTER CLOTH: Filter-X, Mirafi 100X, stabli-linka T140N or approved equal.

PREFABRICATED UNIT: Envirofence, or approved equal.

No wetlands on site

Property in Zone X per FEMA Panel No. 12085C0250F

LEGEND

— Silt Fence

Tracking/Construction Pad

— Property Boundary



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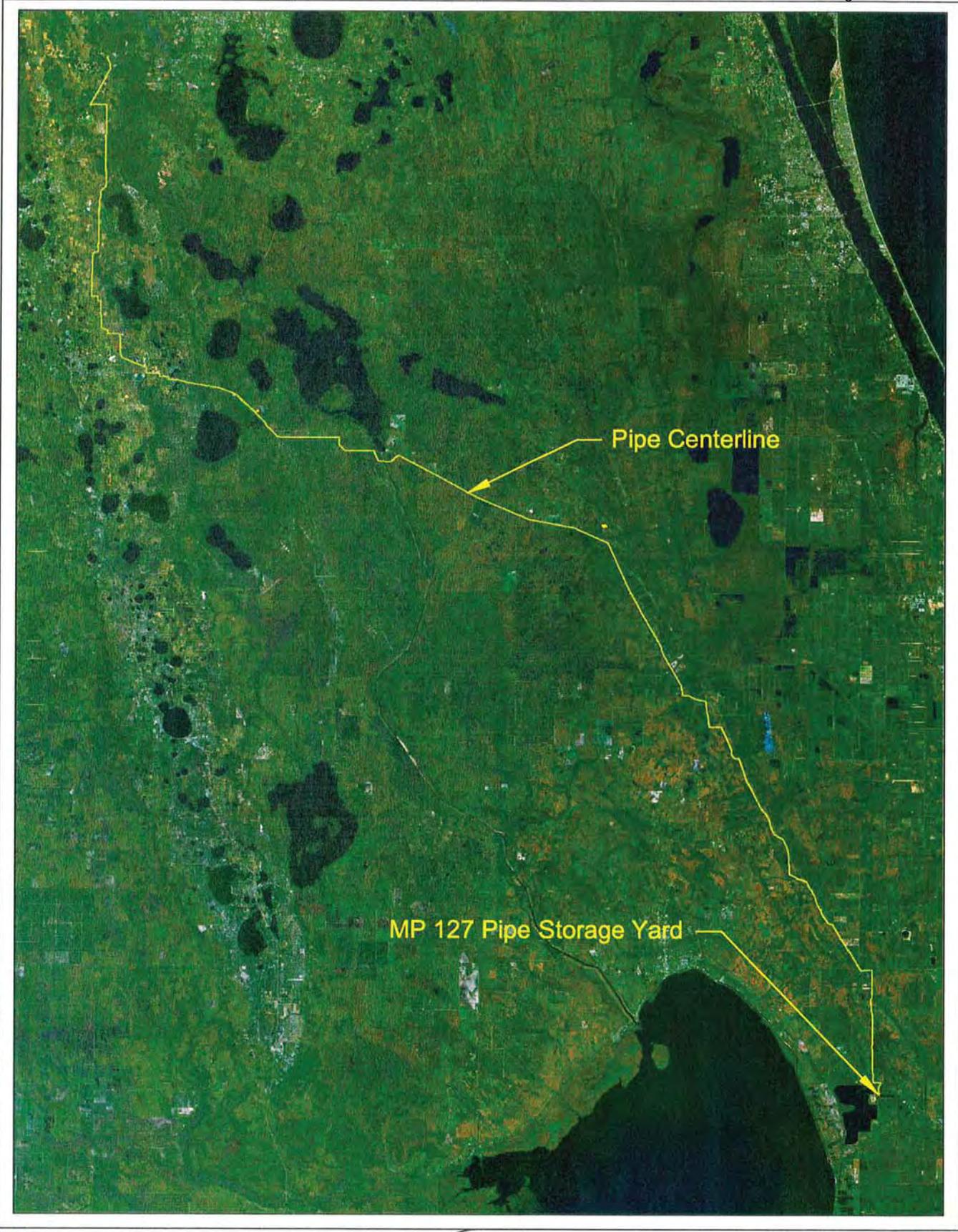
**MP 125 Contractor Yard
Site Layout**

9. PIPE YARD MP 127

The pipe yard is located east of FP&L Access Road and south of US 710 in Martin County, Florida.

The site has been filled and used for agriculture. The property is outside the 100-year floodplain, FEMA Panel No. 12085C0250F. Users should be aware that Herbert Hoover Dike is subject to possible overtopping and/or failure during significant storm events. Failure of the dike would result in flooding of the parcel. Soil type is Chobee Fine Sand of hydrologic group B/D. The seasonal high groundwater is expected to be within 2 to 3 feet below grade. The National Wetland Inventory Map has indicated no wetlands onsite. ECT has field verified this. The natural drainage pattern is to the west to an existing canal which drains to Lake Okeechobee.

Silt fence will be installed around all construction related activities to prevent erosion and prevent turbid offsite discharges from the property during rainfall events.



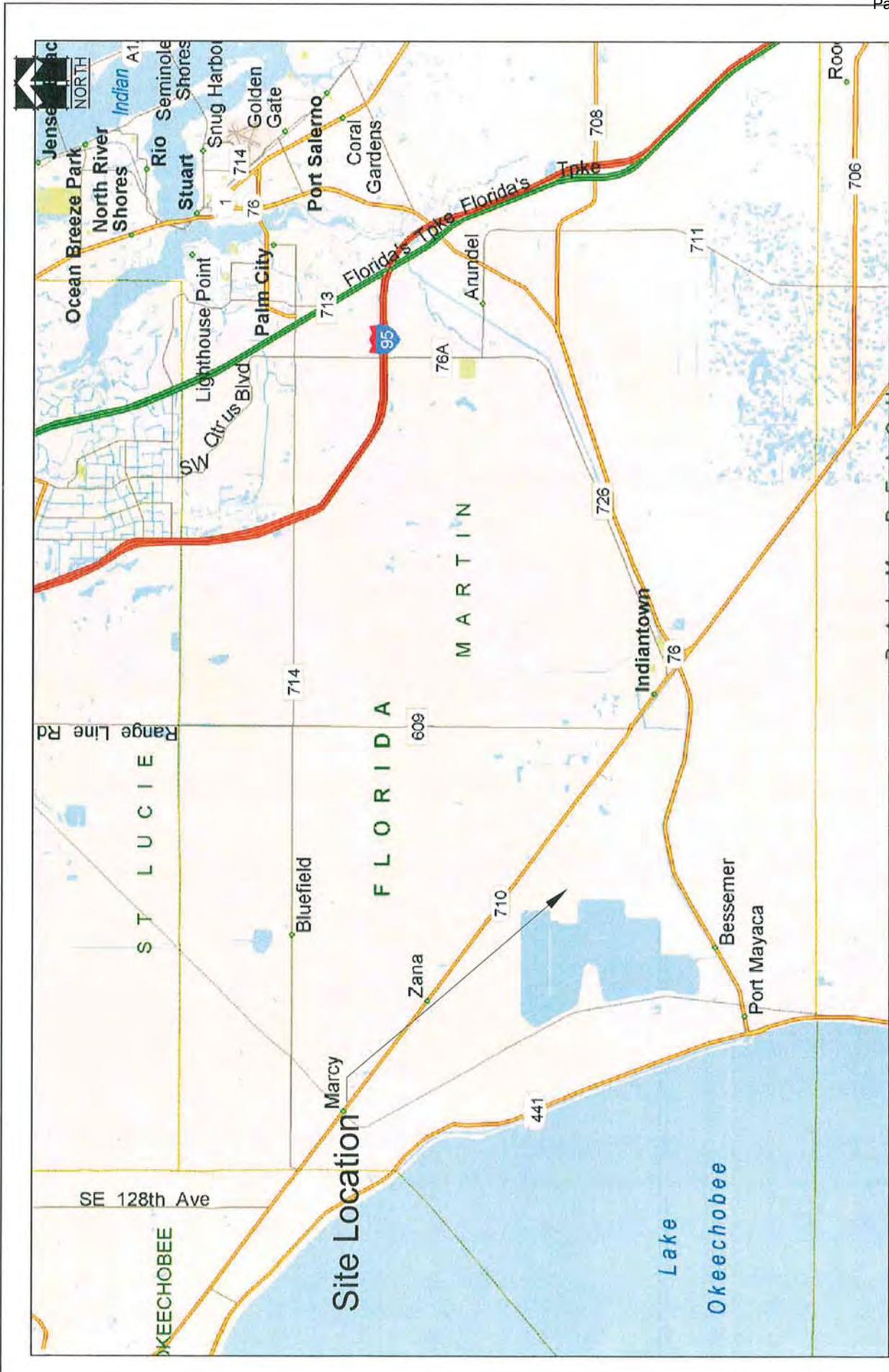
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MP 127 Pipe Storage Yard Overall Site Location

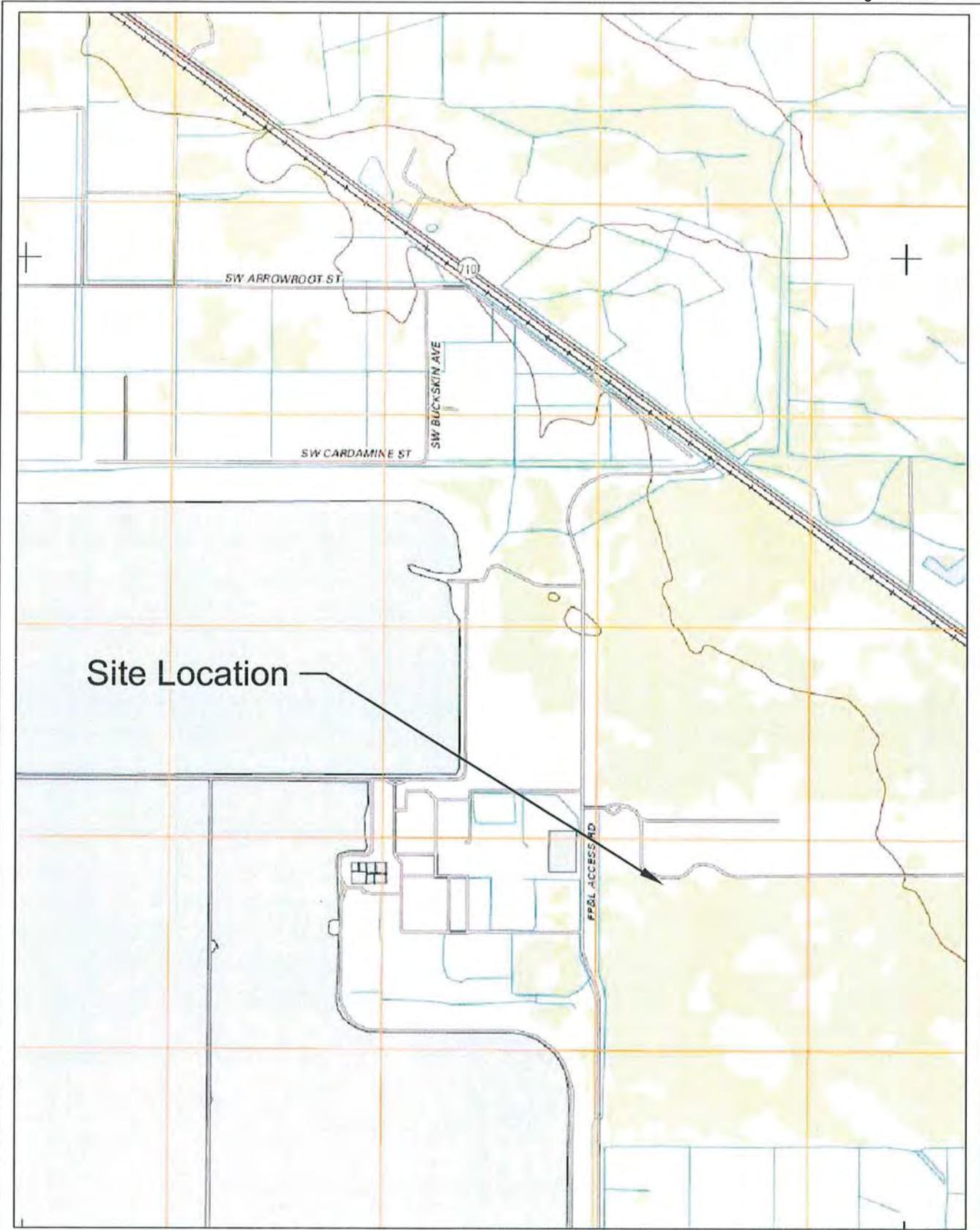


MP 127 Pipe Storage Yard Vicinity Map

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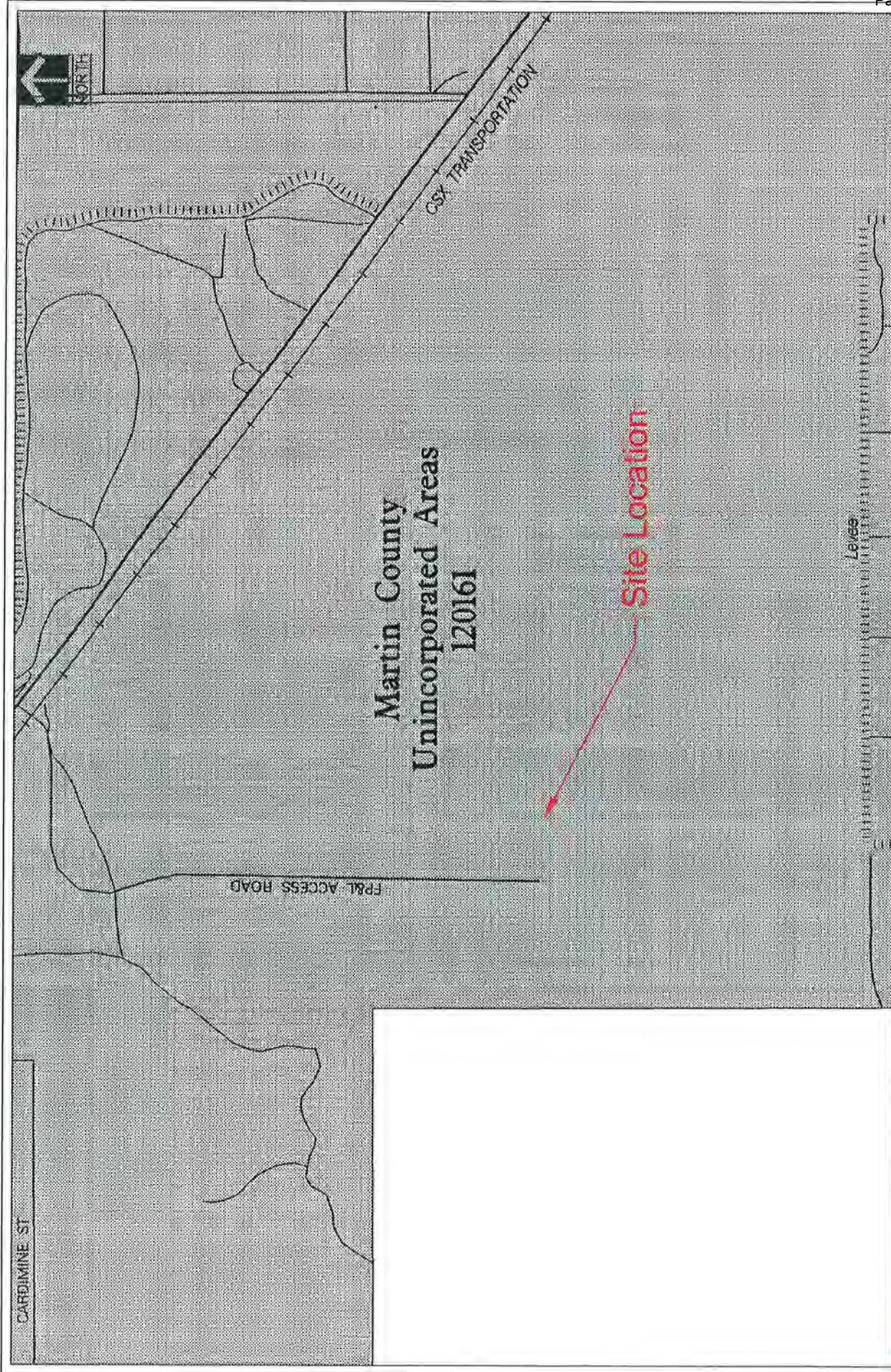
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MP 127 Pipe Storage Yard USGS MAP

USGS 2012 FL Barley
Barber Swamp



MP 127 Pipe Storage Yard FEMA MAP

FEMA PANEL # 12085C0250F

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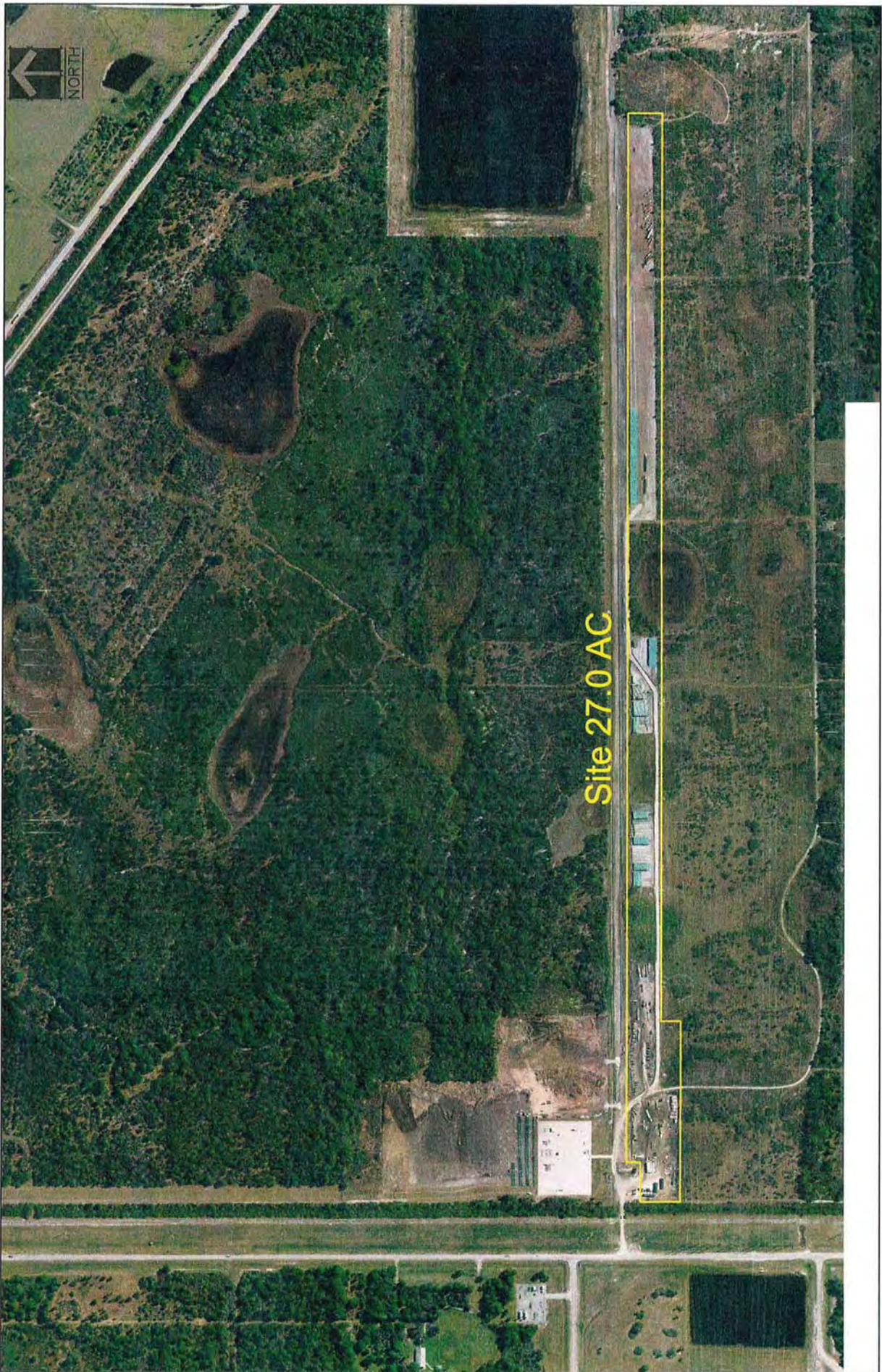
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MP 127 Pipe Storage Yard Soils Map

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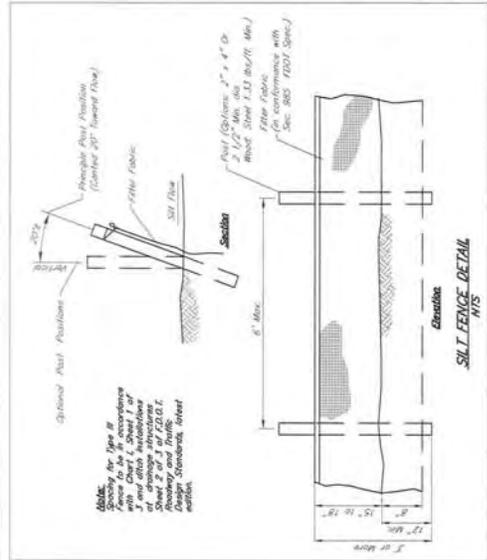
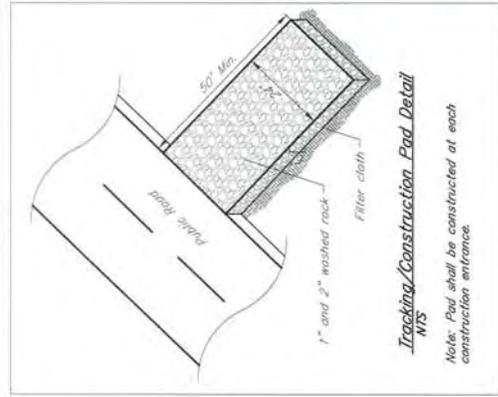
MP 127 Pipe Storage Yard
FDOT 2013 Aerial & Property Boundary

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MP 127 Pipe Storage Yard Site Layout



Construction Notes for Fabricated Silt Fence

1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
2. Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
3. Where two sections of filter cloth adjoin each other they shall be overlapped by (6) inches and secured with staples.
4. Lute joints down slope of fabric for fence support.
5. Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

POSTS: Either "T" type steel or 4" hardwood

POSTS: Located maximum 8' on center

FENCE: Woven wire, 16 GA. 6" max. mesh opening

FILTER CLOTH: Filter X, Mirafi 100X, stabli-linka T14ON or approved equal.

PREFABRICATED UNIT: Envirofence, or approved equal.

Property in Zone X per FEMA Panel No. 12085C0250F

LEGEND

- Silt Fence
- Tracking/Construction Pad
- Property Boundary

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Table RAI-3. Areas To Be Surveyed **REVISED**

Page 1 of 2

Parcel ID	Location on Figure 5 (Sheet xx of xx)	County	Property Owner	Milepost		Length (miles)	Wetlands Present?	Wetland ID(s)
				Enter	End			
1	3	Polk	Gladys Jones and Eric Jones, wife and husband (Contact Attorney Only)	1	1.2	0.09	No	
2	3	Polk	Gladys Jones and Eric Jones, wife and husband (Contact Attorney Only)	"	"	"	No	
3	3	Polk	Corrine W. Allen	"	"	"	Yes	W-019
4	3	Polk	Henry Bell and Bernice Bell	"	"	"	Yes	W-019
5	6	Polk	Alice H. Combs	2.9	3	0.04	No	
6	44	Polk	Robert C. Walker and Karen L. Walker, his wife	13.9	14	0.06	No	
7	54	Polk	Nelson J. Rheaume, James A. Rheaume and Laura A. Rheaume	18.9	19	0.04	No	
8	56-57	Polk	Seibels Enterprises, Inc. (Contact Attorney Only).	20	21.2	1.24	No	
9	57-58	Polk	Johnston Properties, Inc. (Contact Attorney Only).	"	"	"	No	
10	58	Polk	Estes Groves, Inc. c/o Cody Estes (Contact Attorney Only).	"	"	"	No	
11	58-59	Polk	Seibels Enterprises, Inc. (Contact Attorney Only).	"	"	"	No	
12	76	Polk	Kenneth B. Tucker and Lynne A. Tucker	27	27.1	0.08	No	
13	76	Polk	Kenneth B. Tucker and Lynne A. Tucker, his wife	"	"	"	No	
14	81	Polk	Estate of William Billy Tucker c/o Gene Tucker	29.1	29.2	0.1	No	
15	81	Polk	Stephanie E. Cobb	29.3	29.4	0.17	No	
16	81	Polk	Hazel P. Harper	"	"	"	No	
17	81	Polk	Eddie L. Brown and Mavis Marie Brown	"	"	"	Yes	WB-18
18	86	Polk	Cemex Construction Materials Florida, LLC	31.4	31.5	0.24	Yes	WB-137-A1
19	102	Polk	Keith E. Hyatt and Amy D. Hyatt (Contact Attorney Only).	38.3	28.4	0.2	Yes	WB-24
20	146	Polk	SFWMD	52.7	52.8	0.05	Yes	W-251B
21	169	Osceola	734 LMC Groves	62.5	62.7	0.25	Yes	W-309, W-313
22	209-210	Okeechobee	LOR, Inc.	79.7	81.8	2.11	Yes	W-410, W-411, W-412, W-414, W-415, W-416
23	210-211	Okeechobee	LOR, Inc.	"	"	"	Yes	W-416, W-417, W-418, W-419
24	211	Okeechobee	LOR, Inc.	"	"	"	Yes	W-419, W-420
25	212-213	Okeechobee	LOR, Inc.	"	"	"	Yes	W-420, W-422, W-423

Table RAI-3. Areas To Be Surveyed **REVISED**

Page 2 of 2

Parcel ID	Location on Figure 5 (Sheet xx of xx)	County	Property Owner	Milepost		Length (miles)	Wetlands Present?	Wetland ID(s)
				Enter	End			
26	213	Okeechobee	LOR, Inc.	"	"	"	Yes	W-424, WB-53, W-425
27	214-215	Okeechobee	Voor Jaar Ranch, LLC	82.4	82.9	0.54	Yes	WB-54
28	215	Okeechobee	Voor Jaar Ranch, LLC	"	"	"	Yes	W-432, W-433, WB-55
29	219	Okeechobee	Tonya Campbell Ford	84.5	84.7	0.24	Yes	WB-57, W-448
30	221	Okeechobee	Baskaran Nadarajah & Jesurajah Shanmugan	85.9	86	0.13	No	
31	283-285	St. Lucie	5M Pioneer Properties LLC (Contact Attorney Only)	105.7	107.5	1.8	Yes	W-533, W-534, WB-73
32	285-286	St. Lucie	5M Pioneer Properties LLC (Contact Attorney Only)	"	"	"	Yes	W-534, W-535A
33	286-287	St. Lucie	5M Pioneer Properties LLC (Contact Attorney Only)	"	"	"	Yes	W-535A
34	342-343	Martin	South Florida Water Management District and Martin County	123.8	124.2	0.45	Yes	WB-86, W-645
35	342-343	Martin	South Florida Water Management District and Martin County	"	"	"	Yes	WB-86, W-645
36	343	Martin	Lionel Francois and Enoline Francois (Contact Attorney Only)	124.5	124.6	<u>0.08</u>	Yes	W-652
Total						7.91		

Source: ECT, 2014.

REQUEST TO TRANSFER PERMIT

Instructions: Submit this form to the Agency within 30 days after any transfer of ownership or control of the real property where the permitted activity is located.

Note: Use of this form is not required when a valid permit is in the operation and maintenance phase. In such case, the owner must notify the Agency in writing within 30 days of a change in ownership or control of the entire real property, project, or activity covered by the permit. The notification may be letter, e-mail, or using this form, sent to the office that issued the permit. A processing fee is not required for this notice. The permit shall automatically transfer to the new owner or person in control, except in cases of abandonment, revocation, or modification of a permit as provided in Sections 373.426 and 373.429, F.S. (2012). If a permittee fails to provide written notice to the Agency within 30 days of the change in ownership or control, or if the change does not include the entire real property or activity covered by the permit, then the transfer must be requested using this form.

Permit No.: _____ Application No(s): _____ Date Issued: _____

Identification or Name of Surface Water Management System: _____

Phase of Surface Water Management System (if applicable): _____

PART 1: PROPOSED PERMIT HOLDER

The undersigned hereby notifies the Agency that I have acquired ownership or control of the land on which the permitted system is located through the sale or other legal transfer of the land. By signing below, I hereby certify that I have sufficient real property interest or control in the land in accordance with subsection 4.2.3 (d) of Applicant's Handbook Volume I; attached is a copy of my title, easement, or other demonstration of ownership or control in the land, including any revised plats, as recorded in the Public Records. I request that the permit be modified to reflect that I agree to be the new permittee. By so doing, I acknowledge that I have examined the permit terms, conditions, and drawings, and agree to accept all rights and obligations as permittee, including agreeing to be liable for compliance with all of the permit terms and conditions, and to be liable for any corrective actions required as a result of any violations of the permit after approval of this modification by the Permitting Agency. Also attached are copies of any recorded restrictive covenants, articles of incorporation, and certificate of incorporation that may have been changed as a result of my assuming ownership or control of the lands. As necessary, I agree to furnish the Agency with demonstration that I have the ability to provide for the operation and maintenance of the system for the duration of the permit in accordance with subsection 12.3 of Applicant's Handbook Volume I.

Name of Proposed Permit Holder: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ Fax: _____ E-mail: _____



Signature of Proposed Permittee

Date

Title (if any)

PART 2: RESPONSIBLE REGISTERED PROFESSIONAL

Name of Registered Professional who will be responsible for system inspections and reporting as required by Chapter 62-330, F.A.C. (if applicable): _____

Mailing Address: _____

City: _____

State: _____

Zip Code: _____

Telephone: _____

Fax: _____

E-mail: _____

Enclosures:

Copy of recorded transfer of title for surface water management system

Copy of plat(s)

Copy of recorded restrictive covenants, articles of incorporation, and certificate of incorporation

Other

AS-BUILT CERTIFICATION AND REQUEST FOR CONVERSION TO OPERATION PHASE

Instructions: Complete and submit this page within 30 days of completion of the permitted activities, as required by the permit conditions. **Any components of the permitted activities that are not in substantial conformance with the permit must be corrected or a modification of the permit will be required in accordance with Rule 62-330.315, Florida Administrative Code (F.A.C.).** The operation phase of the permit is effective when the construction certification for the entire permit/application is approved by the Agency. If the final operation and maintenance entity is not the permittee, the permittee shall operate the system, works or other activities temporarily until such time as the transfer to the operation entity is finalized (use Form 62-330.310(2)).

Permit No.:	Application No(s).	Permittee:
Project Name:		Phase (if applicable):

I HEREBY CERTIFY THAT (please choose accurately and check only one box):

- I hereby notify the Agency of the completion of construction of all the components of the system, works or other activities for the above referenced project and certify that it has been constructed in substantial conformance with the plans specifications and conditions permitted by the Agency. Any minor deviations will not prevent the system from functioning in compliance with the requirements of Chapter 62-330, F.A.C. Attached is documentary evidence of satisfaction of any outstanding permit conditions, other than long term monitoring and inspection requirements.

- At the time of final inspection, the works or activities were NOT completed in substantial conformance with the plans and specifications permitted by the Agency. (The registered professional shall describe the substantial deviation(s) in writing, and provide confirming depiction on the as-built drawings and information.)

If there were substantial deviations, plans must be submitted clearly labeled as “as-built” or “record” drawings reflecting the substantial deviations. If there are no substantial deviations, do not submit “as built” drawings.

For activities that require certification by a registered professional:

By: _____

Signature	Print Name	Fla. Lic. or Reg. No
! AFFIX SEAL !	Company Name	
	Company Address	Date

For activities that do not require certification by a registered professional:

By: _____

Signature	Print Name	
	Company Name	
	Company Address	Date



DRAWINGS AND INFORMATION CHECKLIST

Following is a list of information that is to be verified and/or submitted by the Registered Professional or Permittee:

1. All surveyed dimensions and elevations shall be certified by a registered Surveyor or Mapper under Chapter 472, F.S.
2. The registered professional's certification shall be based upon on-site observation of construction (scheduled and conducted by the registered professional of record or by a project representative under direct supervision) and review of as-built drawings, with field measurements and verification as needed, for the purpose of determining if the work was completed in accordance with original permitted construction plans, specifications and conditions.
3. If submitted, the as-built drawings are to be based on the permitted construction drawings revised to reflect any substantial deviations made during construction. Both the original design and constructed condition must be clearly shown. The plans need to be clearly labeled as "as-built" or "record" drawings that clearly highlight (such as through "red lines" or "clouds") any substantial deviations made during construction. As required by law, all surveyed dimensions and elevations required shall be verified and signed, dated and sealed by an appropriate registered professional. The following information, at a minimum, shall be verified on the as-built drawings, and supplemental documents if needed:
 - a. Discharge structures - Locations, dimensions and elevations of all, including weirs, orifices, gates, pumps, pipes, and oil and grease skimmers;
 - b. Detention/Retention Area(s) – Identification number, size in acres, side slopes (h:v), dimensions, elevations, contours or cross-sections of all, sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems,
 - c. Side bank and underdrain filters, or exfiltration trenches - locations, dimensions and elevations of all, including clean-outs, pipes, connections to control structures and points of discharge to receiving waters;
 - d. System grading - dimensions, elevations, contours, final grades or cross-sections to determine contributing drainage areas, flow directions and conveyance of runoff to the system discharge point(s);
 - e. Conveyance - dimensions, elevations, contours, final grades or cross-sections of systems utilized to divert off-site runoff around or through the new system;
 - f. Benchmark(s) - location and description (minimum of one per major water control structure);
 - g. Datum- All elevations should be referenced to a vertical datum clearly identified on the plans, preferably the same datum used in the permit plans.
4. Wetland mitigation or restoration areas - Show the plan view of all areas, depicting a spatial distribution of plantings conducted by zone (if plantings are required by permit), with a list showing all species planted in each zone, numbers of each species, sizes, date(s) planted and identification of source of material; also provide the dimensions, elevations, contours and representative cross-sections depicting the construction.
5. Any additional information or outstanding submittals required by permit conditions or to document permit compliance, other than long-term monitoring or inspection requirements.

REQUEST FOR TRANSFER OF ENVIRONMENTAL RESOURCE PERMIT TO THE PERPETUAL OPERATION ENTITY

Instructions: Complete this form to transfer to the permit to the operation and maintenance entity. This form can be completed concurrently with, or within 30 days of approval of the As-Built Certification and Request for Conversion to Operation Phase (Form 62-330.310(1)). Please include all documentation required under Section 12.2.1(b) of Applicant's Handbook Volume 1. (see checklist below). **Failure to submit the appropriate final documents will result in the permittee remaining liable for operation and maintenance of the permitted activities.**

Permit No.:	Application No(s).
Project Name:	Phase (if applicable):

A. **REQUEST TO TRANSFER:** The permittee requests that the permit be transferred to the legal entity responsible for operation and maintenance (O&M).

By: _____

Signature of Permittee	Name and Title
Company	Company Address
Phone	City, State, Zip

B. **AGREEMENT FOR SYSTEM OPERATION AND MAINTENANCE RESPONSIBILITY:** The below-named legal entity agrees to operate and maintain the works or activities in compliance with all permit conditions and provisions of Chapter 62-330, Florida Administrative Code (F.A.C.) and Applicant's Handbook Volumes I and II in perpetuity. Authorization for any proposed modification to the permitted activities shall be applied for and obtained prior to conducting such modification.

By: _____

Signature of Representative of O&M Entity	Name of Entity for O&M
Name and Title	Address
Email Address	City, State, Zip
Phone	Date

Enclosed are the following documents, as applicable:

- Copy of recorded transfer of title to the operating entity for the common areas on which the stormwater management system is located (unless dedicated by plat)
- Copy of all recorded plats
- Copy of recorded declaration of covenants and restrictions, amendments, and associated exhibits
- Copy of filed articles of incorporation and documentary evidence of active corporate status with the Department of State, Division of Corporations (for corporations)
- A completed, signed, and notarized affidavit attesting that the operating entity meets the requirements of Section 12.3 of Environmental Resource Permit Applicant's Handbook Volume I. (Note- this is optional, but aids in processing of this request)



APPENDIX 8

Special Conditions of the Associated
Department of the Army Authorization

PERMIT NUMBER: SAJ-2013-03030
PERMITTEE: SABAL TRAIL TRANSMISSION, LLC

b. Special Conditions:

(1) Reporting Address: The Permittee shall submit all reports, notifications, documentation, and correspondence required by the general and special conditions of this permit to the following address:

(a) For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Special Projects and Enforcement Branch, Post Office Box 4970, Jacksonville, Florida 32232-0019

(b) For electronic mail CESAJ-ComplyDocs@usace.army.mil (not to exceed 10 MB)

The Permittee shall reference this permit number, SAJ-2013-03030, on all submittals.

(2) Commencement Notification: Within 10 days from the date of initiating the work authorized by this permit for each phase of the authorized project, the Permittee shall submit a Notification of Commencement of Work form (Attachment 3) to the Corps.

(3) The permittee shall adhere to conditions, procedures, and plans outlined in the FERC FEIS dated December 2015, including but not limited to the associated Appendices listed below; and, shall also comply with all terms and conditions of the FERC Order Issuing Certificate (Docket Number CP15-17-000) dated February 2, 2016.

(a) Sabal Trail Transmission – Erosion and Sediment Control Plan (Revision 12: March 22, 2016)

(b) FERC FEIS Appendix B – Project Facility Maps

(c) FERC FEIS Appendix C – Typical Right-of-Way Construction Drawings

(d) FERC FEIS Appendix D – Oversized Tables

(e) FERC FEIS Appendix E – HDD Construction and Contingency Plans

(f) FERC FEIS Appendix F – Karst Plans

(g) FERC FEIS Appendix G – Residential Construction Plans

(h) FERC FEIS Appendix I – Spill Plans

(i) FERC FEIS Appendix J – Major Waterbody Crossing Plans

(j) FERC FEIS Appendix L – Site-Specific Crossing Plans for Recreation Areas

PERMIT NUMBER: SAJ-2013-03030
PERMITTEE: SABAL TRAIL TRANSMISSION, LLC

(4) Navigable Waters:

(a) If temporary closure of a navigable waterway would be required for utility line installation, the permittee shall submit a request to the Corps at least 15 days in advance of the planned closure. The request shall include the project location, a description of work requiring waterway closure, the date and time when waterway closure would be necessary and any other information relevant to the planned closure. Based on information provided by the permittee, the Corps will issue a Notice to Mariners concerning the waterway closure.

(b) When implementing directional boring or horizontal directional drilling (HDD) under waters of the U.S., including wetlands, the permittee shall closely monitor the project for hydraulic fracturing or "fracking" and material from the drilling operation leaching to the surface and into jurisdictional areas. Any discharge from fracking or leaching into waters of the U.S., including wetlands, shall be reported to the appropriate Corps Regulatory Field Office within 48 hours. Restoration and/or mitigation may be required as a result of any unintended discharges.

(c) For crossings of a navigable waterway, the permittee shall provide 1) the Corps and 2) the National Ocean Service, Office of Coast Survey, N/CS261, 1315 East West Highway, Silver Spring, MD 20910-3282, accurate certified as-built location drawings showing the location and configuration of the pipeline upon completion of the construction. The data collected and depicted on the as-built drawing(s) should include the "centerline" data for the pipeline location; depth of the pipeline in relation to the bottom of the waterway and the mean low water elevation for tidal waterways or ordinary low water elevation for non-tidal waterways; and, the "toe" data showing where pipeline enters the waterway at the banks, as this is where future dredge anchors and spuds may be placed. This information must be provided within 30 days of completion of each underwater utility line crossing.

(d) The permittee shall post appropriately worded, plainly visible, and legible submarine utility line crossing signs near the entry and exit points of the waterway crossing.

(5) The permittee shall promptly comply with any future regulations or instructions affecting the work herein if and when in accordance with the law by any Department of the Federal Government for the aid or protection of navigation.

(6) Material resulting from trench excavation may be temporarily side cast into waters of the United States for no more than three months, and must be placed and stabilized in such a manner that it will not be dispersed by currents or other forces.

(7) For all temporary trenching impacts in wetlands, topsoil will be segregated as described in the Project Wetland and Waterbody Construction and Mitigation Procedures. All organic soils will be maintained for use in restoring the temporary impacts. Wetlands will be restored to pre-impact elevation and contours. Excess material will be placed in an approved upland location. Except as authorized by this

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permit (e.g., conversion of forested wetlands to scrub/shrub or herbaceous systems), sites will be allowed to revegetate naturally unless monitoring reflects the site is not returning to pre-impact ecological condition and requires active management. If active management is necessary, the permittee will develop a wetland mitigation plan for restoring these areas. No exotic invasive species shall be present with a percent cover greater than undisturbed areas contiguous to the construction right-of-way.

(8) A pre and post construction topographic survey of all wetland and non-navigable waterbody crossings shall be conducted and submitted to appropriate Corps district to ensure restoration of the water crossings to pre-project pattern, profile and dimensions unless otherwise noted to include bank stabilization due to a pre-existing erosion problem.

(9) All dredged or borrowed material used as fill in waters of the United States shall be from clean, uncontaminated sources and free from cultural resources. For the purposes these special permit conditions, the term "waters of the United States" includes all jurisdictional streams, wetlands, open waters, ditches, swales, and other conveyance located on the project site.

(10) Annual monitoring reports shall be provided for five (5) years post-construction demonstrating wetlands and streams are being returned to pre-impact elevation, contours, and ecological condition. Each annual monitoring report shall include written and photographic documentation and must document that the effected resource is trending toward recovery (stream bottom reestablishment, vegetation reestablishment, no evidence of exaggerated erosion, undermining etc.). Photos shall be taken from established points and used repeatedly for each monitoring year.

(a) In addition to photos at designated locations, photo documentation must also include a panoramic view(s) of the construction/restoration area. Submitted photos must be formatted on standard 8 ½" x 11" paper, time stamped with the date the photo was taken, and be clearly labeled with the cardinal direction from which the photo was taken. The photo location points must be identified on an appropriate drawing (e.g. plan view).

(b) The Corps shall be responsible for evaluating the success of restoration areas in returning to pre-impact condition. If the temporary impacts to wetlands and streams are not demonstrating achieving this goal, the permittee shall provide an alternative mitigation strategy, which may include the purchase of mitigation credits from an approved wetland mitigation bank. For all monitoring reports, the permittee shall submit a copy to the FERC and the Corps for review.

(11) Unless specifically authorized by this permit, no construction, discharge of fill material, excavation, mechanized land clearing, tree or other vegetation removal, stockpiling of fill material or other work/activity shall occur in waters of the United States.

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(12) Wetland and/or Stream Avoidance/Minimization Areas: The Permittee shall avoid any remaining onsite wetlands and or streams not otherwise authorized to be impacted by this permit. These natural wetland and/or stream areas were avoided as part of the permit application review process; and, therefore, will not be disturbed by any dredging, filling, mechanized land clearing, agricultural activities, or other construction work. The boundaries of impact-waters and no-impact-waters (avoided) shall be marked differently, to ensure that these areas are clearly identifiable to equipment operators.

(a) Prior to any land disturbing activity on the project site, the permittee shall clearly mark all waters of the United States that are authorized to be impacted (impact-waters). Acceptable forms of marking include high visibility orange construction fencing or flagging at eye level, at intervals of 25 feet or less along the entire jurisdictional boundary. Pin flags or other ground level marking is not acceptable. In addition, the permittee shall clearly mark any waters of the United States that are not to be impacted (no-impact-waters), if they are located on the right-of-way and within 50 feet of any construction activities. Any no-impact-waters marking shall be maintained until the entire project has been completed.

(b) The Corps reserves the right to deny review of any requests for future impacts to these natural wetland and/or stream areas.

(13) Unless specifically authorized by this permit, borrow pits or sites for stockpiling fill dirt are prohibited within 100 feet of streambanks or within 50 feet of wetlands and open waters to minimize the potential for introduction of sediment into waters of the United States.

(14) The permittee will contact local designated officials to obtain any necessary permits or clearances to ensure all floodplain ordinances and safety precautions in effect for the area are met.

(15) Construction debris, uncured concrete, demolition debris, or other waste materials shall not be discharged into streams, wetlands, or other open waters; or placed at sites near such areas, where migration into waters of the United States could be anticipated.

(16) Unless specifically authorized by this permit, equipment staging areas and equipment maintenance areas are prohibited within 100 feet of streambanks or within 50 feet of wetlands and other open waters to minimize the potential for wash water, petroleum products, or other contaminants from construction equipment entering waters of the United States.

(17) The permittee shall ensure that all features of the project's master drainage plan, such as drainage ditches, road-side ditches, swales and other storm-water conveyances, are designed and constructed to avoid: drainage of wetlands; diversion of storm-water away from wetlands; and other hydrologic alterations of natural drainage

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patterns that would adversely impact wetlands. The permittee shall be responsible for any inadvertent and/or unforeseen hydrologic impacts to waters of the United States resulting from alteration of natural drainage patterns. The permittee shall also ensure that secondary road ditches and/or small after-project drainage ditches do not inadvertently impact wetlands or waters of the United States.

(18) The permittee shall minimize bank erosion and sedimentation in construction areas by utilizing Best Management Practices for stream corridors, installing and maintaining significant erosion and sediment control measures, and providing daily reviews of construction and stream protection methods for areas of active construction and reviews consistent with the FERC Plan and Procedures for all other areas. Check dams and riprap placed in streams and wetlands as erosion control measures are considered a fill and not authorized under this permit unless they were specifically authorized by this permit.

(19) Compensatory Mitigation:

(a) Prior to the commencement of any permitted work in waters of the United States, the permittee shall purchase 2.83 wetland palustrine forested mitigation credits from Bayfield Mitigation Bank and submit documentation of these credits purchase to the Corps. The credit purchase documentation must reference the Corps file number assigned to the permitted project (SAJ-2013-03030); and, the Corps file number assigned to the Bayfield Mitigation Bank (SAJ-2007-06615). If all or a portion of the required credits are not available from the above referenced banks, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

(b) Prior to the commencement of any permitted work in waters of the United States, the permittee shall purchase 2.14 wetland palustrine forested mitigation credits from Upper Coastal Mitigation Bank and submit documentation of these credits purchase to the Corps. The credit purchase documentation must reference the Corps file number assigned to the permitted project (SAJ-2013-03030); and, the Corps file number assigned to the Upper Coastal Mitigation Bank (SAJ-2006-07511). If all or a portion of the required credits are not available from the above referenced banks, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

(c) Prior to the commencement of any permitted work in waters of the United States, the permittee shall purchase 4.48 wetland palustrine forested mitigation credits from Green Swamp Mitigation Bank and submit documentation of these credits purchase to the Corps. The credit purchase documentation must reference the Corps file number assigned to the permitted project (SAJ-2013-03030); and, the Corps file number assigned to the Green Swamp Mitigation Bank (SAJ-2009-01038). If all or a portion of the required credits are not available from the above referenced banks, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

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(d) Prior to the commencement of any permitted work in waters of the United States, the permittee shall purchase 11.24 wetland palustrine forested mitigation credits from Withlacoochee Mitigation Bank and submit documentation of these credits purchase to the Corps. The credit purchase documentation must reference the Corps file number assigned to the permitted project (SAJ-2013-03030); and, the Corps file number assigned to the Withlacoochee Mitigation Bank (SAJ-2009-02277). If all or a portion of the required credits are not available from the above referenced banks, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

(e) Prior to the commencement of any permitted work in waters of the United States, the permittee shall purchase 1.78 wetland palustrine forested mitigation credits from Hammock Lake Mitigation Bank and submit documentation of these credits purchase to the Corps. The credit purchase documentation must reference the Corps file number assigned to the permitted project (SAJ-2013-03030); and, the Corps file number assigned to the Hammock Lake Mitigation Bank (SAJ-2007-05939). If all or a portion of the required credits are not available from the above referenced banks, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

(f) Prior to the commencement of any permitted work in waters of the United States, the permittee shall purchase 18.46 wetland palustrine forested mitigation credits from Southport Ranch Mitigation Bank and submit documentation of these credits purchase to the Corps. The credit purchase documentation must reference the Corps file number assigned to the permitted project (SAJ-2013-03030); and, the Corps file number assigned to the Southport Ranch Mitigation Bank (SAJ-2009-01047). If all or a portion of the required credits are not available from the above referenced banks, the permittee shall obtain written approval from the Corps prior to purchasing credits from an alternate mitigation bank.

(20) This permit does not authorize the interference with any existing or proposed Federal Project and the permittee shall not be entitled to compensation for damage or injury to the structures or work authorized herein, which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

(21) A copy of this permit, including the approved drawings and plans; special conditions; and any amendments shall be maintained at each work site whenever work is being performed. The permittee(s) shall assure that all contractors, subcontractors, and other personnel performing the permitted work are fully aware of the permit's terms and conditions.

(22) This permit does not authorize the Permittee to take an endangered species. In order to legally take a listed species, the Permittee must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a BO under ESA Section 7, with "incidental take" provisions with which you must comply). The attached (Attachment 4) United States Fish and Wildlife Service (FWS) Biological

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Opinion (BO) (dated 25 February 2016) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with “incidental take” that is also specified in the BO. Authorization under this permit is conditional upon compliance with all of the mandatory terms and conditions associated with incidental take of the enclosed BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute noncompliance with this permit. The United States Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

(23) Except as authorized by the BO noted in Special Condition 22, above, if you or your contractors discover any federally listed threatened or endangered species and/or their habitat while accomplishing the activities authorized by this permit, you must immediately STOP work and notify the Corps within 24 hours. The Corps will contact with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service to determine if the species and/or habitat warrant further consultation.

(24) The Permittee shall construct the AZ Ocala Route Variation, as depicted in drawings incorporated into the Sabal Trail Transmission, LLC, Supplemental III, dated March 2016.

(25) The Permittee shall construct the Deerfield Road Variation, as depicted in drawings incorporated into the Sabal Trail Transmission, LLC, Supplemental III, dated March 2016.

(26) Within 60 days of completion of the overall work authorized by this permit, the Permittee shall complete the attached Self-Certification Statement of Compliance form (Attachment 6) and submit it to the Corps. In the event that the completed work deviates in any manner from the authorized work, the Permittee shall describe the deviations between the work authorized by this permit and the work as constructed on the Self-Certification Statement of Compliance form. The description of any deviations on the Self-Certification Statement of Compliance form does not constitute approval of any deviations by the Corps.