

# Site Plans

Date Issued: November 15, 2012

Latest Issue: January 14, 2013

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# Wares Creek / Cedar Hammock Flood Control Project

Manatee County, Florida

Parcel ID: 2387400001



Site Location Map



0 2,000 5,000 Feet

## Property Owners

Owner:

**State of Florida / State Lands Division**

3900 Commonwealth Boulevard, M.S. 100

Tallahassee, Florida 32399

Phone: 850.245.2555 · Fax: 850.245.2572

Project Manager:

**AECOM**

5971 CattleRidge Road, Suite 200

Sarasota, Florida 34232

Phone: 941.377.8858 · Fax: 941.371.2569

Environmental Services:

**Vanasse Hangen Brustlin, Inc.**

8043 Cooper Creek Boulevard, Suite 201

University Park, Florida 34201

Phone: 941.351.8986 · Fax: 941.355.8673



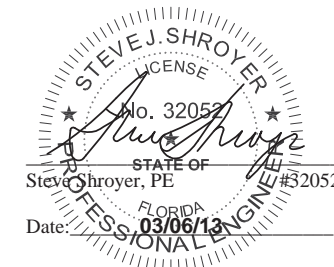
**Vanasse Hangen Brustlin, Inc.**

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Land Development

Environmental Services

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Date:

03/06/13

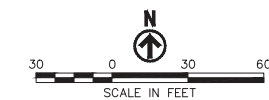
VHB Project No. 65926.00  
Manatee County, Florida  
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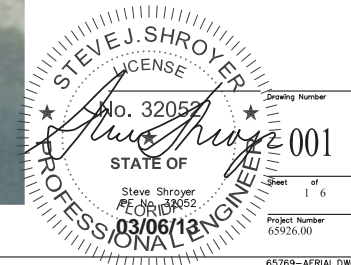


2	Addition of MOI	01/14/2013	
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No.	Revision	Date	Appr.
Designed by	<i>MD</i>	Drawn by	<i>MF</i>
		Checked by	<i>MD</i>
GAD checked by	<i>MF</i>	Approved by	<i>MD</i>
Scale	1" = 30'	Date	November 15, 2012

Project Title  
Wares Creek/Cedar Hammock  
Flood Control Project  
Proposed Mitigation Site  
Section 7, Township 34 South, Range 17 East  
Emerson Point Park, Manatee County, Florida  
Issued for

Drawing Title

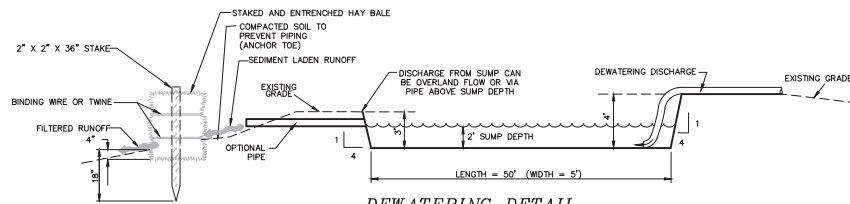
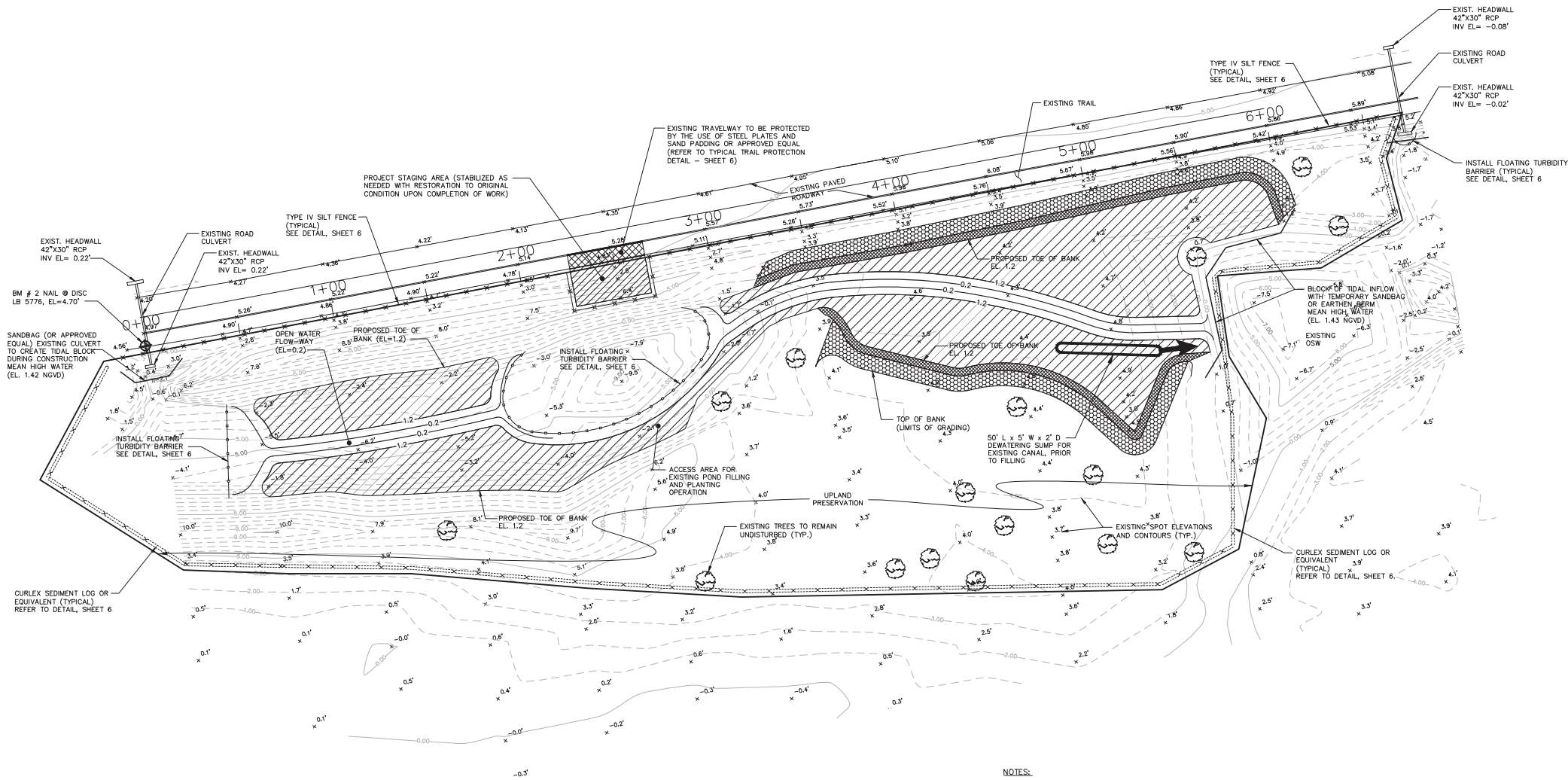
Aerial





Saved Friday, November 09, 2012 8:31:04 AM COBERLACH Plotted Monday, January 14, 2013 12:21:52 PM Gierisch, Catherine

\\FL-ORL\GIS\B\TEMP\65769 WARES CREEK\CAD\LD\PLANSET\65769-BMP



DEWATERING DETAIL

N.T.S.

SEDIMENT SUMP COMPUTATIONS  
MAX PARTICLE DIAMETER =  $d_m = 0.01$  cm  
SETTLING VELOCITY =  $V_s = 0.023$  fps  
FLOW THROUGH VELOCITY =  $V_t = 0.033$  fps  
ASSUMED DEWATERING DISCHARGE RATE =  $Q = 5$  cfs  
ASSUMED SUMP DEPTH =  $H = 2$  ft  
 $L$  = LENGTH OF SUMP  
 $W$  = WIDTH OF SUMP

$L = \frac{H^2 V_s}{Q} = \frac{2^2 \times 0.023}{5} = 270.53$   
 $W = \frac{Q}{H V_t} = \frac{5}{2 \times 0.033} = 46.8$  ft  
USE SUMP = 50' x 5' x 2'

#### DEWATERING NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A CONSTRUCTION DEWATERING PLAN AND OBTAINING AGENCY APPROVALS AS NEEDED.
2. CONTRACTOR TO INSPECT AND INSURE THAT DEWATERING ACTIVITIES DO NOT CAUSE EROSION AND THAT SUMP IS UTILIZED TO ALLOW FOR PARTICLE SEDIMENTATION. IF ANY TURBID DISCHARGES ARE OBSERVED CONTRACTOR IS TO NOTIFY ENGINEER AND CORRECTIVE ACTIONS WILL BE PRESCRIBED.
3. SEDIMENT SUMPS AND DISCHARGE EROSION CONTROL ARE TO BE IMPLEMENTED BEFORE ANY DEWATERING ACTIVITIES OR EARTHWORK CONSTRUCTION. FIELD OBSERVATIONS BY ENVIRONMENTAL CONSULTANT SHALL BE PERIODICALLY PERFORMED ON THE DEWATERING SYSTEM. STORMWATER TREATMENT FACILITIES INCLUDING OUTFALLS PER DETAIL ARE TO BE CONSTRUCTED AFTER SEDIMENT SUMPS.
4. SUMP SIZE BASED UPON MAXIMUM DEWATERING DISCHARGE OF 5 cfs. CONTRACTOR IS TO NOTIFY ENGINEER IF GREATER DISCHARGE IS PROPOSED. SO SUMP SIZE CAN BE RECALCULATED PER SWFMD SECTION 3.2.4.8.
5. DEWATERING WITHDRAWALS ARE TO BE FROM THE TOP OF THE WATER AREAS TO ALLOW FOR THE ADEQUATE SETTLING OF PARTICLES AND INSURE WATER QUALITY.
6. CONTRACTOR IS TO NOTIFY SWFMD AND ENGINEER OF ANY MODIFICATIONS PROPOSED BY THE CONTRACTOR TO THE DEWATERING PLAN. CONTRACTOR IS RESPONSIBLE FOR PREPARATION OF ANY REQUIRED PLANS AND PROCESSING OF SAME.
7. DISCHARGE FROM SUMPS SHOULD MAXIMIZE OVERLAND FLOW PRIOR TO ENTERING OUTFALL. STAKED HAYBALES OR EQUIVALENT WILL BE USED TO MINIMIZE SILTATION RUNOFF. CONTRACTOR IS RESPONSIBLE FOR UTILIZING ADEQUATE HAYBALES OR EQUIVALENT AT DISCHARGE LOCATIONS TO PREVENT SCOURING.
8. CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND INSPECTIONS FOR COMPLIANCE WITH THE "STORMWATER POLLUTION PREVENTION PLAN" AND THE "FDEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES" DURING CONSTRUCTION. "STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT FORMS" TO BE USED TO DOCUMENT AND CERTIFY INSPECTIONS. INSPECTIONS MUST OCCUR AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.50 INCHES OR GREATER. THE "STORMWATER POLLUTION PREVENTION PLAN", "STORMWATER POLLUTION PREVENTION PLAN INSPECTION REPORT FORMS" AND THE "FDEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES" TO BE LOCATED AT THE OFFICE OF THE PROJECT OWNER/OPERATOR.
9. THE EXPECTED DURATION OF THE DEWATERING PROCESSES IS APPROXIMATELY 90 DAYS, WHICH WILL NOT REQUIRE A WATER USE PERMIT. DEWATERING ACTIVITIES EXCEEDING 120 DAYS SHALL REQUIRE A WATER USE PERMIT AND WILL BE THE CONTRACTOR'S RESPONSIBILITY.

#### NOTES:

1. PRIOR TO AUTHORIZATION OF CONSTRUCTION AND/OR LAND CLEARING ACTIVITIES, MANATEE COUNTY SHALL CONDUCT TWO SEPARATE FIELD VERIFICATIONS. THE FIRST IS TO VERIFY THAT THE EROSION AND SEDIMENT CONTROL (ESC) MEASURES ARE STAKED CORRECTLY. THE SECOND SHALL BE TO VERIFY THAT THE ESC DEVICES HAVE BEEN INSTALLED CORRECTLY.
2. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OF THESE STANDARDS OR THE PROGRESSION OF THE WORK, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN CHARGE IMMEDIATELY AND PRIOR TO ANY FURTHER CONSTRUCTION ACTIVITY.
3. SITE HORIZONTAL CONTROLS AND TOPOGRAPHIC DATA BASED ON SWFMD DOCUMENTS DATED FEBRUARY, 2005. (NGVD 1929 VERTICAL DATUM)
4. MITIGATION GRADING LIMITS FIELD-ADJUSTED TO AVOID EXISTING TREE REMOVAL, AS DIRECTED BY MANATEE COUNTY NATURAL RESOURCES REPRESENTATIVES.
5. THE CONTRACTOR SHALL PREPARE AND PROCESS THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSSEM (NPDES), NOTICE OF INTENT (NOI) AND NOTICE OF TERMINATION (NOT). THE NPDES PERMIT SHALL BE OBTAINED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. CONTRACTOR RESPONSIBLE TO MONITOR AND COMPLETE ALL REQUIRED INSPECTION/MAINTENANCE/INCIDENT REPORTS AS DICTATED IN THE SWPPP GUIDELINES.
7. PROJECT CONSTRUCTION INGRESS/EGRESS OF EQUIPMENT, MATERIAL HAULING, DELIVERIES, EQUIPMENT MAINTENANCE AND OTHER PROJECT SUPPORT ACTIVITIES TO BE LIMITED TO THE PARKS ACCESS ROAD. USE OF THE EXISTING PEDESTRIAN TRAVELWAY IS PROHIBITED (EXCLUDING THE PROTECTED STAGING AREA ACCESS POINT).
8. CONTRACTOR TO AVOID CONSTRUCTION ACTIVITY WITHIN THE DESIGNATED UPLAND PRESERVATION AREA WITH THE EXCEPTION OF THE INSTALLATION OF EROSION CONTROL.
9. UPON CONSTRUCTION COMPLETION, CONTRACTOR TO DISMANTLE BIODEGRADABLE MATERIAL FROM SEDIMENT LOGS AND DISTRIBUTE WITHIN UPLAND AREAS. ANY NON-BIODEGRADABLE MATERIAL TO BE DISPOSED OF PROPERLY.
10. A PRE-CONSTRUCTION MEETING TO OCCUR TO COORDINATE EXOTIC/NUISANCE VEGETATION REMOVAL AND MAINTENANCE REQUIREMENT DURING CONSTRUCTION.
11. A POST-CONSTRUCTION REVIEW TO BE CONDUCTED BY VHB TO CONFIRM THE ABSENCE OF EXOTIC/NUISANCE VEGETATION.
12. THE CONTRACTOR SHALL SUBMIT 3 COPIES OF CERTIFIED SET OF RECORD DRAWINGS TO VHB SHOWING THE AS-BUILT SURVEY FOR THE PROPOSED GRADING. THE AS-BUILT SURVEY TO INCLUDE SPOT ELEVATIONS AT TOP OF BANK, GRADE BREAKS, TOE OF SLOPE AND PLANTING LIMITS.

#### CONSTRUCTION SEQUENCING:

- 1) ESTABLISH BEST PRACTICE MEASURES INCLUDING INSTALLATION OF EROSION CONTROL DEVICES (SILT SCREENING, SEDIMENT LOGS, FLOATING TURBIDITY BARRIERS AND INTERIM TIDAL BLOCKS).
- 2) MOBILIZATION INCLUDING CONSTRUCTION OF STAGING AREA, SITE ACCESS AND CONSTRUCTION SIGNAGE.
- 3) DEWATERING OF EXISTING POND AND SITE CLEARING.
- 4) BACKFILLING EXISTING POND & EXCAVATION OF PROPOSED MITIGATION AREA.
- 5) CONFIRMATION OF ELEVATIONS AND AREA OF PLANTING ZONES.
- 6) MITIGATION PLANTING.
- 7) CONSTRUCTION RESTORATION INCLUDING STAGING AREA, HAULING ACCESS, INGRESS/EGRESS ROUTE & REMOVAL OF INTERIM TIDAL BLOCKS & BEST MANAGEMENT EROSION CONTROL DEVICES.



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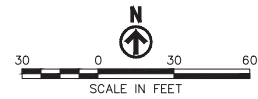
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#### Legend

#### Proposed Grading & Planting Zones

	ZONE A (0.10 AC.)
	ZONE B (0.05 AC.)
	ZONE C (0.49 AC.)



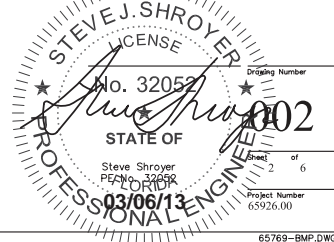
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No.	Revision	Date	Approved
Designed by		Checked by	
CAD checked by		Approved by	
Scale As Noted		Date November 15, 2012	

Wares Creek/Cedar Hammock  
Flood Control Project  
Proposed Mitigation Site  
Section 7, Township 34 South, Range 17 East  
Emerson Point Park, Manatee County, Florida  
Issued for

Drawing Title

Best Management

Practices Plan



65769-BMP.DWG

Saved Monday, October 29, 2012 1:22:34 PM C:\ERL\ACT Plotted Monday, January 14, 2013 12:22:02 PM Gierisch, Catherine

\\FL-ORL\GISLIB\TEMP\65769 WARES CREEK\CAD\LD\PLANSET\65769-MT



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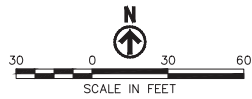
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### Legend

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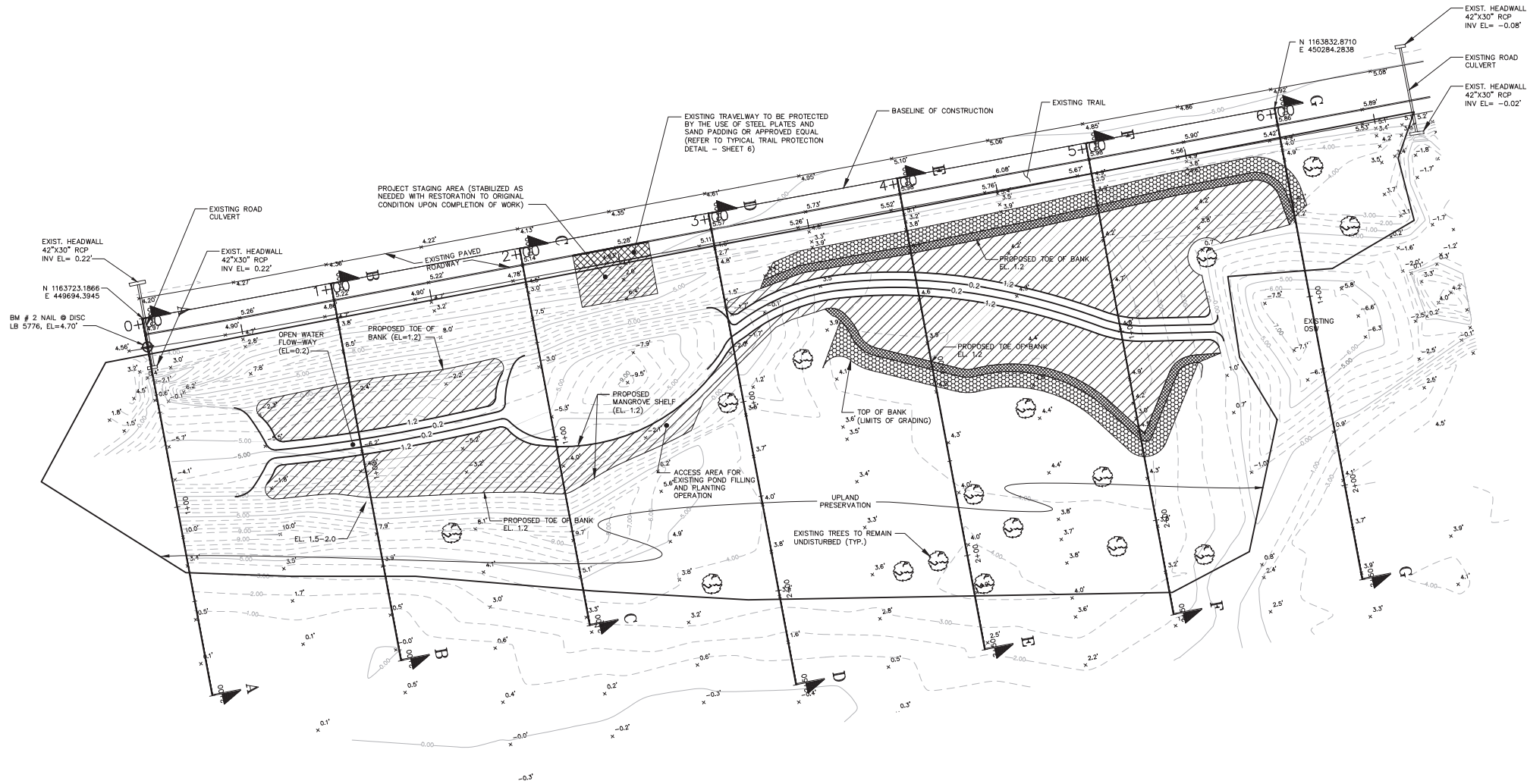
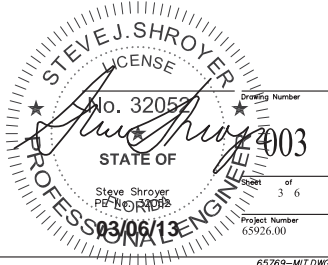


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Drawing Title

Mitigation Plan



#### PLANT MATERIAL AND INSTALLATION:

- 1) PLANTING CONTRACTOR SHALL INSPECT PLANTING ZONES PRIOR TO PLANT INSTALLATION FOR SUITABILITY OF SUBSTRATE AND SPECIES TO BE INSTALLED.
- 2) PLANTING MATERIAL SHALL CONFORM TO FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, DIVISION OF PLANT INDUSTRY GRADES AND STANDARDS FOR WETLAND PLANTS (FEBRUARY 1998).
- 3) ALL PLANT MATERIAL WILL BE INSPECTED BY MANATEE COUNTY'S DESIGNEE UPON DELIVERY TO THE PROJECT SITE. UNSATISFACTORY MATERIAL SHALL BE REJECTED AND REPLACED BY THE CONTRACTOR AT NO COST TO MANATEE COUNTY.
- 4) PLANTING AREAS WILL BE SUFFICIENTLY STABILIZED AND COMPACTED AS SUITABLE FOR INSTALLATION AND GROWTH OF PLANT MATERIAL.
- 5) CONTRACTOR SHALL TAKE DUE CARE WHILE INSTALLING PLANT MATERIAL TO PREVENT DAMAGE TO ROOT-BALLS, FOLIAGE AND LIMBS.
- 6) CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY OF PLANTINGS THROUGHOUT THE GUARANTEE PERIOD AND SHOULD BE PREPARED TO STAKE THE MANGROVE TREES AS NECESSARY.
- 7) CONTRACTOR SHALL GUARANTEE 95% SURVIVORSHIP OF ALL PLANT MATERIAL FROM A PERIOD OF 90 DAYS FOLLOWING FINAL COMPLETION INSPECTION.
- 8) THE PLANTING AREAS WILL BE SUBJECT TO PERIODIC INSPECTION BY MANATEE COUNTY. A FINAL COMPLETION INSPECTION OF PLANTINGS AND MAINTENANCE WILL BE CONDUCTED TO ENSURE THAT ALL MATERIAL HAS BEEN INSTALLED AS SPECIFIED AND IN THE QUANTITIES REQUIRED.

#### NOTES:

- 1) REFER TO SHEET 2 OF 6 FOR BEST MANAGEMENT PRACTICES PLAN.
- 2) REFER TO SHEET 4 OF 6 FOR GRADING SECTIONS.
- 3) REFER TO SHEET 5 OF 6 FOR MITIGATION PLANTING DETAILS.
- 4) REFER TO SHEET 6 OF 6 FOR SITE DETAILS.

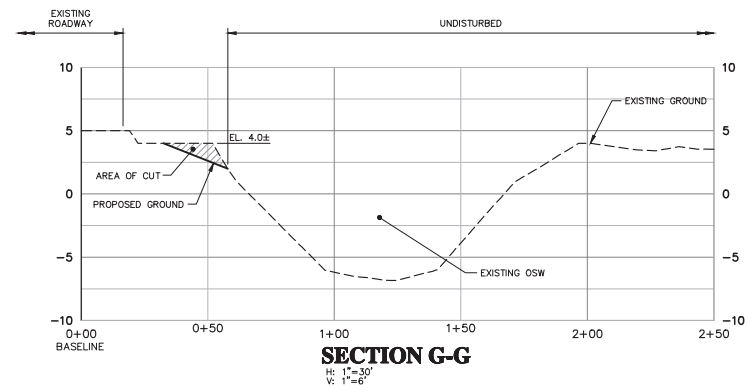
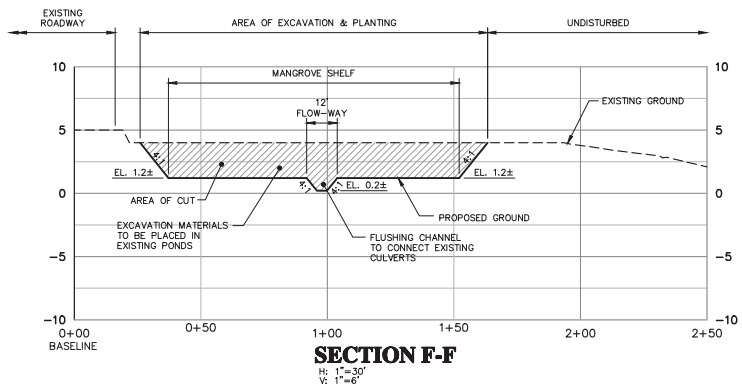
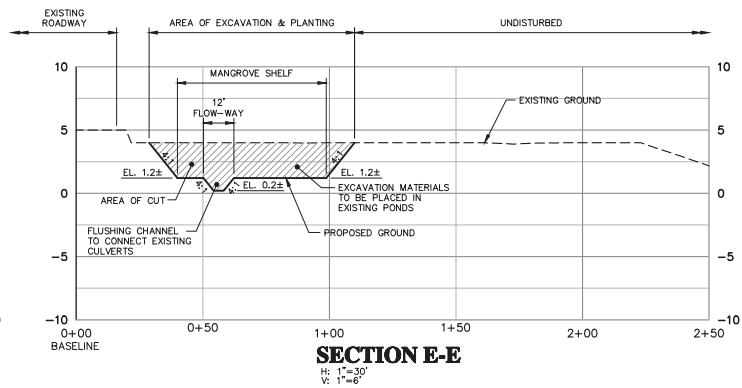
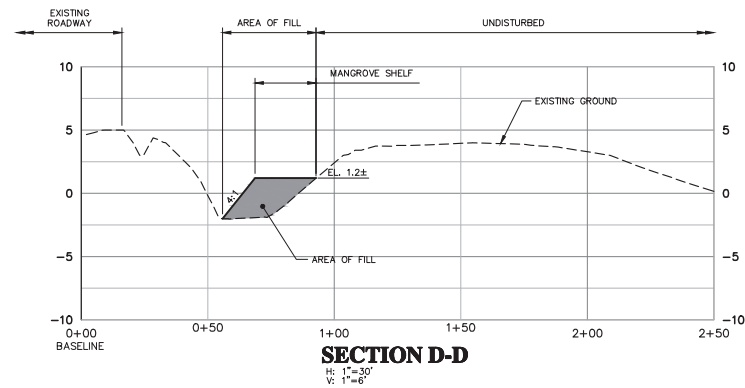
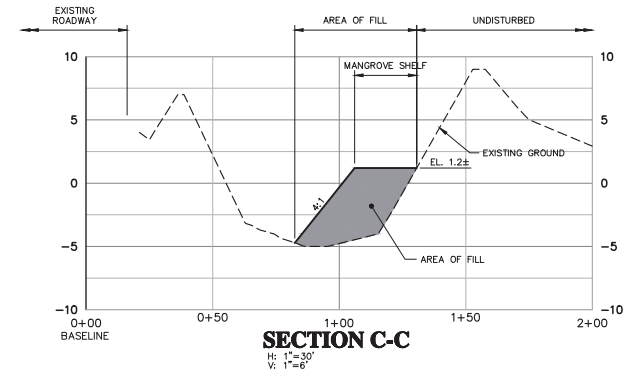
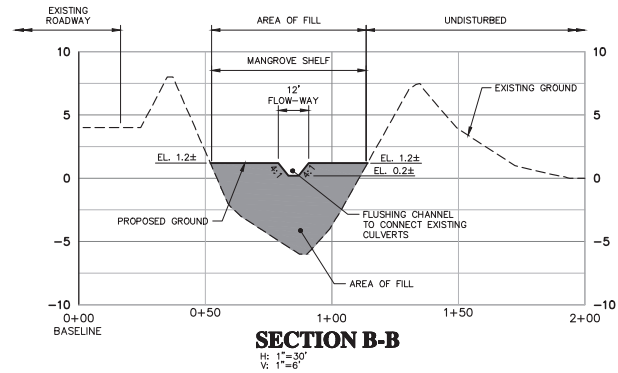
65769-MT.DWG

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Land Development  
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Profile view graph showing the existing ground (dashed line) and the proposed culvert profile (solid line). The vertical axis represents elevation in feet, ranging from -10 to 10. The horizontal axis represents stationing, ranging from 0+00 to 24+00. The existing ground profile shows a peak of approximately 9 feet at station 11+00. The proposed culvert profile is shown as a solid line, with a constant invert elevation of 0.22 feet from station 0+00 to 11+00. The culvert is labeled "EXISTING 42"x36" CULVERT INV. = 0.22". The ground profile is labeled "EXISTING GROUND".

**SECTION A-A**

H: 1"=30'  
V: 1"=6'

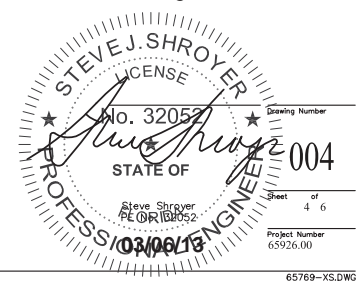


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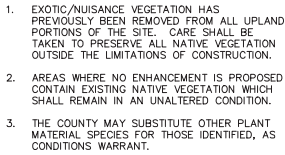
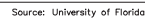
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## Grading Sections



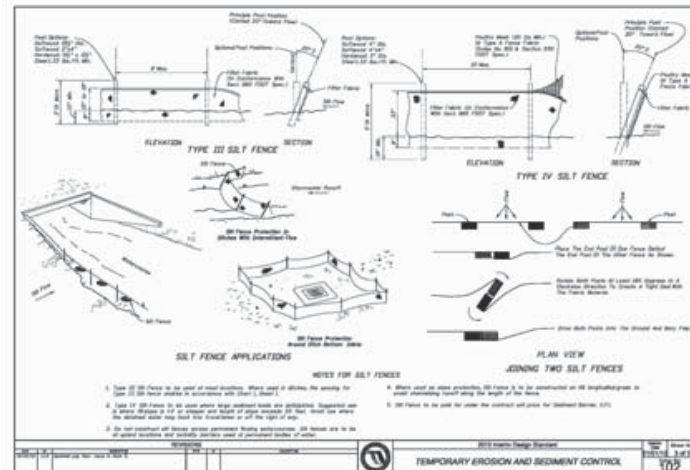
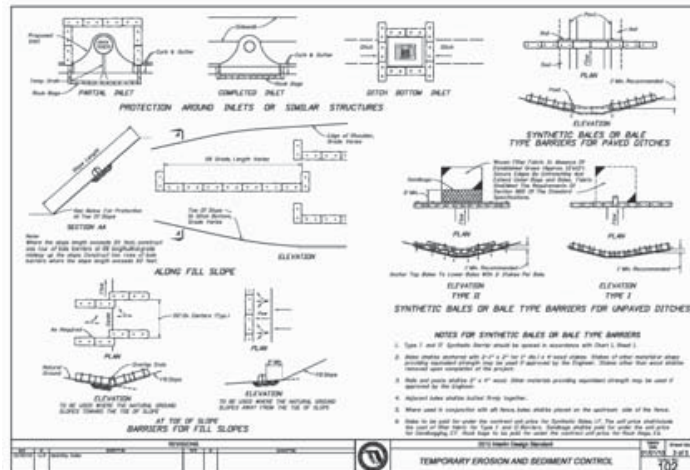
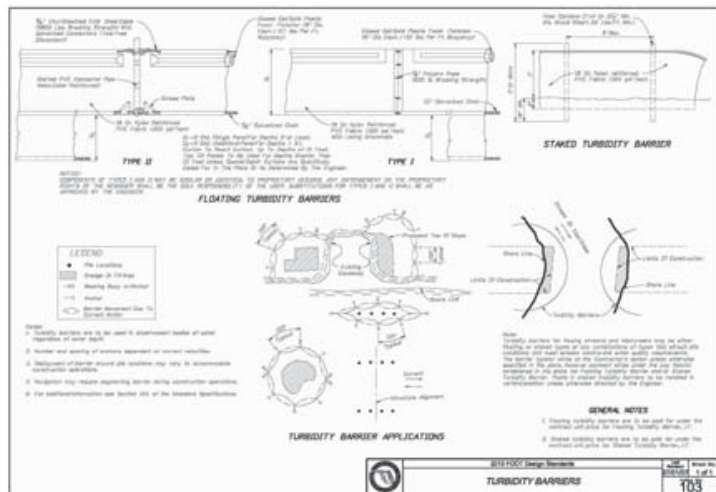
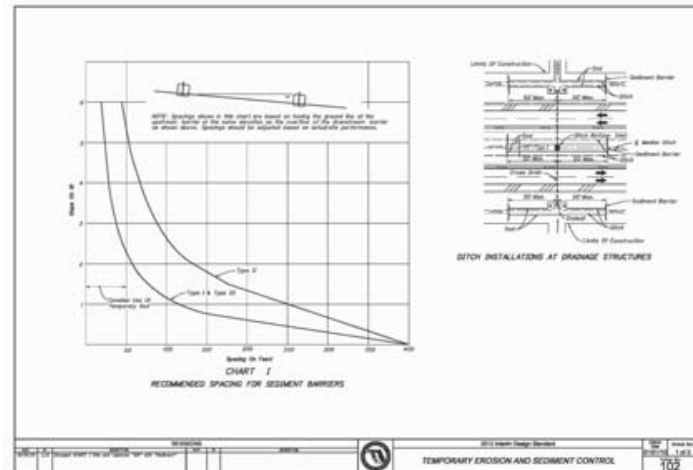


<sup>†</sup>On-Center Spring

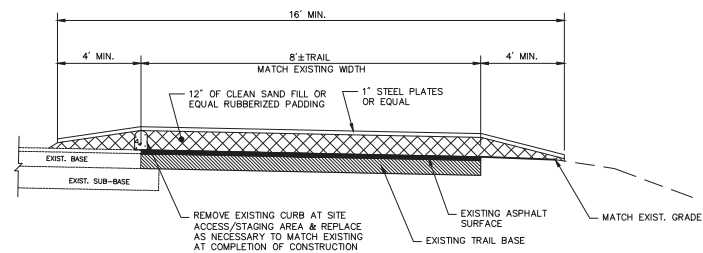


**Wares Creek/Cedar Hammock  
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65769-PLANTING.DWG



Note:  
To avoid vegetation and archaeological damage, silt fencing not to be used in areas calling for Sediment Logs only (e.g. along southern boundary).



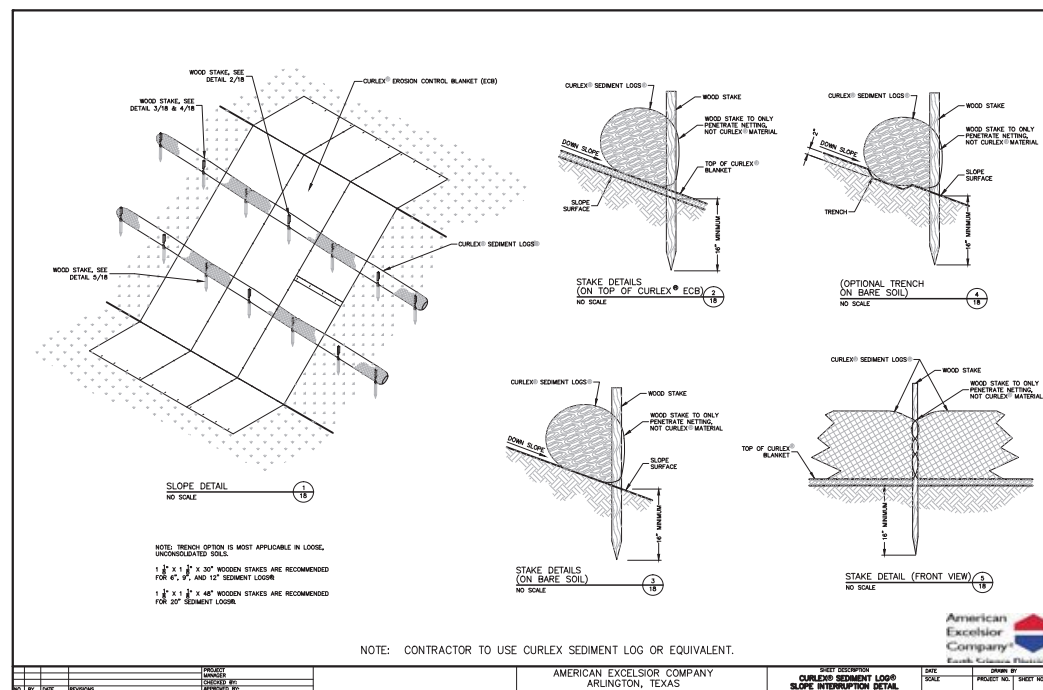
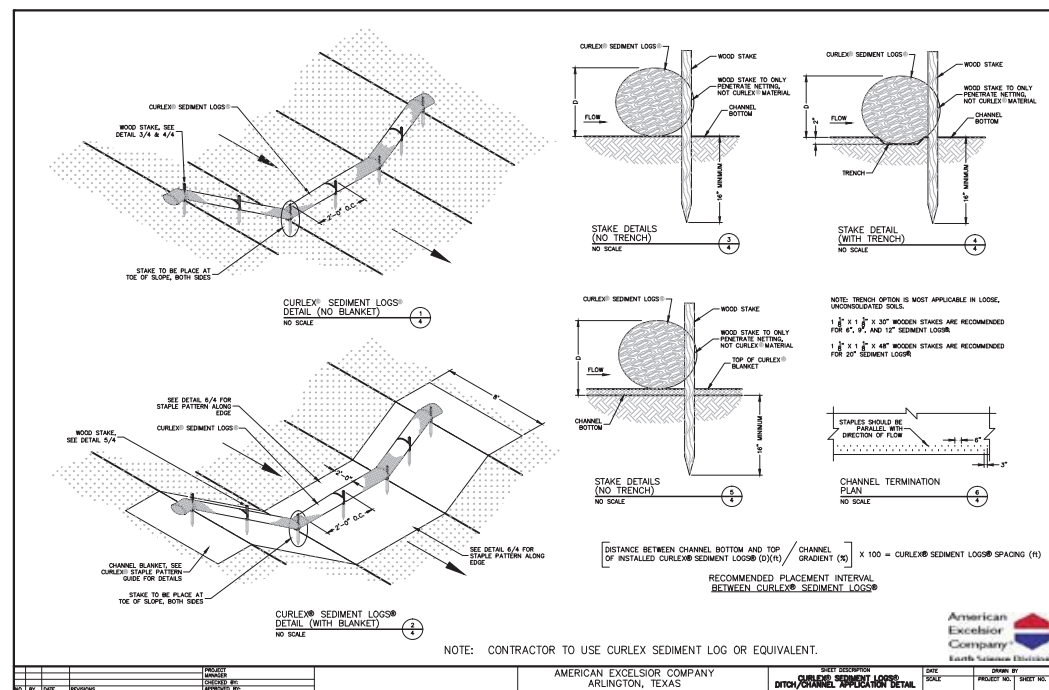
NOTE:  
THE PROTECTION OF THE EMERSON POINT PRESERVE ACCESS ROAD AND BIKE TRAIL IS CRITICAL. TO MINIMIZE ANY POTENTIAL ADVERSE IMPACTS TO THIS ROADWAY SYSTEM AND TO MINIMIZE THE TRAFFIC GENERATED BY THIS PROJECT, THE CONTRACTOR WILL PROVIDE A MAINTENANCE OF TRAFFIC PLAN (MOT), PREPARED BY A CERTIFIED MOT ENGINEER, SUBJECT TO APPROVAL BY MATTHEW COUNTY AND THE PROJECT ENGINEER.

### Typical Trail Protection Detail

**N.T.S.**

Source: VHB

01/23/08

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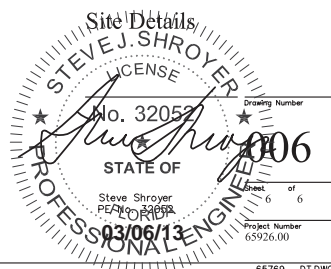
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Drawing Title



65769--DT.DWC