

CONSTRUCTION PLANS
FOR

DISCHARGE MODIFICATION TO POND 1 ORANGE COUNTY SOLID WASTE MANAGEMENT FACILITY

SEQUENCE # 66786
CIP # 4410-038-1106-01-9255
IFB # _____

BOARD OF COUNTY COMMISSIONERS

TERESA JACOBS
ORANGE COUNTY MAYOR

S. SCOTT BOYD **JENNIFER THOMPSON**
DISTRICT 1 DISTRICT 4

BRYAN NELSON **TED B. EDWARDS**
DISTRICT 2 DISTRICT 5

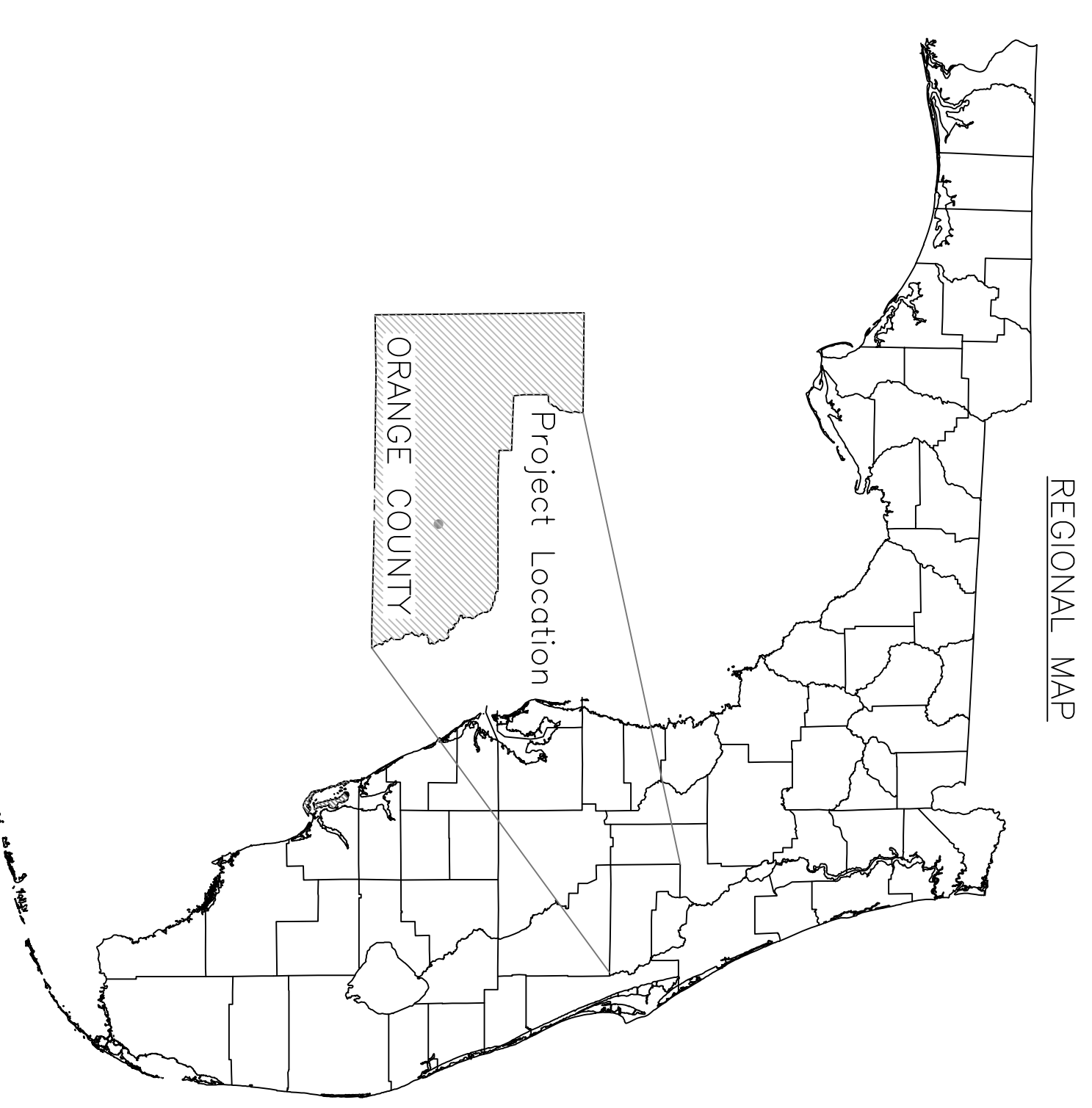
PETE CLARKE **VICTORIA SIFLIN**
DISTRICT 3 DISTRICT 6



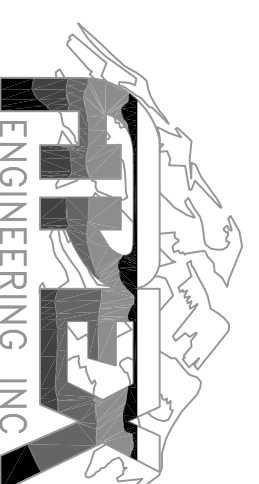
AJT LALCHANDANI, PE
COUNTY ADMINISTRATOR

RAYMOND HANSON, PE
DIRECTOR, ORANGE COUNTY UTILITIES DEPARTMENT
JAMES W. BECKER
MANAGER, SOLID WASTE DIVISION

UTILITIES DEPARTMENT ORANGE COUNTY, FLORIDA

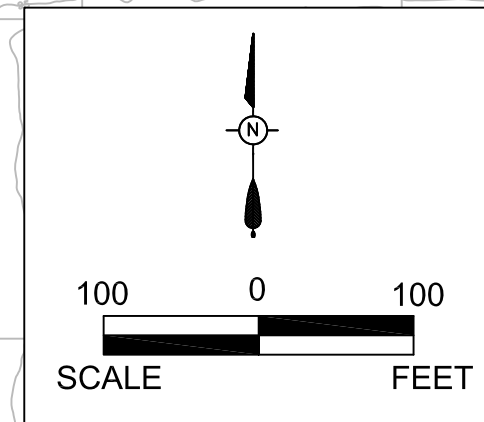


<u>DRAWING TITLE</u>	<u>DRAWING NO.</u>
COVER SHEET.....	1
LOCATION MAP AND DRAINAGE STRUCTURE TABLE.....	2
GENERAL NOTES.....	3
AREA 1 PARTIAL SITE PLAN AND PROFILE.....	4
AREA 2 PARTIAL SITE PLAN AND PROFILE.....	5

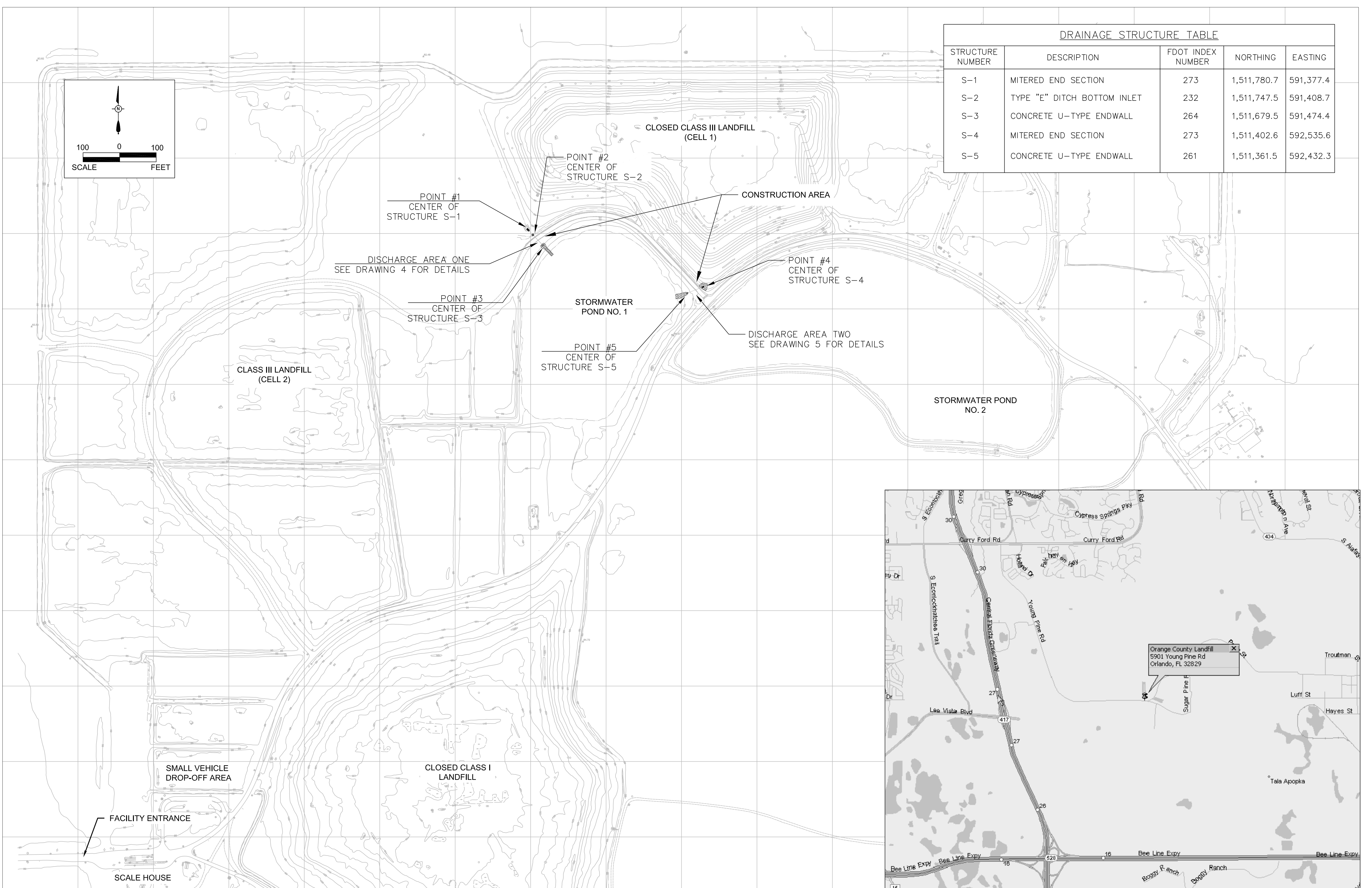


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A B C D E F



DRAINAGE STRUCTURE TABLE				
STRUCTURE NUMBER	DESCRIPTION	FDOT INDEX NUMBER	NORTHING	EASTING
S-1	MITERED END SECTION	273	1,511,780.7	591,377.4
S-2	TYPE "E" DITCH BOTTOM INLET	232	1,511,747.5	591,408.7
S-3	CONCRETE U-TYPE ENDWALL	264	1,511,679.5	591,474.4
S-4	MITERED END SECTION	273	1,511,402.6	592,535.6
S-5	CONCRETE U-TYPE ENDWALL	261	1,511,361.5	592,432.3



Signature: Robert E. Mackey, P.E.
Florida Registration #40176
Date:

REV. No	DATE	BY	REMARKS

ORANGE COUNTY UTILITIES
Orange County Utilities Solid Waste Division
12100 Young Pine Road
Orlando, FL 32825-7501
407-836-6800

LOCATION MAP AND DRAINAGE STRUCTURE TABLE
DISCHARGE PIPING MODIFICATION TO POND 1
ORANGE COUNTY SOLID WASTE MANAGEMENT FACILITY
ORANGE COUNTY, FLORIDA

531 Versailles Drive, Suite 202
Maitland, Florida 32751
(407) 475-9163 FAX 475-9169
Certification of Authorization # 7831

DRAWING NO.
2

Z:\Orange County\14-561 Culvert Repair\Revised Drawings\Final\TitleSite Plan.dwg Jun 15, 2016 - 3:07 pm

GENERAL NOTES

DEFINITION: WHEN USED IN THESE GENERAL NOTES THE WORD "OWNER" SHALL HAVE THE INDICATED MEANING; ORANGE COUNTY UTILITIES

WHEN USED IN THESE GENERAL NOTES THE WORD "CONTRACTOR" SHALL HAVE THE INDICATED MEANING; SITE CONTRACTOR

1. NOT USED
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD SPECIFICATIONS OF ORANGE COUNTY; EXCEPT DRAINAGE STRUCTURE COMPONENTS SUCH AS DITCH BOTTOM INLETS, U-TYPE ENDWALLS, MITERED END SECTIONS AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE LATEST ENGLISH EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE LATEST ENGLISH EDITION OF ROADWAY AND TRAFFIC DESIGN STANDARDS.
3. ALL TRENCH EXCAVATION, IN EXCESS OF FIVE FEET IN DEPTH SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "TRENCH SAFETY ACT", EFFECTIVE OCTOBER 1, 1990.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN HAND BEFORE BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING ALL REQUIREMENTS OF REGULATORY AGENCY PERMITS REGARDING CONSTRUCTION AND MAINTENANCE ACTIVITIES AND CONDITIONS STATED THEREIN.
6. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE POLICIES ESTABLISHED BY ORANGE COUNTY, FLORIDA FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE AND INJURY TO PROPERTY OF ANY CHARACTER, DURING THE CONSTRUCTION PROCESS, RESULTING FROM ANY ACT, OMISSION, NEGLIGENCE, OR MISCONDUCT IN THIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANY TIME DUE TO DEFECTIVE WORK OR MATERIALS.
7. THE LOCATION OF ALL EXISTING UTILITY SERVICES, FACILITIES AND STRUCTURAL FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF THE LOCATION INFORMATION PROVIDED. ANY INACCURACY AND OMISSION IN SUCH INFORMATION SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROTECT SUCH EXISTING FEATURES FROM DAMAGE OR UNSCHEDULED INTERRUPTION OF SERVICES. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR WILL HALT CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND FOR NOTIFYING THE VARIOUS UTILITY OWNERS TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, DISRUPTION OF SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY OWNER AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY OWNER DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE BY THE VARIOUS UTILITY OWNERS SHALL BE INCIDENTAL TO THE CONTRACT.
9. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT. MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO CONTROL EROSION AND SEDIMENT RUNOFF FROM THE SITE DURING CONSTRUCTION. SUCH METHODS SHALL BE IN ACCORDANCE WITH THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
10. ABSOLUTELY NO WORK WILL BE ALLOWED WITHIN ANY CONSERVATION AREA, BUFFER AREA, OR DESIGNATED WETLAND AREA UNLESS SO SPECIFICALLY DESCRIBED BY THE PLANS AND GRANTED BY REASON OF PERMIT FROM THE GOVERNMENTAL ENTITY HAVING JURISDICTION OVER SAID AREA.
11. A FILTER FABRIC SILT BARRIER AND/OR TURBIDITY BARRIER, IN ACCORDANCE WITH FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION DURATION. THE FILTER FABRIC SHALL BE PERIODICALLY INSPECTED AND SHALL BE REPLACED AS IT BECOMES CLOGGED. AFTER COMPLETION OF ALL CONSTRUCTION ACTIVITIES, ANY ACCUMULATED SILTS AND ORGANIC MATTER SHALL BE REMOVED FROM THE SITE.
12. ALL EXCAVATIONS SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. NO OPEN TRENCHES WILL BE PERMITTED OVERNIGHT.
13. ALL NECESSARY DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR.
14. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL BARRICADES, WARNING SIGNS, AND MARKINGS FOR HAZARDS AND THE CONTROL OF TRAFFIC, IN REASONABLE CONFORMITY AS DIRECTED BY ORANGE COUNTY; SUCH AS TO EFFECTIVELY PREVENT ACCIDENTS IN ALL PLACES WHERE THE WORK CAUSES OBSTRUCTION TO THE NORMAL TRAFFIC OR CONSTITUTES IN ANY WAY A HAZARD TO THE PUBLIC.
15. THE CONTRACTOR SHALL COMPLY WITH ORANGE COUNTY, FLORIDA ROAD CONSTRUCTION SPECIFICATIONS FOR STRIPPING, CLEARING, GRUBBING, GRADING, BACKFILLING, AND EMBANKMENT PREPARATION WITHIN DESIGNATED ROADWAY SECTIONS.
16. ALL WORK AND MATERIALS FURNISHED SHALL BE IN REASONABLE CONFORMITY WITH THE LINES, GRADES, PROFILES, CROSS-SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS AND TESTING REQUIREMENTS SPECIFIED IN THE CONTRACT, PLANS OR SPECIFICATIONS.

17. THE CONTRACTOR SHALL COMPLY WITH ALL LEGAL LOAD RESTRICTIONS WHEN HAULING MATERIALS OR EQUIPMENT BEYOND THE LIMITS OF THE WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR FROM ANY LIABILITY FOR DAMAGE OR INJURY WHICH MAY RESULT FROM MOVING EQUIPMENT OR MATERIAL.
18. WHERE MUCK OR OTHER ORGANIC MATERIAL IS REMOVED, IT SHALL BE REPLACED WITH CLEAN FINE SAND AND COMPACTED TO 95% OF THE MOD. PROCTOR MAX DENSITY. THE UNSUITABLE SOIL MAY BE DISPOSED OF BEYOND CLEARED AND DEWATERED AREAS WITHIN THE SITE AS DIRECTED BY ORANGE COUNTY.
19. ALL RUBBLE, CONCRETE SLABS, PAVEMENT, FOOTING, SHRUBS, TREES, WEEDS, MUCK, ORGANIC FINE SAND SAND WITH ROOTS AND OTHER UNDESIRABLE MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION SITE. THE UNDESIRABLE MATERIALS RESULTING FROM THE CLEANING OPERATION SHALL BE DISPOSED, WITHIN THE SITE IN A LEGAL MANNER, AS DIRECTED BY ORANGE COUNTY.
20. THE CONTRACTOR SHALL INSURE THAT PROPER SOIL DENSITIES ARE ACHIEVED FOR THE PLACEMENT OF ALL HEADWALL/ENDWALL FOOTINGS, AND IN GENERAL, THE SUPPORT REQUIRED FOR ANY STRUCTURE (PHYSICAL OR EARTHEN) DESCRIBED IN THESE PLANS. IT WILL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SUFFICIENT SOILS TESTING HAS BEEN PERFORMED PRIOR TO CONSTRUCTION.
21. SEEDING, MULCHING AND SODDING SHALL BE IN ACCORDANCE WITH ORANGE COUNTY SPECIFICATIONS. ALL FILL SIDE SLOPE AREAS WILL BE GRASSED AND MAINTAINED BY THE CONTRACTOR ACCORDING TO THE CONTRACT. ALL DISTURBED AREAS OUTSIDE THE EXCAVATION AND FILL LIMITS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THEIR CONDITION PRIOR TO CONSTRUCTION.
22. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL NEWLY PLANTED GRASSES OR VEGETATION IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
23. ALL INLETS AND DRAINAGE STRUCTURES SHALL BE PRECAST AND IN ACCORDANCE WITH ASTM C-478 UNLESS SPECIFIED ELSEWHERE.
24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA AND SCHEDULES, AND FOR SIGNING FOR SAID INSPECTIONS.
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION. DISTURBED MONUMENTATION SHALL BE RESTORED BY A FLORIDA LICENSED SURVEYOR SELECTED BY THE OWNER AT THE CONTRACTOR'S EXPENSE. BENCHMARKS AND/OR TBM'S FOR CONSTRUCTION CONSTRUCTION LAYOUT WILL BE PROVIDED BY SURVEYOR. VERTICAL CONTROL FOR THIS PROJECT IS PER NGVD 1929. ALL DELIVERED RECORD DRAWINGS SHALL BE PER NGVD 1929.
26. AS-BUILT DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER UPON PROJECT COMPLETION, PRIOR TO FINAL CERTIFICATION OF COMPLETION BY THE ENGINEER.

CONSTRUCTION, OPERATION AND MAINTENANCE NOTES

EROSION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING AN EROSION CONTROL PLAN AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE. THE PROPOSED EROSION CONTROL PLAN SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CRITERIA.

EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION

FILTER FABRIC BARRIERS SHALL BE PLACED IN THE FIELD AS SHOWN ON THE PLANS AND SHALL BE PERIODICALLY INSPECTED AND REPLACED AS NECESSARY.

OPERATION AND MAINTENANCE

THE OPERATION AND MAINTENANCE OF THE PROPOSED SURFACE WATER MANAGEMENT FACILITIES WILL BE MAINTAINED BY ORANGE COUNTY FLORIDA

INLET PROTECTION

ALL PROPOSED INLETS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER BY HAY BALES AND GRAVEL TO FORM A COFFERDAM AROUND THE STRUCTURES TO PREVENT ANY SEDIMENT FROM ENTERING THE DRAINAGE FACILITIES. AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETE, ALL DRAINAGE STRUCTURES AND PIPES SHALL BE INSPECTED AND ANY SAND AND ACCUMULATED MATERIAL SHALL BE REMOVED.

TEMPORARY SEEDING

AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER, DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED SO AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 POUNDS PER ACRE.

TEMPORARY SEEDING AND MULCHING

SLOPES STEEPER THAN 6:1 SHALL, IN ADDITION TO SEEDING, RECEIVE MULCHING OF APPROXIMATELY TWO (2) INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF FOUR (4) INCHES.

TEMPORARY GRASSING

THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

TEMPORARY REGRASSING

IF, AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER.

MAINTENANCE

ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.

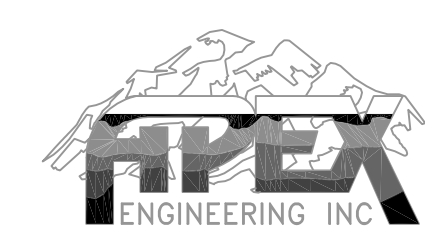
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GENERAL NOTES
DISCHARGE PIPING MODIFICATION TO POND 1
ORANGE COUNTY SOLID WASTE MANAGEMENT FACILITY
ORANGE COUNTY, FLORIDA

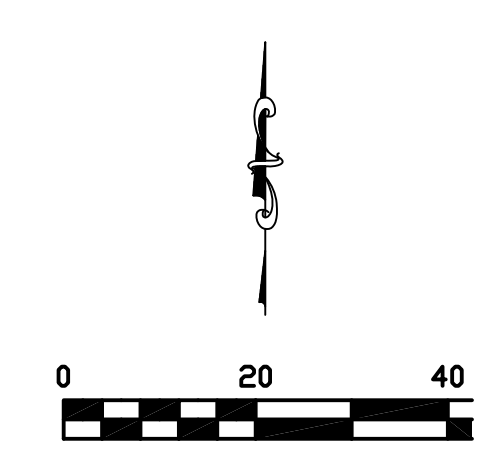
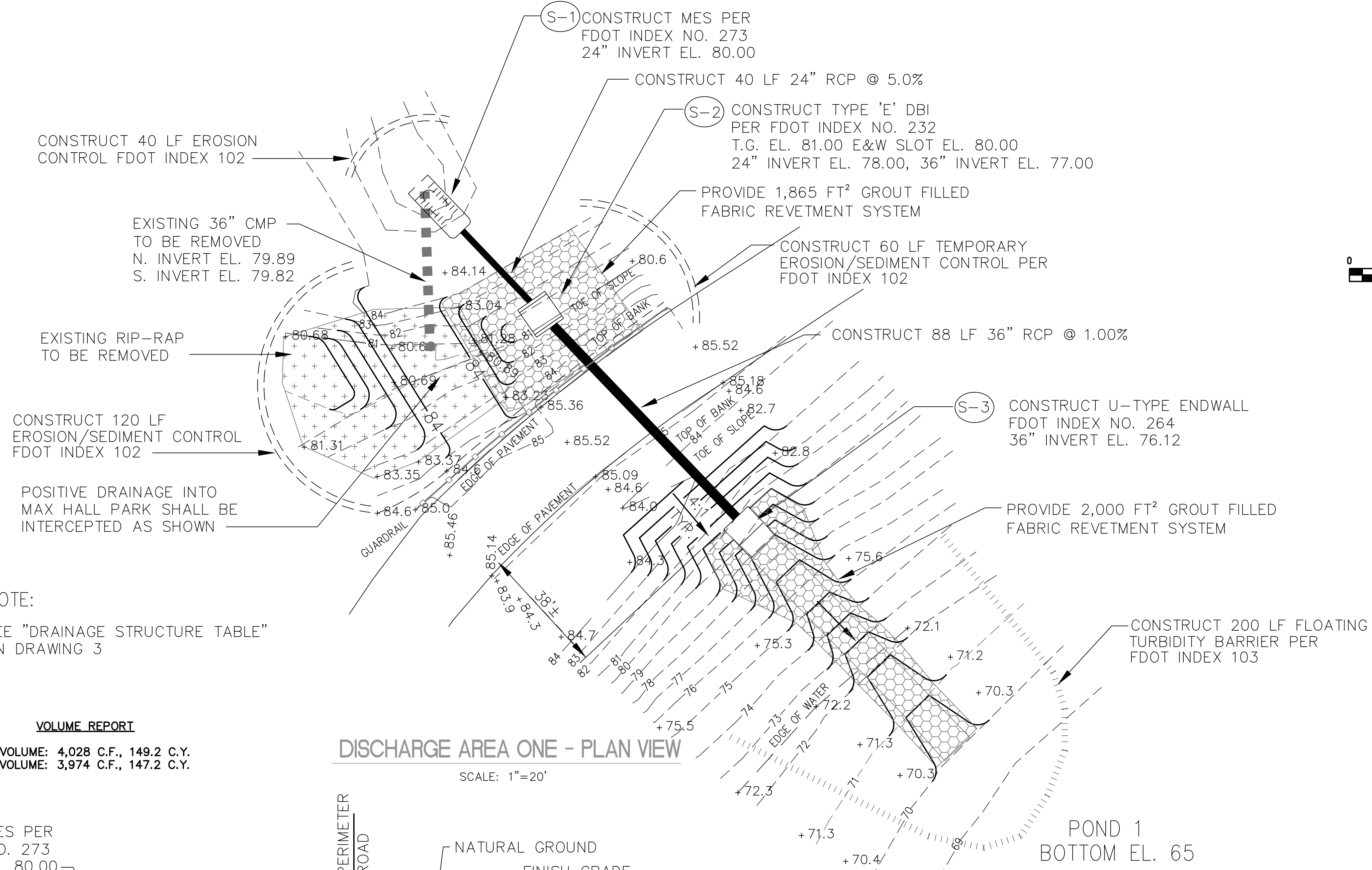
531 VERSAILLES DRIVE, SUITE 202
 MAITLAND, FLORIDA 32751
 (407) 475-9163 FAX (407) 475-9169
 CERTIFICATION OF AUTHORIZATION NUMBER: 7831

PROJECT NUMBER
S2-06
 DRAWING NUMBER
3



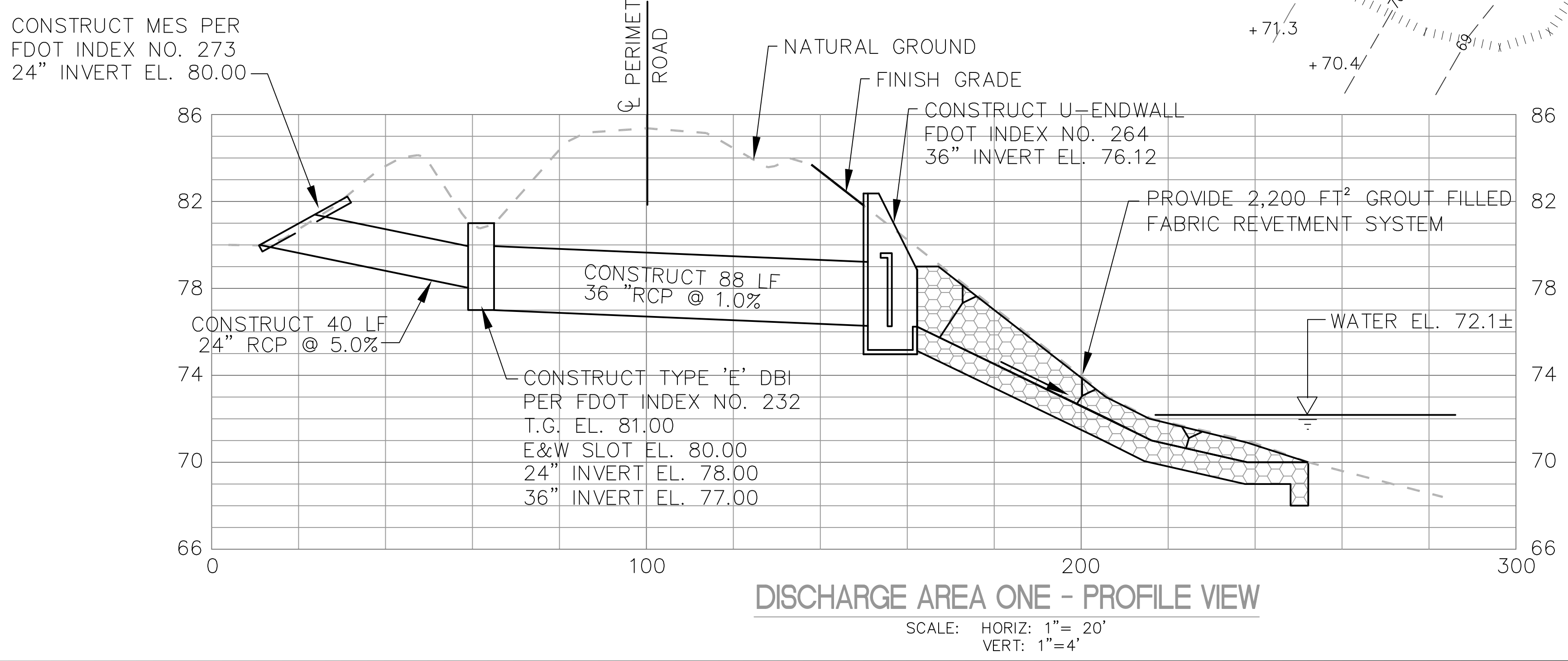
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 CA# 00006895
civil and environmental engineering consultants
 Certified SOC and WSE

APPROVED



NOTE:
SEE "DRAINAGE STRUCTURE TABLE" ON DRAWING 3

VOLUME REPORT
CUT VOLUME: 4,028 C.F., 149.2 C.Y.
FILL VOLUME: 3,974 C.F., 147.2 C.Y.



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APPROVED

June, 2015 FL REG NO 29524

REV. NO.	DATE	DRAWN BY	CHKD BY	REMARKS

ORANGE COUNTY UTILITIES SOLID WASTE DIVISION
12100 Young Pine Road
Orlando, FL 32826-6600
407-238-6600

AREA 1 PARTIAL SITE PLAN AND PROFILE
DISCHARGE PIPING MODIFICATION TO POND 1
ORANGE COUNTY SOLID WASTE MANAGEMENT FACILITY
ORANGE COUNTY, FLORIDA

531 VERSAILLES DRIVE, SUITE 202
MAITLAND, FLORIDA 32751
(407) 475-9163 FAX (407) 475-9169
CERTIFICATION OF AUTHORIZATION NUMBER: 7831

S2Li

PROJECT NUMBER: **S2-06**
DRAWING NUMBER: **4**

(S-4) CONSTRUCT MES PER
 FDOT INDEX NO. 273
 24" INVERT EL. 81.50

EXISTING SWALE
 TO BE TERMINATED
 CONSTRUCT 50 LF TEMPORARY
 EROSION/SEDIMENT CONTROL
 FDOT INDEX 102

(S-5) CONSTRUCT U-TYPE ENDWALL
 FDOT INDEX NO. 261
 24" INV EL 72.00

CONSTRUCT 120 LF 24" RCP @ 7.92%

PROVIDE 2,340 FT² GROUT FILLED
 FABRIC REVETMENT SYSTEM

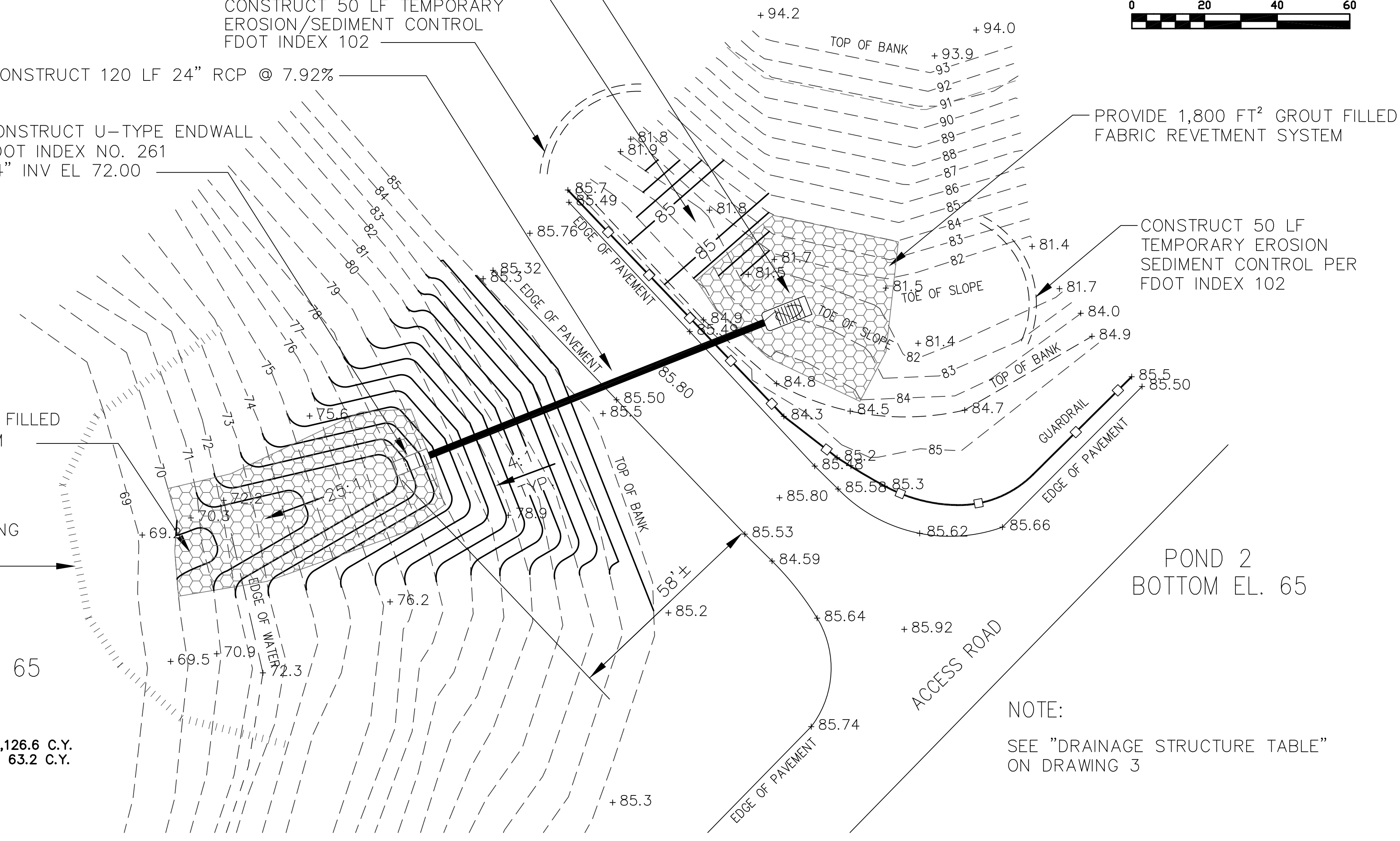
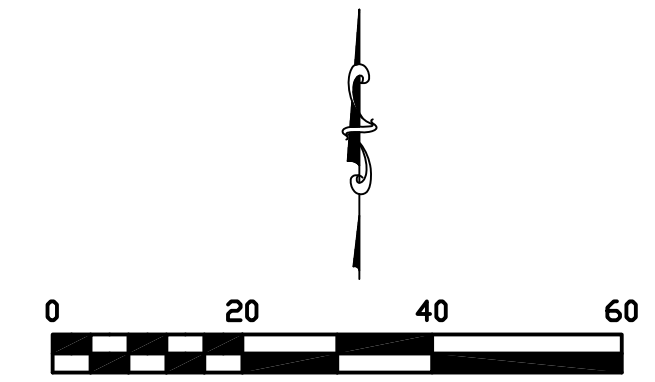
CONSTRUCT 175 LF FLOATING
 TURBIDITY BARRIER PER
 FDOT INDEX 103

POND 1
 BOTTOM EL. 65

VOLUME REPORT

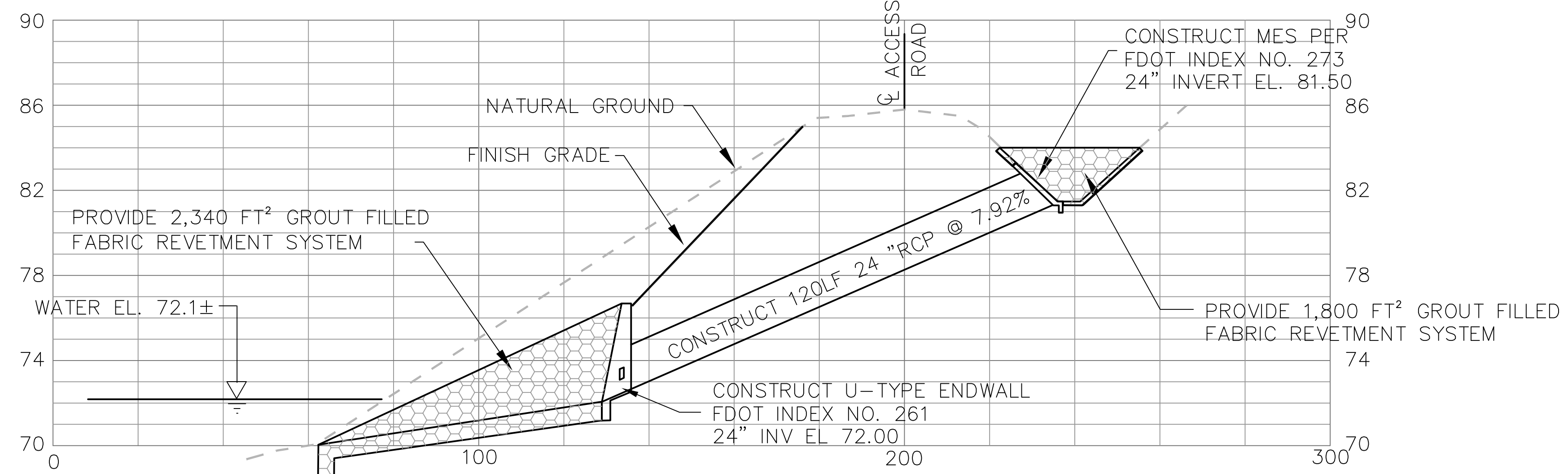
CUT VOLUME: 30,417 C.F., 1,126.6 C.Y.
 FILL VOLUME: 1,706 C.F., 63.2 C.Y.

CELL 1
 (CLOSED)



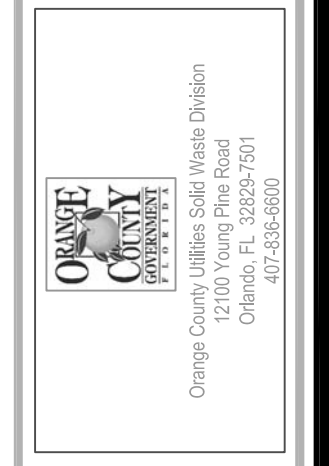
NOTE:
 SEE "DRAINAGE STRUCTURE TABLE"
 ON DRAWING 3

DISCHARGE AREA TWO
 SCALE: 1"=20'



DISCHARGE AREA TWO - PROFILE VIEW
 SCALE: HORIZ: 1"=20'
 VERT: 1"=4'

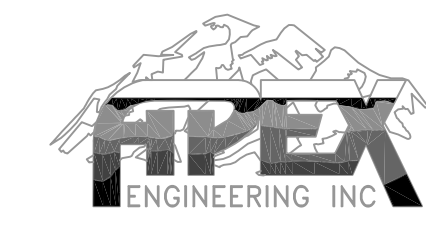
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AREA 2 PARTIAL SITE PLAN AND PROFILE
 DISCHARGE PIPING MODIFICATION TO POND 1
 ORANGE COUNTY SOLID WASTE MANAGEMENT FACILITY
 ORANGE COUNTY, FLORIDA

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PROJECT NUMBER
S2-06
 DRAWING NUMBER
5



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