

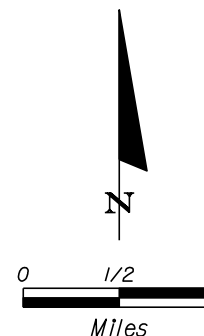
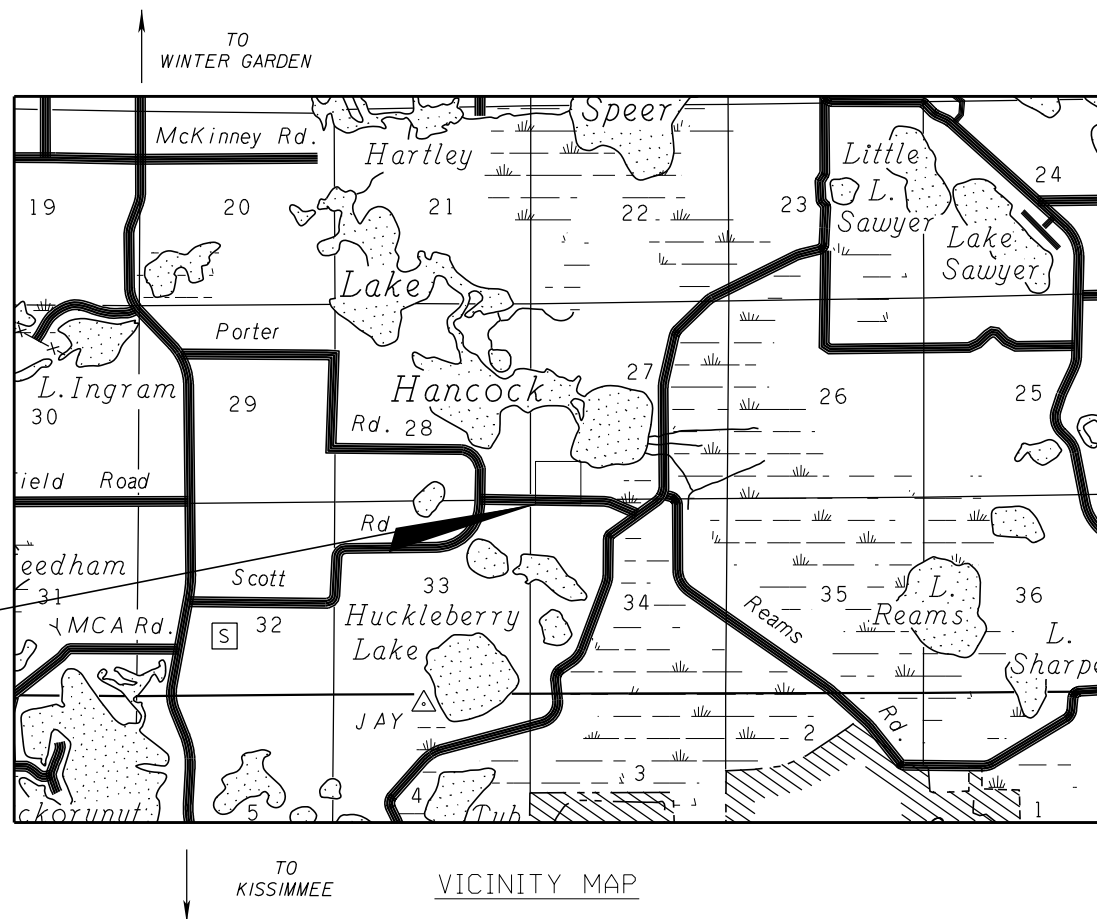
CONSTRUCTION PLANS FOR PORTER ROAD RETAINING WALL REPLACEMENT ORANGE COUNTY, FLORIDA

TERESA JACOBS, COUNTY MAYOR

BOARD OF COUNTY COMMISSIONERS

BETSY VANDERLEY DISTRICT 1
 ROD A. LOVE DISTRICT 2
 PETE CLARKE DISTRICT 3
 JENNIFER THOMPSON DISTRICT 4
 EMILY BONILLA DISTRICT 5
 VICTORIA P. SIPLIN DISTRICT 6

MARK MASSARO, P.E., PUBLIC WORKS DIRECTOR



SOURCE OF BENCHMARK DATUM:
 BENCHMARK 1
 DESIGNATION: C998026
 DESCRIPTION: REC. 2.5" ORANGE COUNTY CONTROL DISK AT P.O.C. OF ISLAND, AT ISLES OF LAKE HANCOCK 40' NORTH OF C/L OF PORTER ROAD; AT INTERSECTION OF PORTER RD AND ISLEVIEW DR PUBLISHED EL. = 111.175 FT (NAVD88)
 BENCHMARK 2
 DESIGNATION: GIS-0131 KAREN MCKEE
 DESCRIPTION: "GIS-0131 KAREN MCKEE" IS SET INTO THE TOP OF A CONCRETE MONUMENT, FROM PRINCETON AND 17-92, GO NORTH ON 17-92 FOR 0.25 MI TO THE STATION ON THE LEFT, ON THE SOUTH SIDE OF A BRIDGE. PUBLISHED EL. = 79.302 FT (NAVD88)
 *SOURCE OF BENCHMARK DATA: ORANGE COUNTY BENCHMARK DATABASE (2010)

PROJECT LOCATION

GOVERNING STANDARDS AND SPECIFICATIONS:
 FLORIDA DEPARTMENT OF TRANSPORTATION,
 ROADWAY AND TRAFFIC DESIGN STANDARDS
 (FY 2017-18), AND
 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE
 CONSTRUCTION DATED JULY 2018,
 AS AMENDED BY CONTRACT DOCUMENTS.

NOTE: THE SCALE OF THESE PLANS MAY
 HAVE CHANGED DUE TO REPRODUCTION.

LENGTH OF PROJECT		
	LINEAR FT.	MILES
CANAL	-	-
BRIDGES	-	-
NET LENGTH OF PROJ.	255	0.049
EXCEPTIONS	-	-
GROSS LENGTH OF PROJ.	255	0.049

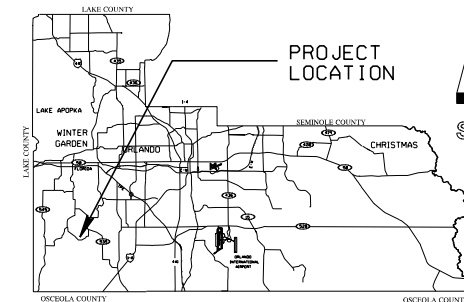
FINAL SUBMITTAL
 NOVEMBER 2018

NOTE
 PLANS WERE PREPARED ACCORDING TO AVAILABLE INFORMATION TO ADEQUATELY ADDRESS CONDITIONS AS THEY EXISTED AT THE TIME OF PLANS PREPARATION. NEEDS, CONDITIONS AND OWNERSHIP OF PROPERTIES MAY HAVE CHANGED SINCE PROJECT DESIGN. THE COUNTY'S REPRESENTATIVE WILL ADDRESS CHANGES AND NEEDS WITH THE PROPERTY OWNER OR THEIR REPRESENTATIVES. CONTRACTOR SHALL WORK WITH THE COUNTY'S REPRESENTATIVE IN ADDRESSING AND MEETING NEEDS AND CONDITIONS THAT MAY HAVE CHANGED SINCE PLANS PREPARATION.

CERTIFICATION TO PLANS

THIS IS TO CERTIFY THAT THE CONSTRUCTION PLANS AND SPECIFICATIONS AS CONTAINED HEREIN WERE DESIGNED TO APPLICABLE STANDARDS AS SET FORTH IN THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS", STATE OF FLORIDA, AS PREPARED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION TALLAHASSEE, FLORIDA. DATED LATEST EDITION.

DATE: _____ ENGINEER: JOSHUA M. SPENCE, P.E. REG. NO. 70707



SEC. 34 TWP. 23 S RGE. 27 E

LOCATION MAP

INDEX OF SHEETS

SHEET	DESCRIPTION
1	KEY SHEET
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3	GENERAL NOTES
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6	PLAN VIEW
7	PROFILE VIEW
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13	SHEET PILE WALL STRUCTURAL DETAILS
14	EROSION CONTROL DETAILS
15-16	STORMWATER POLLUTION PREVENTION PLAN

UTILITIES ENCOUNTERED

CENTURY LINK	815-451-1668
CHARTER COMMUNICATIONS	407-532-8511
DUKE ENERGY	407-938-6619
LAKE APOPKA NATURAL GAS DISTRICT	407-656-2734
ORANGE COUNTY UTILITIES	407-254-9706



Joshua M. Spence Certificate of Authorization No. 7074
 FL P.E. No. 70707 3000 Dovera Drive, Suite 200 Oviedo, FL 32765

REVISIONS	DATE	BY

DESIGNED BY: NXT DATE: 07-2018
 DRAWN BY: TWP DATE: 07-2018
 CHECKED BY: NXT DATE: 08-2018
 APPROVED BY: JMS DATE: 08-2018
 PROJECT NO: ORC-018-32

SHEET 1
 OF 16

GENERAL NOTES

1. ALL CONSTRUCTION WITHIN ORANGE COUNTY AND FDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH AND CONFORM TO THE MOST STRINGENT REQUIREMENTS OF THE PROJECT SPECIFICATIONS, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JULY 2018), FDOT DESIGN STANDARDS (FY 2017-18), AND SUPPLEMENTS THERETO. ALL CONSTRUCTION WITHIN ORANGE COUNTY R/W SHALL ALSO MEET ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
2. SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FOR USE IN ESTABLISHING TOPOGRAPHIC FEATURES FOR THE PROJECT. THE ACCURACY OF THIS INFORMATION IS NOT GUARANTEED AND IS NOT TO BE CONSTRUED AS PART OF THE PLAN GOVERNING CONSTRUCTION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INQUIRE OF THE ENGINEER IF ADDITIONAL INFORMATION IS AVAILABLE, TO MAKE ARRANGEMENTS TO REVIEW SAME PRIOR TO BIDDING, AND TO MAKE HIS OWN DETERMINATION AS TO ALL SUBSURFACE CONDITIONS.
3. ALL PERSONAL PROPERTY, WITHIN THE DRAINAGE EASEMENTS AND RIGHTS-OF-WAY NOT RELOCATED BY THE PROPERTY OWNER SHALL BE RELOCATED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS. RELOCATION OF PERSONAL PROPERTY BY THE CONTRACTOR SHALL BE IN COORDINATION WITH THE PROPERTY OWNER. PAYMENT WILL BE INCLUDED IN CLEARING AND GRUBBING. ANY IMPACTS OUTSIDE OF THE RIGHT-OF-WAY SHALL BE BROUGHT TO THE COUNTY'S ATTENTION IMMEDIATELY AND PRIOR TO PERFORMING WORK.
4. THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVALS OF THE DISPOSAL SITES SHALL BE OBTAINED FROM ORANGE COUNTY PRIOR TO DISPOSAL. ALL EXCESS MATERIALS ARE THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR.
5. SOD ALL DISTURBED AREAS UNLESS OTHERWISE SHOWN ON THE PLANS. SODDING SHALL BE BAHIA. IT MAY BE PLACED IN ROLLS OR AS INDIVIDUAL PIECES. IN ESTABLISHED AREAS, REPLACEMENT SOD SHALL BE OF THE SAME TYPE AS THE EXISTING SOD, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. INSTALL TOPSOIL TREATMENT ON ALL PERMANENT GRASS AREAS. COST TO BE INCLUDED IN CONTRACT UNIT PRICE FOR SOD.
7. PEGGED SOD TO BE PLACED ON ALL SLOPES 1:3 OR STEEPER.
8. ALL OFFSETS SHOWN ARE TO THE \square OF CONSTRUCTION.
9. THE CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH REQUIREMENTS OF THE VARIOUS PERMITS INCLUDED IN THE BID SPECIFICATIONS. PAYMENT IS INCLUDED IN THE BID PRICE FOR SECTION 104; "PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION", EXCLUDING ITEMS SPECIFIED ELSEWHERE. ENVIRONMENTAL CONTROLS SHALL BE USED AT LOCATIONS DESIGNATED IN THE PLANS AND/OR DESIGNATED BY THE ENGINEER.
10. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS BASED ON AVAILABLE RECORDS AND SURVEYS BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO AND IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION WITH PROJECT CONSTRUCTION. PRIOR TO ORDERING DRAINAGE STRUCTURES, THE CONTRACTOR SHALL DETERMINE IF DRAINAGE/UTILITY CONFLICTS EXIST. INFORMATION ON CONFLICTS IS TO BE SUBMITTED TO THE ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY FOR RESOLUTION. SUNSHINE STATE ONE CALL MUST BE NOTIFIED FOR LOCATES AT 1-800-432-4770.
11. ALL EXCAVATIONS SHALL BE REQUIRED TO CONFORM TO THE PROVISIONS OF PART IV OF CHAPTER 553.60, F.S., ALSO KNOWN AS THE "TRENCH SAFETY ACT", TO PROTECT EXISTING PAVEMENT, STRUCTURES, FOUNDATIONS, AND CONSTRUCTION PERSONNEL DURING CONSTRUCTION OF THE PROJECT.
12. 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. ORANGE COUNTY AND ITS REPRESENTATIVE DO NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE LOCATION INFORMATION PROVIDED. ANY INACCURACY OR OMISSION OF SUCH INFORMATION SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROTECT SUCH EXISTING FEATURES FROM DAMAGE OR UNSCHEDULED INTERRUPTION OF SERVICES. THE CONTRACTOR SHALL HALT CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY IF A DISCREPANCY BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS ARISE THAT WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, DISRUPTION OF SERVICE, OR CLARIFICATION OF UTILITY ACTIVITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING A UTILITY, WHETHER UNDERGROUND OR OVERHEAD, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANY DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT.
14. PRIOR TO EXCAVATING IN THE VICINITY OF A GAS PIPELINE THE CONTRACTOR SHALL NOTIFY THE GAS UTILITY AND ORANGE COUNTY IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA STATUTES, PROTECTION OF UNDERGROUND PIPELINES, F.S. 553.851, CH. 77-143.
15. THE CONTRACTOR SHALL NOTIFY UTILITIES 72 HOURS PRIOR TO EXCAVATION IN ACCORDANCE WITH THE FLORIDA UNDERGROUND FACILITIES DAMAGE PREVENTION AND SAFETY ACT, F.S. 556.101-116. THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF WORK. SUNSHINE STATE ONE CALL OF FLORIDA (SSOCOF): 1-800-432-4770.

UTILITIES ENCOUNTERED INCLUDE:

OWNER	TELEPHONE NUMBER
CENTURY LINK	815-451-1668
CHARTER COMMUNICATIONS	407-532-8511
DUKE ENERGY	407-938-6619
LAKE APOPKA NATURAL GAS DISTRICT	407-656-2734
ORANGE COUNTY UTILITIES	407-254-9706

16. ALL EXISTING DRAINAGE STRUCTURES AND PIPES WITHIN THE LIMITS OF CONSTRUCTION SHALL REMAIN, UNLESS OTHERWISE SHOWN IN THE PLANS OR DIRECTED BY THE ENGINEER.
17. ALL (P.R.M.'s) IRONS AND MONUMENTS SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH CAST IRON VALVE BOX.
18. PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE ORANGE COUNTY SURVEYOR, WITHOUT DELAY, BY TELEPHONE 407-836-7990. THE CONTRACTOR SHALL PROVIDE WRITTEN FOLLOW UP CONFIRMATION WITHIN 48 HOURS OF TELEPHONE NOTIFICATION.
19. ANY U.S.C. AND G.S. MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, AND BOTH SHALL NOTIFY:

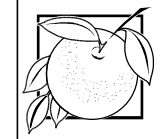
STATE GEODETIC ADVISOR
c/o FDEP, BUREAU OF SURVEY AND MAPPING
3900 COMMONWEALTH BLVD., MS 105
TALLAHASSEE, FL 32399-300
PHONE 850-245-2606
FAX 850-245-2645
20. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO ORANGE COUNTY A SET OF FIELD NOTES VERIFYING THE BENCHMARK ELEVATIONS AND THE REFERENCE POINT TIES SHOWN ON THE PROJECT LAYOUT SHEET AND PLAN AND PROFILE SHEETS, AND/OR A SET OF FIELD NOTES FOR ALL ADDITIONAL BENCHMARK AND REFERENCE POINT TIES PROPOSED TO BE USED IN CONSTRUCTING THE PROJECT WITH THEIR LOCATION, DESCRIPTION AND ELEVATION, BASED ON ORANGE COUNTY DATUM. ALL SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA.

21. WITHIN 7 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY/DRAINAGE EASEMENTS AT 100' INTERVALS AND AT RIGHT-OF-WAY BREAKS WITH STATIONING SHOWN ON THE STAKES. NO INVOICE FOR PAYMENT WILL BE PROCESSED UNTIL THE RIGHT-OF-WAY/DRAINAGE EASEMENT HAS BEEN STAKED TO THE SATISFACTION OF THE ENGINEER. PAYMENT IS INCLUDED IN THE PRICE BID FOR ITEM NO. 101-1 "MOBILIZATION".
22. EXISTING TRAFFIC SIGNS SHALL REMAIN IN PLACE OR BE RELOCATED AS NEEDED BY THE CONTRACTOR UNTIL THE NEW SIGNS ARE INSTALLED. THE EXISTING SIGNS SHALL BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE ORANGE COUNTY SIGN SHOP AT 4200 SOUTH JOHN YOUNG PARKWAY. COST OF RELOCATION, MAINTENANCE, REMOVAL, AND LEFTOVER SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102-1, MAINTENANCE OF TRAFFIC.
23. CONTRACTOR TO VIDEOTAPE AND PHOTOGRAPH THE LIMITS OF CONSTRUCTION BEFORE AND AFTER CONSTRUCTION AND PROVIDE A COPY TO THE COUNTY. COST TO BE INCLUDED IN THE PRICE BID FOR ITEM NO. 101-1, MOBILIZATION.
24. THE CONTRACTOR IS TO PROVIDE A WRITTEN DEWATERING PLAN WITH SCHEMATIC DRAWINGS TO THE COUNTY 2 WEEKS PRIOR TO MOBILIZATION FOR REVIEW. ALL COUNTY COMMENTS SHALL BE INCORPORATED INTO THE PLAN. COST TO PROVIDE THIS PLAN SHALL BE INCLUDED IN THE PRICE BID FOR PAY ITEM NO. 101- 1 MOBILIZATION. REFER TO THE STORMWATER POLLUTION PREVENTION SHEETS FOR FURTHER DEWATERING REQUIREMENTS.
25. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING TEMPORARY DRAINAGE AND MAINTENANCE OF ALL EXISTING RUNOFF DISCHARGES DURING CONSTRUCTION TO AVOID THE TRANSPORT OF SEDIMENT AND ERODIBLE SOILS UNTIL THE WORK HAS BEEN ACCEPTED BY THE COUNTY.
26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A STAGING AREA (APPROVED BY THE ENGINEER) TO STORE EQUIPMENT, SUPPLIES, & MATERIALS, PROVIDE EMPLOYEE PARKING, ETC. FOR THE DURATION OF CONSTRUCTION. THE USE OF EXISTING COUNTY EASEMENTS AND RIGHT OF WAY SHOULD BE REQUESTED IN WRITING TO THE COUNTY FOR APPROVAL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP THE HOA INFORMED IN REGARDS TO STAGING AREAS AND PROJECT DURATION.
27. SHEET PILE WALL LAYOUT MAY VARY FROM WORKING POINTS IN PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.

LEGEND ABBREVIATIONS		
ACB	=	ARTICULATED CONCRETE BLOCK
\square	=	BASELINE
BE	=	BURIED ELECTRIC
BT	=	BURIED TELEPHONE
BTV	=	BURIED TELEVISION
CIP	=	CAST-IN-PLACE
$\underline{\hspace{1cm}}$	=	CENTERLINE
CMP	=	CORRUGATED METAL PIPE
CONC	=	CONCRETE
EFD	=	ELLIPTICAL FRENCH DRAIN
EL	=	ELEVATION
EP	=	EDGE OF PAVEMENT
ERCP	=	ELLIPTICAL REINFORCED CONCRETE PIPE
ESMT	=	EASEMENT
EX	=	EXISTING
FD	=	FRENCH DRAIN
INV	=	INVERT
IRC	=	IRON ROD & CAP
LT	=	LEFT
NAVD	=	NORTH AMERICAN VERTICAL DATUM
NTS	=	NOT TO SCALE
POT	=	POINT ON TANGENT
RT	=	RIGHT
SHWL	=	SEASONAL HIGH GROUNDWATER LEVEL
STA	=	STATION
TOE	=	TOE OF SLOPE
TOB	=	TOP OF BANK
U.E.	=	UTILITY EASEMENT

REVISIONS		
DATE	BY	DESCRIPTION

**PORTER ROAD RETAINING
WALL REPLACEMENT**



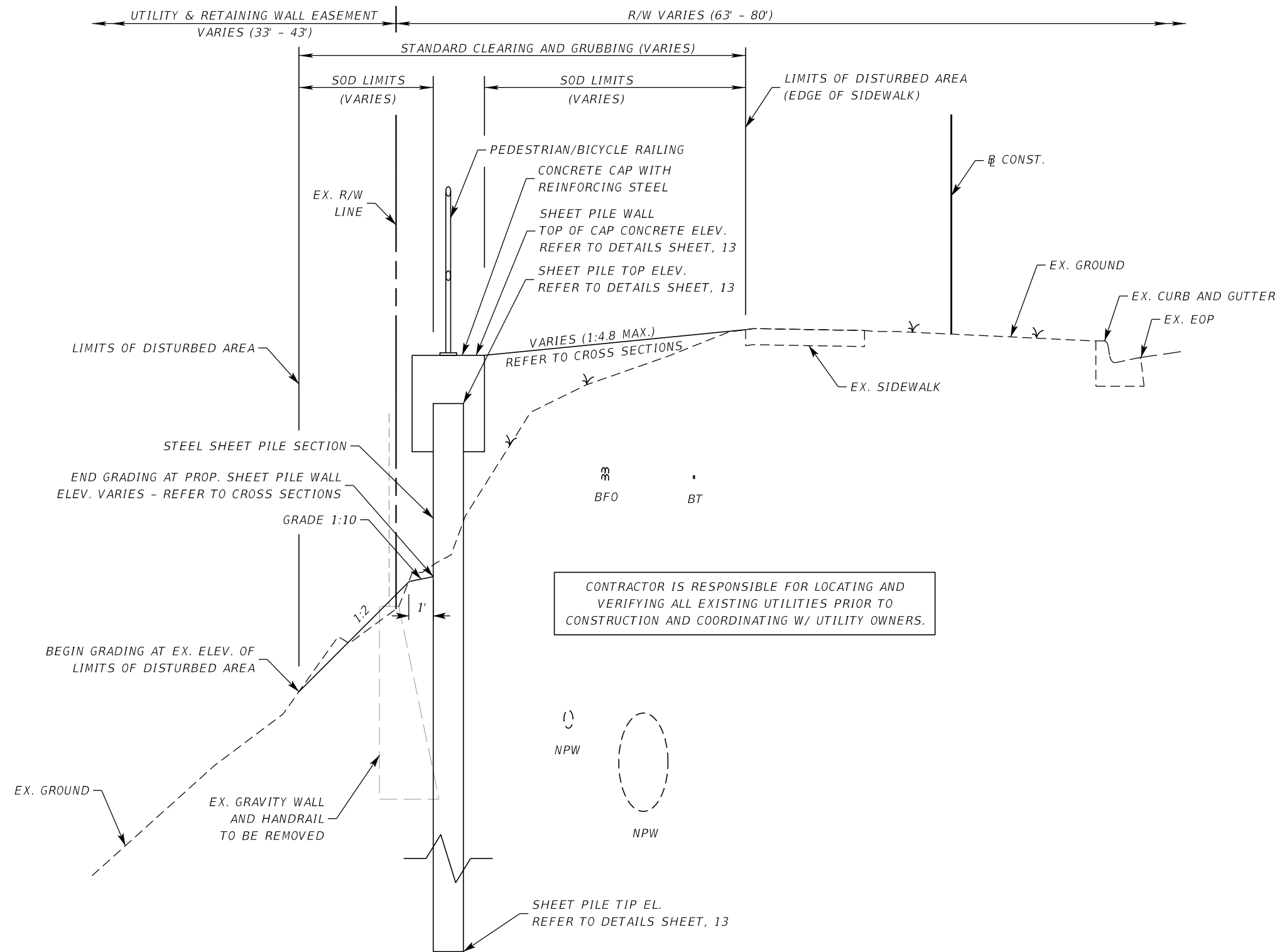
**ORANGE COUNTY
GOVERNMENT
FLORIDA**

ENGINEER OF RECORD
Joshua Michael Spence, PE
PE No. 70707
Inwood Consulting Engineers, Inc.
3000 Dovera Drive, Suite 200
Oviedo, Florida 32765
Certificate of Authorization No. 7074

GENERAL NOTES

SHEET
NO.

3



**TYPICAL SECTION
PORTER ROAD
STA. 2+63.32 TO STA. 5+19.64**

REVISIONS		
DATE	BY	DESCRIPTION

**PORTER ROAD RETAINING
WALL REPLACEMENT**



**ORANGE COUNTY
GOVERNMENT
FLORIDA**

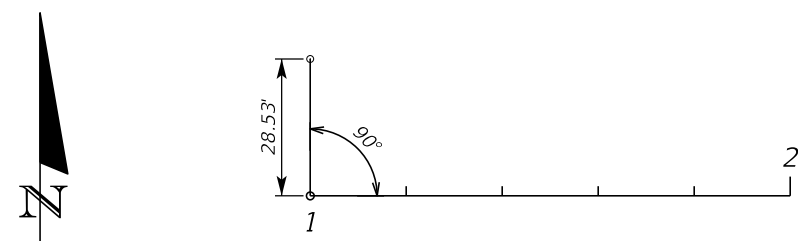
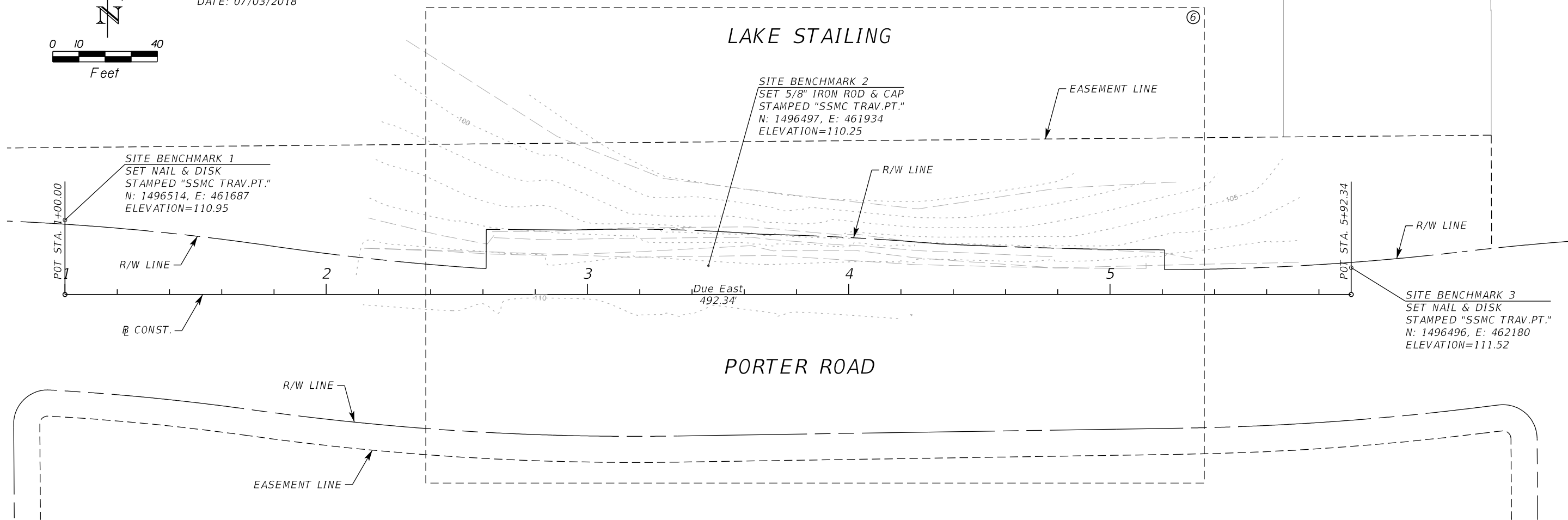
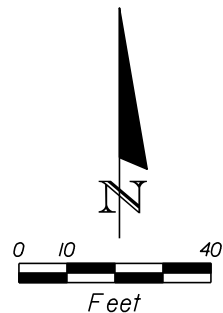
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TYPICAL SECTION

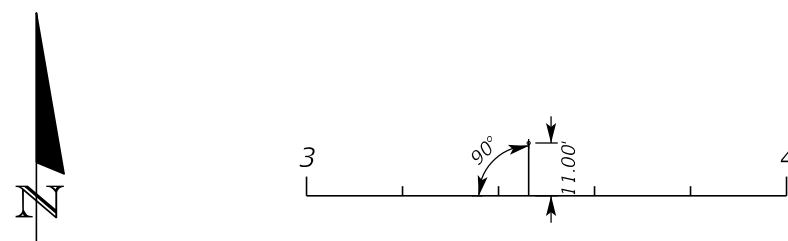
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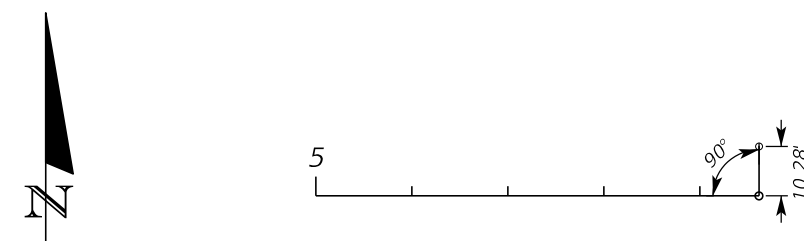
SITE SURVEY PROVIDED BY:
 SOUTHEASTERN SURVEYING
 AND MAPPING CORPORATION
 6500 ALL AMERICAN BOULEVARD
 ORLANDO, FLORIDA 32810-4350
 (407) 292-8580
 DATUM: NAVD88
 DATE: 07/03/2018



REFERENCE TIE NO. 1
 STA. 1+00.00
 ⊕ CONST. PORTER ROAD



REFERENCE TIE NO. 2
 STA. 3+46.30
 ⊕ CONST. PORTER ROAD



REFERENCE TIE NO. 3
 STA. 5+92.34
 ⊕ CONST. PORTER ROAD

REVISIONS		
DATE	BY	DESCRIPTION

**PORTER ROAD RETAINING
 WALL REPLACEMENT**



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 FLORIDA**

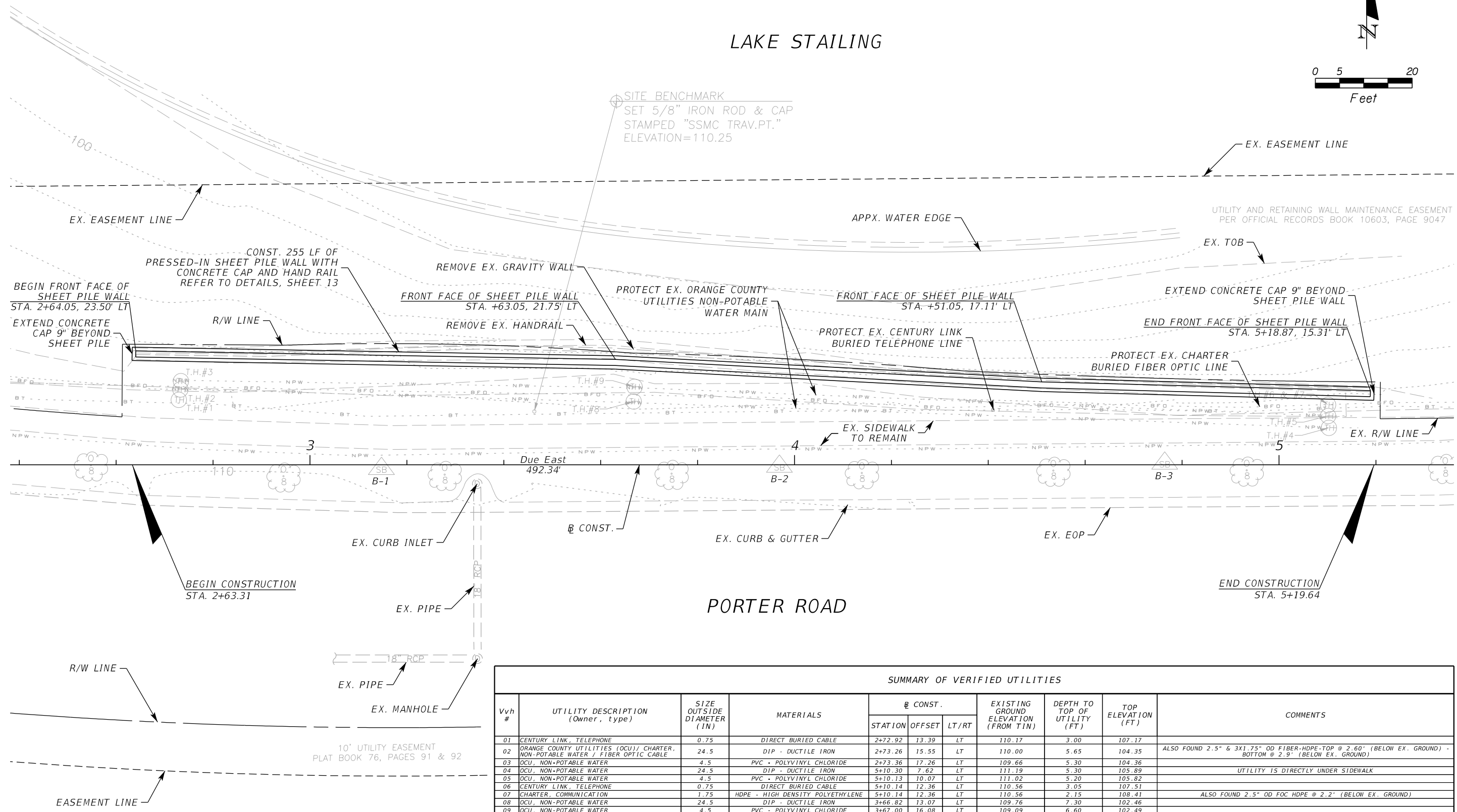
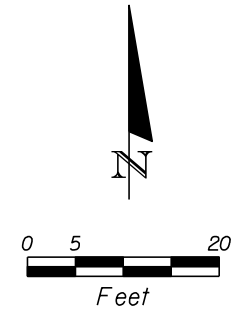
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PROJECT LAYOUT

SHEET
 NO.
 5

NOTE:
 1. SHEET PILE WALL LAYOUT MAY VARY FROM WORKING POINTS IN PLANS.
 CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.

LAKE STAILING



SUMMARY OF VERIFIED UTILITIES										
Vvh #	UTILITY DESCRIPTION (Owner, type)	SIZE OUTSIDE DIAMETER (IN)	MATERIALS	@ CONST.			EXISTING GROUND ELEVATION (FROM TIN)	DEPTH TO TOP OF UTILITY (FT)	TOP ELEVATION (FT)	COMMENTS
				STATION	OFFSET	LT/RT				
01	CENTURY LINK, TELEPHONE	0.75	DIRECT BURIED CABLE	2+72.92	13.39	LT	110.17	3.00	107.17	
02	ORANGE COUNTY UTILITIES (OCU) / CHARTER, NON-POTABLE WATER / FIBER OPTIC CABLE	24.5	DIP - DUCTILE IRON	2+73.26	15.55	LT	110.00	5.65	104.35	ALSO FOUND 2.5" & 3X1.75" OD FIBER-HDPE-TOP @ 2.60' (BELOW EX. GROUND) - BOTTOM @ 2.9' (BELOW EX. GROUND)
03	OCU, NON-POTABLE WATER	4.5	PVC - POLYVINYL CHLORIDE	2+73.36	17.26	LT	109.66	5.30	104.36	
04	OCU, NON-POTABLE WATER	24.5	DIP - DUCTILE IRON	5+10.30	7.62	LT	111.19	5.30	105.89	UTILITY IS DIRECTLY UNDER SIDEWALK
05	OCU, NON-POTABLE WATER	4.5	PVC - POLYVINYL CHLORIDE	5+10.13	10.07	LT	111.02	5.20	105.82	
06	CENTURY LINK, TELEPHONE	0.75	DIRECT BURIED CABLE	5+10.14	12.36	LT	110.56	3.05	107.51	
07	CHARTER, COMMUNICATION	1.75	HDPE - HIGH DENSITY POLYETHYLENE	5+10.14	12.36	LT	110.56	2.15	108.41	ALSO FOUND 2.5" OD FOC HDPE @ 2.2' (BELOW EX. GROUND)
08	OCU, NON-POTABLE WATER	24.5	DIP - DUCTILE IRON	3+66.82	13.07	LT	109.76	7.30	102.46	
09	OCU, NON-POTABLE WATER	4.5	PVC - POLYVINYL CHLORIDE	3+67.00	16.08	LT	109.09	6.60	102.49	

REVISIONS		
DATE	BY	DESCRIPTION

PORTER ROAD RETAINING WALL REPLACEMENT

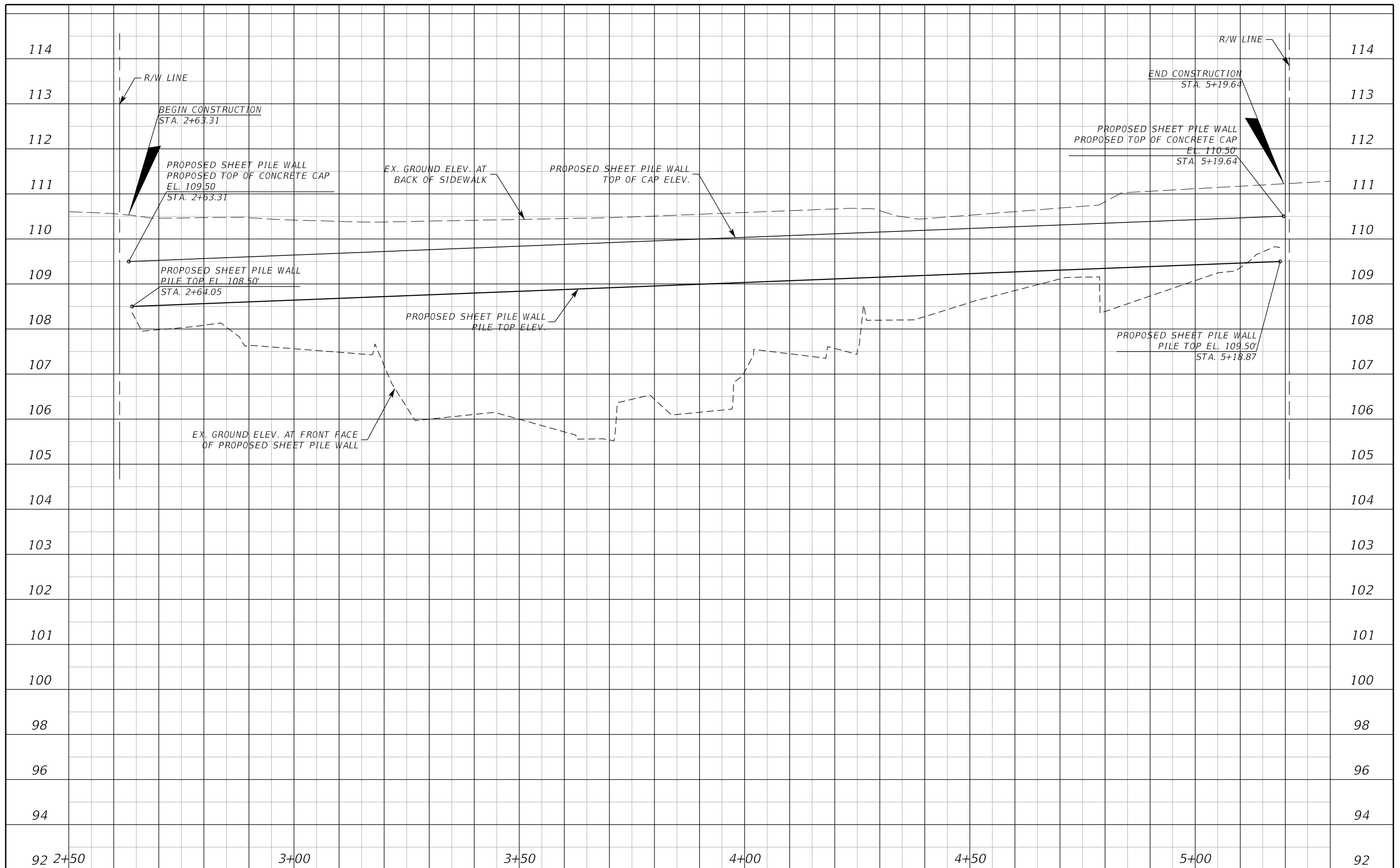


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PLAN VIEW

SHEET NO.
 6



REVISIONS		
DATE	BY	DESCRIPTION

**PORTER ROAD RETAINING
WALL REPLACEMENT**

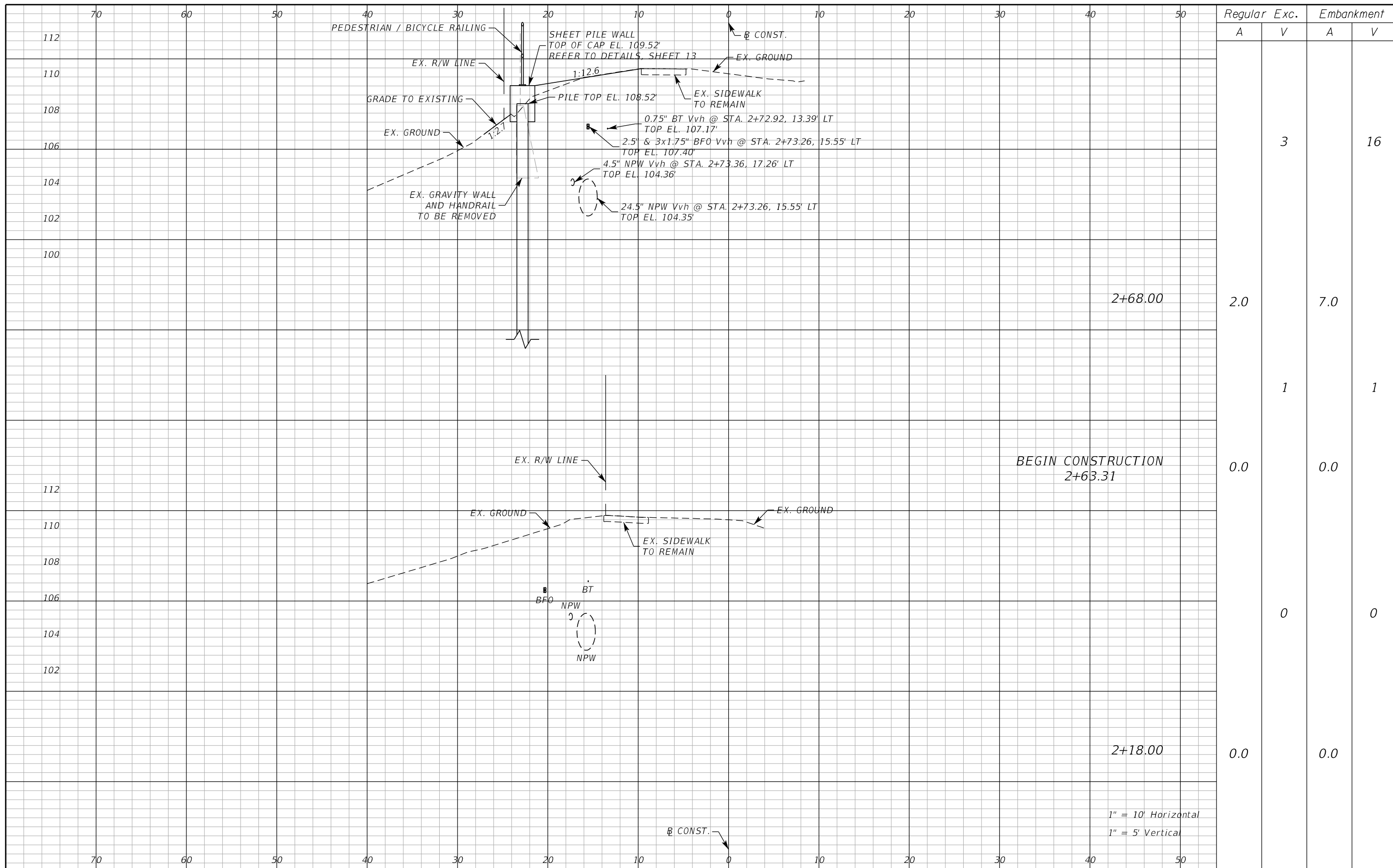


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PROFILE VIEW

SHEET
NO.
7



Regular		Exc.		Embankment	
A	V	A	V	A	V
			3		16
2.0		7.0			
			1		1
0.0		0.0			
			0		0
0.0		0.0			

REVISIONS		
DATE	BY	DESCRIPTION

PORTER ROAD RETAINING WALL REPLACEMENT

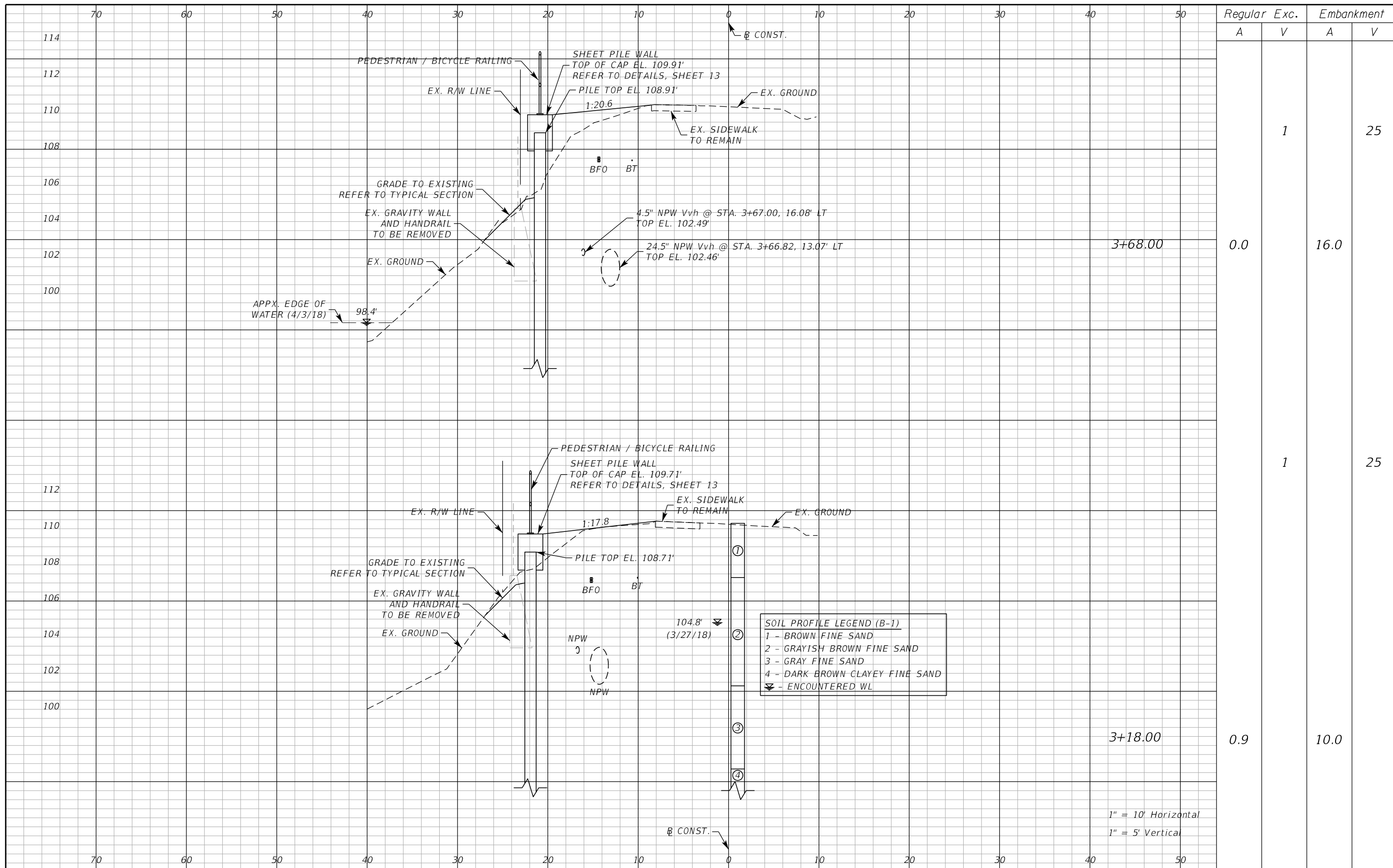


ORANGE COUNTY GOVERNMENT FLORIDA

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CROSS SECTIONS

SHEET NO.
8



Regular		Exc.		Embankment	
A	V	A	V	A	V
			1		25
0.0				16.0	
			1		25
0.9				10.0	

SOIL PROFILE LEGEND (B-1)

- 1 - BROWN FINE SAND
- 2 - GRAYISH BROWN FINE SAND
- 3 - GRAY FINE SAND
- 4 - DARK BROWN CLAYEY FINE SAND
- ∇ - ENCOUNTERED WL

1" = 10' Horizontal
1" = 5' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

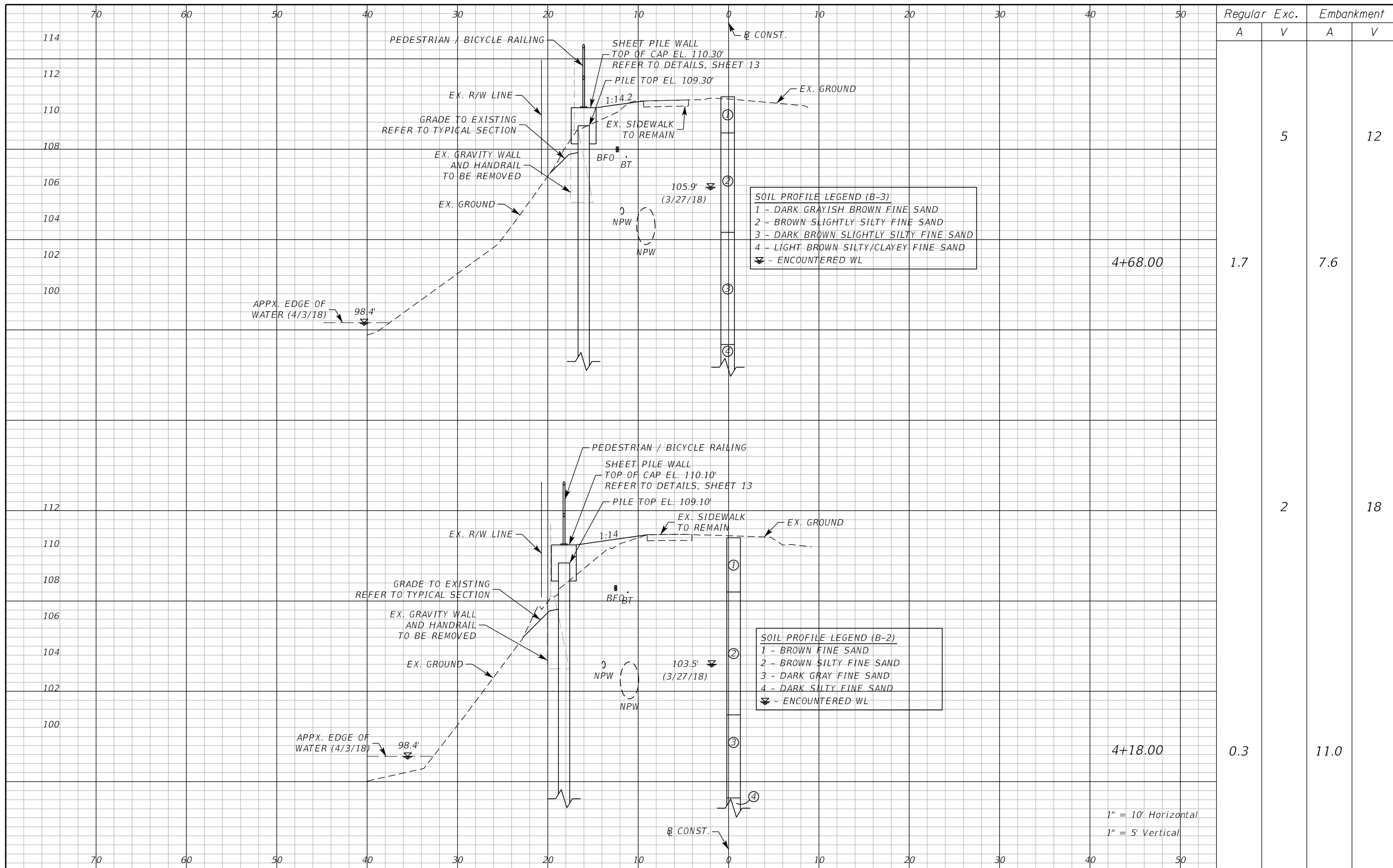
PORTER ROAD RETAINING WALL REPLACEMENT



ENGINEER OF RECORD
 Joshua Michael Spence, PE
 PE No. 70707
 Inwood Consulting Engineers, Inc.
 3000 Dovera Drive, Suite 200
 Oviedo, Florida 32765
 Certificate of Authorization No. 7074

CROSS SECTIONS

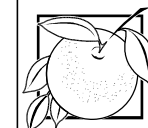
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Regular		Exc.		Embankment	
A	V	A	V	A	V
			5		12
1.7				7.6	
			2		18
0.3				11.0	

REVISIONS		
DATE	BY	DESCRIPTION

PORTER ROAD RETAINING WALL REPLACEMENT

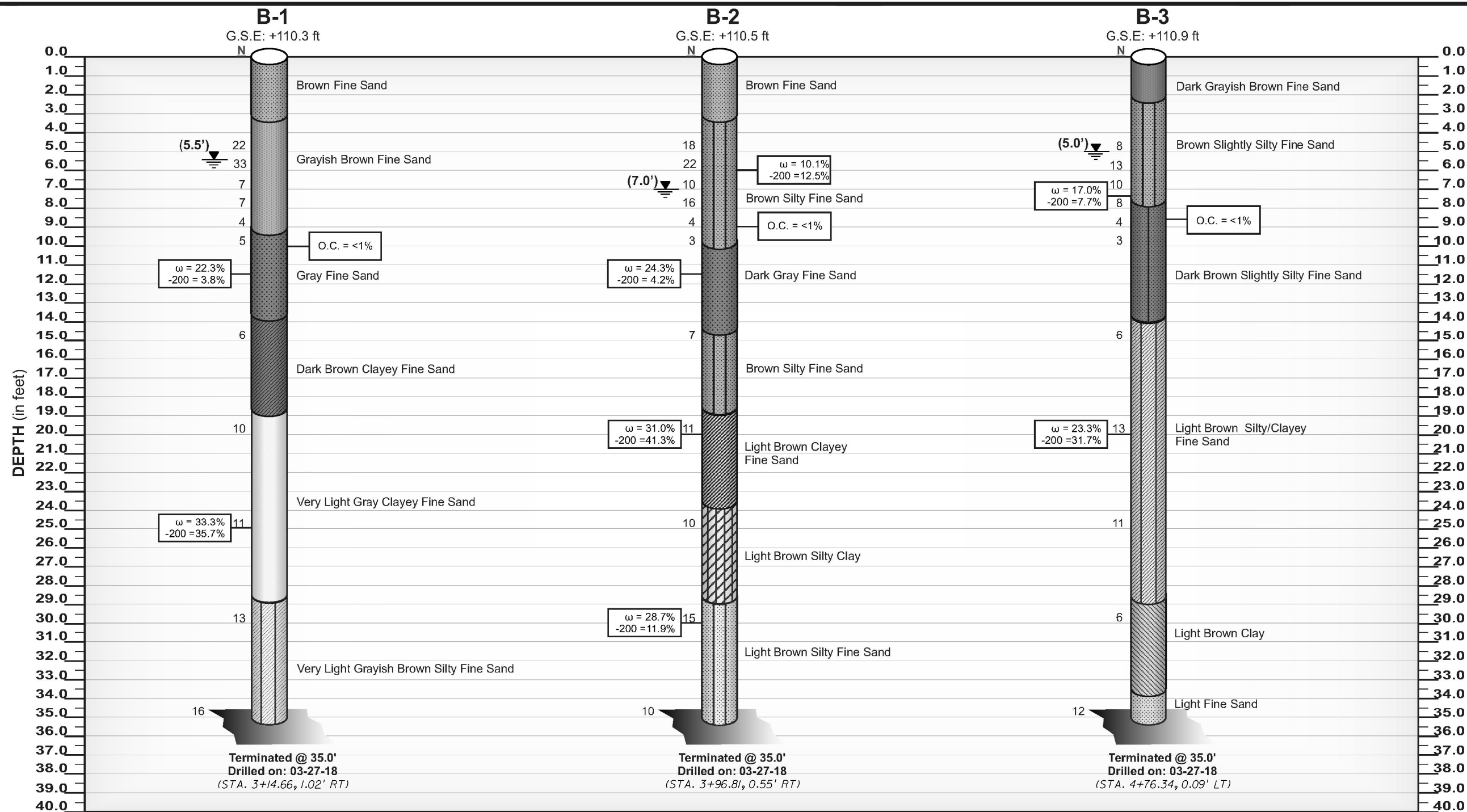


**ORANGE COUNTY
GOVERNMENT
FLORIDA**

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CROSS SECTIONS

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NOTES:

ω = Field Moisture Content (%)

-200 = Percent passing US #200 Sieve

O.C. = Organic Content (%)

NOTES:

Borings drilled on the date noted

Water level measured on date drilled unless otherwise noted

G.S.E. Surveyed ground surface elevation (ft NAVD)

N Standard Penetration Test Resistance (blows/ft)

Typical Correlations between SPT "N" Values and Soil Properties			
Granular Materials		Silt and Clay	
Relative Density	SPT (Blows/ft)	Consistency	SPT (Blows/ft)
Very Loose	Less than 4	Very Soft	Less than 2
Loose	4 to 10	Soft	2 to 4
Medium Dense	10 to 30	Firm	4 to 8
Very	30 to 50	Stiff	8 to 15
Very Dense	Greater than 50	Very Stiff	15 to 30
		Hard	Greater than 30

REVISIONS		
DATE	BY	DESCRIPTION

PORTER ROAD RETAINING WALL REPLACEMENT



GEOTECHNICAL DATA

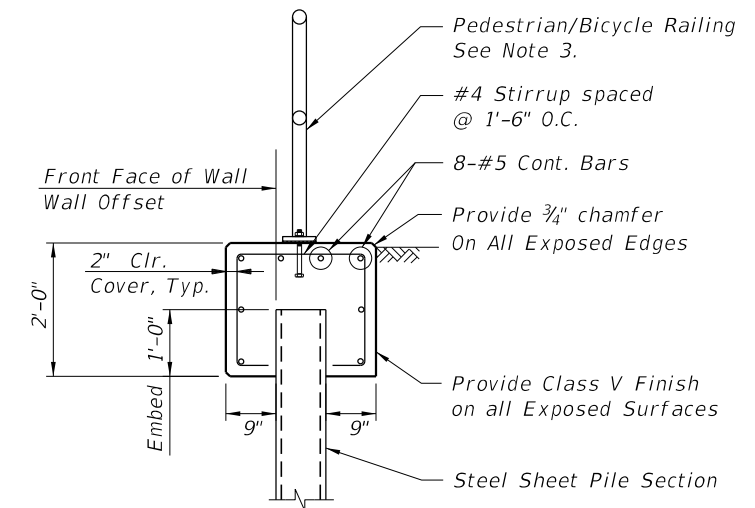
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STEEL SHEET PILE WALL, CANTILEVER DATA TABLE										
CONSTRUCTION INFORMATION					DESIGN PARAMETERS					
WALL LOCATION	MINIMUM * SECTION MODULUS (in ³ /ft)		MINIMUM REQUIRED MOMENT OF INERTIA (in ⁴ /ft)	MINIMUM PILE TIP ELEVATION (ft)	PILE TOP ELEV. (ft)	SOIL ELEVATION		WATER ELEVATION		DESIGN LIVE LOAD (psf)
	A-328 (ksi) fy=39 ksi	A-572 (ksi) fy=50 ksi				** FRONT OF WALL (ft)	BACK OF WALL (ft)	FRONT OF WALL (ft)	BACK OF WALL (ft)	
STATION (begin to end)										
2+64.05 to 5+18.87	24.0	18.0	84.0	84.50	SEE PROFILE SHEET 6			102.50	107.0	250

* Minimum Section Modulus is based on Hot Rolled Sections. For Cold Rolled Sections, increase Minimum Section Modulus by 20%.
 ** Minimum of Design Ground Surface of Design Scour Depth.

NOTES:


- No impact driving or vibratory installation methods are allowed due to close proximity of sidewalk and buried utilities. Contractor shall utilize pressing (jacking) installation techniques to minimize soil disturbance and lower noise. The cost of maintaining existing slope and protection of existing utilities shall be included in the cost of the Steel Sheet Pile Wall.
- The Design Parameters indicated in this table were used in the sheet pile wall analysis. If the Contractor plans operations which exceed the design parameters shown above, the Contractor's Specialty Engineer will redesign the wall to resist construction loads at a maximum deflection of 1.5 inches.
- Environmental Classification is Moderately Aggressive.
- Concrete for Cast-In-Place Retaining Wall Cap shall be Class II (f'c = 3400 psi) without silica fume, metakaolin or ultrafine fly ash.
- Contractor shall submit shop drawings to the Engineer of Record for the proposed sheet pile wall indicating plan layout including bulkhead cap and actual pile section to be installed. Largest allowable pile section depth shall be 15 inches.
- Coat exposed surface of steel sheet piles to 5 feet below the Front Of Wall Soil Elevation (**), with coal tar-epoxy in accordance with FDOT Standard Specification Section 560.



WALL CAP DETAIL

NOTES:

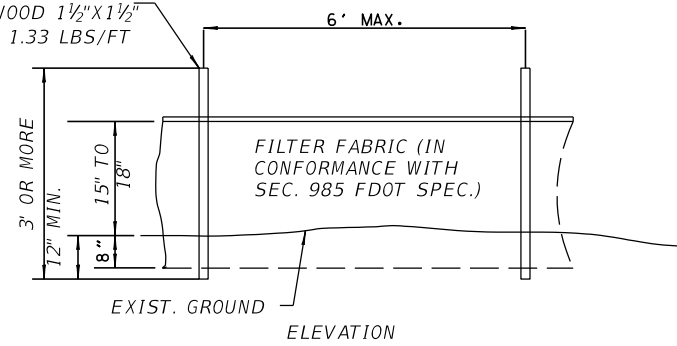
- All Reinforcing Steel shall be ASTM A615 Grade 60 Deformed Bars, Free from Oil, Scale and Rust and Placed in Accordance with the FDOT Standard Specifications.
- Splice length for the #5 Bar shall be a Minimum of 30 inches.
- Pedestrian/Bicycle Railing shall be an Aluminum Pedestrian/Bicycle Railing with Type 1 Picket Infill per the FDOT Design Standards Index No. 862.

<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			REVISIONS			DATE	BY	DESCRIPTION				<p align="center">PORTER ROAD RETAINING WALL REPLACEMENT</p>  <p align="center">ORANGE COUNTY GOVERNMENT FLORIDA</p>	<p align="center">ENGINEER OF RECORD LUCA DELVERME, P.E. NO. 63055 AVCON, INC. 5555 MICHIGAN STREET, SUITE 200 ORLANDO, FLORIDA 32822-2779 PHONE: (407) 599-1122 CERTIFICATE OF AUTHORIZATION NO. 5057</p>	<p align="center">SHEET PILE WALL STRUCTURAL DETAILS</p>	<p align="center">SHEET NO.</p>
REVISIONS															
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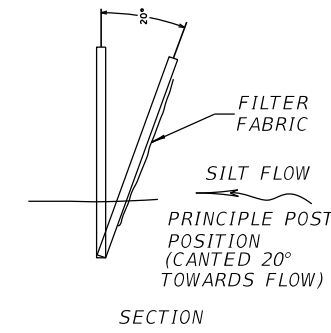
EROSION CONTROL GENERAL NOTES

1. THE CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF CHECK WEIRS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE HAY BALES, SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION.
2. NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
3. THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL BE CONTROLLED, SO THAT THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
4. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET. (SEE NOTE 16).
5. 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.
6. 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.
7. 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.
8. 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.
9. ALL DISTURBED AREAS OUTSIDE THE EXCAVATION AND FILL LIMITS WILL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THEIR CONDITION PRIOR TO CONSTRUCTION.
10. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL NEWLY PLANTED GRASSES OR VEGETATION AND RETENTION/DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE COUNTY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF EMBANKMENTS AND SHALL REPLACE ANY PORTION, WHICH IN THE OPINION OF THE ENGINEER, HAS BECOME DISPLACED DUE TO EROSION OR DUE TO CARELESSNESS OR NEGLIGENCE ON THE PART OF THE CONTRACTOR.
12. 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.
13. ABSOLUTELY NO WORK WILL BE ALLOWED WITHIN ANY CONSERVATION AREA, BUFFER AREA, MITIGATION 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.
14. PRIOR TO CLEARING AND GRUBBING, THE LIMITS OF WETLANDS, BUFFERS, AND MITIGATION AREAS SHALL BE CLEARLY MARKED ALONG THE PROPOSED RIGHT OF WAY LINE TO PROTECT THESE AREAS FROM ENCROACHMENT FROM CONSTRUCTION ACTIVITIES.
15. ALL FILL EMBANKMENT AND GRADED AREAS SHALL BE PROTECTED AGAINST EROSION BY METHODS STATED IN SECTION 104, "F.D.O.T. STANDARD SPECIFICATIONS FOR BRIDGE AND ROAD CONSTRUCTION." SIDE SLOPES MAY BE SEEDED AND MULCHED, PROVIDED THAT THE MULCH MATERIAL IS DISK HARROWED AND THE SIDE SLOPES ARE NEITHER GREATER THAN 1:3 NOR PART OF A DRAINAGE CONVEYANCE.
16. EROSION CONTROL AT ALL INLET DRAINAGE STRUCTURES DURING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (E&SC MANUAL).

POST OPTIONS:
 SOFTWOOD 2 1/2" DIA.
 SOFTWOOD 2" X 4"
 HARDWOOD 1 1/2" X 1 1/2"
 STEEL 1.33 LBS/FT



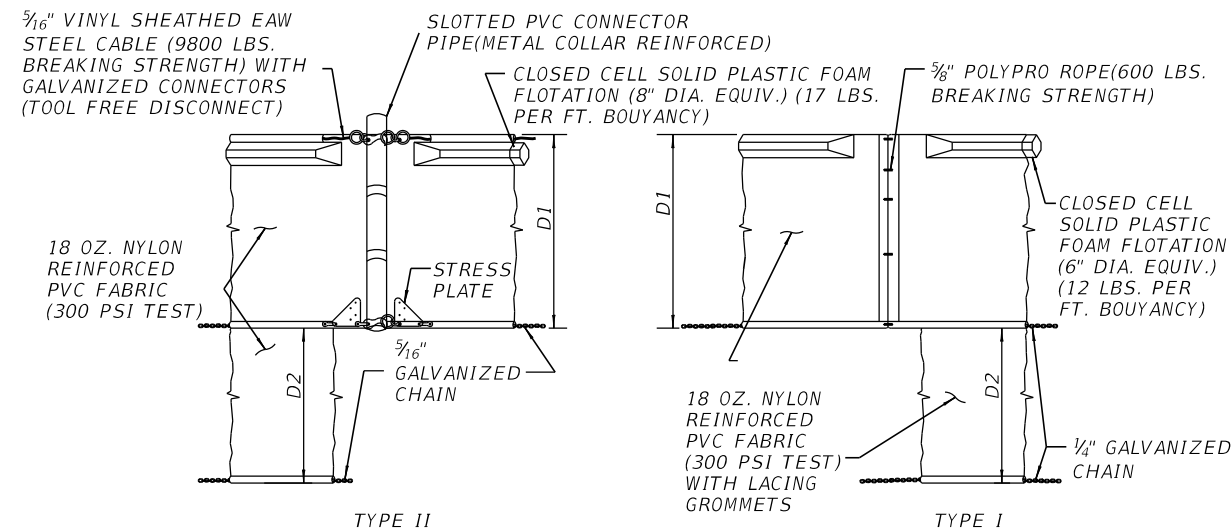
OPTIONAL POST POSITIONS



NOTES:

1. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT LUMP SUM UNIT PRICE FOR PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION, PAY ITEM NO. 104-1.
2. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATER COURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS ARE TO BE USED AT PERMANENT BODIES OF WATER.
3. WHERE USED AS SLOPE PROTECTION SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

SILT FENCE DETAILS N.T.S.



D1 = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).

D2 = 5' STD. (ADDITIONAL PANELS FOR DEPTHS > 5').

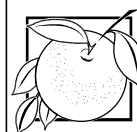
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIER DETAILS N.T.S.

REVISIONS		
DATE	BY	DESCRIPTION

**PORTER ROAD RETAINING
WALL REPLACEMENT**



**ORANGE COUNTY
GOVERNMENT
FLORIDA**

ENGINEER OF RECORD
 Joshua Michael Spence, PE
 PE No. 70707
 Inwood Consulting Engineers, Inc.
 3000 Dovera Drive, Suite 200
 Oviedo, Florida 32765
 Certificate of Authorization No. 7074

EROSION CONTROL DETAILS

SHEET
NO.

14

The following narrative is the Stormwater Pollution Prevention Plan and contains references to the FDOT Standard Specifications for Road and Bridge Construction, the FDOT Design Standards (FY 2017-18), and other sheets of these construction plans. The first sheet of the construction plans (called the Key Sheet) contains an index to the other sheets. The complete Stormwater Pollution Prevention Plan includes several items:

- * this narrative description,
- * the documents referenced in this narrative,
- * the Contractor's approved Erosion Control Plan required by Section 104 of the FDOT Standard Specifications for Road and Bridge Construction (latest edition) hereinafter referred to as the 'Section 104 Erosion Control Plan', and
- * reports of inspection made during construction.

1.0 SITE DESCRIPTION

1.a Nature of Construction Activity:

The project requires the evaluation and design improvements to replace the failing and design improvements to replace the failing gravity wall along Porter Road. The project extent is within Section 34, Township 23S, and Range 27E. Approximately 255 feet of gravity wall are located on the north side of Porter Road between Key West Dove Street and Tropical Bird Street in the Summerlake Subdivision. The gravity wall is situated along the northern edge of the road of the right-of-way and abuts Lake Stailing, a manmade lake that sits immediately north of the right-of-way limits.

1.b Sequence of Major Soil Disturbing Activities:

TBD

1.c Area Estimates:

Total project area: 0.21 acres.
Total area to be disturbed: 0.09 acres.

1.d Runoff Data:

Runoff Coefficients

Runoff Coefficient for Impervious Areas: C = 0.95
Runoff Coefficient for Pervious Areas: C = 0.25
Runoff Coefficient for Wet Areas: C = 1.00

Weighted Runoff Coefficients

(B)efore Construction Runoff Coefficient: C(b) = 0.40
(A)fter Construction Runoff Coefficient: C(a) = 0.40
(D)uring Construction Runoff Coefficient:
C(d) varies from 0.25 to 0.52

1.e Soils Data:

The soils are fairly uniform soil stratigraphy of fine sands and slightly silty fine sand to a depth of 14-feet, with a very loose zone in the depth range 9 to 11 feet. Below are clayey fine sands which extend to the boring termination depth. The clay content increases at a depth of about 19 feet. The clayey sands are firm to stiff. Deep muck was reported within the core of a former sinkhole located at the toe of slope, which is now graded and integrated into Lake Stailing.

1.f Outfall Information Description:

The existing stormwater system for Porter Road is routed to a wet detention pond in the Summerlake subdivision, which ultimately outfalls to Lake Hancock. A small dry detention pond is located west of the project and drains to Lake Stailing which also outfalls to Lake Hancock.

1.g Site Map:

The construction plans are being used as the site maps. The location of the required information is described below. The sheet numbers for the plan sheets referenced are identified on the Key Sheet of these construction plans.

- * Drainage Patterns:
The existing drainage basins and flow directions remain unchanged.
- * Approximate Slopes:
The slopes of the site can be seen in the Cross Section Sheets and Plan Sheets.
- * Areas of Soil Disturbance:
The areas to be disturbed are indicated on the Plan Sheets and the Cross Section Sheets.
- * Areas Not To Be Disturbed:
The areas not to be disturbed are indicated by the Contractor's Erosion Control Plan.
- * Locations of Temporary Controls:
The temporary erosion control measures include silt fencing, inlet protection, and additional measures as indicated in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual), or as required by the County.
- * Locations of Permanent Controls:
The permanent erosion control measures include sodding of pervious areas. The Summary of Pay Items provides quantities for sodding.
- * Areas To Be Stabilized:
- Temporary stabilization practices are shown in the Contractor's Erosion Control Plan.
- Permanent stabilization is shown on the Plan and Profile Sheets or cross section sheets where appropriate.
- * Surface Waters:
This project has two nearby stormwater systems. The roadway drainage is conveyed to a wet detention pond before ultimately discharging to Lake Hancock. There is also a dry detention pond west of the project site that outfalls to Lake Stailing.
- * Discharge Points To Surface Waters:
Locations: Lake Hancock - N: 1497650.66, E: 459607.75
Lake Stailing - N: 1496607.87, E:461797.16
- * Receiving Waters:
Receiving Water Name: Lake Hancock and Lake Stailing

2.0 CONTROLS:

2.a Erosion And Sediment Controls:

In the Section 104 Erosion Control Plan, the Contractor shall describe the proposed stabilization and structural practices based on the Contractor's proposed Traffic Control Plan. The following recommended guidelines are based on the Traffic Control Plan (TCP) outlined in the construction plans. Where following the Traffic Control Plan (TCP) outlined in these construction plans, the Contractor may choose to accept the following guidelines or modify them in the Section 104 Erosion Control Plan, subject to approval of the County Engineer. As work progresses, the Contractor shall modify the plan to adapt to seasonal variation, changes in construction activities, and the need for better practices.

2.a.1 Stabilization Practices:

In the Section 104 Erosion Control Plan, the Contractor shall describe the stabilization practices proposed to control erosion. The Contractor shall initiate all stabilization measures as soon as practical, but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased. The stabilization practices shall include at least the following, unless otherwise approved by the County Engineer.

Temporary:

- * Artificial coverings in accordance with FDOT Specification Section 104.
- * Sod in accordance with Specification Section 104.

Permanent:

- * Sod in accordance with Specification Section 575.

2.a.2 Structural Practices:

In Section 104 Erosion Control Plan, the Contractor shall describe the proposed structural practices to control or trap sediment and otherwise prevent the discharge of pollutants from exposed areas of the site. Sediment controls shall be in place before disturbing soil upstream of the control. The structural practices shall include at least the following unless otherwise approved by the County Engineer.

Temporary:

- * Silt fence in accordance with E&SC Manual and Specification Section 104.
- * Inlet protection in accordance with E&SC Manual and Specification Section 104.

Permanent:

- * Sod.

2.b Stormwater Management:

Impacts to existing stormwater are not anticipated.

2.c Other Controls:

2.c.1 Waste Disposal:

In the Section 104 Erosion Control Plan, the Contractor shall describe the proposed methods to prevent the discharge of solid materials, including building materials, to waters of the United States. The proposed methods shall include at least the following, unless otherwise approved by the County.

- * Providing litter control and collection within the project during construction activities.

CONTINUED ON NEXT SHEET

REVISIONS			 ORANGE COUNTY GOVERNMENT FLORIDA	ENGINEER OF RECORD Joshua Michael Spence, PE PE No. 70707 Inwood Consulting Engineers, Inc. 3000 Dovera Drive, Suite 200 Oviedo, Florida 32765 Certificate of Authorization No. 7074	STORMWATER POLLUTION PREVENTION PLAN	SHEET NO.
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<p style="text-align: center;">PORTER ROAD RETAINING WALL REPLACEMENT</p>						

* Disposing of all fertilizer or other chemical containers according to EPA's standard practices as detailed by the manufacture.

* Disposing of solid materials including building and construction materials off the project site but not in surface waters or wetlands.

2.c.2 Off-Site Vehicle Tracking & Dust Control:

In the Section 104 Erosion Control Plan, the Contractor shall describe the proposed methods for minimizing offsite vehicle tracking of sediments and generating dust. The proposed methods shall include at least the following, unless otherwise approved by the County.

* Covering loaded haul trucks with tarpaulins.

* Removing excess dirt from roads daily.

* Using roadway sweepers during dust generating activities such as excavation and hauling operations.

2.c.3 State and Local Regulations For Waste Disposal, Sanitary Sewer, Or Septic Tank Regulations:

In the Section 104 Erosion Control Plan, the Contractor shall describe the proposed procedures to comply with applicable state and local regulations for waste disposal, and sanitary sewer or septic systems.

2.c.4 Fertilizers and Pesticides:

In the Section 104 Erosion Control Plan, the Contractor shall describe the procedures for applying fertilizers and pesticides. The proposed procedures shall comply with applicable subsections of Section 570 of the Specifications.

2.c.5 Toxic Substances:

In the Section 104 Erosion Control Plan, the Contractor shall provide a list of toxic substances that are likely to be used on the job and provide a plan addressing the generation, application, migration, storage, and disposal of these substances.

2.d Approved State and Local Plans and Permits:

No permits obtained. Contractor's responsibility to obtain all necessary permits.

3.0 MAINTENANCE:

In the Section 104 Erosion Control Plan, the Contractor shall provide a plan for maintaining all erosion and sediment controls throughout construction. The maintenance plan shall at a minimum, comply with the following:

* **Silt Fence:**
Maintain per Section 104. The Contractor should anticipate replacing silt fence on 6 month intervals.

* **Inlet Protection System:**
Maintain per section 104. Construct per E&SC Manual.

4.0 INSPECTIONS:

Qualified personnel shall inspect the following items at least once every seven calendar days and within 24 hours of the end of a storm that is 0.25 inches or greater. To comply, the Contractor shall install and maintain rain gages and record daily rainfall. Where sites have been permanently stabilized, inspections shall be conducted at least once every month. The Contractor shall also inspect that controls installed in the field agree with the latest Stormwater Pollution Prevention Plan.

- * Disturbed areas of the site that have not been finally stabilized.
- * Areas used for storage of materials that are exposed to precipitation.
- * Structural controls.
- * Stormwater management systems.
- * Locations where vehicles enter or exit the site.

The Contractor shall initiate repairs within 24 hours of inspections that indicate items are not in good working order.

If inspections indicate that the installed stabilization and structural practices are not sufficient to minimize erosion, retain sediment, and prevent discharging pollutants, the Contractor shall provide additional measures, as approved by the County.

5.0 NON-STORMWATER DISCHARGES:

In the Section 104 Erosion Control Plan, the Contractor shall identify all anticipated non-stormwater discharges (except flows from fire fighting activities). The Contractor shall describe the proposed measures to prevent pollution of these non-stormwater discharges such as:

- * **Dewatering**
The Contractor shall develop, as needed, any dewatering system that provides pretreatment of effluent prior to discharge along with meeting any Federal, State, and local dewatering permit laws, rules, and regulations.
- * **Dust Control**
The Contractor shall develop in Section 104 Erosion Control Plan a dust control plan and remedial action to correct any malfunctioning measures.
- * **Equipment Washout**
The Contractor shall develop in Section 104 Erosion Control Plan an effective plan to control equipment washout and other erosive conditions from equipment cleaning processes, and remedial action to correct any malfunctioning measures.
- * **Hazardous Material Spill**
The Contractor shall develop in Section 104 Erosion Control Plan an effective plan to control in the event any hazardous materials should spill and remedial action to correct any malfunctioning measures.

If the Contractor encounters contaminated soil or groundwater, the Contractor shall contact the Orange County Health Department, and the County immediately.

REVISIONS			 ORANGE COUNTY GOVERNMENT FLORIDA	ENGINEER OF RECORD Joshua Michael Spence, PE PE No. 70707 Inwood Consulting Engineers, Inc. 3000 Dovera Drive, Suite 200 Oviedo, Florida 32765 Certificate of Authorization No. 7074	STORMWATER POLLUTION PREVENTION PLAN	SHEET NO.	
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