
IFB NO. Y19-713-RM

ISSUED: October 15, 2018

INVITATION FOR BIDS

FOR

SUMMERLAKE SUBDIVISION DRAINAGE IMPROVEMENTS AREA 2

**PART H
TECHNICAL SPECIFICATIONS**

**PART H
Volume II**

.....



CONSTRUCTION PLANS FOR SUMMERLAKE SUBDIVISION (PHASE I) DRAINAGE IMPROVEMENTS AREA 2

AUGUST 6, 2018 - 100% DESIGN REVIEW

DISTRICT NO: 1
ORANGE COUNTY, FLORIDA

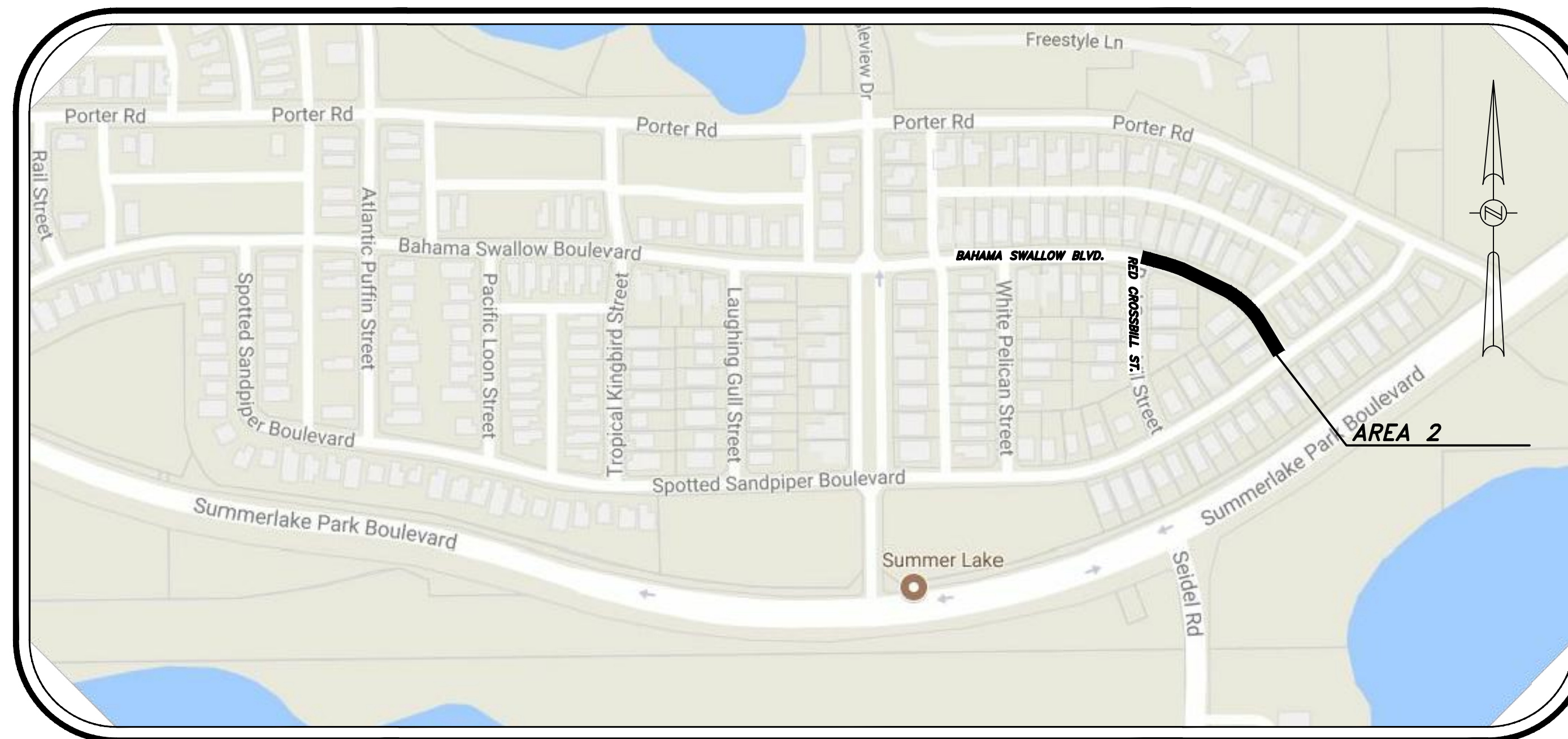
SOURCE OF BENCHMARK DATUM

HORIZONTAL AND VERTICAL DATUMS

HORIZONTAL DATUM - COORDINATES VALUES FOR THIS PROJECT ARE IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983/1990 ADJUSTMENT AND ARE BASED ON THE ORANGE COUNTY GIS SYSTEM WITH DIRECT TIES TO THE FOLLOWING PUBLISHED GEODETIC CONTROL POINTS:
GIS 114 BLOUNT SIKES ASSOC 2
GIS 146 RESET
K028
GPS 16 LAKE

VERTICAL DATUM - ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 BY TRADITIONAL LEVEL RUNS FROM THE FOLLOWING RECOVERED ORANGE COUNTY BENCHMARKS:
S1493030-3" ORANGE COUNTY ALUMINUM DISC
C998026-2" ORANGE COUNTY ALUMINUM DISC

PROJECT LENGTH:	FEET	MILES
ROADWAY:	384'±	0.073±
BRIDGES:	NONE	NONE
TOTAL PROJECT LENGTH:	384'±	0.073±



VICINITY MAP
NTS

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.

GOVERNING STANDARDS AND SPECIFICATIONS :

FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM, DATED JANUARY 2017 AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 2017 AS AMENDED BY CONTRACT DOCUMENTS.

CERTIFICATION TO PLANS

I HEREBY CERTIFY THAT THE DESIGN FOR THIS PROJECT AND THE ATTACHED CONSTRUCTION PLANS COMPLY WITH THE REQUIREMENTS OF SECTION 336.045 OF THE FLORIDA STATUTES AND ARE IN SUBSTANTIAL CONFORMANCE WITH THE STANDARDS CONTAINED IN THE EDITION OF THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" IN EFFECT ON THIS DATE AS ADOPTED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION PURSUANT TO SUBSECTION 336.045(1) OF THE FLORIDA STATUTES.

DATE: _____ ENGINEER: _____

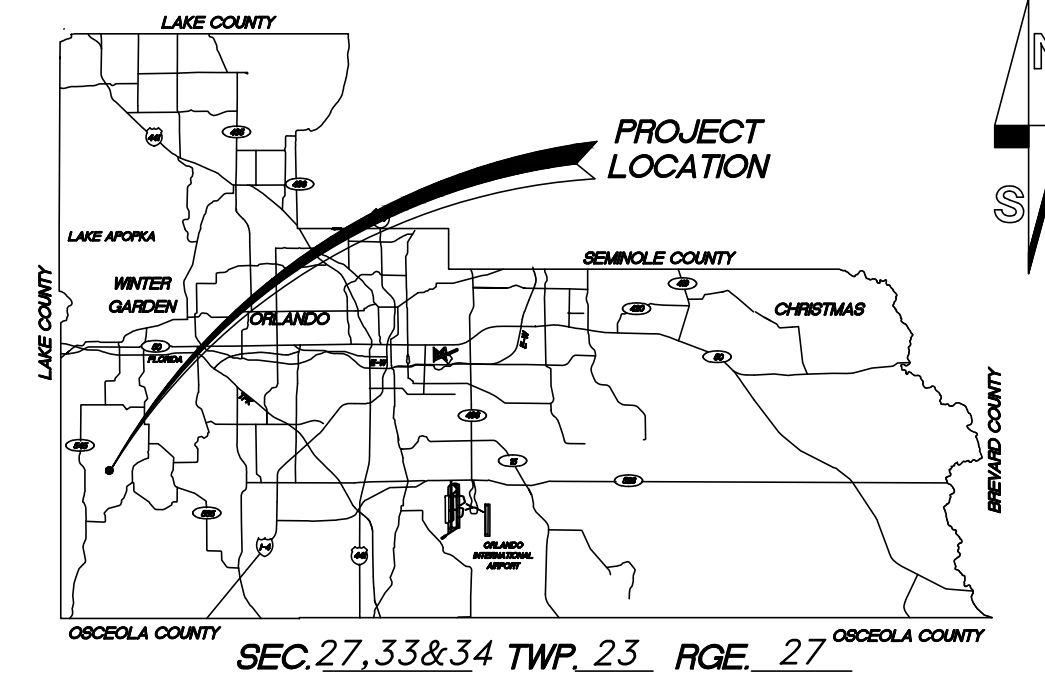
SAM J. SEBAALI, PE 42075

TERESA S. JACOBS, COUNTY MAYOR

BOARD OF COUNTY
COMMISSIONERS

BETSY VANDERLEY
ROD A. LOVE
PETE CLARKE
JENNIFER THOMPSON
EMILY BONILLA
VICTORIA P. SIPLIN

DISTRICT 1
DISTRICT 2
DISTRICT 3
DISTRICT 4
DISTRICT 5
DISTRICT 6



LOCATION MAP

INDEX OF SHEETS

SHEET	DESCRIPTION
1	COVER
2	GENERAL NOTES
3	SUMMARY OF PAY ITEMS
4	SUMMARY OF QUANTITIES
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6	SURVEY PLAN AREA 2
7	AREA 2—BAHAMA SWALLOW BLVD. PLAN & TYPICAL SECTION
8	BAHAMA SWALLOW BLVD. PLAN & PROFILE STA. 10+96 TO STA. 14+80.3
9	BAHAMA SWALLOW BLVD. CROSS SECTIONS STA. 11+00 TO STA. 13+52
10	BAHAMA SWALLOW BLVD. CROSS SECTIONS STA. 14+00 TO STA. 14+50
11	SOIL PROFILES

UTILITIES ENCOUNTERED

POWER:	DUKE ENERGY	407-629-1010
WATER:	ORANGE COUNTY PUBLIC UTILITIES	407-254-9850
SEWER:	ORANGE COUNTY PUBLIC UTILITIES	407-254-9900
GAS:	TECO ENERGY	407-420-6663
COMMUNICATION:	AT&T	407-351-8180

PREPARED BY:

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Engineering the Future

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Orlando, FL 32809
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REVISIONS

REVISIONS	DATE	BY

DESIGNED BY:	SHP	DATE:	8/6/2018
DRAWN BY :	JV	DATE:	8/6/2018
CHECKED BY:	JMA	DATE:	8/6/2018
APPROVED BY:	SJS	DATE:	8/6/2018
FEG PROJECT NO.: 12-019; TA-17-001			

SHEET 1
OF 11

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AND CONFORM TO THE MOST STRINGENT REQUIREMENT OF THE PROJECT SPECIFICATIONS, THE YEAR 2017 EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (FDOT), AND SUPPLEMENTS THERETO AND ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
2. ANY DIFFERING SITE CONDITIONS FROM THOSE WHICH ARE REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND COUNTY IN WRITING. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO DIFFERING SITE CONDITIONS WILL BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION OF SUCH CONDITIONS FOR REVIEW BY THE ENGINEER AND COUNTY.
3. ALL PERSONAL PROPERTY, EXCEPT MAIL BOXES, WITHIN THE RIGHT OF WAY, NOT RELOCATED BY THE PROPERTY OWNER, SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS. MAIL BOXES SHALL BE RELOCATED BY THE CONTRACTOR IN ACCORDANCE WITH FDOT DESIGN STANDARD 532. PAYMENT WILL BE INCLUDED IN THE PAY ITEM No. 110-1-1 (CLEARING AND GRUBBING).
4. THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVALS OF DISPOSAL SITES SHALL BE OBTAINED FROM ORANGE COUNTY PRIOR TO DISPOSAL. ALL EXCESS MATERIALS IS THE PROPERTY OF THE CONTRACTOR.
5. ALL EXISTING TREES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED AS CLEARING AND GRUBBING UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
6. SOD ALL DISTURBED AREAS UNLESS OTHERWISE SHOWN ON THE PLANS. SOD SHALL MATCH EXISTING TYPE SOD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. INSTALL TOP SOIL TREATMENT ON ALL PERMANENT GRASS AREAS. COST TO BE INCLUDED IN CONTRACT UNIT PRICE FOR SOD. SAND BASED SOD TO BE USED ALONG THE TOP OF THE UNDERDRAIN.
8. ALL OFFSETS SHOWN ARE TO PROPOSED BASELINE OF SURVEY (AREAS 1 TO 3).
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 LIST, 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 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. UTILITIES ARE TO BE ADJUSTED BY OTHERS OR AS DIRECTED BY THE ENGINEER. CONTRACTOR TO LOCATE ALL SANITARY SEWER LATERALS AND POTABLE SERVICE LINES TO EACH HOUSE WITHIN THE LIMITS OF THE WORK AREA TO ENSURE NO CONFLICT WITH THE PROPOSED UNDERDRAIN SYSTEM.
12. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS; INCLUDING BUT NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, GAS, AND CABLE TV COMPANIES. FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE, OR GAS UTILITY EASEMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION." THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING, BACK FILLING, DEMOLITION, GRADING, DITCHING, DRILLING, BORING AND CABLE PLOWING. THE EXCAVATOR MUST NOTIFY THE GAS UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).
13. MEASUREMENT OF DRAINAGE PIPE FOR PAYMENT SHALL BE DETERMINED FROM ACTUAL LENGTHS INSTALLED.
14. ALL INLET/ MANHOLE - PIPE JOINTS SHALL BE FILLED WITH NON-SHRINK GROUT, COVERED WITH AN ASPHALTIC MASTIC COATING, AND WRAPPED WITH A FILTER FABRIC MATERIAL PER SECTION 13.03.00 OF THE ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
15. DESIGN CHANGES OF PIPE INVERTS NOT EXCEEDING PLUS OR MINUS ONE FOOT WILL NOT BE CONSIDERED AS A BASIS FOR ADDITIONAL COMPENSATION FOR THE PERTINENT PIPE BID ITEM OR FOR MODIFICATION OF PRECAST STRUCTURES.
16. ALL (P.R.W'S) IRONS AND MONUMENTS SHOWN ON PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
17. ANY U.S.C. AND G.S. MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED IF IN DANGER OR DAMAGE. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, ORANGE COUNTY SURVEY SECTION AT 407-836-7940, AND BOTH SHALL NOTIFY:
STATE GEODETIC ADVISOR
SUITE 309
3900 COMMONWEALTH BOULEVARD
TALLAHASSEE, FL
1-850-245-2606

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 COUNTY SURVEYOR WITHOUT DELAY BY TELEPHONE (407-836-7940). THE CONTRACTOR SHALL PROVIDE WRITTEN FOLLOW UP CONFIRMATION WITHIN 48 HOURS OF TELEPHONE MODIFICATION.
19. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE GEOMETRIC DATA PROVIDED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL, PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IF ANY APPARENT DISCREPANCIES ARE FOUND.
20. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO ORANGE COUNTY HIGHWAY CONSTRUCTION DIVISION A SET OF FIELD NOTES VERIFYING THE BENCHMARK ELEVATIONS AND THE REFERENCE POINT TIES SHOWN ON THE TITLE SHEET, SURVEY CONTROL SHEET, AND PLAN/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 21 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY 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 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. ONCE THE NEW SIGNS HAVE BEEN 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 OR RELOCATION, MAINTENANCE, REMOVAL, AND DELIVERY SHALL BE INCLUDED IN PAY ITEM 102-1 "MAINTENANCE OF TRAFFIC".
23. ALL EXISTING DRAINAGE PIPE AND STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMAINED UNLESS OTHERWISE NOTED. ABANDONED UTILITIES WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
24. STATIONS AND OFFSETS FOR ALL STRUCTURES ARE TO THE CENTER OF THE STRUCTURE.
25. ALL EXCAVATIONS SHALL BE REQUIRED TO CONFORM WITH THE PROVISIONS OF PART IV OF CHAPTER 553.60. F.S. AND ALSO KNOWN AS "THE TRENCH SAFETY ACT" TO PROTECT EXISTING PAVEMENT, STRUCTURES, FOUNDATIONS AND CONSTRUCTION PERSONNEL, DURING CONSTRUCTION OF THE PROJECT.
26. THE CONTRACTOR SHALL PROTECT EXISTING TREES THAT ARE TO REMAIN, INCLUDING MAINTAINING MINIMUM UNDISTURBED AREAS. WHEN NECESSARY TO CUT ROOTS OVER 1-1/2" DIA. THE CUT MUST BE CLEAN. TEMPORARY COVER EXPOSED ROOTS WITH WET BURLAP TO PREVENT DRYING AND COVER WITH EARTH AS SOON AS POSSIBLE. INTERFERING BRANCHES MAY BE REMOVED AT THE DIRECTION OF A QUALIFIED TREE SURGEON. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF TREES DESIGNATED TO BE REMOVED ON THE PLANS WITH A 3" CALIPER TREE OF SIMILAR QUALITY & SPECIES. TREES DAMAGED BY CONTRACTOR BEYOND REPAIR WILL BE REPLACED WITH TREES OF SIMILAR QUALITY AND SPECIES SIZED AT THE DIRECTION OF THE COUNTY.
27. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED IN ACCORDANCE TO FDOT 2017 STANDARD INDEX Nos. 102 AND 103 PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. SILT FENCE, ROCK BAGS, TURBIDITY BARRIERS, SYNTHETIC BALES, AND OTHER EROSION AND SEDIMENT CONTROL DEVICES MUST REMAIN IN PLACE AND IN GOOD CONDITION AT ALL LOCATIONS SHOWN IN PLANS OR AS REQUIRED UNTIL THE CONTRACT IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED. MEASURES SHOWN ARE THE MINIMUM REQUIRED AND THE CONTRACTOR WILL ENSURE THAT THERE IS NO DIRECT OR INDIRECT DISCHARGE OF CONSTRUCTION MATERIALS IN TURBID WATERS, WATERWAYS OR OFFSITE AREAS.
28. CONTRACTOR TO MAINTAIN UNINTERRUPTED ACCESS TO ALL DRIVEWAYS AND SIDE STREETS AT ALL TIMES AND TO NOTIFY PROPERTY OWNERS FIVE DAYS PRIOR TO STARTING CONSTRUCTION.
29. CONTRACTOR SHALL MAINTAIN ADEQUATE SUPERVISION AND CONTROL TO ENSURE THAT STABILITY OF EXCAVATED AND CONSTRUCTED SLOPES ARE NOT ADVERSELY AFFECTED BY RAIN WATER.
30. CONTRACTOR SHALL MAINTAIN ADEQUATE SUPERVISION AND CONTROL TO ENSURE THAT EROSION IS CONTROLLED AND FLOODING OF EXCAVATION OR DAMAGE TO STRUCTURES DOES NOT OCCUR.
31. CONTRACTOR SHALL PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS.

32. THE CONTRACTOR SHALL SLOPE SIDE SLOPES TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES AND REGULATIONS HAVING JURISDICTION. THE CONTRACTOR SHALL SLOPE AND BRACE WHERE SLOPING IS NOT POSSIBLE BECAUSE OF SPACE RESTRICTIONS OR STABILITY OF MATERIAL EXCAVATED. THE CONTRACTOR SHALL MAINTAIN STABILITY OF MATERIAL EXCAVATED IN A SAFE CONDITION UNTIL COMPLETION OF BACK FILLING.
33. ALL FILL MATERIAL IN IMPROVEMENT AREAS SHALL BE COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND REQUIREMENTS AND AS SHOWN ON THESE PLANS.
34. UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER AND PRIOR TO THE PLACEMENT OF FILL, THE AREA TO BE FILLED WILL BE PROOF ROLLED UNDER THE SUPERVISION OF THE GEOTECHNICAL ENGINEER. ANY AREA SHOWING SIGNS OF PUMPING, WEAVING OR OTHER FORMS OF INSTABILITY SHALL BE SELECTIVELY REMOVED AND REPLACED WITH COMPACTED SELECT FILL.
35. ALL DISTURBED AREAS MUST BE SODDED UNLESS OTHERWISE NOTED ON THE PLANS. ALL SODDING MUST BE DONE IN ACCORDANCE WITH SECTION 570 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
36. ALL SOD ON SLOPES EXCEEDING 3:1 MUST BE PEGGED.
37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL NEWLY PLANTED GRASSES AND VEGETATION UNTIL THE WORK HAS BEEN ACCEPTED BY THE COUNTY.
38. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN STANDARDS.
39. THE CONTRACTOR SHALL ENSURE THAT PROPER SOIL DENSITIES ARE ACHIEVED FOR THE PLACEMENT OF ALL STRUCTURES OR COMPACTED EARTH. SOIL TESTING SHALL BE PROVIDED BY THE CONTRACTOR.
40. THE CONTRACTOR SHALL USE EXTREME CAUTION AND CARE TO ENSURE THAT THEIR WORK AREA IS PROTECTED AT ALL TIMES. THE CONTRACTOR SHALL SECURE THEIR WORK AREA AND MATERIALS DURING CONSTRUCTION AND AT THE END OF THE EACH WORK DAY TO PROVIDE FOR THE SAFETY OF ALL PERSONS.

NOTES:

1. CONTRACTOR SHALL PROTECT EXISTING FENCES AND WALLS USING APPROPRIATE MEASURES TO AVOID ANY DAMAGE TO THE FENCES AND WALLS DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. ANY DAMAGE TO THE EXISTING FENCES AND WALLS RESULTING FROM THE CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND THE WALL SHALL BE RESTORED TO THE EXISTING CONDITION OR BETTER. THIS WORK SHALL BE INCLUDED IN THE BASE BID AND NO ADDITIONAL ALLOWANCES WILL BE MADE.
2. WORK AREA WITHIN SILT FENCE TO BE GRADED AND SODDED AND WILL BE PAID FOR UNDER THE CONTRACT. ANY AREA(S) DISTURBED OUTSIDE OF THE SILT FENCE SHALL BE REINSTATED TO THE ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
3. ALL DISTURBED AREAS SHALL BE FINAL GRADED TO MATCH EXISTING UNDISTURBED GRADES & SHALL BE SODDED UNLESS OTHERWISE INDICATED ON THE PLANS.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



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ORANGE COUNTY PUBLIC WORKS		
PROJECT NAME	FEG PROJECT NO.	OCPW PROJECT NO.
SUMMERLAKE SUBDIVISION (PHASE 1) DRAINAGE IMPROVEMENTS	TA-17-001	Y16-900-F

GENERAL NOTES	
SCALE: NOTED	
SHEET <u>2</u> OF <u>11</u>	

SUMMARY OF PAY ITEMS

PAY ITEMS NOTES

ITEM	DESCRIPTION	UNIT	QUANTITY PLANS	TOTAL FINAL
101-1	MOBILIZATION	LS	1	
102-1	MAINTENANCE OF TRAFFIC	LS	1	
104-1	PREVENTION, CONTROL & ABATEMENT OF EROSION AND WATER POLLUTION	LS	1	
110-1-2	CLEARING AND GRUBBING (REMOVE PAVEMENT & BASE)	SY	852	
285-57-12	OPTIONAL BASE GROUP (8" CRUSHED CONCRETE)	SY	852	
334-1-10	SUPERPAVE ASPHALTIC CONCRETE (TRAFFIC B) (1.5") (S-III)	SY	852	
440-1-108	UNDERDRAIN (8") WITH CLEANOUTS	LF	1246	
440-1-70	UNDERDRAIN (CONNECTION TO INLET) (CORE DRILL)	EA	2	
520-1-10	CONCRETE CURB AND GUTTER (TYPE F)	LF	657	
520-2-4	CONCRETE DROP CURB	LF	119	
570-1-2	PERFORMANCE TURF (ST. AUGUSTINE)	SY	256	
900-1	AS-BUILT PLANS	LS	1	
900-2	INDEMNIFICATION	LS	1	
900-3-1	GROUNDWATER TREATMENT AND DISPOSAL	DAY	25	
900-4	UNDERDRAIN FILTER BED SAND	CY	553	

102-1 INCLUDES ALL ITEMS OF MAINTENANCE OF TRAFFIC INCLUDING, BUT NOT LIMITED TO, THE DESIGN OF THE MAINTENANCE OF TRAFFIC PLAN BY THE CONTRACTOR AND APPROVAL OF THE PLANS BY ORANGE COUNTY ENGINEERING DEPARTMENT. ALSO INCLUDES ALL TEMPORARY AND PERMANENT STRIPING, SIGNING, FLAGGERS, ETC. REQUIRED TO MAINTAIN TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH THE MUTCD AND THE FDOT ROADWAY AND DESIGN STANDARDS, CURRENT EDITION. ATTENTION IS DIRECTED TO THE 600 SERIES INDEX NUMBERS. A MAINTENANCE OF TRAFFIC PLAN SHALL BE SUBMITTED BY THE CONTRACTOR TO AND APPROVED BY THE COUNTY. THE MAINTENANCE OF TRAFFIC PLAN PREPARED BY THE CONTRACTOR SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.

104-1 INCLUDES THE COST OF ALL ITEMS REQUIRED FOR EROSION CONTROL INCLUDING, BUT NOT LIMITED TO, SYNTHETIC BALES, TURBIDITY BARRIERS, SILT FENCES AND TEMPORARY GRASSING AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS ITEM ALSO INCLUDES THE COST ASSOCIATED WITH TEMPORARILY DIVERSION OF STORMWATER RUNOFF AROUND THE CONSTRUCTION ZONE AS NEEDED TO PROTECT THE CONSTRUCTION AREA.

110-1-2 INCLUDES, BUT IS NOT LIMITED TO REMOVAL OF PAVEMENT REMOVAL OF DISTURBED BASE COURSE AND REMOVAL AND DISPOSAL OF EXCAVATED SOILS.

285-57-12 INCLUDES THE COST OF THE TENSAR BX 1200 OR EQUIVALENT.

440-1-108 INCLUDES THE COST OF PERFORATED PIPE WITH FILTER SOCK AND CLEANOUTS.

570-1-2 INCLUDES THE COST OF SOD (ST. AUGUSTINE), PEGGING THE SOD, FERTILIZER AND WATER AS REQUIRED FOR ESTABLISHMENT OF PERMANENT SODDING, ALSO INCLUDES THE COST OF MOWING UNTIL FINAL PROJECT ACCEPTANCE BY THE COUNTY.

900-3 INCLUDES THE COST OF OBTAINING A DEWATERING PERMIT AND DEWATERING OPERATION ESPECIALLY WHERE STORM SEWER AND STRUCTURES ARE TO BE INSTALLED.

900-4 INCLUDES THE COST OF FILTER SAND WITH MIRAFI WRAP, CLEAN FINE SAND BACKFILL.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



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ORANGE COUNTY PUBLIC WORKS

PROJECT NAME	FEG PROJECT NO.	OCPW PROJECT NO.
SUMMERLAKE SUBDIVISION (PHASE I) DRAINAGE IMPROVEMENTS	TA-17-001	Y16-900-F

SUMMARY OF PAY ITEMS

SCALE:
N.T.S.

SHEET
3 OF 11

SUMMARY OF UNDERDRAIN - AREA 2								
LOCATION STA TO STA	SIDE	6" UNDERDRAIN (LF)		8" UNDERDRAIN (LF)				REMARKS
		P	F	P	F	P	F	
BAHAMA SWALLOW								
10+98.2 - 14+82.7	R			388				INCLUDES CLEANOUTS
10+98.4 - 14+81.9	L			394				INCLUDES CLEANOUTS
11+27.8 - 14+73	Center			347				INCLUDES CLEANOUTS
10+98.4	R & L			12				INCLUDES CLEANOUTS
11+27.8	R & L			12				INCLUDES CLEANOUTS
12+05.3	R & L			12				INCLUDES CLEANOUTS
12+44.8	R & L			9				INCLUDES CLEANOUTS
12+84.7	R & L			12				INCLUDES CLEANOUTS
13+24.3	R & L			12				INCLUDES CLEANOUTS
13+62.8	R & L			12				INCLUDES CLEANOUTS
14+02.3	R & L			12				INCLUDES CLEANOUTS
14+42.4	R & L			12				INCLUDES CLEANOUTS
14+73	R & L			12				INCLUDES CLEANOUTS
TOTAL			0	1,246				

SUMMARY OF CURBING - AREA 2								
LOCATION STA TO STA	SIDE	TYPE D (LF)		TYPE F (LF)		DROP CURB (LF)		REMARKS
		P	F	P	F	P	F	
10+96 TO 13+50.44	LT			261.5				
13+97 TO 14+80.25	LT			83				
13+50.44 TO 13+97	LT					51		
13+58 TO 13+82.50	RT					24		
14+12 TO 14+34	RT					22		
14+46 TO 14+68	RT					22		
10+96 TO 13+58	RT			258				
13+82.50 TO 14+12	RT			30				
14+34 TO 14+46	RT			12				
14+68 TO 14+80.25	RT			12				
TOTAL				657		119		

SUMMARY OF SOD - AREA 2				
LOCATION STA TO STA	SIDE	AREA (SY)		REMARKS
		P	F	
11+00 TO 14+84	LT	128		
11+00 TO 14+84	RT	128		
TOTAL		256		

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



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ORANGE COUNTY PUBLIC WORKS		
PROJECT NAME	FEG PROJECT NO.	OCPW PROJECT NO.
SUMMERLAKE SUBDIVISION (PHASE I) DRAINAGE IMPROVEMENTS	TA-17-001	Y16-900-F

SUMMARY OF QUANTITIES	
SCALE: N.T.S.	SHEET 4 OF 11

SITE DEMOLITION AND STORMWATER POLLUTION PREVENTION NOTES

EROSION CONTROL SITE DESCRIPTION NOTES:

1. THE PROPOSED CONSTRUCTION ACTIVITY WILL ENTAIL DRAINAGE IMPROVEMENTS AND ROADWAY RE-CONSTRUCTION FOR A 0.22± ACRE PORTION OF BAHAMA SWALLOW BOULEVARD. THE TOTAL DRAINAGE AREA IS 0.60 ACRE.
2. THE SEQUENCE OF SOILS DISTURBANCE ACTIVITY IS AS FOLLOWS:
 - A. INSTALL SILT FENCE AS SHOWN ON THE PLANS & PROVIDE TREE PROTECTION ON SITE, IF APPLICABLE.
 - B. CLEAR & GRUB THE AREA TO BE DISTURBED.
 - C. PLACE FILL ON-SITE TO BRING THE SITE UP TO THE PROPOSED GRADES.
 - D. BEGIN COMPACTION / STABILIZATION PROCESS.
3. THE TOTAL PROJECT SITE AREA IS APROXIMATELY 0.22 ACRE & THE AREA TO BE DISTURBED IS 0.22± ACRE.
4. THE EXISTING SOILS ARE: TAVARES-MILLHOPPER COMPLEX, 0 TO 5 PERCENT SLOPES AND SMYRNA-SMYRNA, WET, FINE SAND 0 TO 2 PERCENT SLOPES. THE QUALITY OF THE STORMWATER DISCHARGE IS CONSISTENT W/ THE RUNOFF GENERATED BY A RESIDENTIAL SITE.
5. THE TOTAL DRAINAGE AREA FOR THE PROJECT IS APPROXIMATELY 0.60± ACRES.
6. THE LATITUDE & LONGITUDE FOR THE DISCHARGE POINTS IS LAT: 28° 26' 53.5" LONG: 81° 36' 04.7". THE RECEIVING WATER BODY IS THE EXISTING STORMWATER SYSTEM SERVING THE SUBDIVISION ALONG BAHAMA SWALLOW BLVD.
7. WASTE DISPOSAL SHALL BE IMPLEMENTED IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS. ALL TRUCKS EXITING THE SITE WILL BE HOSED, ITS LOAD COVERED & THE COVER PROPERLY SECURED. THE STORAGE, APPLICATION, GENERATION & MIGRATION OF ALL FERTILIZERS, HERBICIDES, PESTICIDES & TOXIC MATERIAL SHALL BE IN ACCORDANCE W/ LOCAL, STATE & FEDERAL REGULATIONS.
8. CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) RESPONSIBLE FOR THE WEEKLY & REQUIRED INSPECTIONS. A REPORTING SYSTEM ENTAILING THE ITEMS TO BE INSPECTED & THEIR CONDITION SHOULD BE DOCUMENTED & PLACED IN A DEDICATED FILING SYSTEM THAT WILL REMAIN ON THE PROJECT SITE, ACCESSIBLE TO THE CONSTRUCTION TEAM & TO THE F.D.E.P. INSPECTORS.
9. INSPECTIONS: CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5 INCH. A RAIN GAUGE WILL BE ON SITE TO MEASURE THE RAINFALL AMOUNT.

EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, & LOCAL CODES, ORDINANCES, & REGULATIONS GOVERNING POLLUTION OF THE ENVIRONMENT & SHALL IMPLEMENT ALL MEASURES NEEDED TO ENSURE ADEQUATE EROSION & SEDIMENT CONTROL DURING THE ENTIRE DURATION OF CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES SHALL CONFORM TO ORANGE COUNTY, SOUTH FLORIDA WATER MANAGEMENT DISTRICT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, & FLORIDA DEPARTMENT OF TRANSPORTATION REQUIREMENTS. INSTALLATION OF SILT FENCES & TURBIDITY BARRIERS SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS & STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.
2. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CONSTRUCTION. EROSION & SEDIMENT CONTROL MEASURES ARE TO BE APPLIED AS A PERIMETER DEFENSE AGAINST THE TRANSPORTATION OF SILT & SEDIMENTS OFF THE PROJECT SITE OR INTO ADJACENT WATER BODIES OR WETLANDS.
3. THE CONTRACTOR SHALL PREPARE & IMPLEMENT AN EROSION CONTROL PLAN AS PART OF THE SCOPE OF WORK COVERED BY THESE PLANS. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES IN CONTROLLING EROSION & SEDIMENT TRANSPORT DURING CONSTRUCTION. THE FLORIDA DEVELOPMENT MANUAL "A GUIDE TO SOUND LAND & WATER MANAGEMENT" MAY BE USED AS REFERENCE FOR RECOMMENDED BEST MANAGEMENT PRACTICES RELATED TO EROSION & SEDIMENT CONTROL.
4. THE CONTRACTOR SHALL SUBMIT THE EROSION CONTROL PLAN TO THE OWNER FOR APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING.
5. ALL EROSION & SEDIMENT CONTROL MEASURES WHICH ARE NECESSARY TO LIMIT THE TRANSPORT OF SILTS & SEDIMENTS TO OUTSIDE THE LIMITS OF THE WORK AREA OR TO WATER BODIES OR WETLANDS ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE BEST MANAGEMENT PRACTICES & IMPLEMENT STRUCTURAL MEASURES AS NEEDED TO PREVENT EROSION & SEDIMENT TRANSPORT FROM THE WORK AREAS. THE FOLLOWING ARE MINIMUM RECOMMENDED GUIDELINES TO BE IMPLEMENTED DURING CONSTRUCTION AS PART OF THE EROSION & SEDIMENT CONTROL PLAN:
 - A. STOCKPILING OF MATERIAL

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.
 - B. EXPOSED AREA LIMITATION & PROTECTION

THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING & GRUBBING OPERATIONS OR EXCAVATION & FILLING OPERATIONS SHALL BE LIMITED AS NEEDED TO MINIMIZE THE POTENTIAL OF OFF-SITE SEDIMENT TRANSPORT. ALL EXPOSED AREAS SHALL BE PROTECTED BY INSTALLING EFFECTIVE EROSION & SEDIMENT CONTROL MEASURES SUCH AS SILT SCREENS, SYNTHETIC BALES, TURBIDITY BARRIERS, SWALES, OR A COMBINATION OF THESE & OTHER MEASURES AS WARRANTED.

EROSION CONTROL NOTES: (CONT.)

C. INLET PROTECTION

INLETS & CATCH BASINS SHALL BE PROTECTED DURING CONSTRUCTION FROM SEDIMENT LADEN STORMWATER RUNOFF BY PROVIDING A COMBINATION OF SILT SCREENS, SYNTHETIC BALES, FILTER FABRIC COVERS OR OTHER MEASURES AS NECESSARY TO CONTROL THE TRANSPORT OF SEDIMENT.

D. TEMPORARY GRASSING

AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDDED 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 AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. SLOPES STEEPER THAN 6:1 SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES OF LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES. THE SEEDED OR SEEDED & MULCHED AREAS SHALL BE ROLLED & WATERED AS NEEDED TO ENSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. IF AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% OF GOOD GRASS COVER, THE AREAS WILL BE REWORKED & ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER. REWORKED & ADDITIONAL SEED APPLIED.

E. MAINTENANCE

EROSION & SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL INSPECT THE EROSION & CONTROL MEASURES ON A WEEKLY BASIS & 24 HOURS FOLLOWING RAINFALL EVENTS (0.5" OR GREATER) & IMMEDIATELY REPAIR ANY OBSERVED DAMAGED CONTROLS. ALL EROSION & SEDIMENT CONTROLS SHALL BE MAINTAINED AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.

6. AREAS OF SOILS DISTURBANCE IS LIMITED TO THE AREA WITHIN THE SILT FENCE LIMITS AS SHOWN ON THIS PLAN.
7. ALL PERVIOUS AREAS WILL BE SODDED, UNLESS OTHERWISE NOTED.

DEMOLITION NOTES

1. THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF EXISTING UTILITIES & OTHER FEATURES ARE SHOWN ON THE PLANS ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, & DIMENSIONS OF ALL EXISTING UTILITIES & OTHER FEATURES AFFECTING THE WORK PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROPOSED WORK.
2. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES BEFORE EXCAVATION.
3. THE CONTRACTOR SHALL, PRIOR TO INITIATION OF ANY SITE CLEARING OR OTHER CONSTRUCTION ACTIVITIES, INSTALL SILT SCREENS DOWNSTREAM OF ALL AREAS WHICH HAVE POTENTIAL OF EROSION OR SEDIMENT TRANSPORT OFFSITE OR TO WATER BODIES. THE CONTRACTOR SHALL IMPLEMENT OTHER STRUCTURAL EROSION CONTROL MEASURES IF REQUIRED TO PREVENT SEDIMENT TRANSPORT TO OFF-SITE AREAS & WATER BODIES.
4. ALL TRASH, DEBRIS, & OTHER MATERIAL REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS.
5. UNLESS OTHERWISE SPECIFIED ON THE PLANS, ANY EXCAVATED TRENCHES ARE TO BE BACKFILLED WITH CLEAN SAND COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY VALUE (AASHTO T-180).
6. ALL EXISTING CONCRETE TO BE REMOVED SHALL BE SAWCUT & REMOVED @ THE FIRST AVAILABLE GOOD JOINT & REPLACED TO MATCH EXISTING.
7. THE CONTRACTOR SHALL CONTACT THE GAS UTILITY FOR LOCATION BEFORE EXCAVATION. CHAPTER 17-153 F.S. REQUIRES THAT AN EXCAVATOR NOTIFIES ALL GAS UTILITIES AT LEAST TWO DAYS PRIOR TO EXCAVATING. ALSO CALL 1-800-432-4770 FOR SUNSHINE LOCATES. F.S. 556.101 THROUGH 111.
8. CONTRACTOR TO PROVIDE TREE PROTECTION FOR TREES TO REMAIN AS REQUIRED BY ORANGE COUNTY.

SOIL TRACKING PREVENTION

1. ALL MATERIALS SPILLED, DROPPED, OR TRACKED ONTO PUBLIC ROADS SHALL BE REMOVED DAILY, OR MORE FREQUENTLY IF SO DIRECTED BY THE ENGINEER &/OR ORANGE COUNTY.

EROSION CONTROLS FOR NON STORMWATER DISCHARGES:

A) WASTE DISPOSAL:

WASTE MATERIAL:

ALL WASTE MATERIAL WILL BE COLLECTED AND STORED IN A METAL DUMPSTER WHICH WILL BE MAINTAINED BY A LICENSED SOLID WASTE MANAGEMENT COMPANY IN ORANGE COUNTY. THE DUMPSTER WILL MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED AS OFTEN AS NECESSARY TO NOT CAUSE ON-SITE DISPOSAL OF WASTE. THE TRASH WILL BE HAULED TO AN APPROVED ORANGE COUNTY LANDFILL. NO CONSTRUCTION WASTE WILL BE BURIED ONSITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

HAZARDOUS WASTE:

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE & FEDERAL REGULATIONS. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR HAZARDOUS WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE SUPERINTENDENT CONSTRUCTION TRAILER. THE INDIVIDUAL RESPONSIBLE FOR MANAGING THIS TASK WILL BE IDENTIFIED BY THE CONTRACTOR.

SANITARY WASTE:

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY LOCAL REGULATION.

STORMWATER DIVERSION/ DEWATERING NOTES:

1. THE CONTRACTOR SHALL MAKE PROVISIONS TO PROTECT THE CONSTRUCTION AREA DURING CONSTRUCTION FROM STORMWATER RUNOFF. DIVERSION OF STORMWATER RUNOFF AROUND THE CONSTRUCTION ZONE, IF REQUIRED, SHOULD BE PROVIDED BY THE CONTRACTOR. SPECIAL CARE SHALL BE MADE TO MINIMIZE SEDIMENT TRANSPORT OR DISCHARGE OF SEDIMENT LATENT STORMWATER INTO RECEIVING WATERS.
2. ALL SILT FENCES; IF NEEDED, SHALL BE IN PLACE PRIOR TO ANY DEWATERING ACTIVITIES.
3. A TEMPORARY IMPOUNDMENT AREA, IF NEEDED, SHALL BE CONSTRUCTED PRIOR TO DEWATERING ACTIVITIES.
4. ANY DISCHARGE SHALL MEET STATE WATER QUALITY STANDARDS. CONTRACTOR SHALL USE ADDITIONAL MEASURES NECESSARY TO ENSURE WATER QUALITY STANDARDS ARE MET, SPECIFICALLY TURBIDITY.
5. TURBIDITY STANDARD: LESS THAN OR EQUAL TO 29 NTU ABOVE NATURAL BACKGROUND CONDITIONS.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



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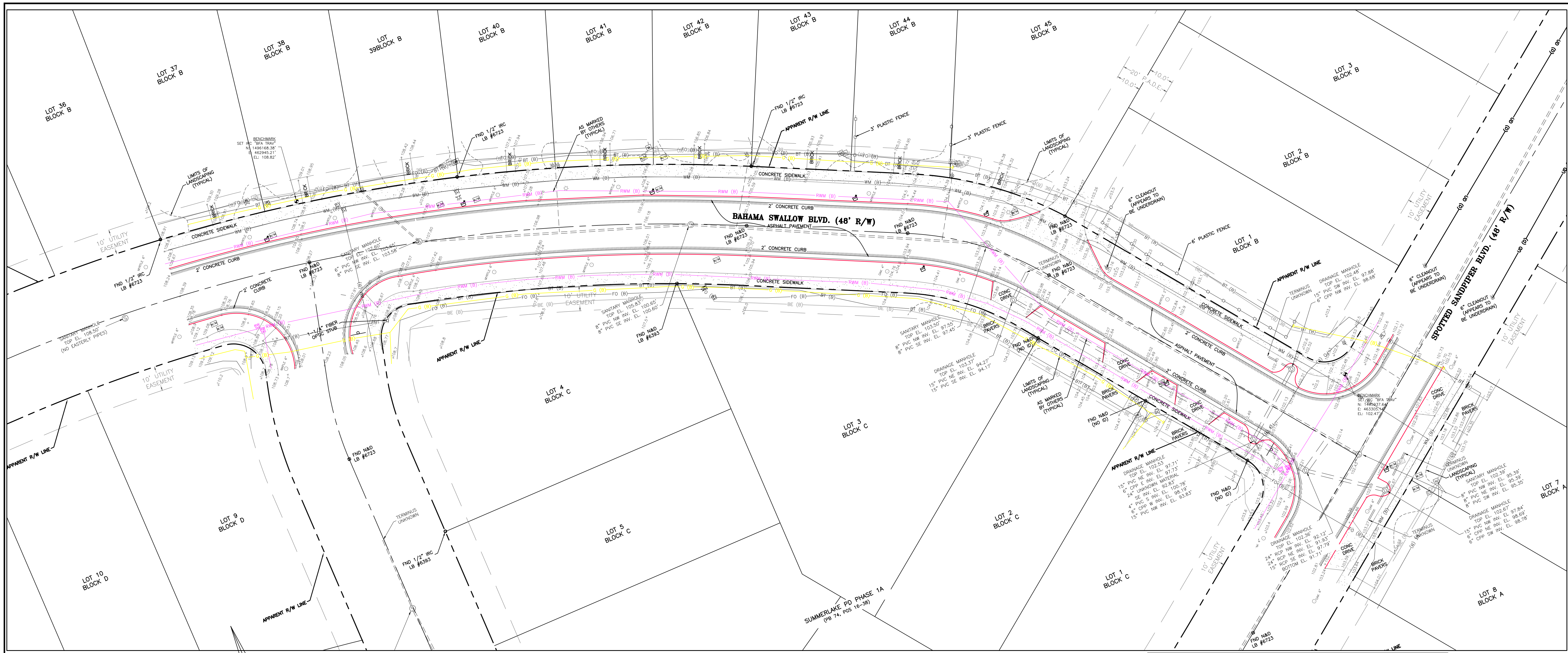
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PROJECT NAME	FEG PROJECT NO.	OCPW PROJECT NO.
SUMMERLAKE SUBDIVISION (PHASE I) DRAINAGE IMPROVEMENTS	TA-17-001	Y16-900-F

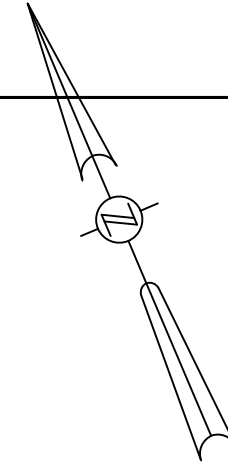
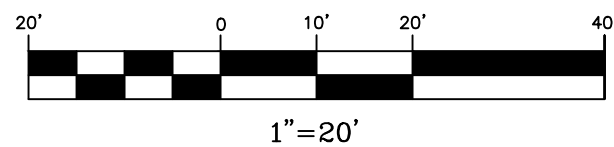
SITE DEMOLITION AND STORMWATER POLLUTION PREVENTION NOTES

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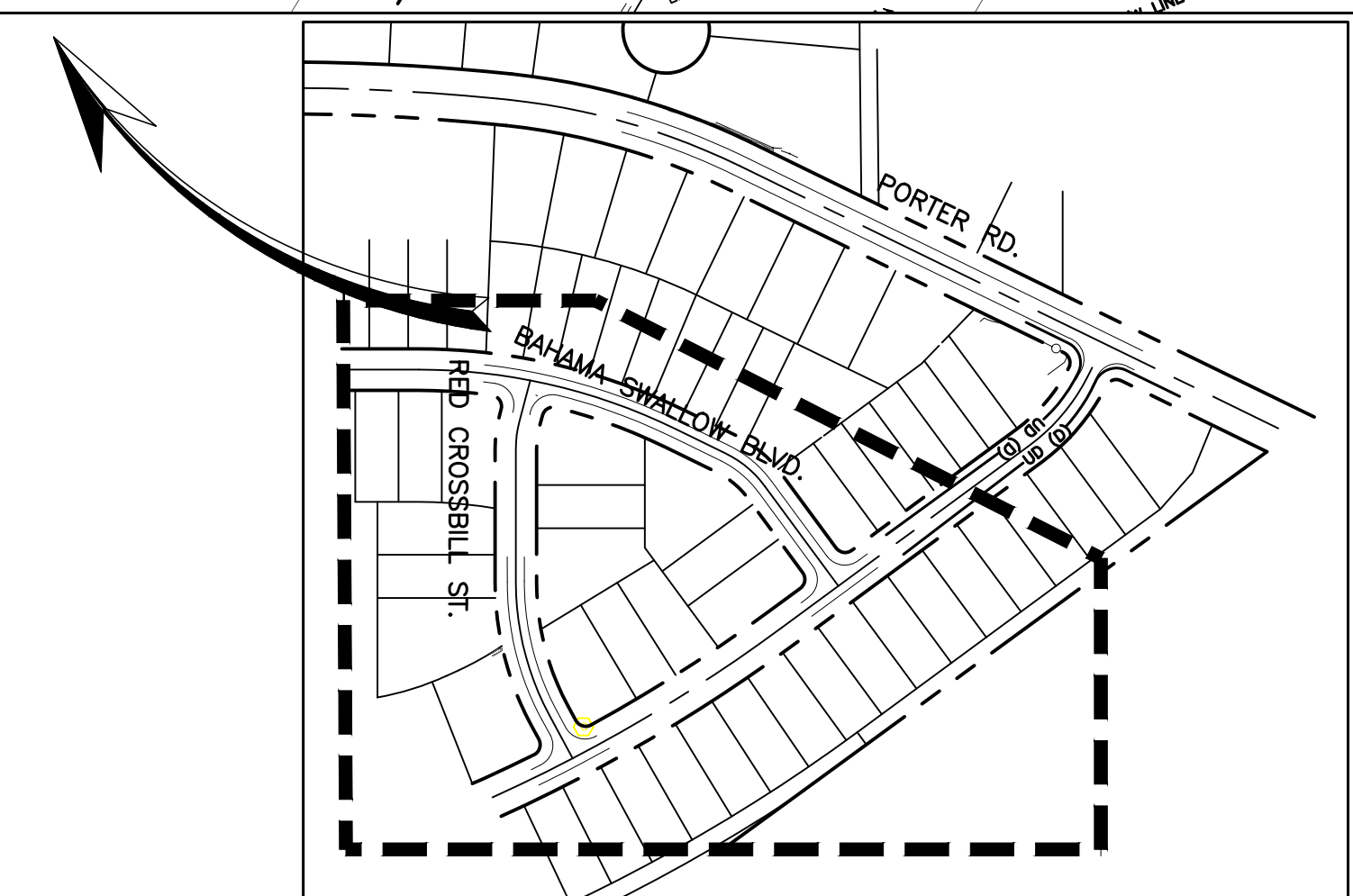
SHEET
5 OF 11



GRAPHIC SCALE



SURVEY PLAN FOR
BAHAMA SWALLOW BOULEVARD
(AREA 2)



KEY MAP
SCALE 1" = 200'

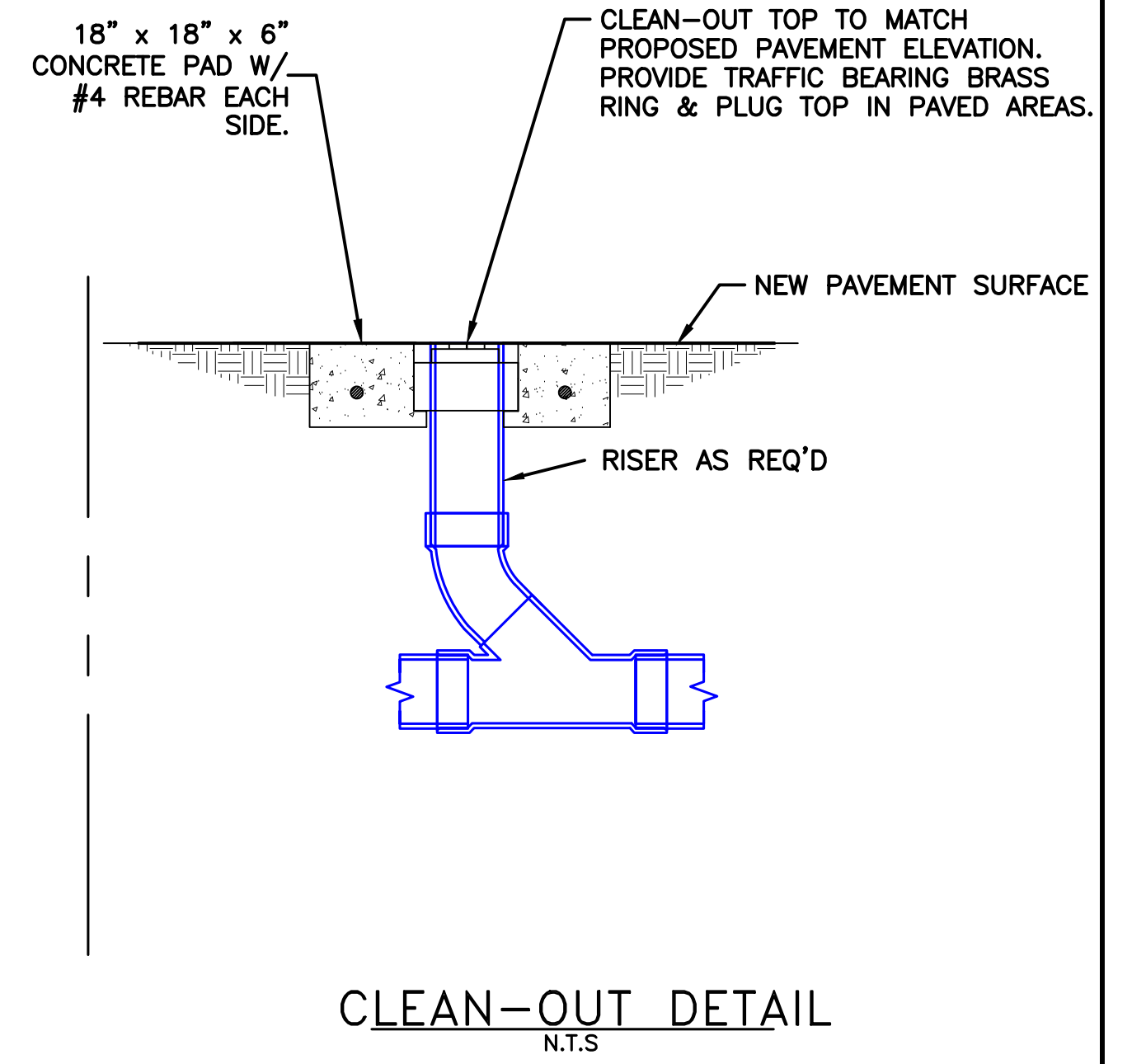
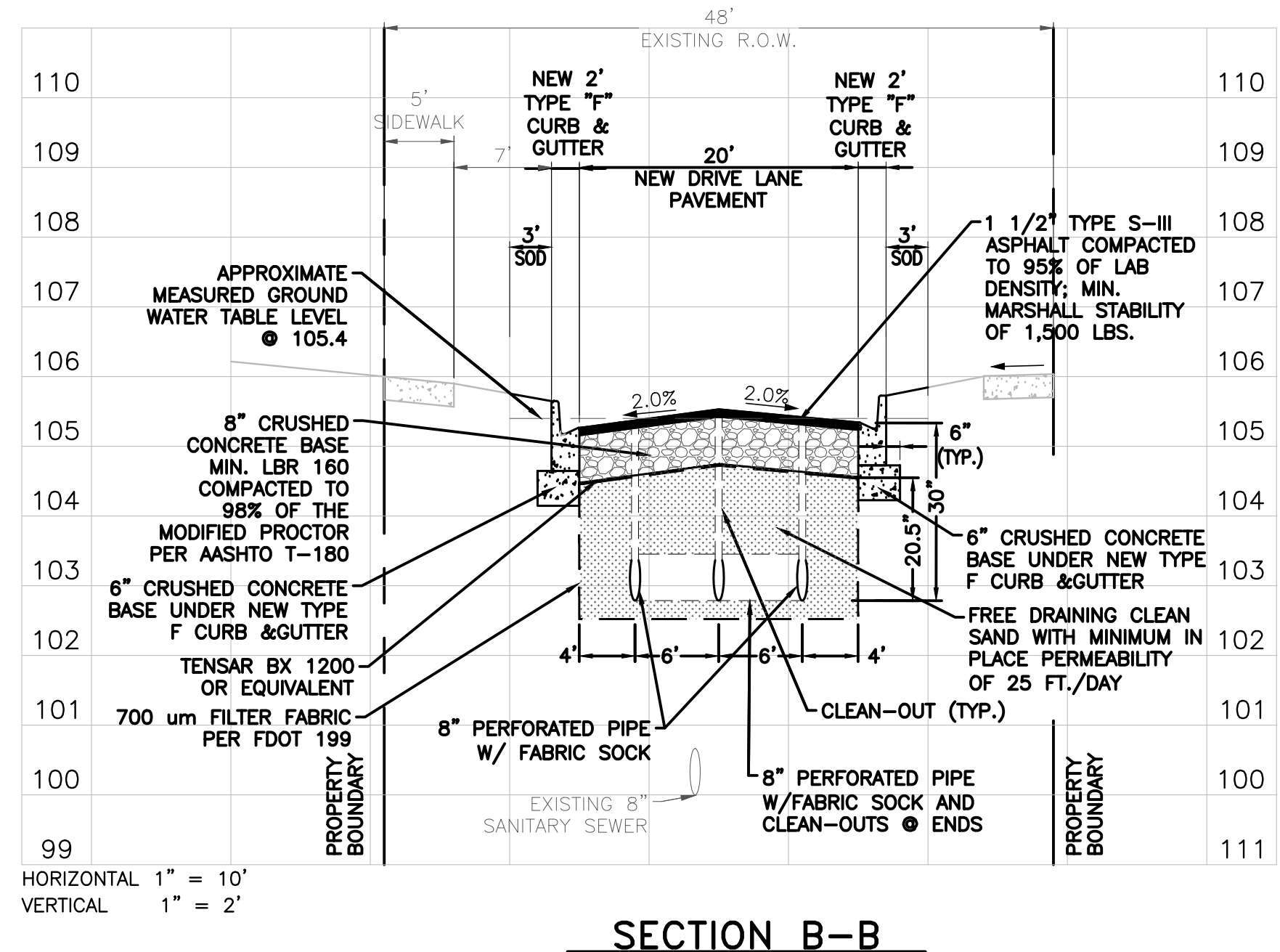
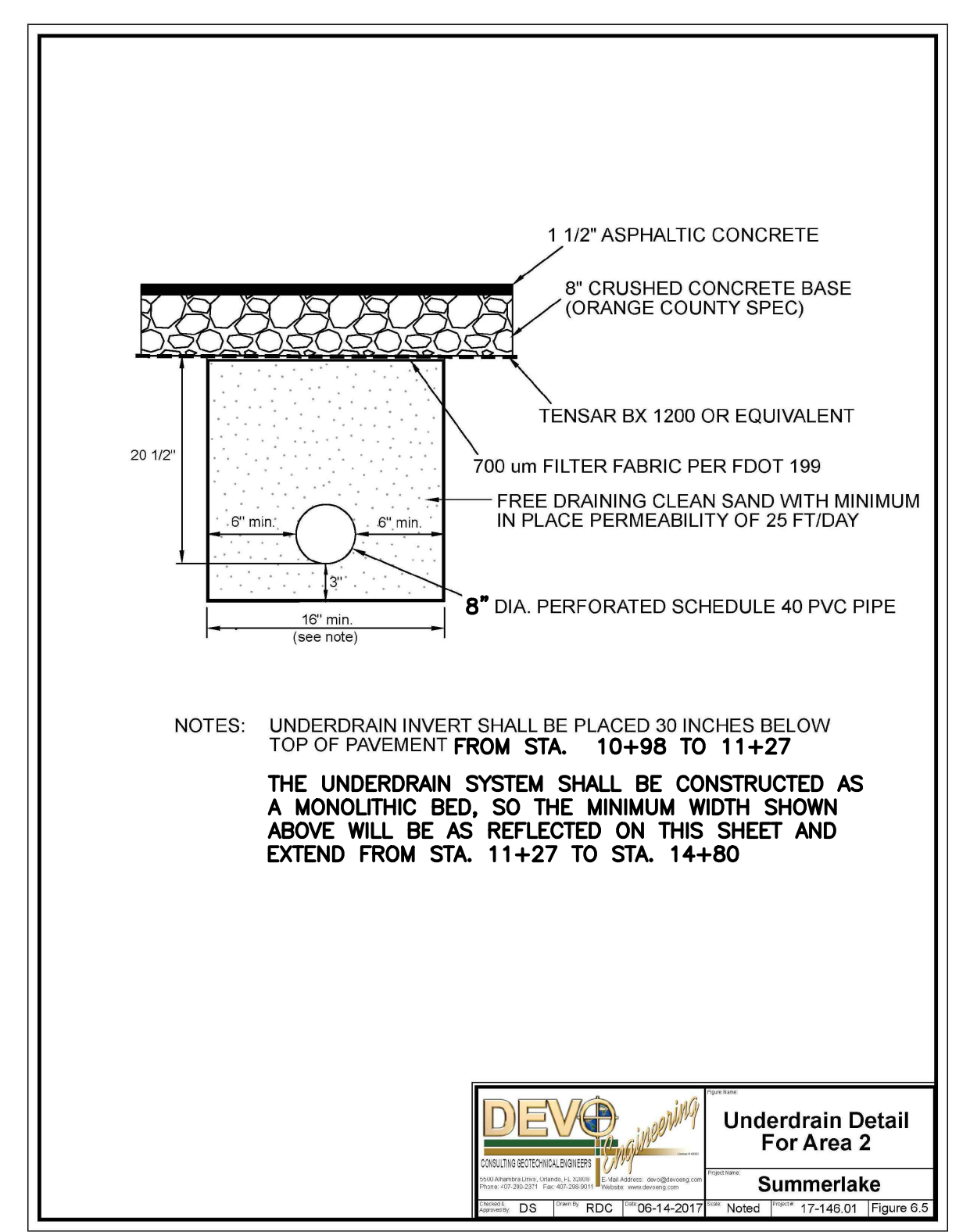
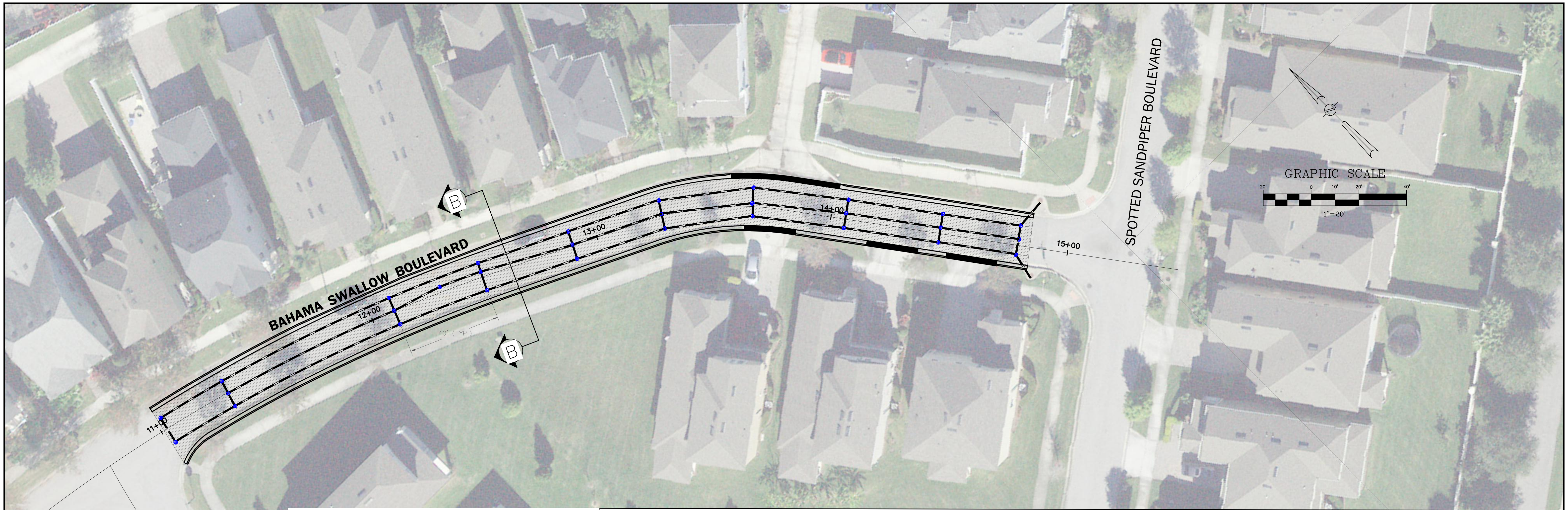
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SURVEY PLAN AREA 2 - PREPARED BY:
**BARNES, FERLAND AND
ASSOCIATES, INC.**

SCALE:
1" = 20'
SHEET
6 OF 11



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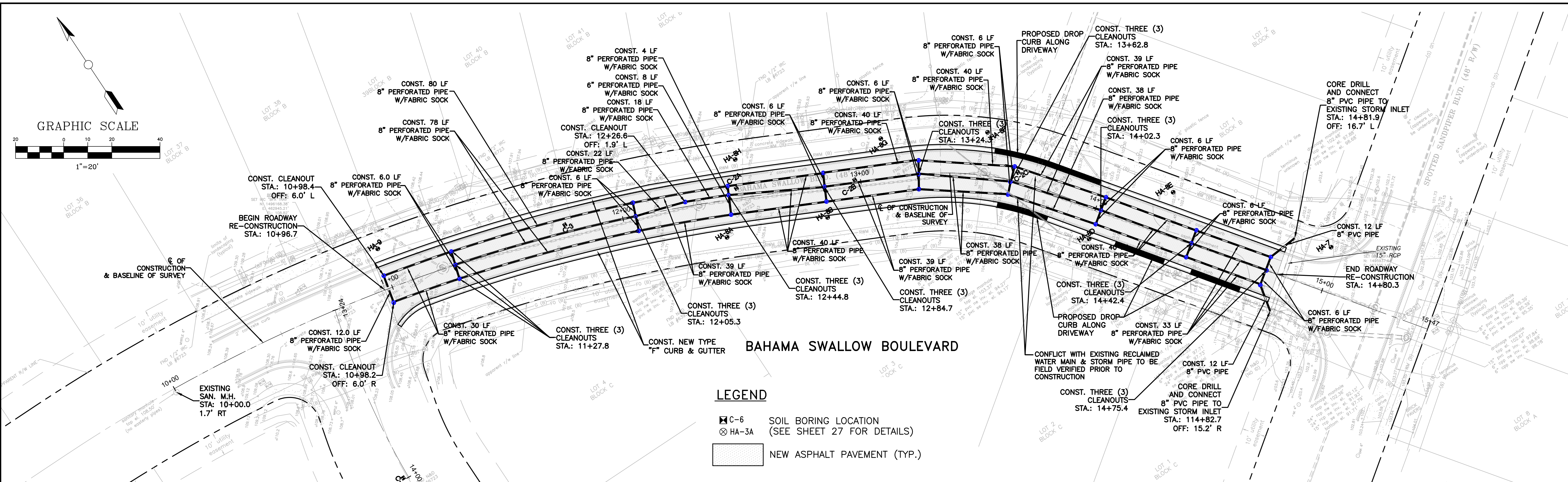


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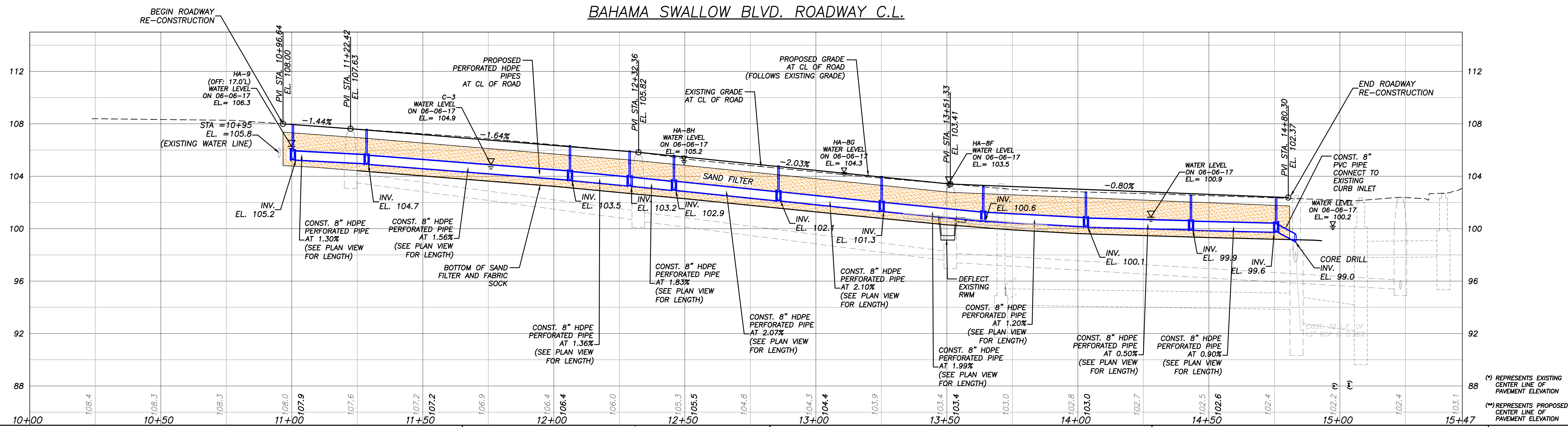
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**AREA 2- BAHAMAS SWALLOW BLVD.
PLAN & TYPICAL SECTION**

SCALE:
1" = 20'
SHEET
7 OF 11



BAHAMA SWALLOW BLVD. ROADWAY C.L.



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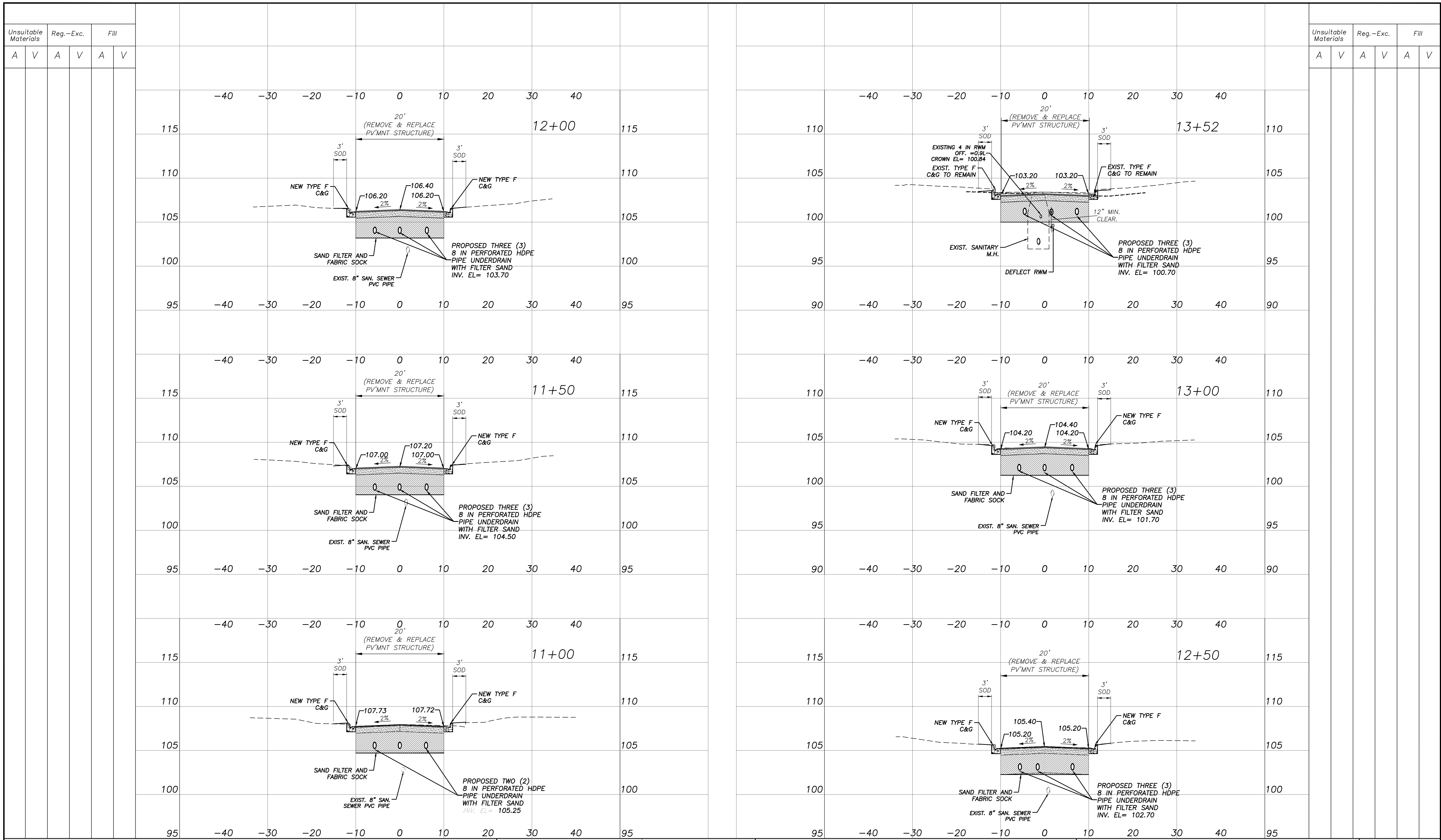
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**BAHAMA SWALLOW
 BLVD. PLAN & PROFILE
 STA 10+96 TO STA 14+80.3**

SCALE:
 1" = 20' H
 1" = 4' V

SHEET
 8 OF 11



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FEG FLORIDA ENGINEERING GROUP
Engineering the Future

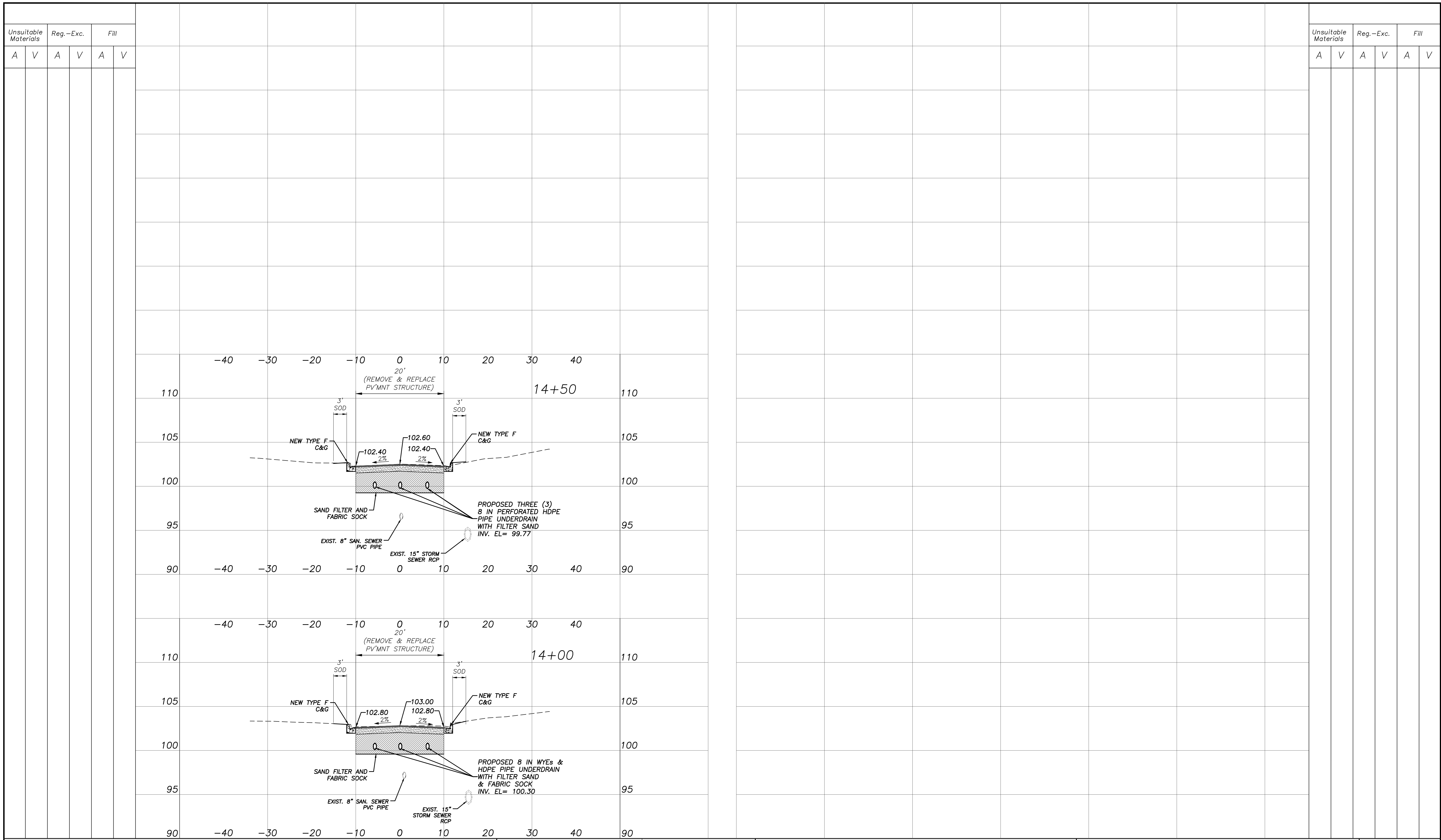
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**BAHAMA SWALLOW
BLVD. CROSS SECTIONS
STA. 11+00 TO STA. 13+52**

SCALE:
1" = 10' H
1" = 5' V

SHEET
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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

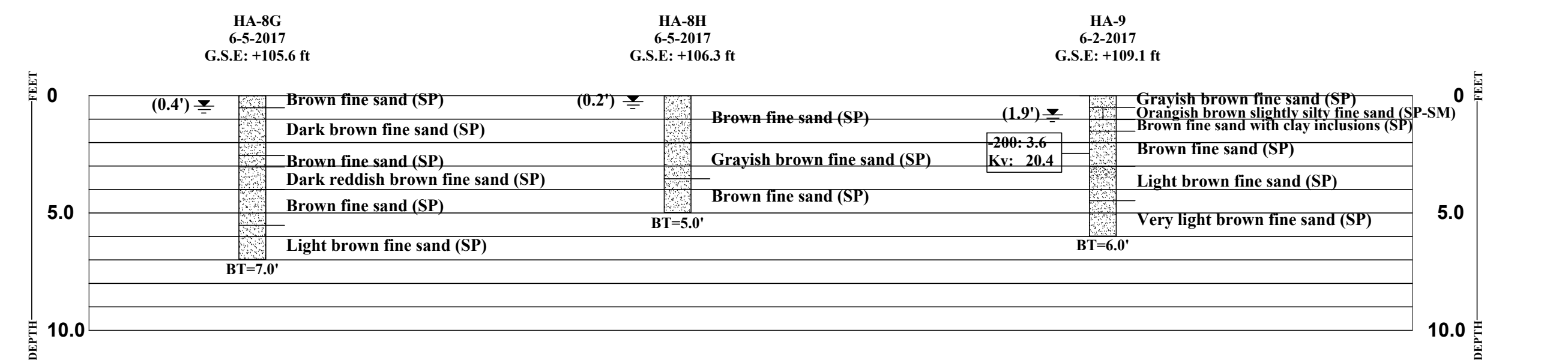
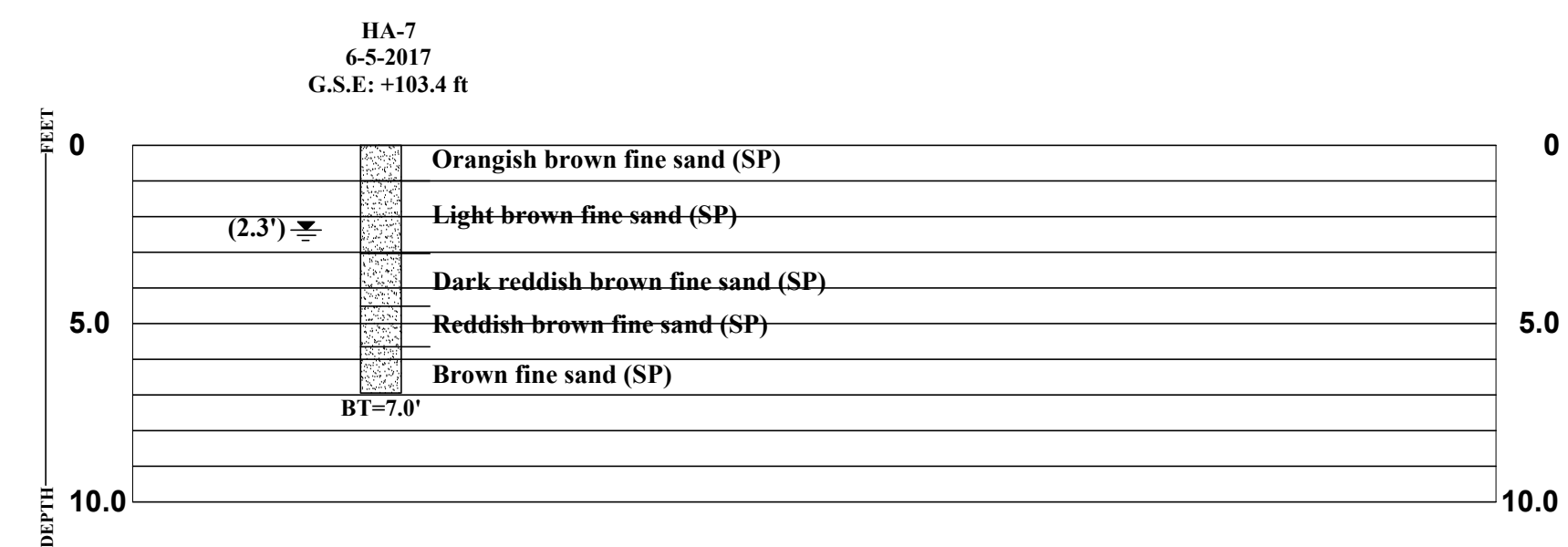
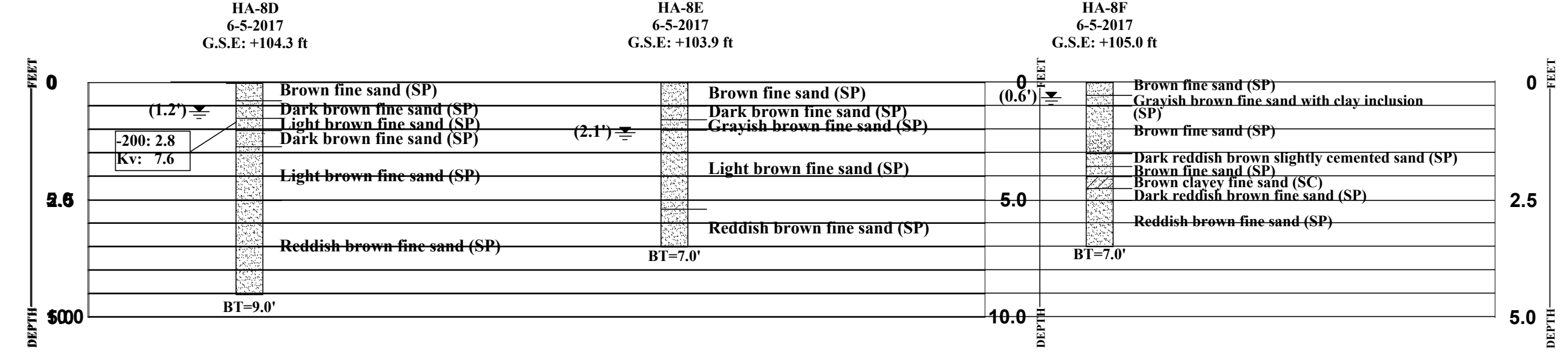
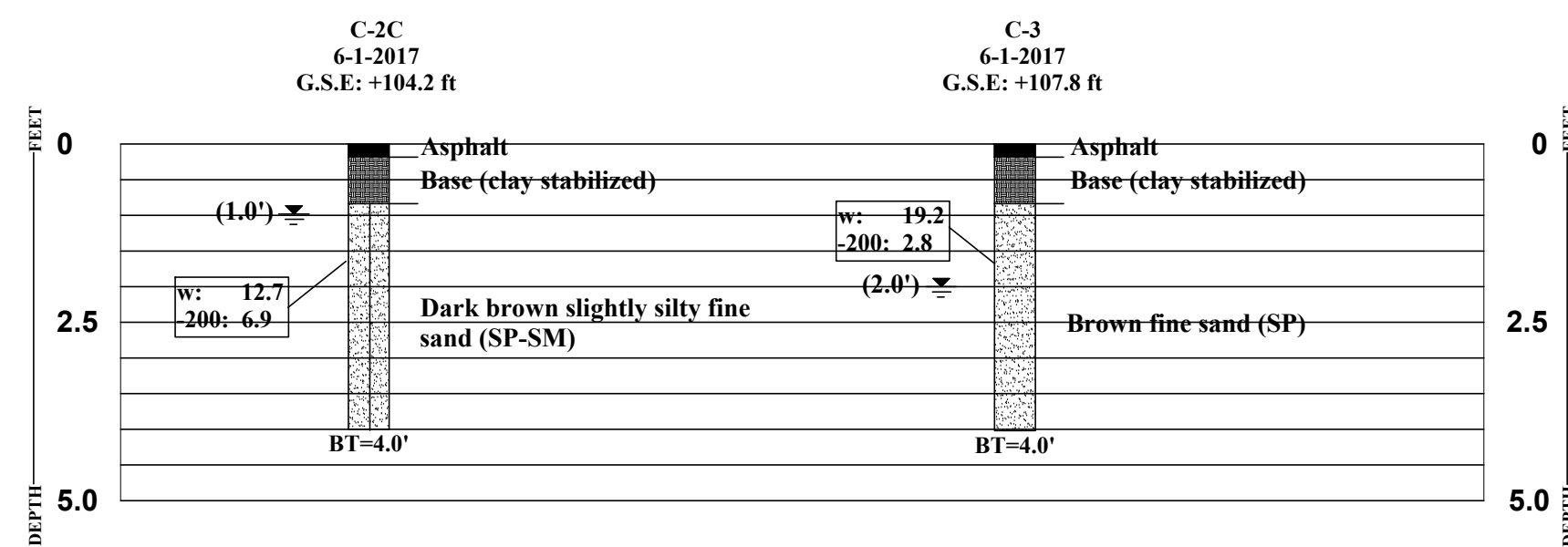
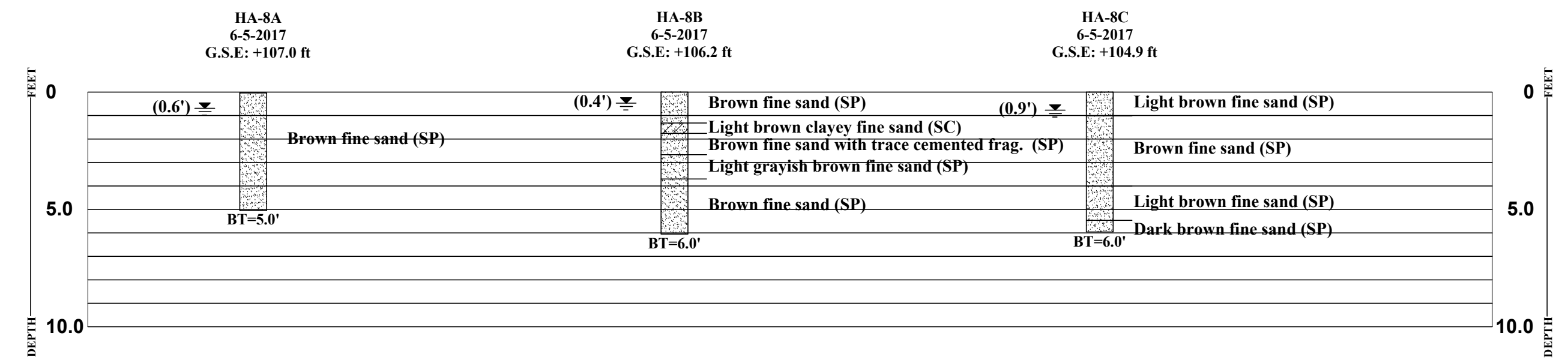
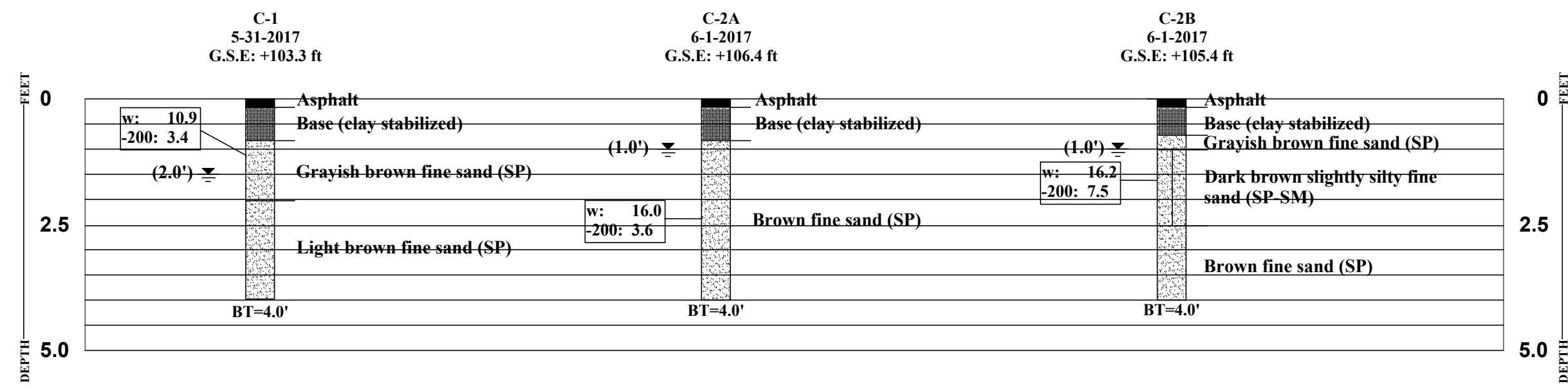


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**BAHAMA SWALLOW
 BLVD. CROSS SECTIONS
 STA. 14+00 TO STA. 14+50**

SCALE:
 1" = 10' H
 1" = 5' V
 SHEET
 10 OF 11



LEGEND
 ☒ Boring drilled date noted
 ☒ Water level measured 06/06/17
 B.T Boring termination depth in feet
 N.E. Water level not encountered on date of drilling
 w Natural moisture content %
 -200 Percent passing US #200 Sieve
 Kv Vertical hydraulic conductivity (ft/day)
 G.S.E. Surveyed ground surface elevation (ft. NGVD)



Figure Name: **SOIL PROFILES FOR BORINGS FOR BAHAMA SWALLOW BLVD.**

Project Name: **SUMMERLAKE**

Checked & Approved by: **DS** Drawn By: **KR** Date: **6-8-2017** Scale: **Noted** Proj. #: **17-146.26** Figure 4.1