

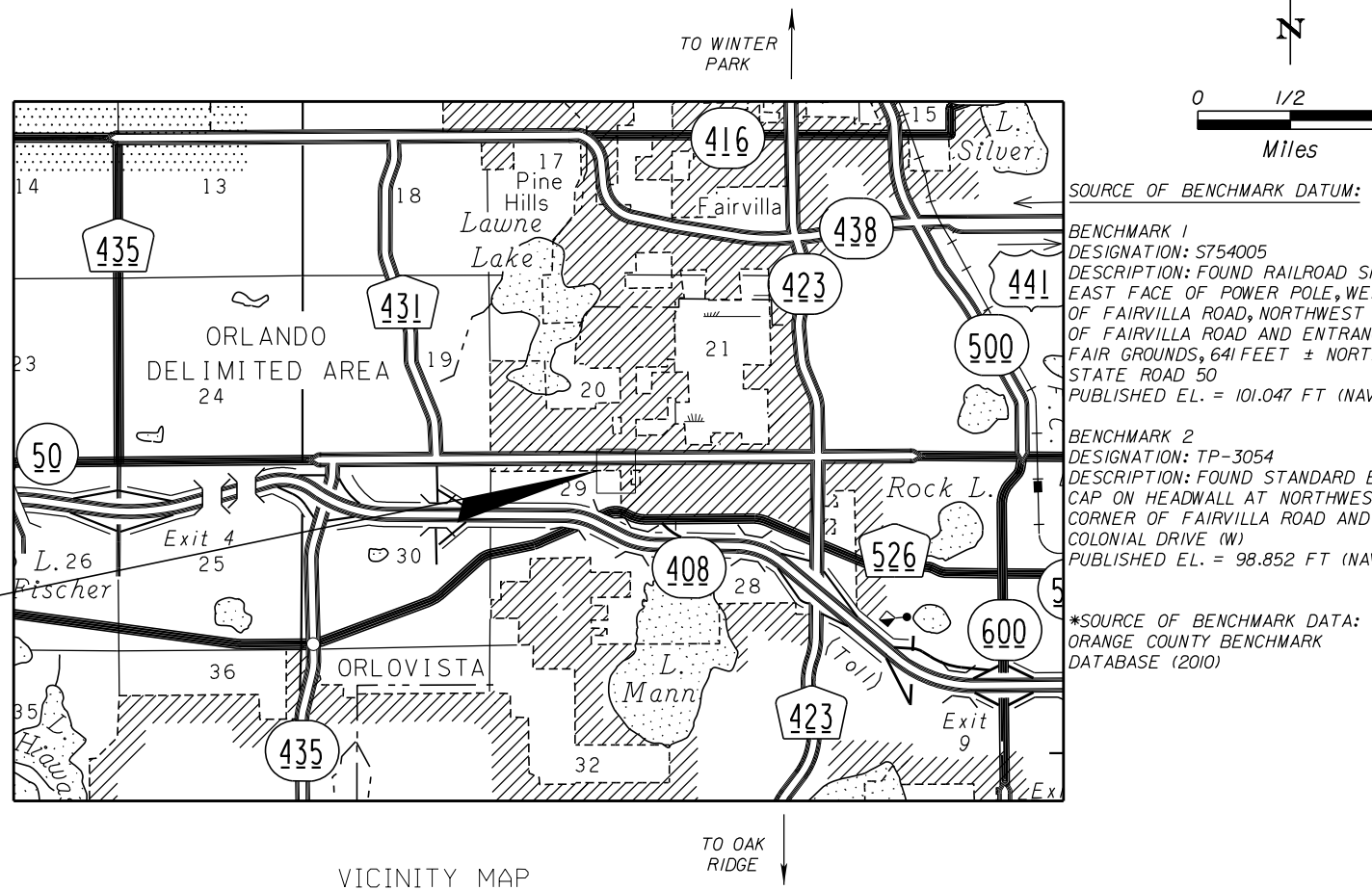
CONSTRUCTION PLANS FOR BARRY STREET DRAINAGE IMPROVEMENTS ORANGE COUNTY, FLORIDA

TERESA JACOBS, COUNTY MAYOR

BOARD OF COUNTY COMMISSIONERS

BETSY VANDERLEY DISTRICT 1
 BRYAN NELSON 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



PROJECT LOCATION

VICINITY MAP

GOVERNING STANDARDS AND SPECIFICATIONS:
 Florida Department of Transportation, FY2016-17 Design Standard and revised Index Drawings as appended herein, July 2016
 Standard Specifications for Road and Bridge Construction, and 2010 Utility Accommodation Manual, as amended by Contract Documents.

For Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) go to the following website:
<http://www.fdot.gov/rddesign/DesignStandards/Standards.shtm>

For Standard Specifications for Road and Bridge Construction go to the following website:
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

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

LENGTH OF PROJECT		
	LINEAR FT.	MILES
CANAL	-	-
BRIDGES	-	-
NET LENGTH OF PROJ.	883	0.167
EXCEPTIONS	-	-
GROSS LENGTH OF PROJ.	883	0.167

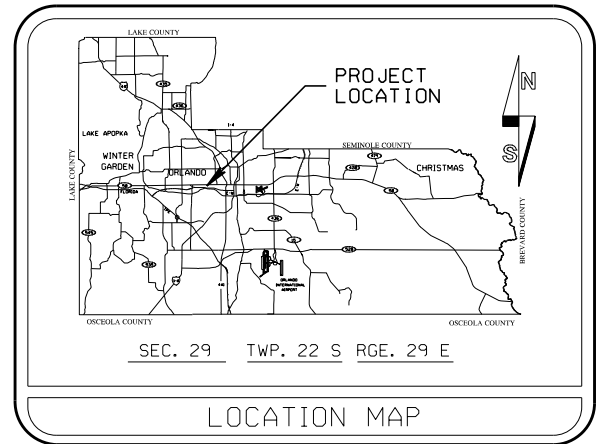
FINAL SUBMITTAL
FEBRUARY 2017

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: _____ REG. NO. 64074
 STEVEN M. SOMMERFELDT, P.E.



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UTILITIES ENCOUNTERED

AT&T	407-578-8000
AT&T - DISTRIBUTION	407-351-8180
BRIGHT HOUSE NETWORKS	407-448-5506
CITY OF ORLANDO - BUREAU OF WASTEWATER	407-246-3722
FLA. GAS TRANS.	407-638-7171
WCI	972-729-6322
ORLANDO ORANGE COUNTY EXPRESSWAY AUTHORITY	407-316-3800
ORLANDO UTILITIES COMMISSION - WATER	407-434-2558
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TECO PEOPLES GAS	407-420-2675

Steven M. Sommerfeldt Certificate of Authorization No. 7074
 FL P.E. No. 64074 3000 Dovera Drive, Suite 200 Oviedo, FL 32765

REVISIONS	DATE	BY

DESIGNED BY: TWP	DATE: 03-2016
DRAWN BY: TWP	DATE: 11-2016
CHECKED BY: CW	DATE: 02-2017
APPROVED BY: SMS	DATE: 02-2017
PROJECT NO: ORC-018-01	

SHEET 1
OF 34

SUMMARY OF PAY ITEMS

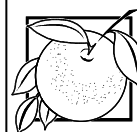
ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY TOTAL	
			PLANS	FINAL
101- 1	MOBILIZATION	LS	1	
102- 1	MAINTENANCE OF TRAFFIC	LS	1	
102- 14	TRAFFIC CONTROL OFFICER	HR	24	
102- 60	WORK ZONE SIGN	ED	620	
102- 71- 13	BARRIER WALL, TEMPORARY, F&I, CONCRETE	LF	420	
102- 74- 1	CHANNELIZING DEVICE - TYPES I, II, DI, VP, DRUM, OR LCD	ED	2,400	
102- 99	PORTABLE CHANGEABLE MESSAGE SIGN, TEMPORARY	ED	318	
104- 1	PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION	LS	1	
110- 1- 1	CLEARING AND GRUBBING	LS	1	
110- 7- 2A	MAILBOX (RELOCATE EXISTING)	EA	1	
120- 1	EXCAVATION, EMBANKMENT AND GRADING	LS	1	
160- 4	TYPE B STABILIZATION, 12" (FOR DRIVEWAYS)	SY	533	
285-701	OPTIONAL BASE, BASE GROUP 01, 4" (FOR DRIVEWAYS)	SY	533	
327- 70- 19	MILLING EXISTING ASPHALT PAVEMENT, 1" AVG DEPTH	SY	8,500	
334- 1- 13	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, SP-9.5, 1" (FOR DRIVEWAYS)	TN	29.2	
337- 7- 73	ASPHALT CONCRETE FRICTION COURSE, INC BIT/RUBBER, FC-9.5 TRAFFIC LEVEL C, PG 76-22	TN	496.8	
400- 1- 2	CONCRETE CLASS I, ENDWALLS	CY	2	
425- 1-341	INLETS, CURB, TYPE P-4, <10'	EA	1	
425- 1-441	INLETS, CURB, TYPE J-4, <10'	EA	1	
425- 1-461	INLETS, CURB, TYPE J-6, <10'	EA	1	
425- 1-541	INLETS, DT BOT, TYPE D, <10'	EA	5	
425- 1-561	INLETS, DT BOT, TYPE F, <10'	EA	1	
425- 2- 41	MANHOLES, J-7, <10'	EA	1	
425- 2- 61	MANHOLES, P-8, <10'	EA	1	
425- 2- 91	MANHOLES, J-8, <10'	EA	2	
430-175-115	PIPE CULVERT, REINFORCED CONCRETE, ROUND, 15" S/CD	LF	3	
430-175-118	PIPE CULVERT, REINFORCED CONCRETE, ROUND, 18" S/CD	LF	117	
430-175-124	PIPE CULVERT, REINFORCED CONCRETE, ROUND, 24" S/CD	LF	9	
430-175-130	PIPE CULVERT, REINFORCED CONCRETE, ROUND, 30" S/CD	LF	564	
430-185-130	PIPE CULVERT, I.D. STEEL CARRIER PIPE, ROUND, JACK & BORE, 30" S/CD	LF	136	
520- 1- 10A	CONCRETE CURB AND GUTTER, TYPE F	LF	37	
520- 1- 10B	CONCRETE CURB AND GUTTER, DROP CURB	LF	14	
520- 2- 4	CONCRETE CURB, TYPE D	LF	18	
520- 3	VALLEY GUTTER - CONCRETE	LF	80	
522- 2A	CONCRETE SIDEWALK AND DRIVEWAY, 6" THICK	SY	400	
522- 2B	CONCRETE SIDEWALK AND DRIVEWAY (FOR DRIVEWAYS), 6" THICK	SY	8	
570- 1	PERFORMANCE TURF, SOD	SY	550	
630-1-12	CONDUIT, F&I, UNDERGROUND	LF	160	
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	AS	12	
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	AS	6	
710-90-	PAINTED PAVEMENT MARKINGS - FINAL SURFACE	LS	1	
711-11-102	THERMOPLASTIC, STANDARD, WHITE, SOLID, 8"	GM	0.0838	
711-11-111	THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"	GM	0.2670	
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12"	LF	464	
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, DIAG. / CHEVRONS, 18"	LF	102	
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	311	
711-11-131	THERMOPLASTIC, STANDARD, WHITE, SKIP, 6", 10-30 SKIP	GM	0.2888	
711-11-141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE / 6-10 GAP EXTENSION, 6"	GM	0.0532	
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	7	
711-11-211	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 6"	GM	0.0802	
900- 1	AS-BUILT PLANS	LS	1	
900- 2	INDEMNIFICATION	LS	1	

PAY ITEM NOTES

- 101-1 INCLUDES ALL APPLICABLE SURVEY COSTS AND COSTS NECESSARY FOR A VIDEO SURVEY. INCLUDES ALL EFFORTS NECESSARY TO CONSTRUCT AND DISMANTLE A TEMPORARY STAGING AREA (INCLUDING CHECK DAMS) AS NEEDED TO ACCOMMODATE TYPICAL WET SEASON RAINFALL EVENTS OCCURRING DURING CONSTRUCTION. INCLUDES ALL MONITORING AND INVESTIGATION EFFORTS BY A GEOTECHNICAL ENGINEER AS NECESSARY DURING AND AFTER CONSTRUCTION DUE TO SIGNS OF GROUND SETTLING / SHIFTING. SEE GENERAL NOTES FOR ADDITIONAL ITEMS INCLUDED UNDER THIS PAY ITEM.
- 102-1 INCLUDES THE COST OF THE AS NEEDED REMOVAL OR RELOCATION OF EXISTING SIGNS AND PAVEMENT MARKINGS WHICH CONFLICT WITH THE TRAFFIC CONTROL PLAN DURING A PHASE OF CONSTRUCTION, PRIOR TO COMMENCEMENT OF THAT PHASE.
- 104- 1 INCLUDES THE COST OF ALL ITEMS REQUIRED FOR EROSION CONTROL INCLUDING, BUT NOT LIMITED TO, SYNTHETIC BALES, INLET PROTECTION, SILT FENCE, AND TEMPORARY GRASSING, AS SHOWN IN THE PLANS OR AS DIRECTED BY THE COUNTY.
- 110-1-1 INCLUDES, BUT IS NOT LIMITED TO, THE SAWCUT, REMOVAL AND DISPOSAL OF EXISTING PAVEMENT, DRIVEWAY ASPHALT/CONCRETE, CURB AND BASE REQUIRED TO CONSTRUCT THE PROJECT. INCLUDES THE REMOVAL OF EXISTING MANHOLES, CULVERT PIPES, CURB INLETS, DITCH BOTTOM INLETS, ENDWALLS, ETC. AS CALLED OUT IN THE PLANS. INCLUDES THE TRANSPORT AND DISPOSAL OF ALL REMOVED MATERIALS TO AN APPROVED ORANGE COUNTY DISPOSAL SITE YARD OR AS DIRECTED BY THE COUNTY. INCLUDES THE COST OF TEMPORARY FENCING FOR SECURING THE WORK ZONE AND PREVENTING PEDESTRIAN TRAFFIC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPLACE IN-KIND OR BETTER ANY DAMAGED FENCING IDENTIFIED TO REMAIN, DAMAGED MAILBOXES OR ANY OTHER PRIVATE PROPERTY DISTURBED DURING CONSTRUCTION. INCLUDES THE RELOCATION OF PERSONAL PROPERTY BY THE CONTRACTOR. COORDINATION EFFORTS WITH THE PROPERTY OWNER FOR THE RELOCATION OF PRIVATE PROPERTY SHALL ALSO BE INCLUDED. INCLUDES THE COST OF RESIDENT NOTIFICATION PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL NOTIFY ALL RESIDENTS WITHIN THE WORK AREA AS TO WHEN THE WORK WILL TAKE PLACE AND EXPLAIN THE LEVEL OF INCONVENIENCE THAT WILL BE INVOLVED. THIS NOTIFICATION SHALL TAKE PLACE FIVE (5) DAYS PRIOR TO COMMENCEMENT OF ANY WORK IN THAT AREA. THE NOTIFICATION WILL BE BY AN APPROVED DOOR HANGER TO BE PLACED ON EACH HOUSE AND ANY VEHICLES PARKED ON THE ROADWAYS.
- 110-7-2A INCLUDES COST OF ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED FOR RELOCATING MAILBOX.
- 120-1 INCLUDES THE COST OF ALL WORK REQUIRED FOR DITCH EXCAVATION, EMBANKMENT FILL, AND ASSOCIATED GRADING.
- 430-175-115 PAYMENT INCLUDES THE COST OF CONCRETE JACKET.
- 430-185-130 INCLUDES THE COST OF ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED FOR JACK & BORE INSTALLATION OF STEEL CARRIER PIPE. REFER TO FDOT STANDARD SPECIFICATIONS SECTION 556 FOR DETAILS.
- 520-1-10A, 520-1-10B & 520-2-4 INCLUDES THE COST OF ALL MATERIALS, LABOR, AND EQUIPMENT REQUIRED FOR CONSTRUCTION OF CURB AND GUTTER. INCLUDES COST OF CURB TRANSITION FROM TYPE F CURB (AT INLET EDGES) TO EXISTING CURB, TRANSITIONS BETWEEN TYPE F CURB AND GUTTER TO DROP CURB, TRANSITIONS FOR TYPE D CURB, AND TRANSITIONS AT SIDEWALK RAMPS.
- 522-2A INCLUDES DETECTABLE WARNING SYSTEMS FOR ALL SIDEWALK CURB RAMPS. DETECTABLE WARNING SYSTEMS SHALL MEET ALL CURRENT ADA STANDARDS. USE ONLY PRODUCTS FROM THE FDOT APPROVED PRODUCTS LIST.
- 570-1 INCLUDES THE COST OF PEGGING, FERTILIZER AND WATER AS REQUIRED FOR ESTABLISHMENT OF PERMANENT SODDING. SOD PLACED ON ALL SLOPES 1:3 OR STEEPER SHALL BE PEGGED. ALSO INCLUDES THE COST OF TOPSOIL TREATMENT ON ALL PERMANENT GRASS AREAS AND MOWING UNTIL THE FINAL PROJECT ACCEPTANCE BY THE COUNTY.
- 710-90 INCLUDES THE COST FOR RETROREFLECTIVE PAVEMENT MARKERS. ONE APPLICATION OF RETROREFLECTIVE PAVEMENT MARKERS REQUIRES 115 UNITS. SEE SECTION 710 OF THE FDOT STANDARD SPECIFICATIONS FOR THE NUMBER OF APPLICATIONS REQUIRED.

REVISIONS		
DATE	BY	DESCRIPTION

BARRY STREET DRAINAGE IMPROVEMENTS



**ORANGE COUNTY
GOVERNMENT
FLORIDA**



Steven M. Sommerfeldt, PE 3000 Dovera Drive, Suite 200
PE No. 64074 Oviedo, Florida 32765
Certificate of Authorization No. 7074 p 407.971.8850

SUMMARY OF PAY ITEMS

SHEET
NO.

2

SUMMARY OF PERFORMANCE TURF (SOD)

DESCRIPTION	SY	
	P	F
PERFORMANCE TURF (SOD)	550	

SUMMARY OF EARTHWORK*

DESCRIPTION	CY	
	P	F
EXCAVATION	110	
EMBANKMENT +35%	42	

SUMMARY OF MAILBOXES (RELOCATION)

LOCATION (STA.)	SIDE	REMARKS	QUANTITY	
			P	F
38+37.00	LT	FAIRVILLA ROAD	1	

SUMMARY OF CURB & GUTTER

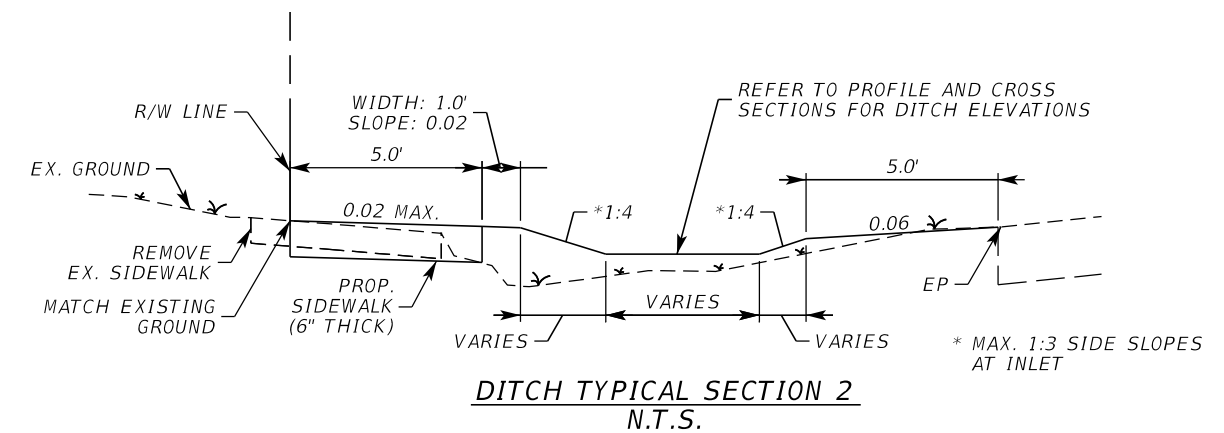
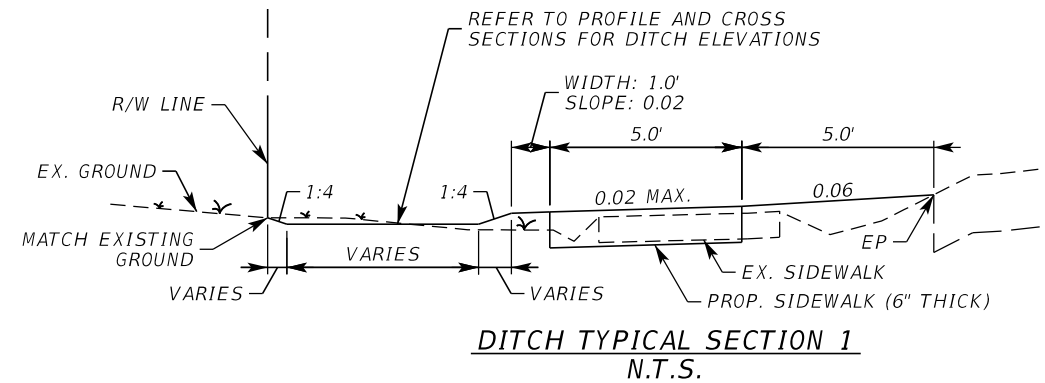
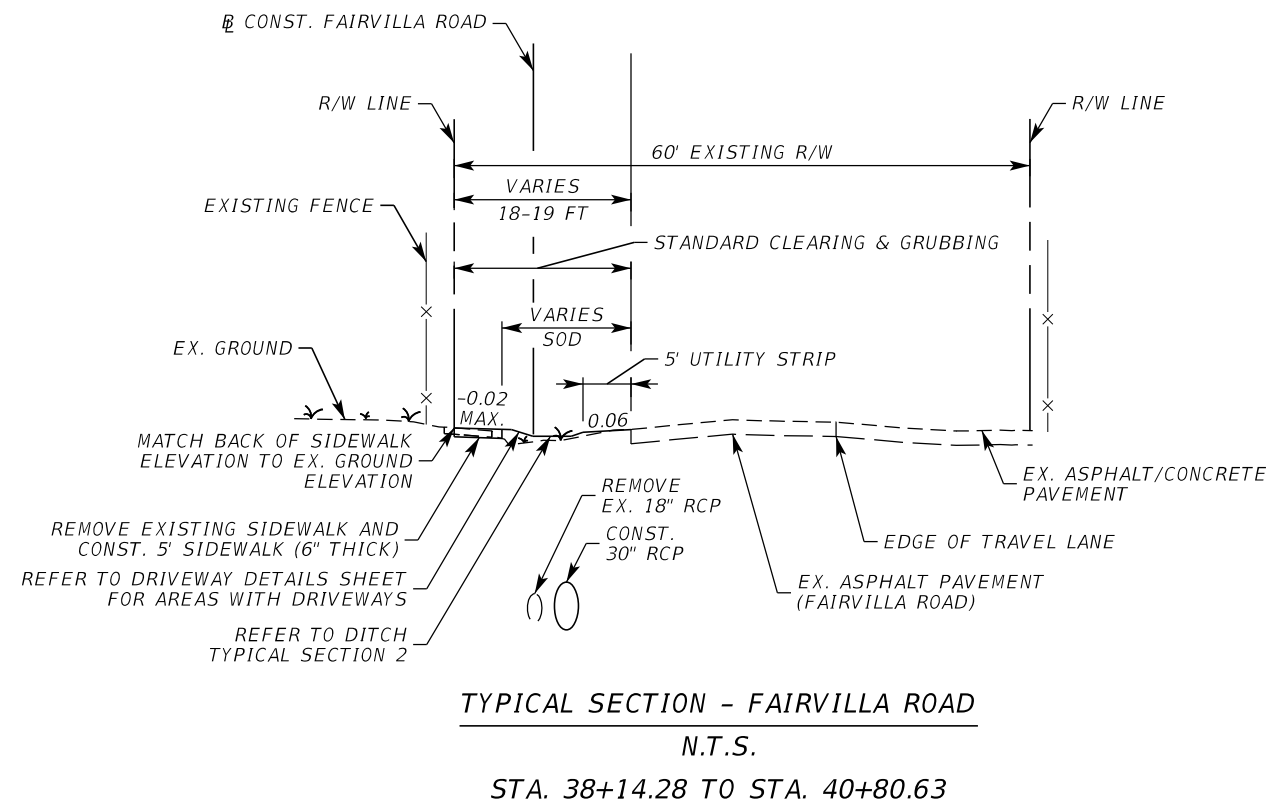
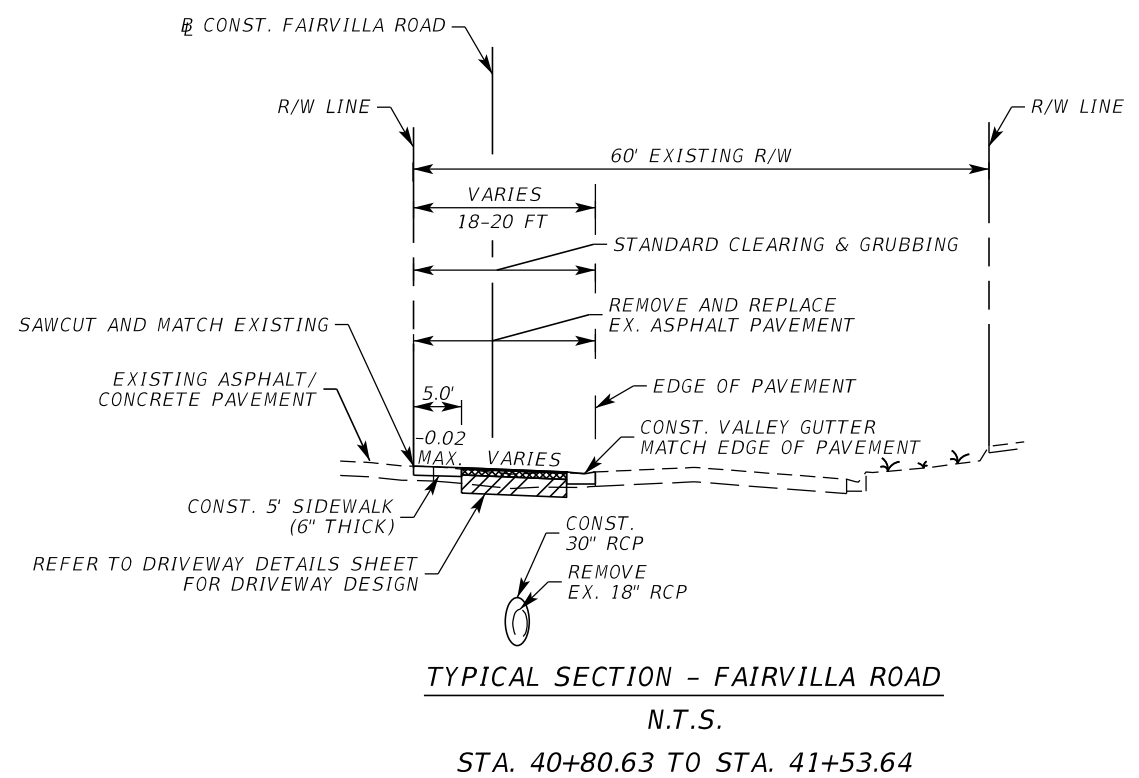
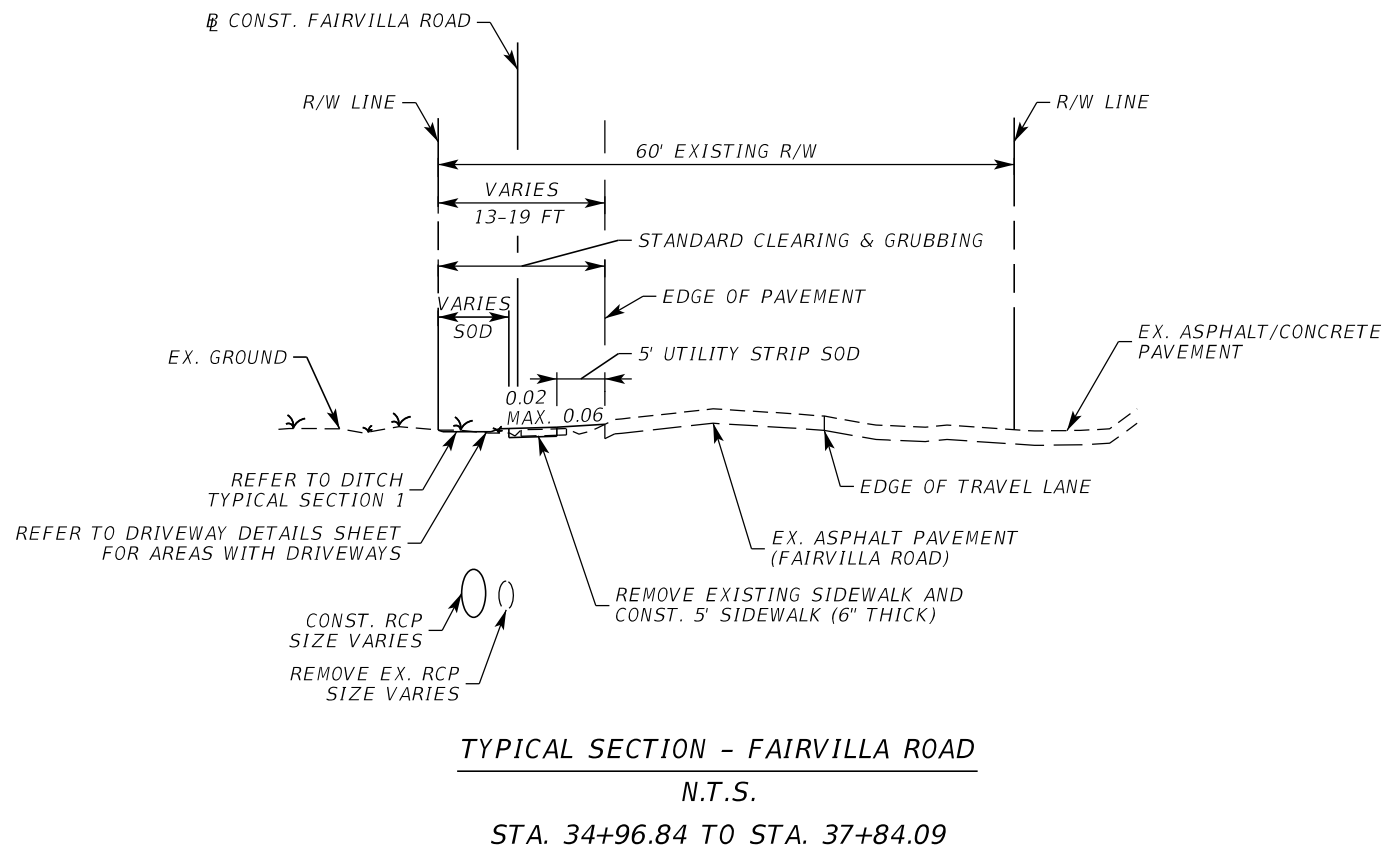
LOCATION (STA. TO STA.)	SIDE	TYPE	LF	
			P	F
40+80.63 - 41+59.57	RT	VALLEY GUTTER	80	
41+55.24 - 41+63.46	LT/RT	TYPE D	18	
41+59.57 - 41+76.24	RT	TYPE F	17	
41+88.00 - 41+99.93	RT	TYPE F	14	
41+99.93 - 42+07.91	LT/RT	DROP CURB	14	
CURB TRANSITIONS AT S-109	LT	TYPE F	6	
TOTAL:			149	

SUMMARY OF CONCRETE SIDEWALK AND DRIVEWAY (6" THICK)

LOCATION (STA. TO STA.)	SIDE	TYPE	SY	
			P	F
35+06.76 - 42+01.90	LT. & RT.	SIDEWALK	400	
TOTAL:			400	

* QUANTITIES ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL QUANTITIES FOR LUMP SUM PAY ITEMS.

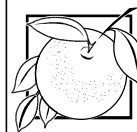
REVISIONS			BARRY STREET DRAINAGE IMPROVEMENTS	 ORANGE COUNTY GOVERNMENT FLORIDA	 Steven M. Sommerfeldt, PE PE No. 64074 Certificate of Authorization No. 7074	3000 Dovera Drive, Suite 200 Oviedo, Florida 32765 p 407.971.8850	SUMMARY OF QUANTITIES	SHEET NO.
DATE	BY	DESCRIPTION						2A



NOTE: SIDEWALK ALIGNMENT TRANSITIONS FROM STA. 37+84.09 TO STA. 38+14.28. SEE PLAN AND PROFILE SHEET FOR DETAILS.

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



**ORANGE COUNTY
GOVERNMENT
FLORIDA**



Steven M. Sommerfeldt, PE 3000 Dovera Drive, Suite 200
PE No. 64074 Oviedo, Florida 32765
Certificate of Authorization No. 7074 p 407.971.8850

TYPICAL SECTIONS

SHEET NO.

3

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 2016), FDOT DESIGN STANDARDS (FY2016-17), 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. SOD SHALL MATCH EXISTING TYPE SOD UNLESS OTHERWISE DIRECTED 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 $\frac{R}{2}$ 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
AT&T	407-578-8000
AT&T - DISTRIBUTION	407-351-8180
BRIGHT HOUSE NETWORKS	407-448-5506
CITY OF ORLANDO - BUREAU OF WASTEWATER	407-246-3722
FLA. GAS TRANS.	407-838-7171
MCI	972-729-6322
ORLANDO ORANGE COUNTY EXPRESSWAY AUTHORITY	407-316-3800
ORLANDO UTILITIES COMMISSION - WATER	407-434-2558
ORLANDO UTILITIES COMMISSION - ELECTRIC	407-434-6537
TECO PEOPLES GAS	407-420-2675

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 COUNTY SURVEYOR, WITHOUT DELAY, BY TELEPHONE 407-836-7940. 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.

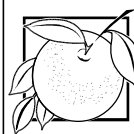
21. WITHIN 7 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY/DRAINAGE EASEMENTS AT 100' INTERVALS AND AT RIGHT-OF-WAY BREAKS WITH STATIONING SHOWN ON THE STAKES. NO INVOICE FOR PAYMENT WILL BE PROCESSED UNTIL THE RIGHT-OF-WAY/DRAINAGE EASEMENT HAS BEEN STAKED TO THE 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 AND APPROVAL. 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, PROJECT DURATION AND REMOVAL OR REPLACEMENT OF FENCE.
27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE JACK & BORE SYSTEM. THE JACK & BORE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF SECTION 556 OF THE FDOT STANDARD SPECIFICATIONS, CHAPTER 7 OF THE "STRUCTURES DESIGN GUIDELINES", AND FDOT UTILITY ACCOMMODATION MANUAL (2010). REFER TO THE SOIL PROFILES SHEETS FOR SOILS DATA (TB-1 AND TB-2) AT JACK & BORE PIT LOCATIONS. THE ENVIRONMENTAL CLASSIFICATION FOR THE DESIGN FOR BOTH STEEL AND CONCRETE PIPES AND ANY ASSOCIATED MINOR STRUCTURES IS "SLIGHTLY AGGRESSIVE".
28. ALL EXISTING SIGNS ARE TO REMAIN UNLESS OTHERWISE NOTED ON THE PLANS.
29. THE PAVEMENT MARKINGS AT ALL EXISTING / PROPOSED INTERFACE LOCATIONS ARE TO MATCH IN TERMS OF ALIGNMENT.
30. THE CONTRACTOR SHALL INSPECT ALL EXISTING DRAINAGE PIPES AND STRUCTURES TO BE UTILIZED WITHIN CONSTRUCTION LIMITS AND REMOVE ANY INTERNAL DEBRIS AND SAND/SILT THEREFROM

LEGEND ABBREVIATIONS

ACB = ARTICULATED CONCRETE BLOCK	EX = EXISTING
$\frac{R}{2}$ = BASELINE	FD = FRENCH DRAIN
BE = BURIED ELECTRIC	INV = INVERT
BT = BURIED TELEPHONE	IRC = IRON ROD & CAP
BTV = BURIED TELEVISION	LT = LEFT
CIP = CAST-IN-PLACE	NAVD= NORTH AMERICAN VERTICAL DATUM
$\frac{C}{2}$ = CENTERLINE	NTS = NOT TO SCALE
CMP = CORRUGATED METAL PIPE	POT = POINT ON TANGENT
CONC = CONCRETE	RT = RIGHT
D.E. = DRAINAGE EASEMENT	SHWL= SEASONAL HIGH GROUNDWATER LEVEL
EFD = ELLIPTICAL FRENCH DRAIN	STA = STATION
EL = ELEVATION	TOE = TOE OF SLOPE
EP = EDGE OF PAVEMENT	TOB = TOP OF BANK
ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE	U.E. = UTILITY EASEMENT

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



**ORANGE COUNTY
GOVERNMENT
FLORIDA**



Steven M. Sommerfeldt, PE 3000 Dovera Drive, Suite 200
PE No. 64074 Oviedo, Florida 32765
Certificate of Authorization No. 7074 p 407.971.8850

GENERAL NOTES

SHEET
NO.

4

SITE SURVEY PROVIDED BY:
 GEODATA CONSULTANTS, INC.
 1349 S INTERNATIONAL PARKWAY, STE. 2401
 LAKE MARY, FLORIDA 32746
 (407) 732-6965
 DATUM: NAVD88
 DATE: 02/29/2016

UTILITY SURVEY PROVIDED BY:
 SOUTHEASTERN SURVEYING AND MAPPING CORPORATION
 6500 ALL AMERICAN BOULEVARD
 ORLANDO, FL 32810
 (407) 292-8580
 DATUM: NAVD88
 DATE: 10/28/2016

SITE BENCHMARK 1
 SET BOX CUT IN
 CENTERLINE OF SIDEWALK
 WEST SIDE OF FAIRVILLA ROAD
 275± NORTH OF COLONIAL DRIVE
 N: 1534150.00
 E: 517280.00
 EL = 100.20' (NAVD)
 NOT SHOWN TO SCALE

END CONSTRUCTION
 STA. 43+64.96
 FAIRVILLA ROAD
 POT STA. 44+98.18
 N = 1534096.89
 E = 517282.97

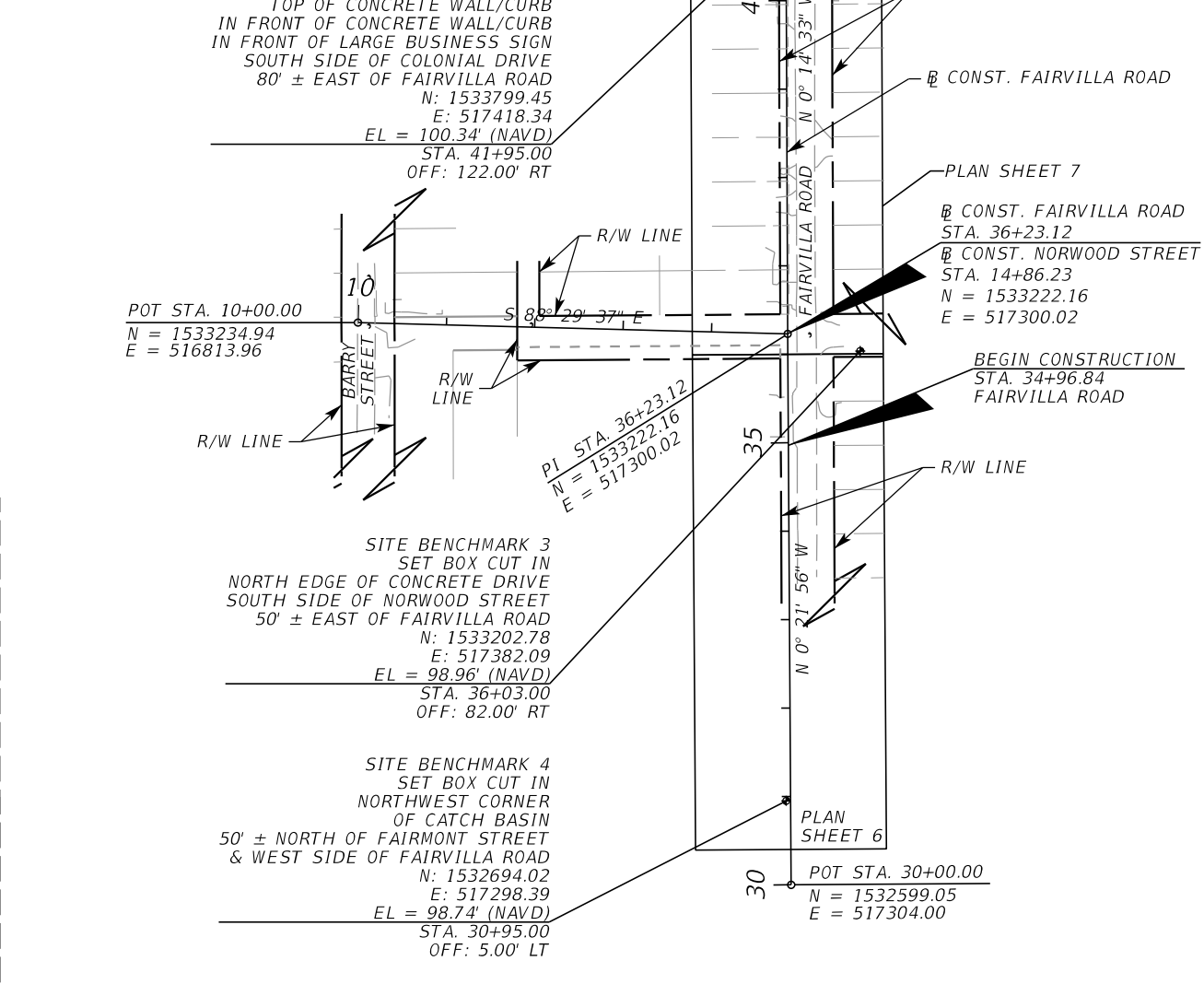
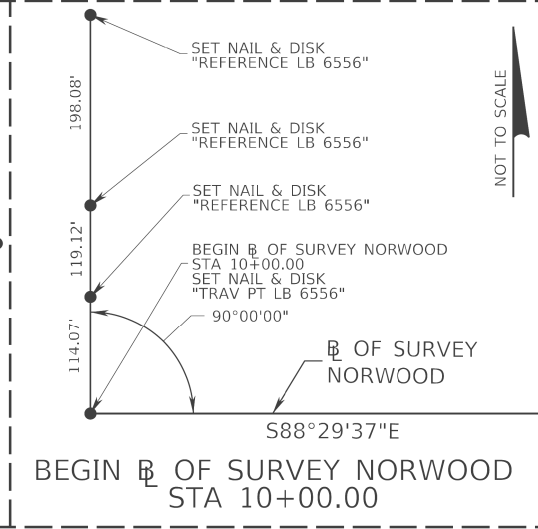
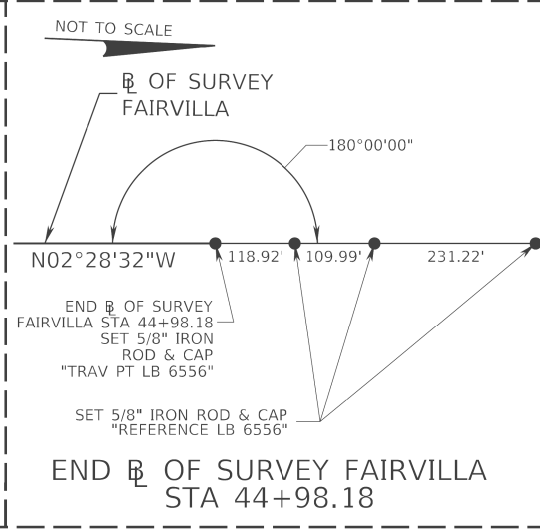
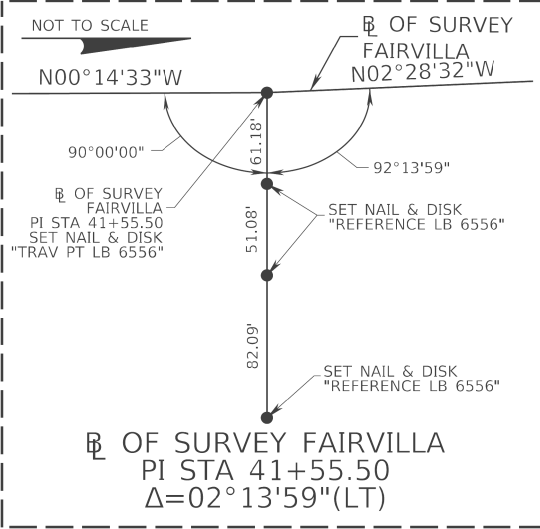
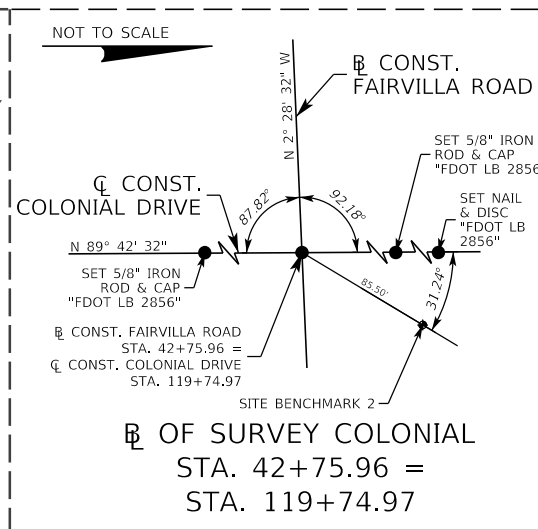
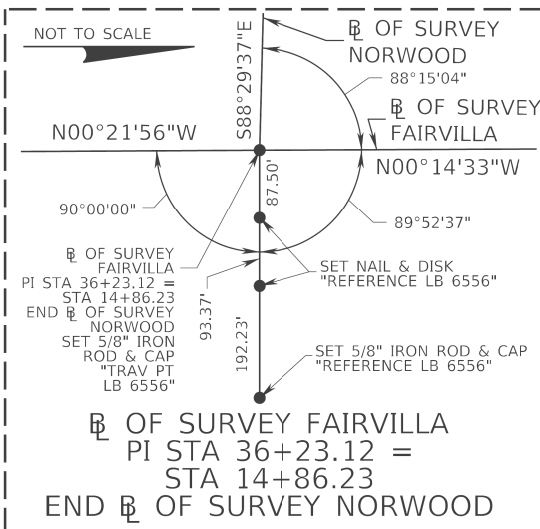
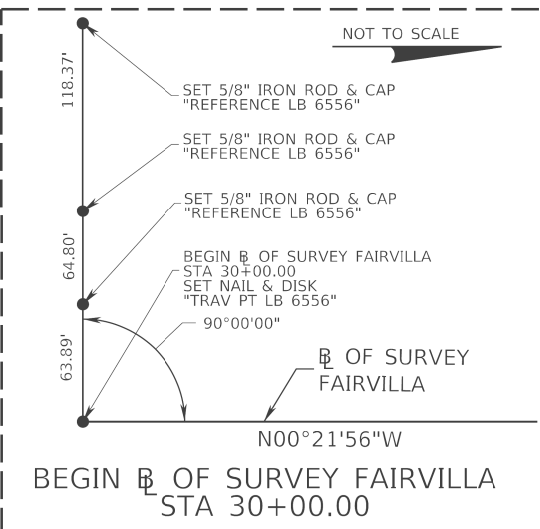
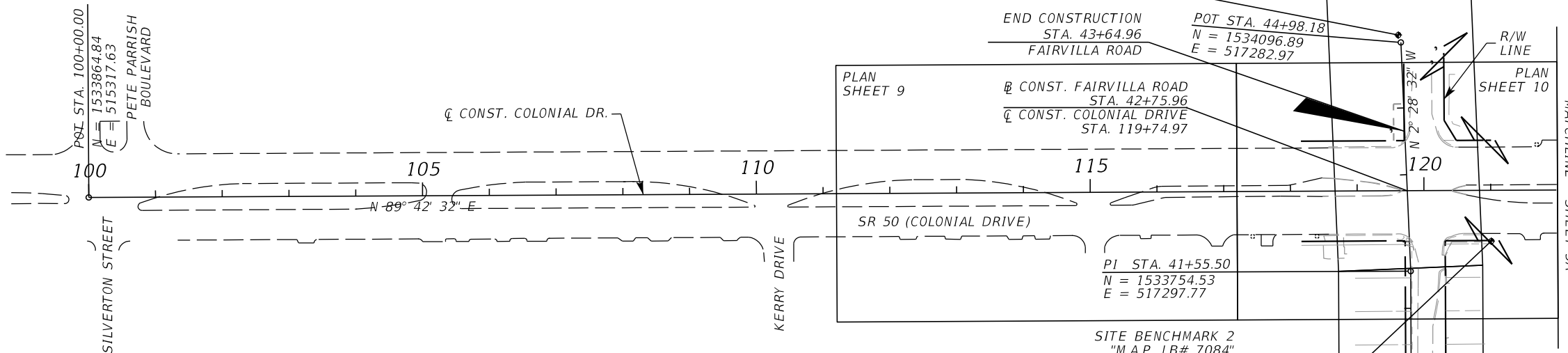
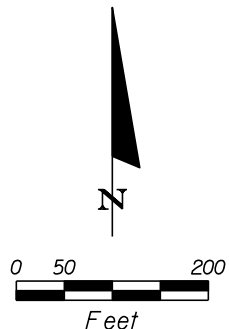
PI STA. 41+55.50
 N = 1533754.53
 E = 517297.77

SITE BENCHMARK 2
 "M.A.P. LB# 7084"
 SET BOX CUT IN
 TOP OF CONCRETE WALL/CURB
 IN FRONT OF CONCRETE WALL/CURB
 IN FRONT OF LARGE BUSINESS SIGN
 SOUTH SIDE OF COLONIAL DRIVE
 80' ± EAST OF FAIRVILLA ROAD
 N: 1533799.45
 E: 517418.34
 EL = 100.34' (NAVD)
 STA. 41+95.00
 OFF: 122.00' RT

POT STA. 10+00.00
 N = 1533234.94
 E = 516813.96

SITE BENCHMARK 3
 SET BOX CUT IN
 NORTH EDGE OF CONCRETE DRIVE
 SOUTH SIDE OF NORWOOD STREET
 50' ± EAST OF FAIRVILLA ROAD
 N: 1533202.78
 E: 517382.09
 EL = 98.96' (NAVD)
 STA. 36+03.00
 OFF: 82.00' RT

SITE BENCHMARK 4
 SET BOX CUT IN
 NORTHWEST CORNER
 OF CATCH BASIN
 50' ± NORTH OF FAIRVILLA ROAD
 & WEST SIDE OF FAIRVILLA ROAD
 N: 1532694.02
 E: 517298.39
 EL = 98.74' (NAVD)
 STA. 30+95.00
 OFF: 5.00' LT



REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
 DRAINAGE IMPROVEMENTS**

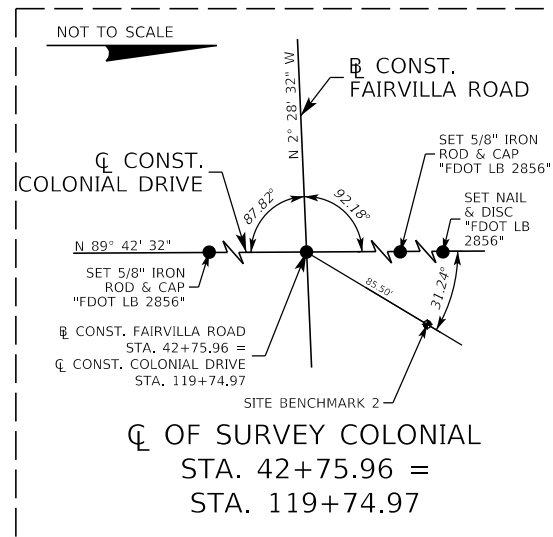
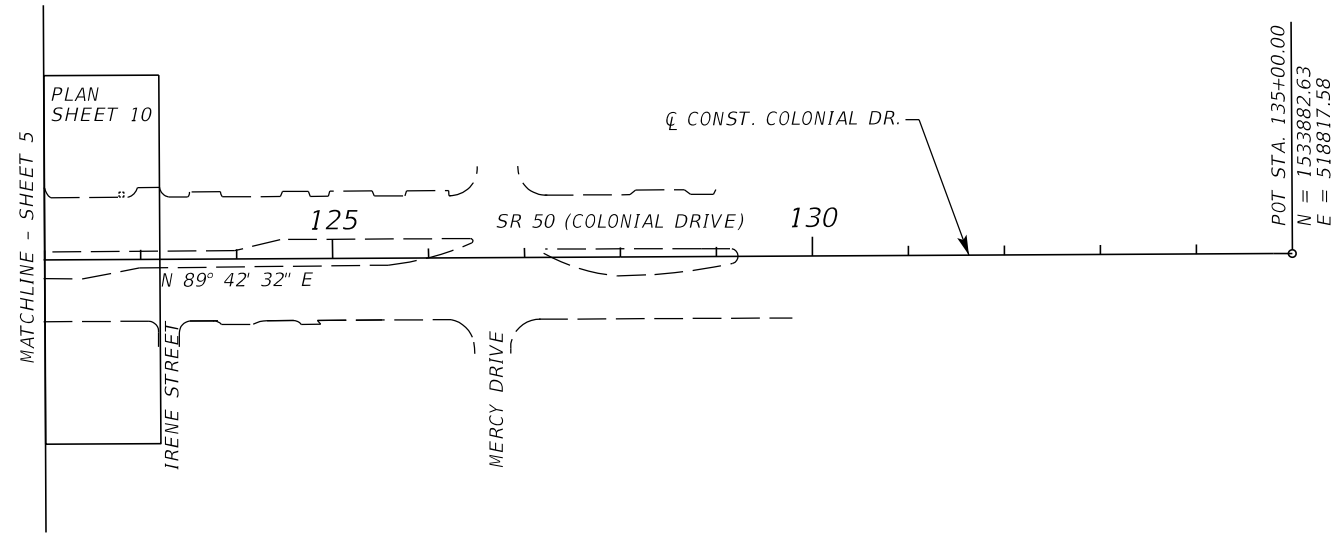
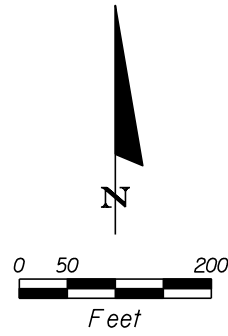


Steven M. Sommerfeldt, PE 3000 Dovera Drive, Suite 200
 PE No. 64074 Oviedo, Florida 32765
 Certificate of Authorization No. 7074 p 407.971.8850

PROJECT LAYOUT

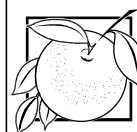
SHEET NO.
 5

SITE SURVEY PROVIDED BY:
 GEODATA CONSULTANTS, INC.
 1349 S INTERNATIONAL PARKWAY, STE. 2401
 LAKE MARY, FLORIDA 32746
 (407) 732-6965
 DATUM: NAVD88
 DATE: 02/29/2016



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DATE	BY	DESCRIPTION

**BARRY STREET
 DRAINAGE IMPROVEMENTS**



ORANGE COUNTY
 GOVERNMENT
 FLORIDA

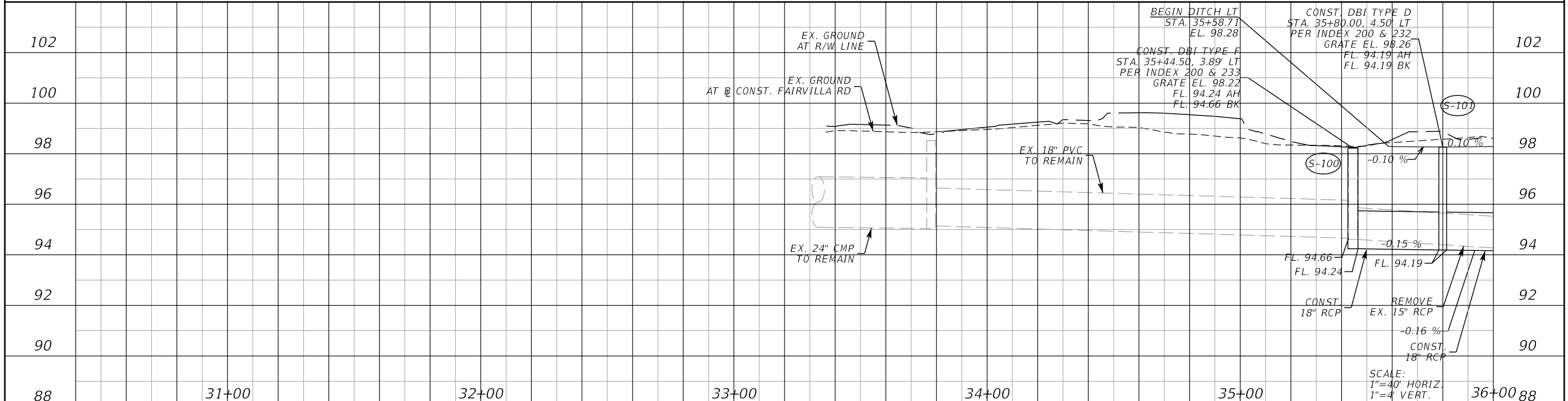
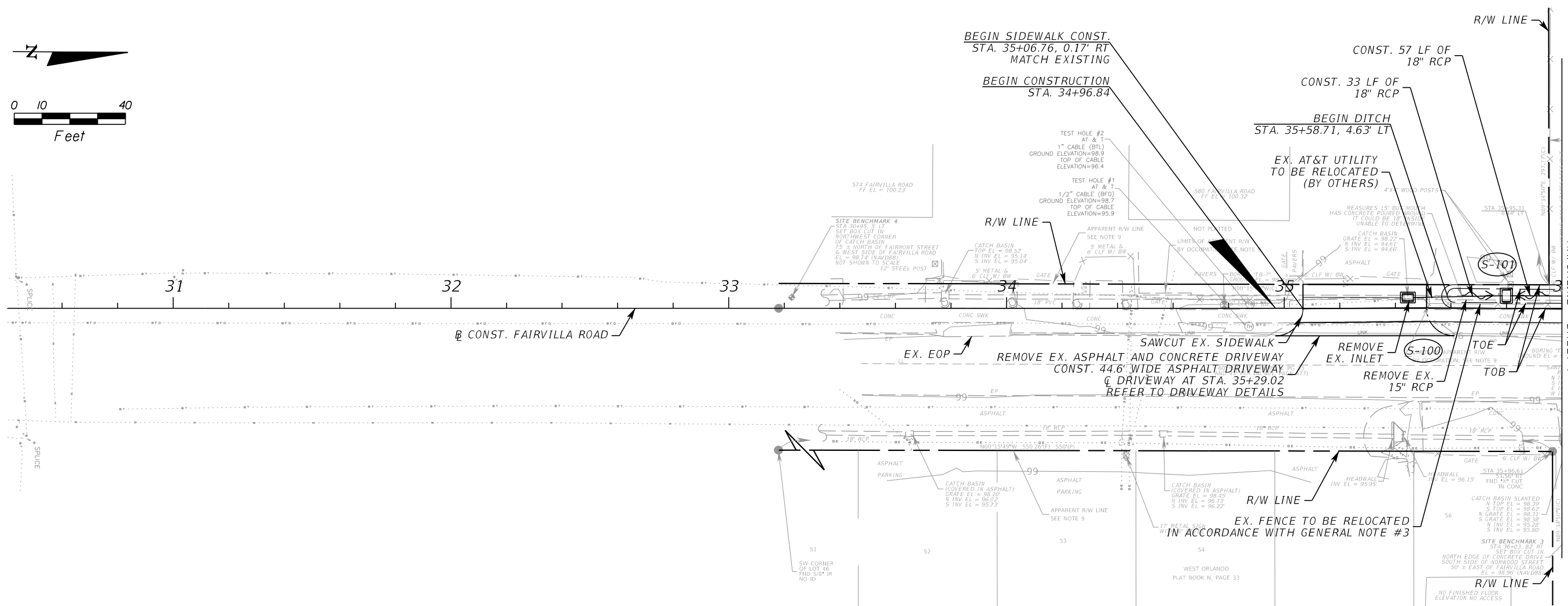
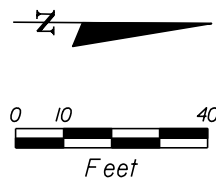


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PROJECT LAYOUT

SHEET NO.

5A



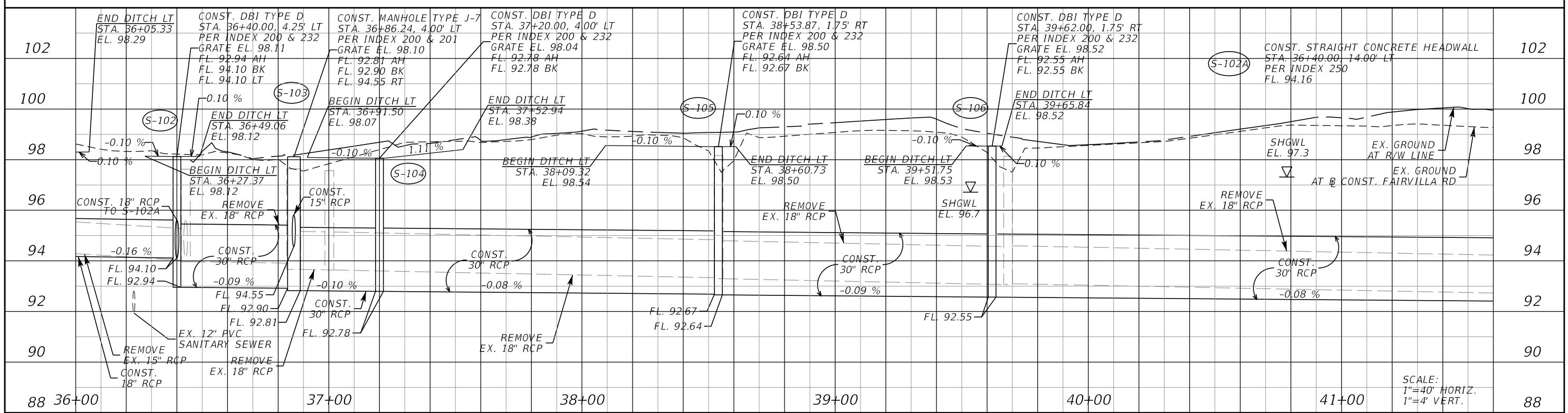
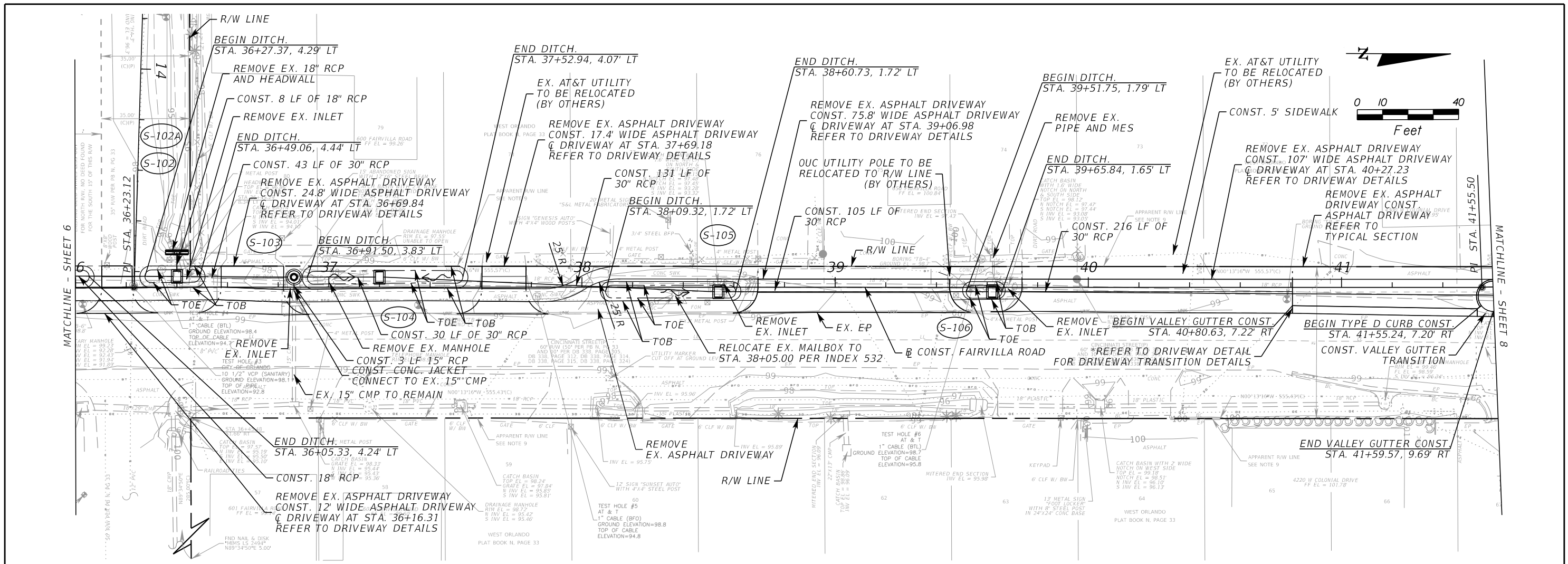
REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



**PLAN / PROFILE SHEET
FAIRVILLA ROAD**

SHEET
NO.
6



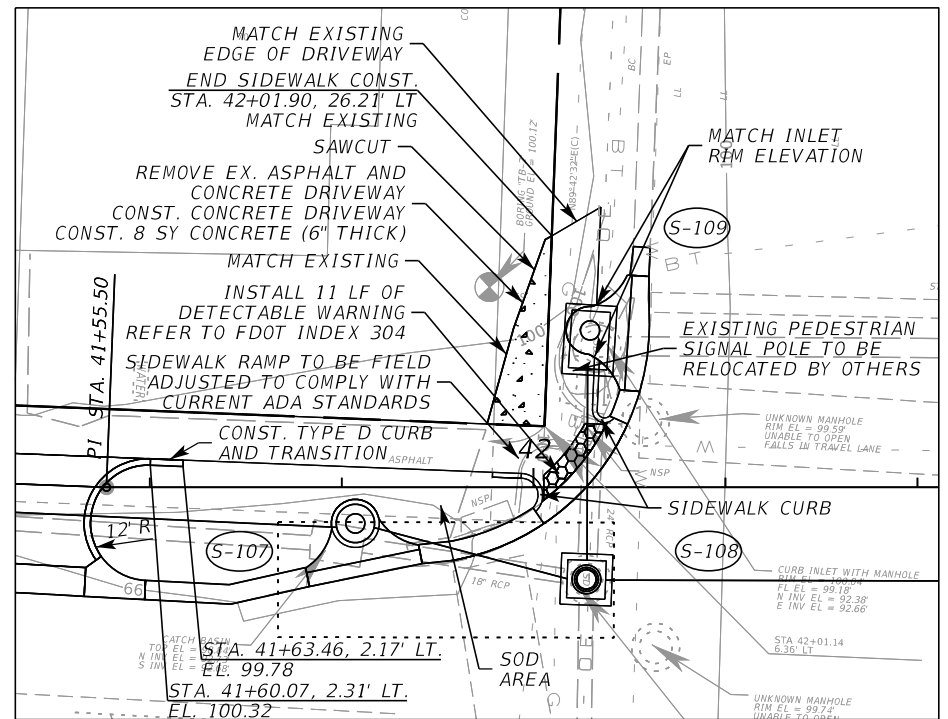
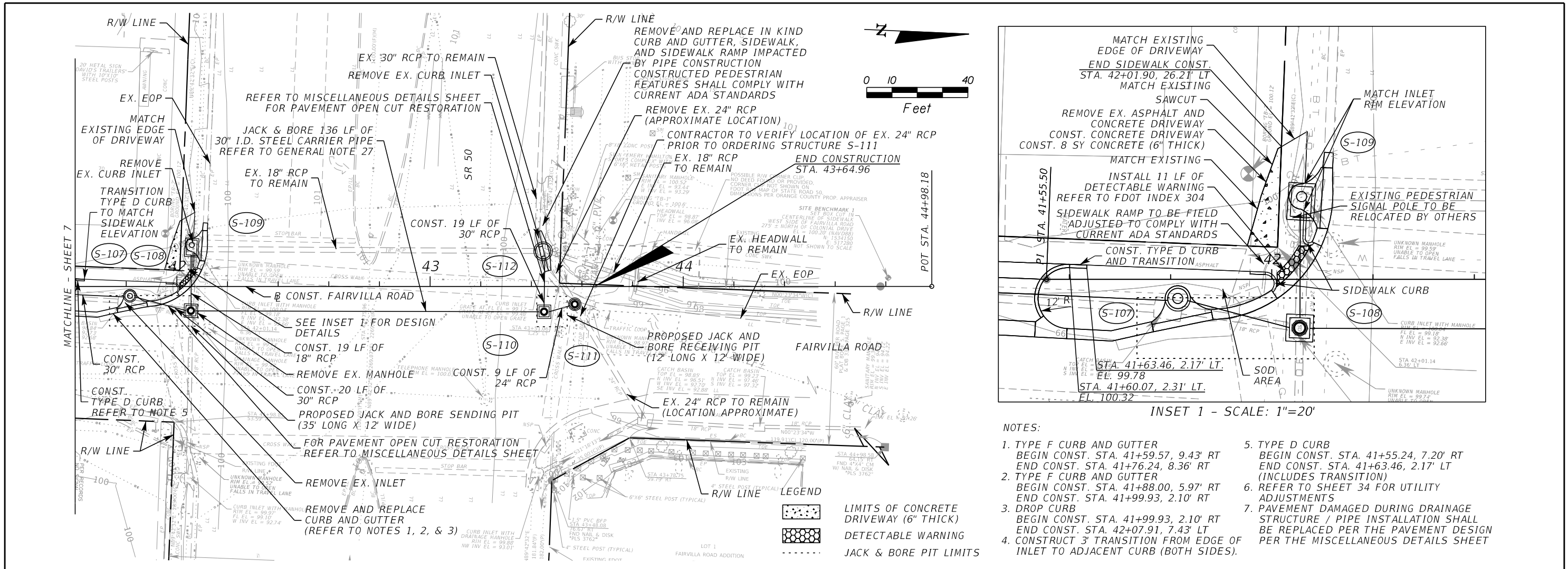
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DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



**PLAN / PROFILE SHEET
FAIRVILLA ROAD**

SHEET NO.
7



- NOTES:**
1. TYPE F CURB AND GUTTER
 BEGIN CONST. STA. 41+59.57, 9.43' RT
 END CONST. STA. 41+76.24, 8.36' RT
 2. TYPE F CURB AND GUTTER
 BEGIN CONST. STA. 41+88.00, 5.97' RT
 END CONST. STA. 41+99.93, 2.10' RT
 3. DROP CURB
 BEGIN CONST. STA. 41+99.93, 2.10' RT
 END CONST. STA. 42+07.91, 7.43' LT
 4. CONSTRUCT 3' TRANSITION FROM EDGE OF INLET TO ADJACENT CURB (BOTH SIDES).
 5. TYPE D CURB
 BEGIN CONST. STA. 41+55.24, 7.20' RT
 END CONST. STA. 41+63.46, 2.17' LT (INCLUDES TRANSITION)
 6. REFER TO SHEET 34 FOR UTILITY ADJUSTMENTS
 7. PAVEMENT DAMAGED DURING DRAINAGE STRUCTURE / PIPE INSTALLATION SHALL BE REPLACED PER THE PAVEMENT DESIGN PER THE MISCELLANEOUS DETAILS SHEET

102	CONST. CURB INLET TYPE P-4 (4' DIA.) STA. 41+82.53, 9.15' RT PER INDEX 200, 201 & 210 RIM EL. 99.22 E/P EL. 98.84 FL. 92.38 AH FL. 92.38 BK	CONST. MANHOLE TYPE J-8 (4'X4') STA. 43+45.00, 10.00' RT PER INDEX 200 & 201 RIM EL. 99.82 FL. 92.51 AH FL. 92.22 BK FL. 92.22 LT	CONST. MANHOLE TYPE P-8 (4' DIA.) STA. 43+57.16, 7.03' RT PER INDEX 200 & 201 RIM EL. 99.04 FL. 92.56 BK FL. +/- 92.56 RT - CONTRACTOR TO VERIFY	CONST. MANHOLE TYPE J-8 (4'X4') STA. 42+05.51, 9.60' RT PER INDEX 200 & 201 RIM EL. 99.42' FL. 92.36 AH FL. +/- 92.36 BK - CONTRACTOR TO VERIFY FL. +/- 92.36 LT - CONTRACTOR TO VERIFY FL. +/- 92.67 RT - CONTRACTOR TO VERIFY	102
100	(S-107) (S-108)	(S-110) (S-111)	(S-110) (S-111)	(S-109)	100
98	EX. BURIED TELEPHONE LINE (UNKNOWN EL.) EX. AT&T TELEPHONE DUCT BANK EX. BURIED TELEPHONE LINE EX. TECO GAS MAIN	EX. BURIED TELEPHONE LINE (UNKNOWN EL.) EX. BURIED TELEPHONE DUCT BANK EX. AT&T TELEPHONE DUCT BANK EX. OUC WATER MAIN	EX. BURIED TELEPHONE LINE (UNKNOWN EL.) EX. AT&T BURIED TELEPHONE LINE EX. 6" PVC / CLAY SANITARY SEWER	CONST. CURB INLET TYPE J-4 (6'X4') STA. 42+11.38, 16.00' LT PER INDEX 200, 201 & 210 RIM EL. 100.04 E/P EL. 99.67 FL. 92.38 AH FL. 92.38 RT	98
96	EX. BURIED TELEPHONE LINE	EX. BURIED TELEPHONE LINE (UNKNOWN EL.) EX. AT&T TELEPHONE DUCT BANK	EX. BURIED TELEPHONE LINE (UNKNOWN EL.) EX. AT&T BURIED TELEPHONE LINE	CONST. CURB INLET TYPE J-6 (6' DIA.) STA. 43+43.40, 13.60' LT PER INDEX 200, 201 & 211 RIM EL. 99.86 GRATE AT E/P EL. 99.48 GRATE AT FL. EL. 99.12 FL. 95.88 AH FL. +/- 92.20 BK - CONTRACTOR TO VERIFY FL. 92.20 RT FL. +/- 91.91 LT - CONTRACTOR TO VERIFY	96
94	EX. 18" RCP TO REMAIN CONST. 18" RCP FROM S-109	EX. 18" RCP TO REMAIN CONST. 30" RCP TO S-112	EX. HEADWALL TO REMAIN EX. 18" RCP TO REMAIN EX. BURIED TELEPHONE LINE (UNKNOWN EL.)	(S-112)	94
92	FL. 92.67 -0.13 %	30" STEEL CARRIER PIPE -0.13 %	EX. 6" PVC / CLAY SANITARY SEWER FL. 92.55		92
90	FL. 92.36 -0.10 % CONST. 30" RCP REMOVE EX. 18" RCP CONST. 30" RCP FL. 92.38	EX. BURIED FIBER OPTIC LINE (APPROXIMATE EL.)	CONST. 24" RCP FL. 92.51		90
88	42+00	43+00	44+00	45+00	88

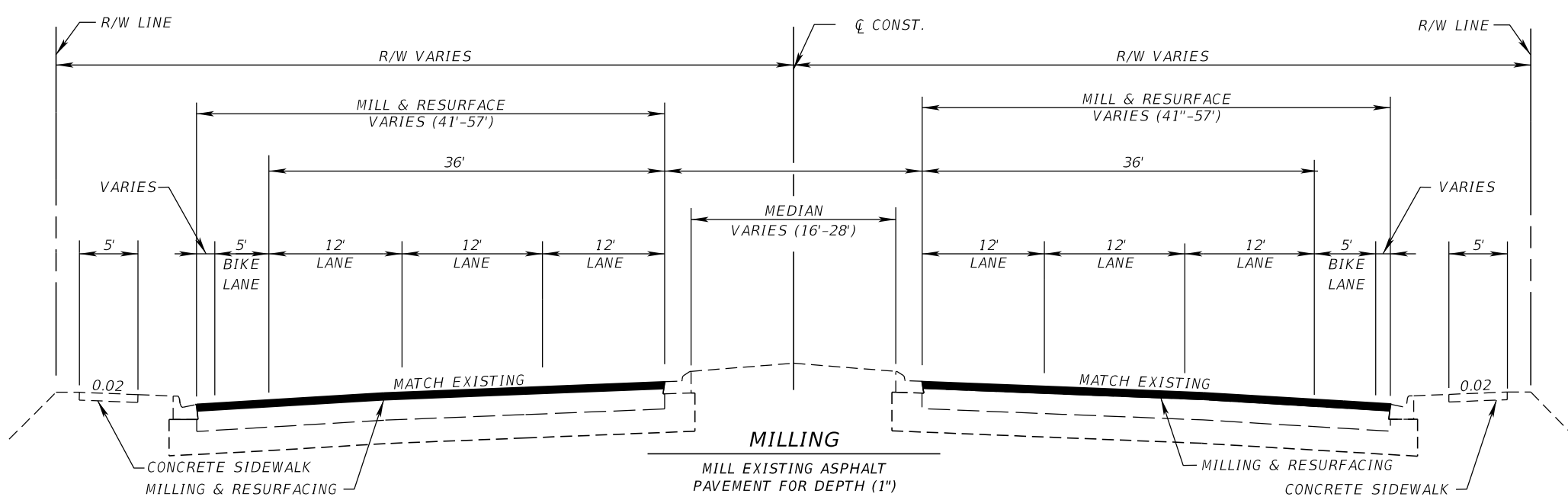
REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



**PLAN / PROFILE SHEET
FAIRVILLA ROAD**

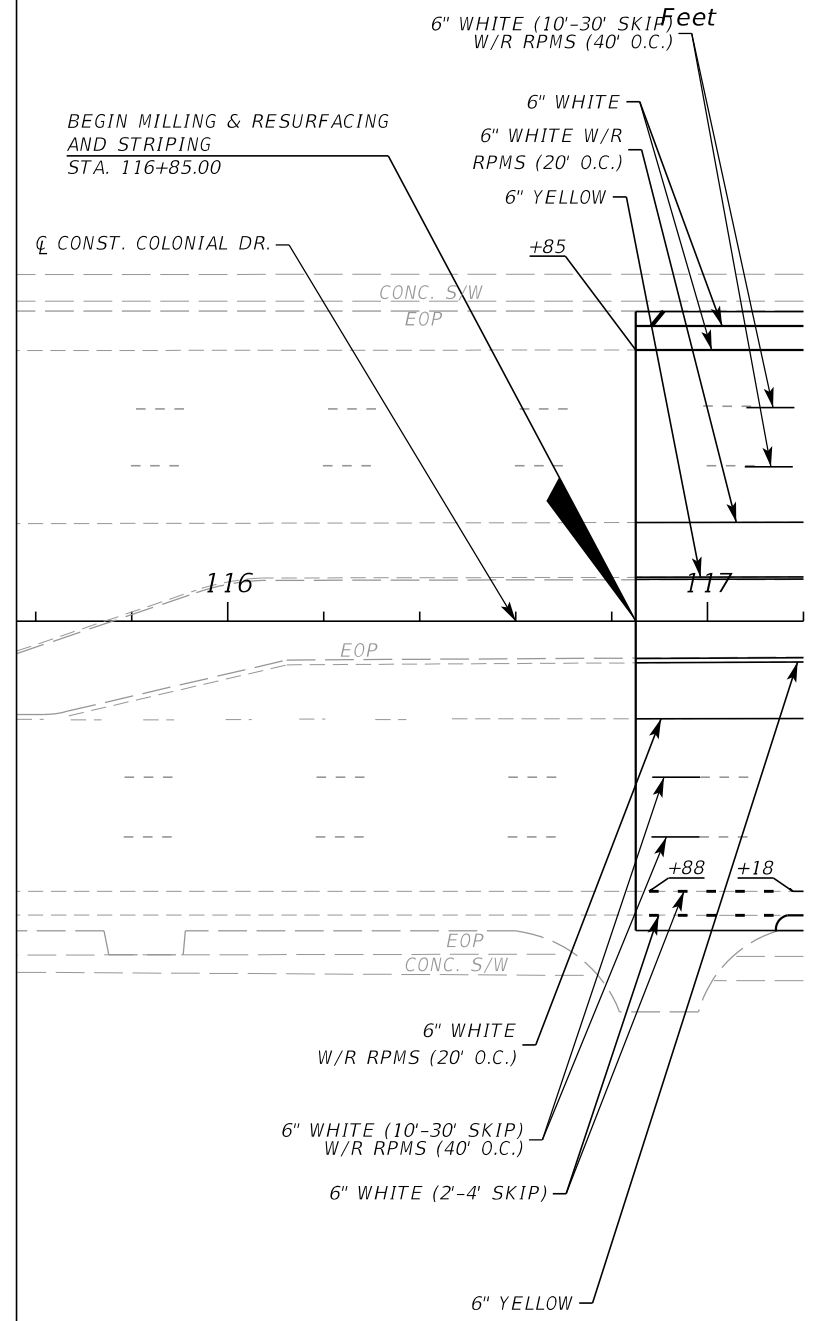
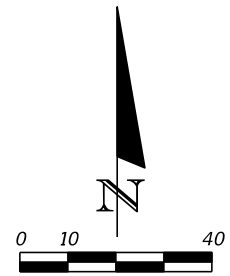
SHEET NO.
8



MILLING
MILL EXISTING ASPHALT PAVEMENT FOR DEPTH (1")

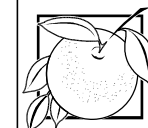
RESURFACING
FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

TYPICAL SECTION
SR 50 (COLONIAL DR)
STA. 116+85.00 TO STA. 123+18.00



REVISIONS		
DATE	BY	DESCRIPTION

BARRY STREET
DRAINAGE IMPROVEMENTS



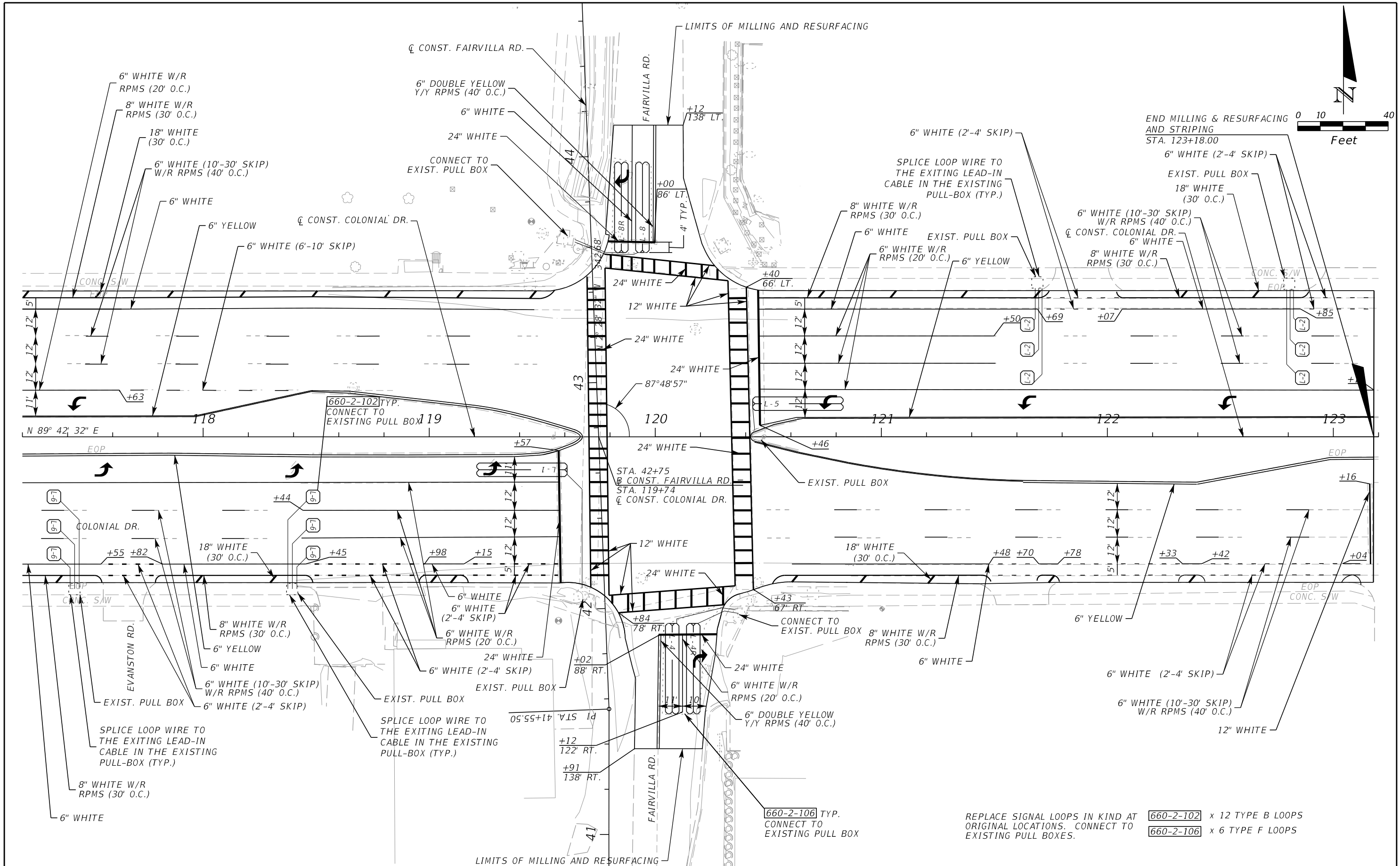
ORANGE COUNTY
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p 407.971.8850

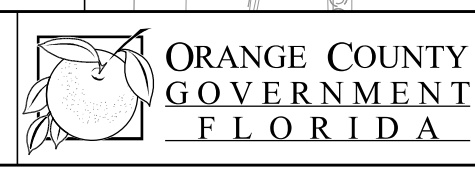
TYPICAL SECTION/PLAN SHEET
COLONIAL DRIVE

SHEET NO.
9



REVISIONS		
DATE	BY	DESCRIPTION

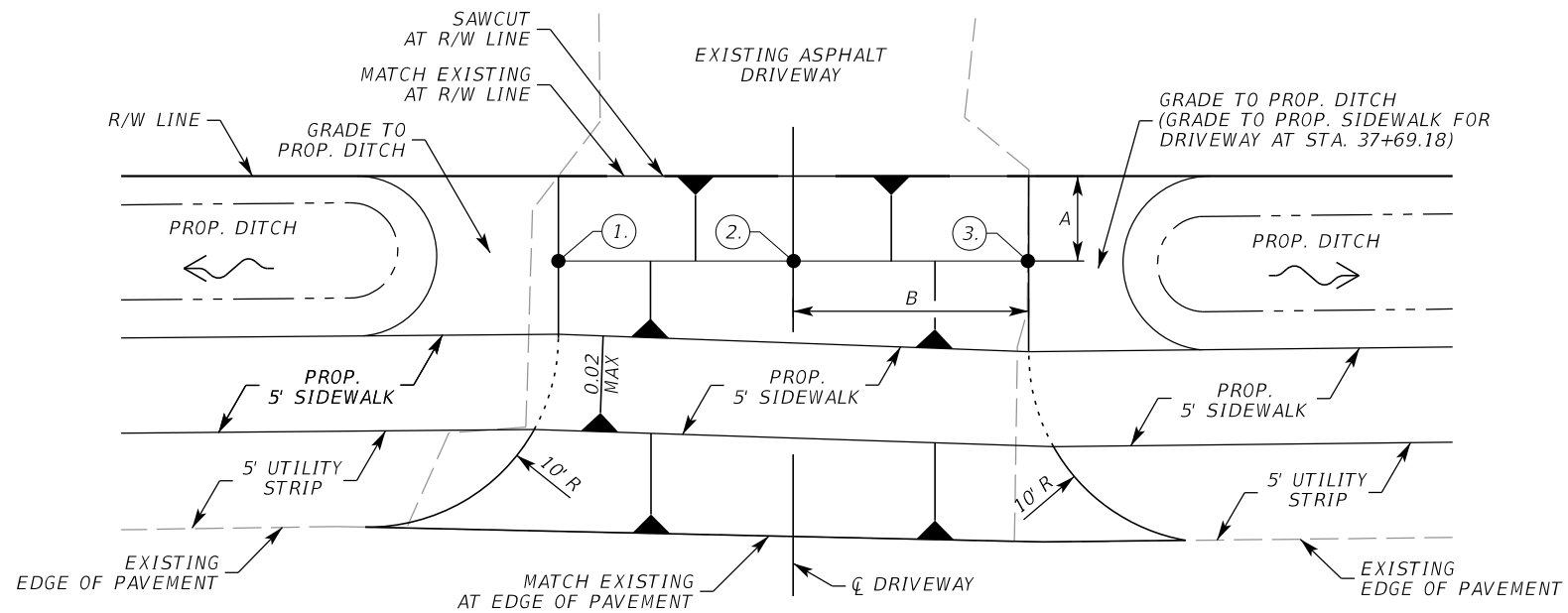
**BARRY STREET
DRAINAGE IMPROVEMENTS**



**PLAN SHEET
COLONIAL DRIVE**

SHEET
NO.
10

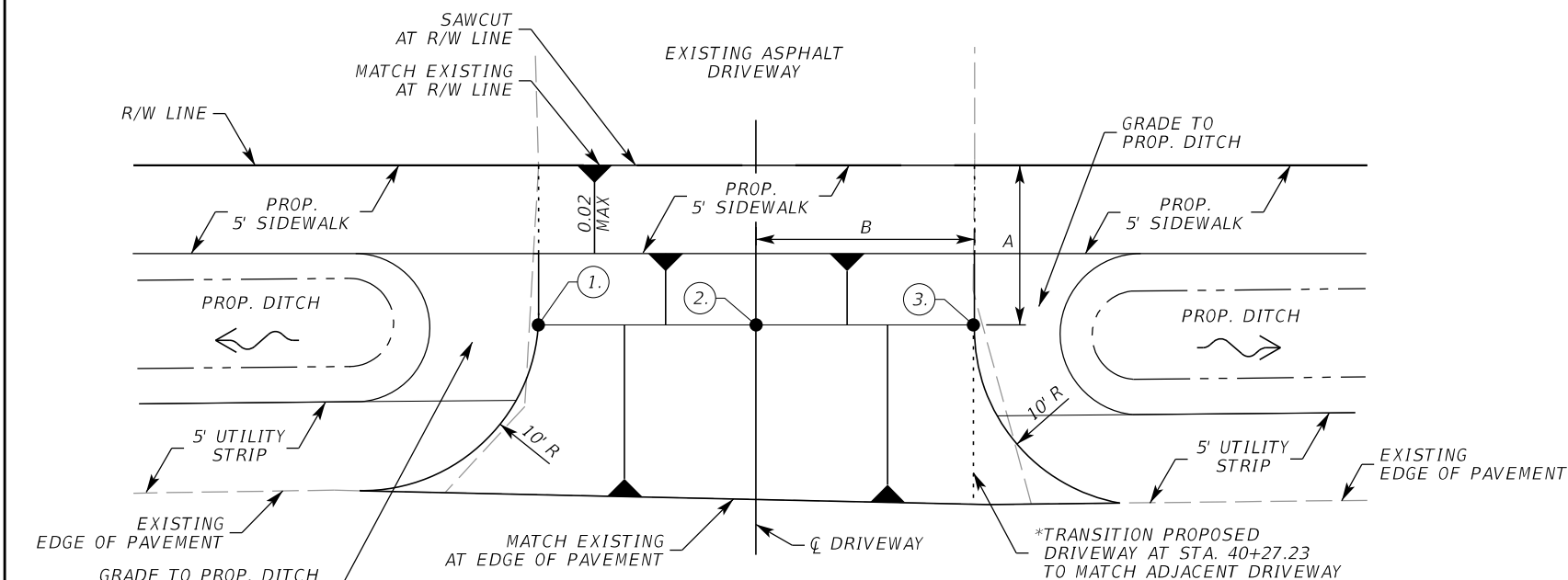
REPLACE SIGNAL LOOPS IN KIND AT ORIGINAL LOCATIONS. CONNECT TO
660-2-102 x 12 TYPE B LOOPS
660-2-106 x 6 TYPE F LOOPS



ASPHALT DRIVEWAY CONSTRUCTION/REPLACEMENT
DITCH TYPICAL SECTION 1 - N.T.S.
 DRIVEWAYS AT STA. 35+29.02, STA. 36+16.31,
 STA. 36+69.84 & STA. 37+69.18

ASPHALT DRIVEWAY DETAILS							
DRIVEWAY LOCATION STATION	SIDE	ELEVATION (FT)			A (FT)	B (FT)	DRIVEWAY AREA (SY)
		1.	2.	3.			
35+29.02*	LT	98.70	98.28	98.35	4.7	22.3	71
36+16.31	LT	98.45	98.33	98.20	4.3	6.0	23
36+69.84	LT	98.31	98.21	98.15	4.8	12.4	43
37+69.18	LT	98.68	98.75	98.82	4.1	8.7	31
39+06.98	LT	98.85	99.10	99.00	10.4	37.9	116
40+27.23	LT	98.60	98.66	99.37	9.9	53.5	158
40+80.63 - 41+53.64	LT	N/A	N/A	N/A	N/A	N/A	91

NOTE: REFER TO TYPICAL SECTION SHEET FOR DRIVEWAY AT STA. 40+80.63 - 41+53.64
 * AREA BETWEEN POINT 2. AND 3. TO BE GRADED TO S-100



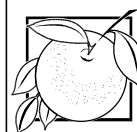
ASPHALT DRIVEWAY REPLACEMENT
DITCH TYPICAL SECTION 2 - N.T.S.
 DRIVEWAYS AT STA. 39+06.98 & 40+27.23

DRIVEWAY CONSTRUCTION/REPLACEMENT MATERIAL

TYPE B STABILIZATION (12")
 OPTIONAL BASE, BASE GROUP 01 (4")
 TYPE SP-9.5 STRUCTURAL COURSE (TRAFFIC C) (1")

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
 DRAINAGE IMPROVEMENTS**



**ORANGE COUNTY
 GOVERNMENT
 FLORIDA**



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 PE No. 64074 Oviedo, Florida 32765
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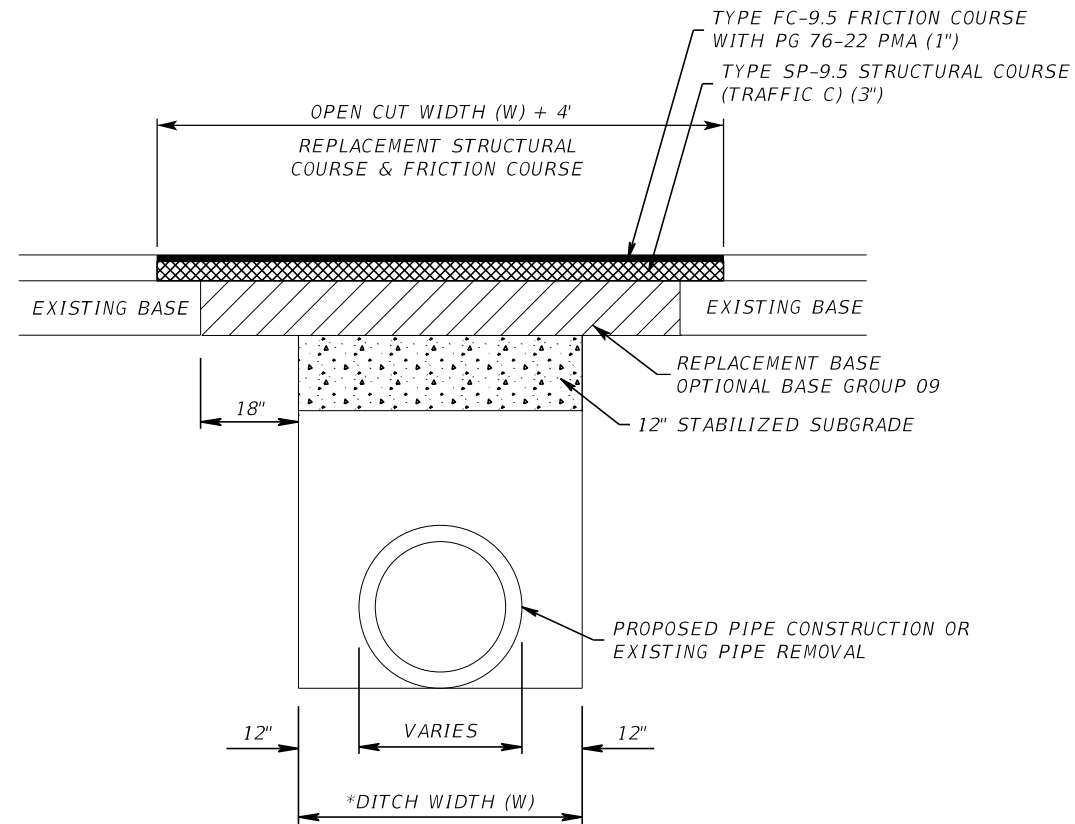
DRIVEWAY DETAILS

SHEET NO.

11

GENERAL NOTES:

1. REFER TO FDOT INDEX 307 FOR DETAILS.
2. ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH WHAT IS SHOWN IN THE PLANS FOR NEW RECONST. OR AS APPROVED BY THE COUNTY ENGINEER.
3. BASE REPLACEMENT SHALL BE OPTIONAL BASE GROUP 09.
4. ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.
5. SUB-GRADE CUT TO BE COMPACTED TO 98% MAX. DENSITY AS DETERMINED BY AASHTO T - 180.
6. CUT AREA TO BE PLATED OR PROTECTED ON DAY OF POUR.



***NOTE:**
 -FOR JACK & BORE PIT CONSTRUCTION DIMENSIONS REFER TO PLAN AND PROFILE SHEETS.
 -THE DITCH WIDTH (W) FOR PIPES INSTALLED USING JACK & BORE METHODS SHALL BE EQUAL TO THE SENDING/RECEIVING PIT DIMENSIONS.

**STANDARD ROADWAY TRENCH CUT RESTORATION
 FOR FLEXIBLE PAVEMENT RESTORATION
 N.T.S.**

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
 DRAINAGE IMPROVEMENTS**



**ORANGE COUNTY
 GOVERNMENT
 FLORIDA**

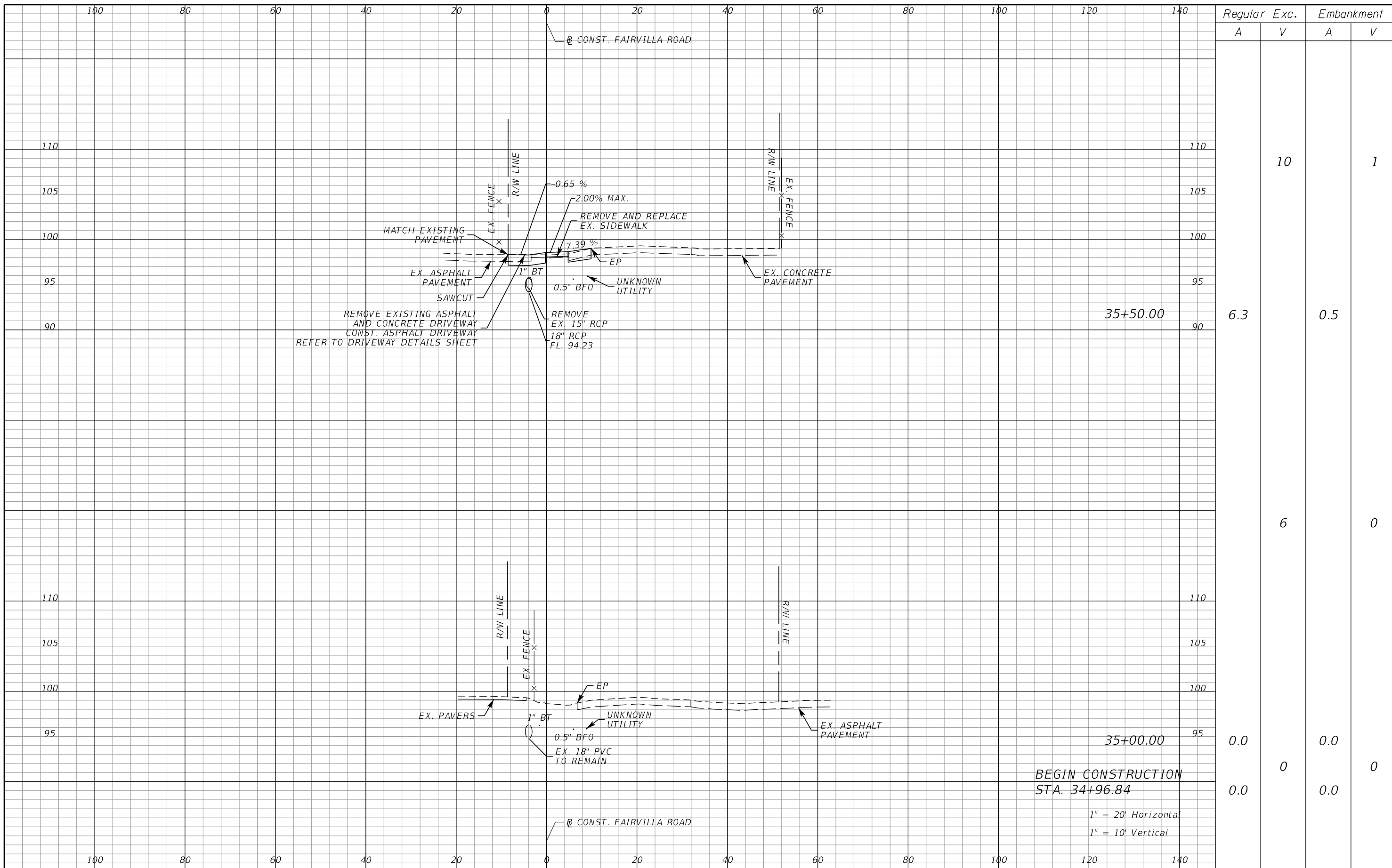


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MISCELLANEOUS DETAILS

SHEET NO.

12



Regular		Exc.		Embankment	
A	V	A	V	A	V
			10		1
6.3		0.5			
	6				0
0.0		0.0			0
0.0	0	0.0			0

BEGIN CONSTRUCTION
STA. 34+96.84

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**

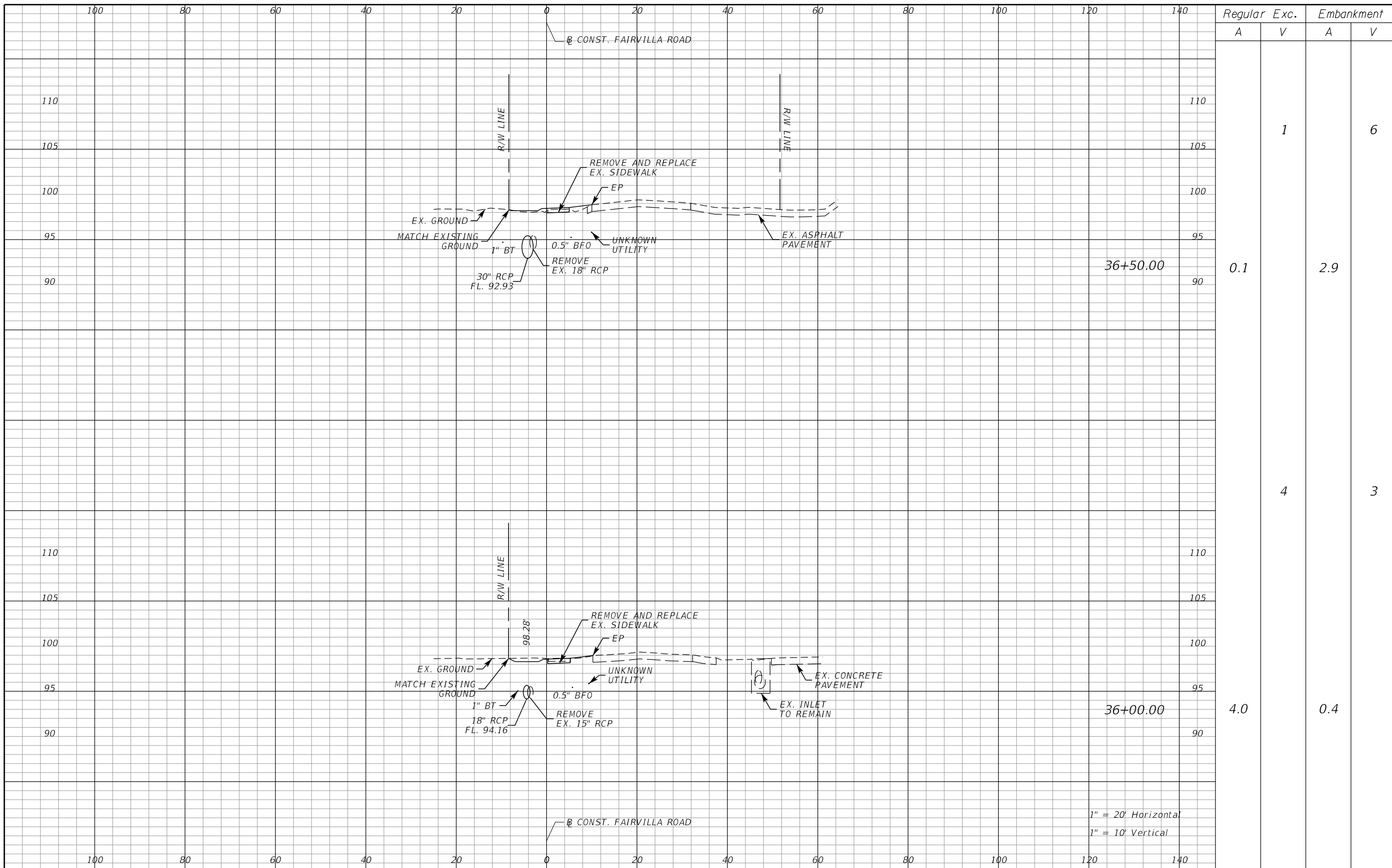


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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET NO.
13



REVISIONS		
DATE	BY	DESCRIPTION

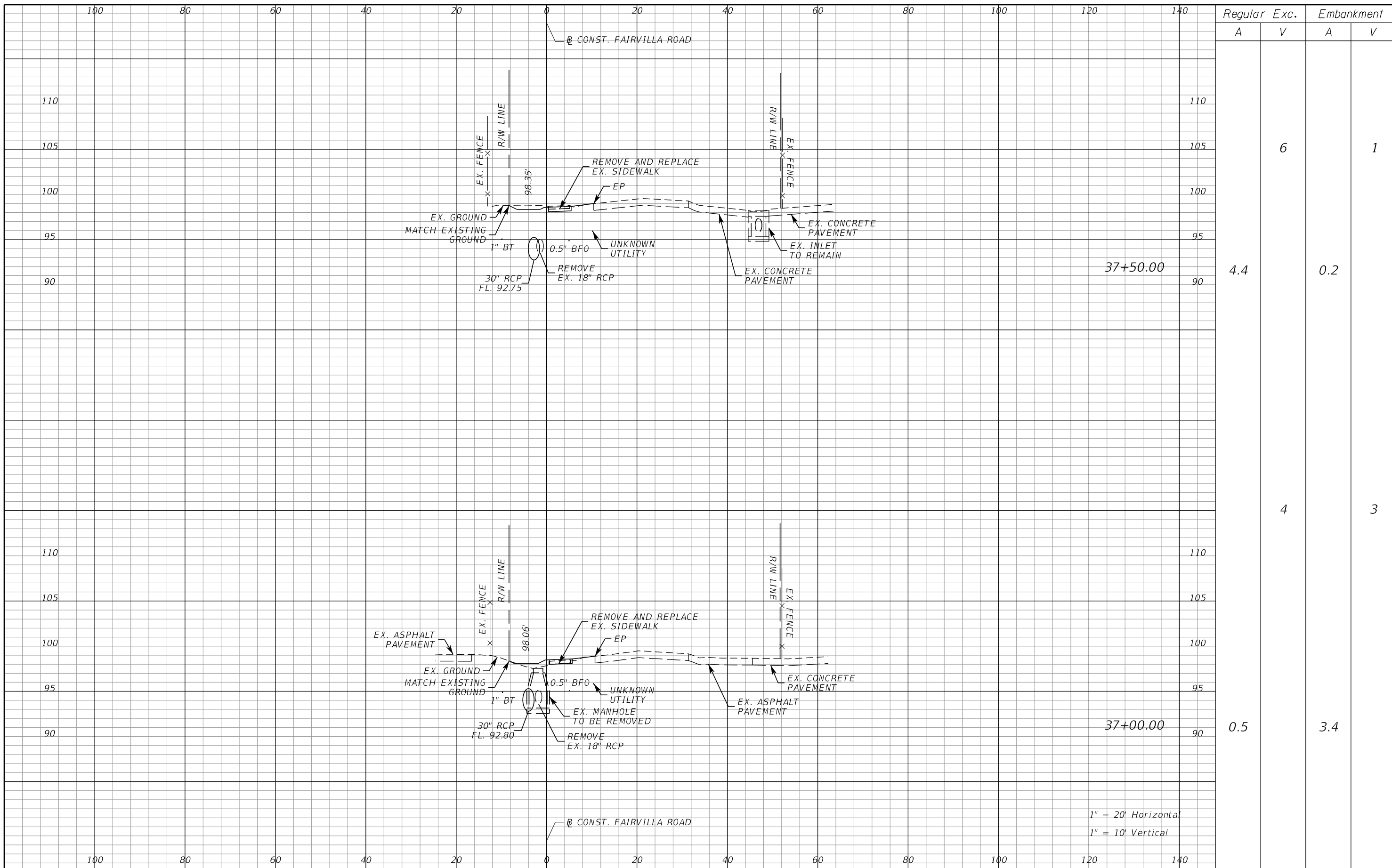
**BARRY STREET
DRAINAGE IMPROVEMENTS**



**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET
NO.
14

1" = 20' Horizontal
1" = 10' Vertical



Regular		Exc.		Embankment	
A	V	A	V	A	V
			6		1
4.4		0.2			
	4				3
0.5		3.4			

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**

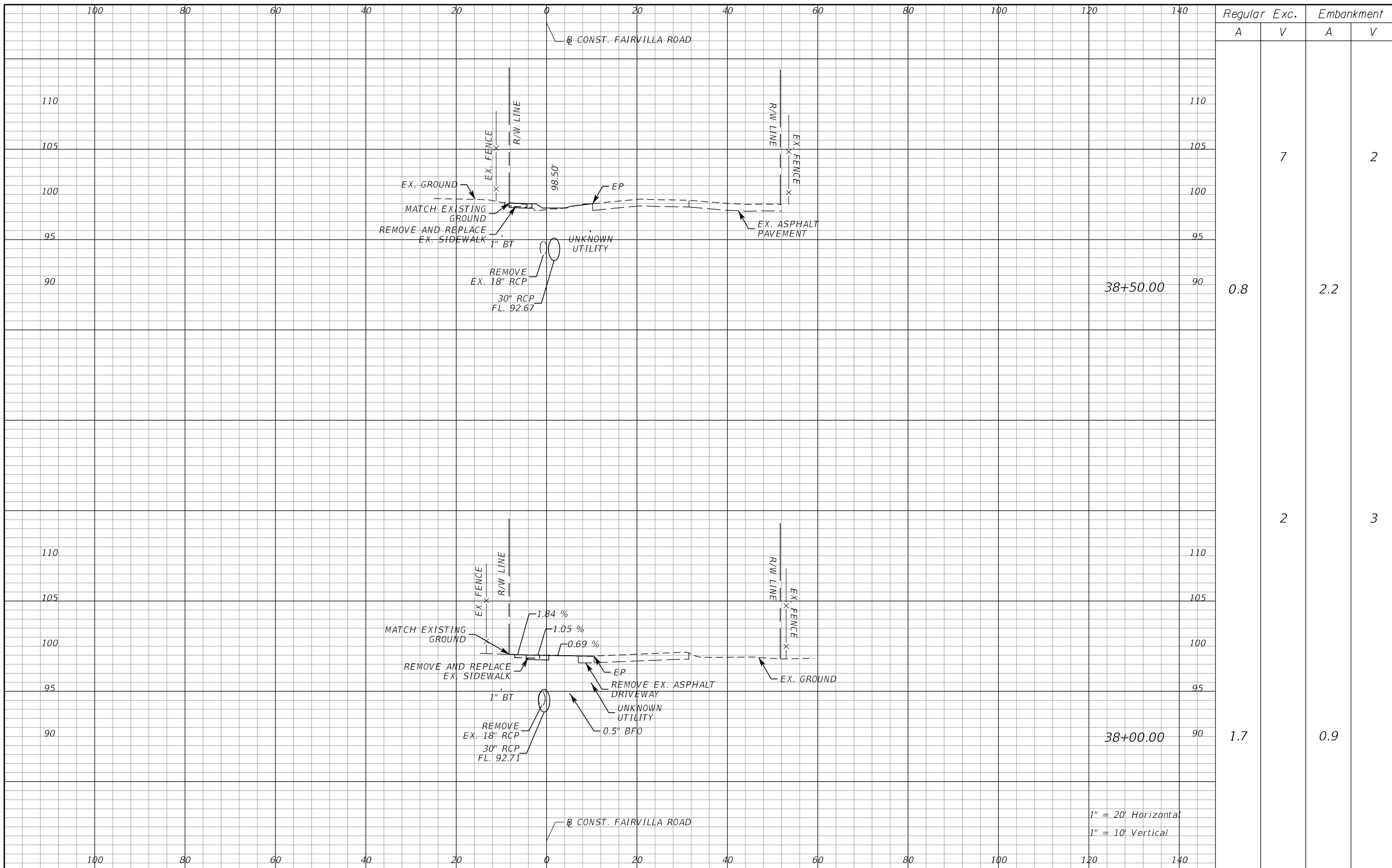


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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET
NO.
15

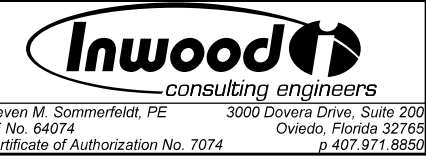


Regular		Exc.		Embankment	
A	V	A	V	A	V
			7		2
0.8				2.2	
			2		3
		1.7		0.9	

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

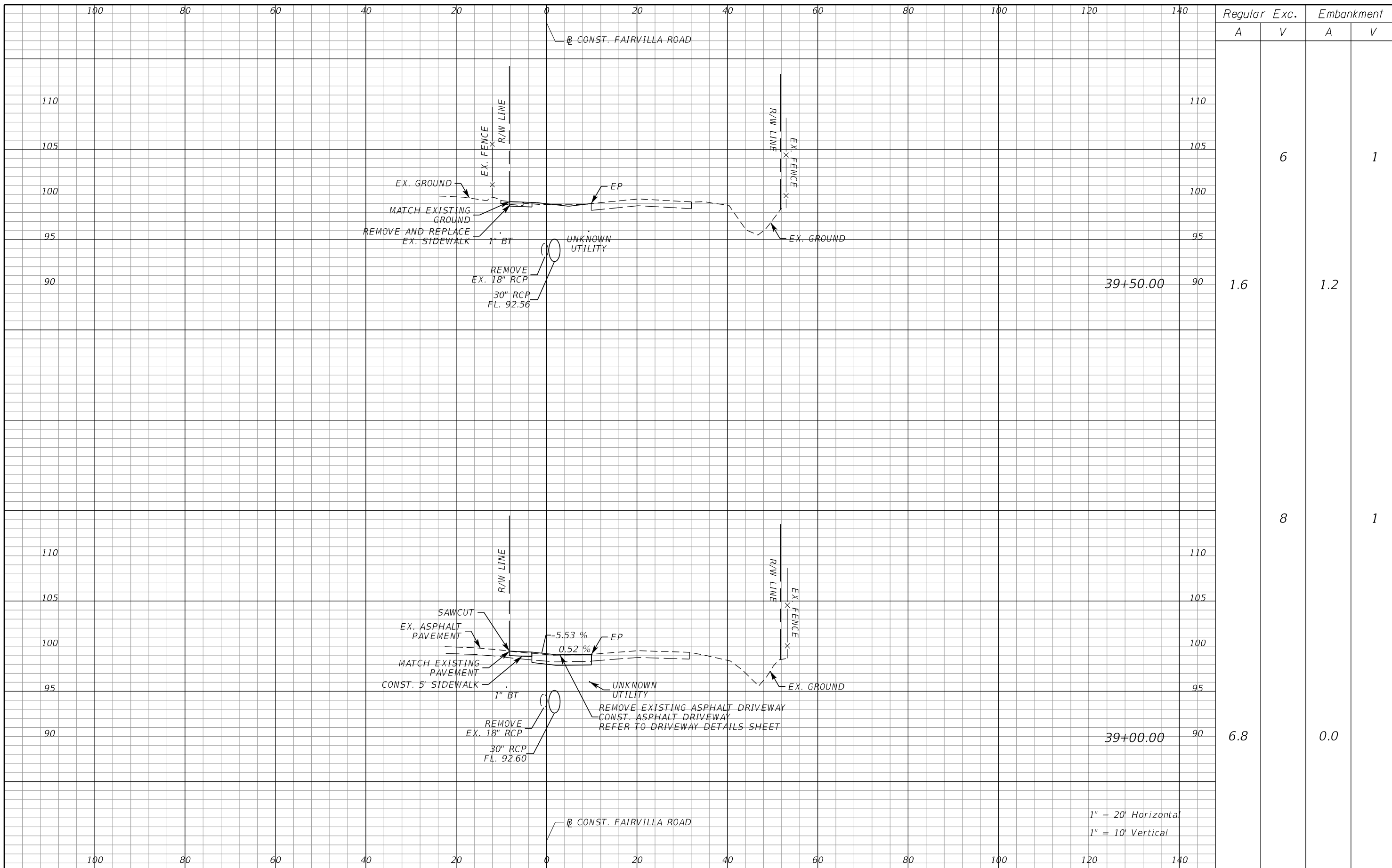
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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET NO.
16

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Regular		Exc.		Embankment	
A	V	A	V	A	V
			6		1
1.6				1.2	
			8		1
6.8				0.0	

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**

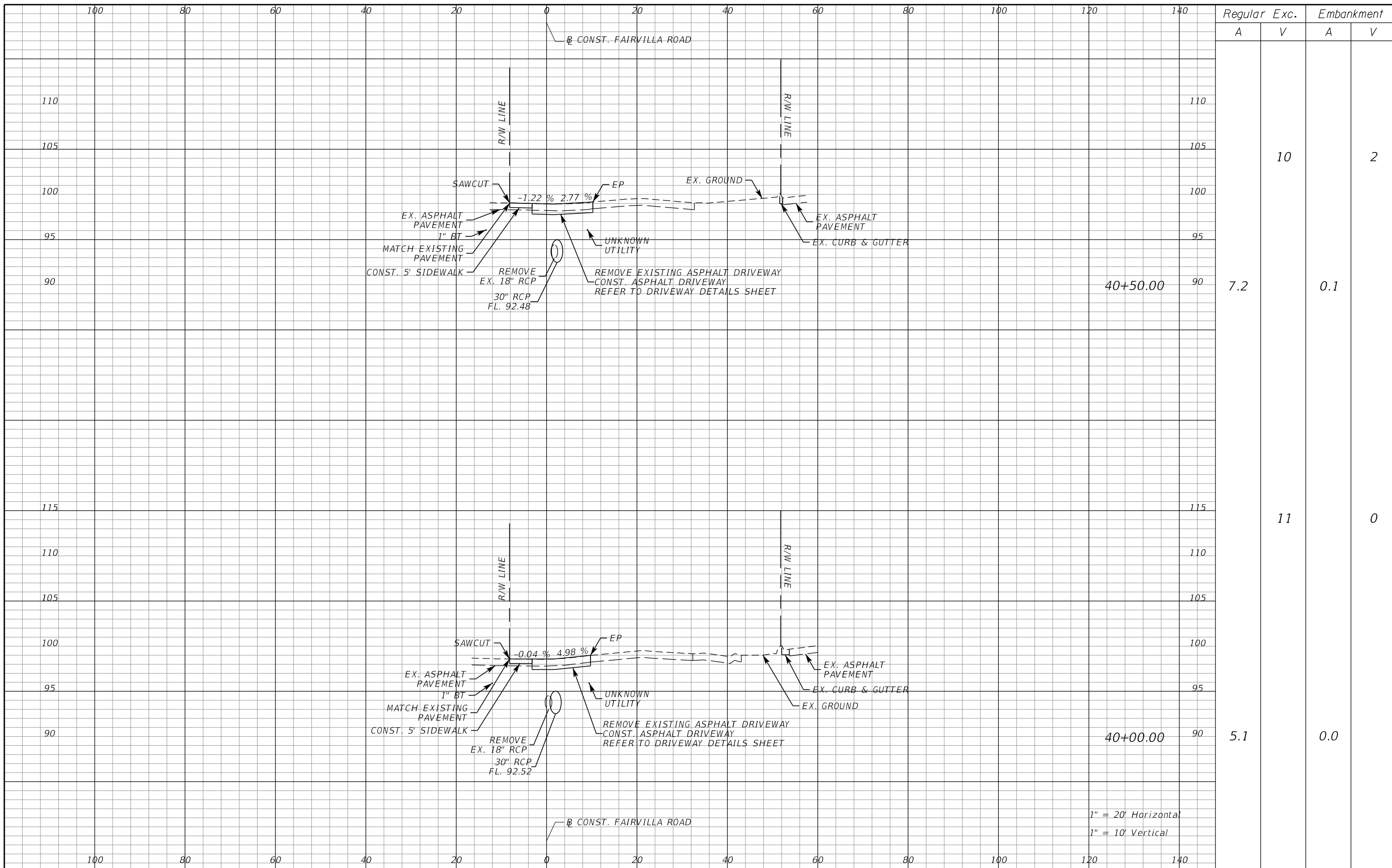


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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET
NO.
17



Regular		Exc.		Embankment	
A	V	A	V	A	V
7.2	10	0.1	2	11	0

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

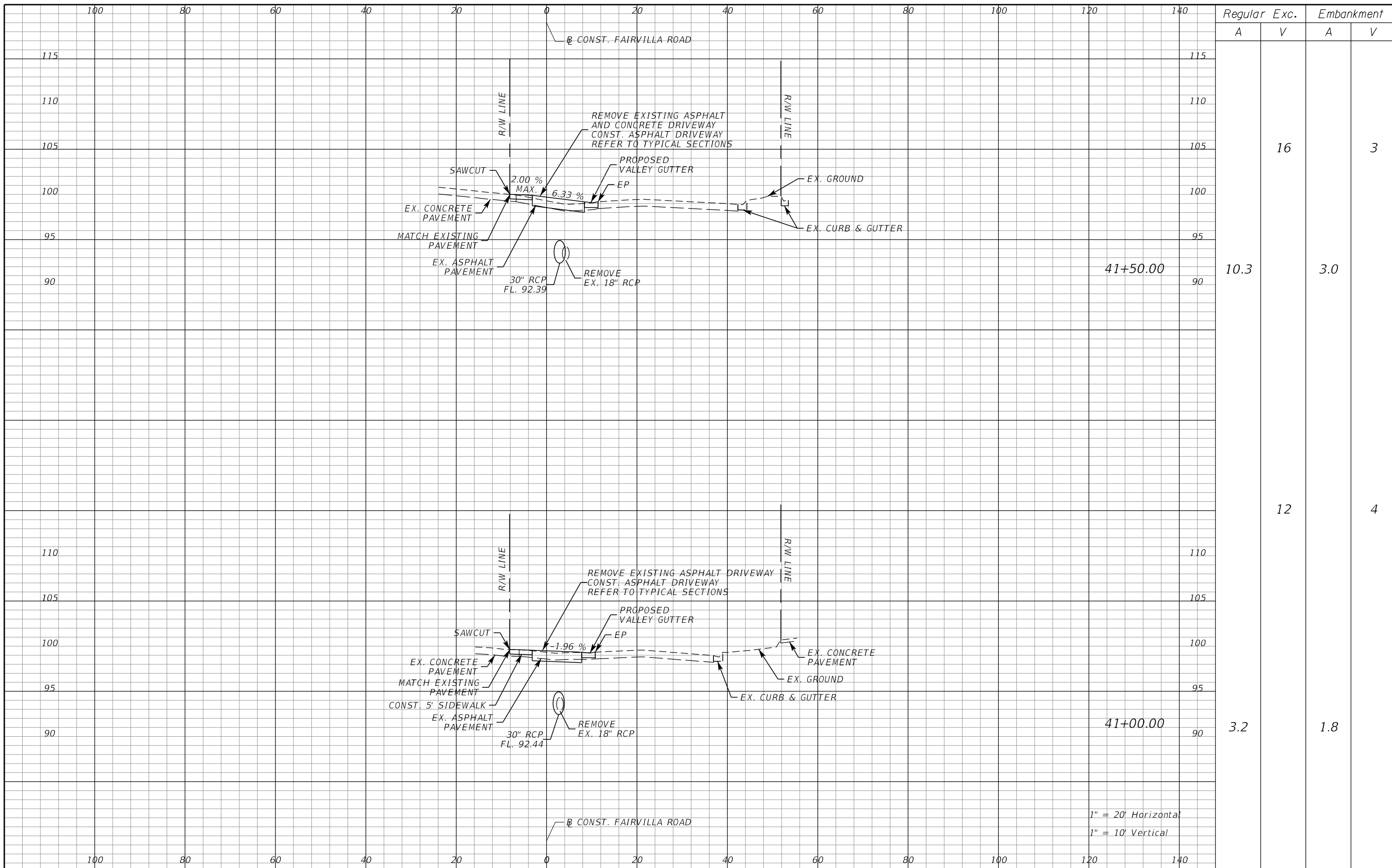
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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET NO.
18



Regular		Exc.		Embankment	
A	V	A	V	A	V
			16		3
10.3		3.0			
	12				4
3.2		1.8			

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**

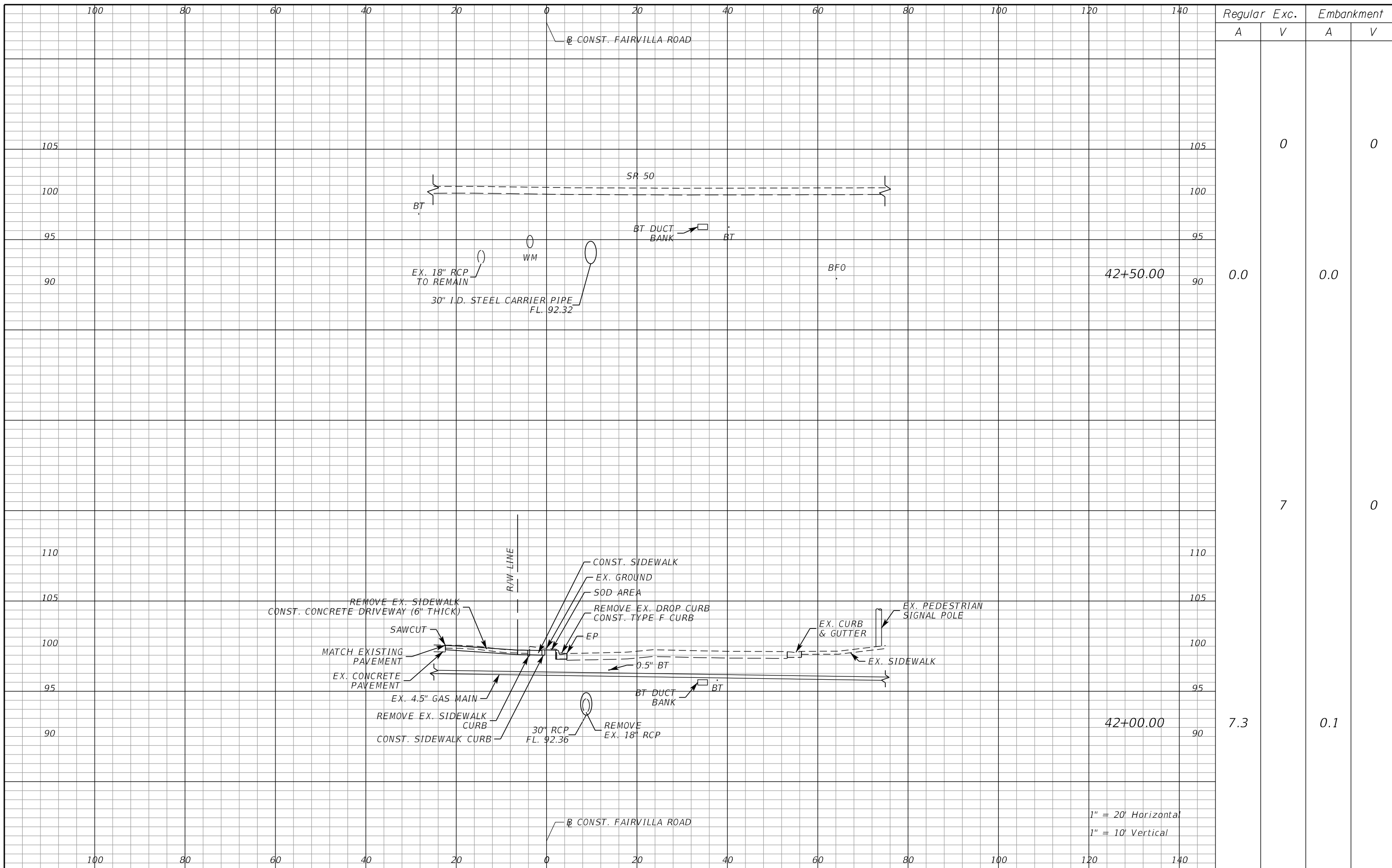


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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET
NO.
19



REVISIONS		
DATE	BY	DESCRIPTION

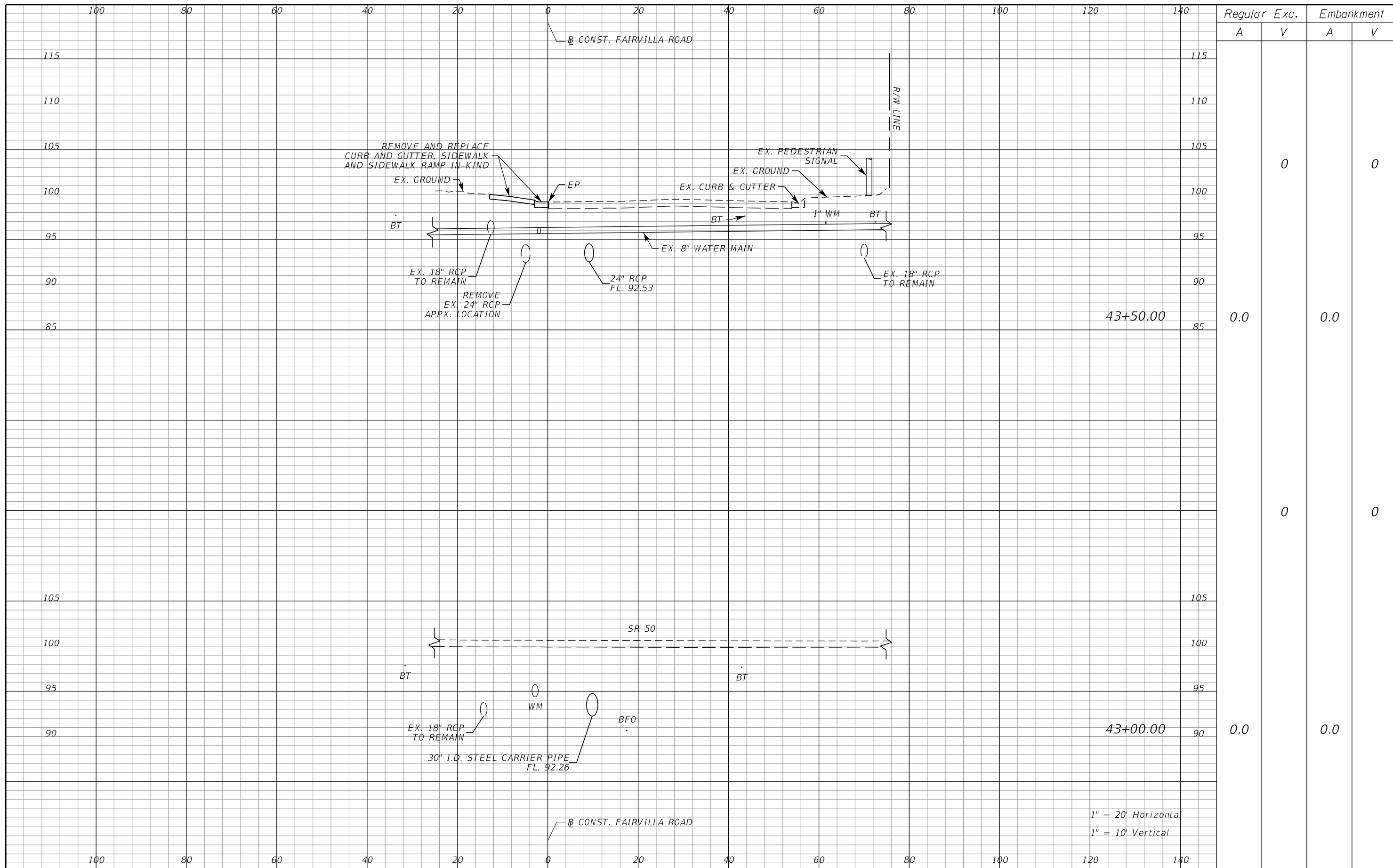
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DRAINAGE IMPROVEMENTS**



**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET
NO.
20

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Regular		Exc.		Embankment	
A	V	A	V	A	V
0.0	0	0.0	0	0	0
0.0	0	0.0	0	0	0

43+50.00

43+00.00

1" = 20' Horizontal
1" = 10' Vertical

REVISIONS		
DATE	BY	DESCRIPTION

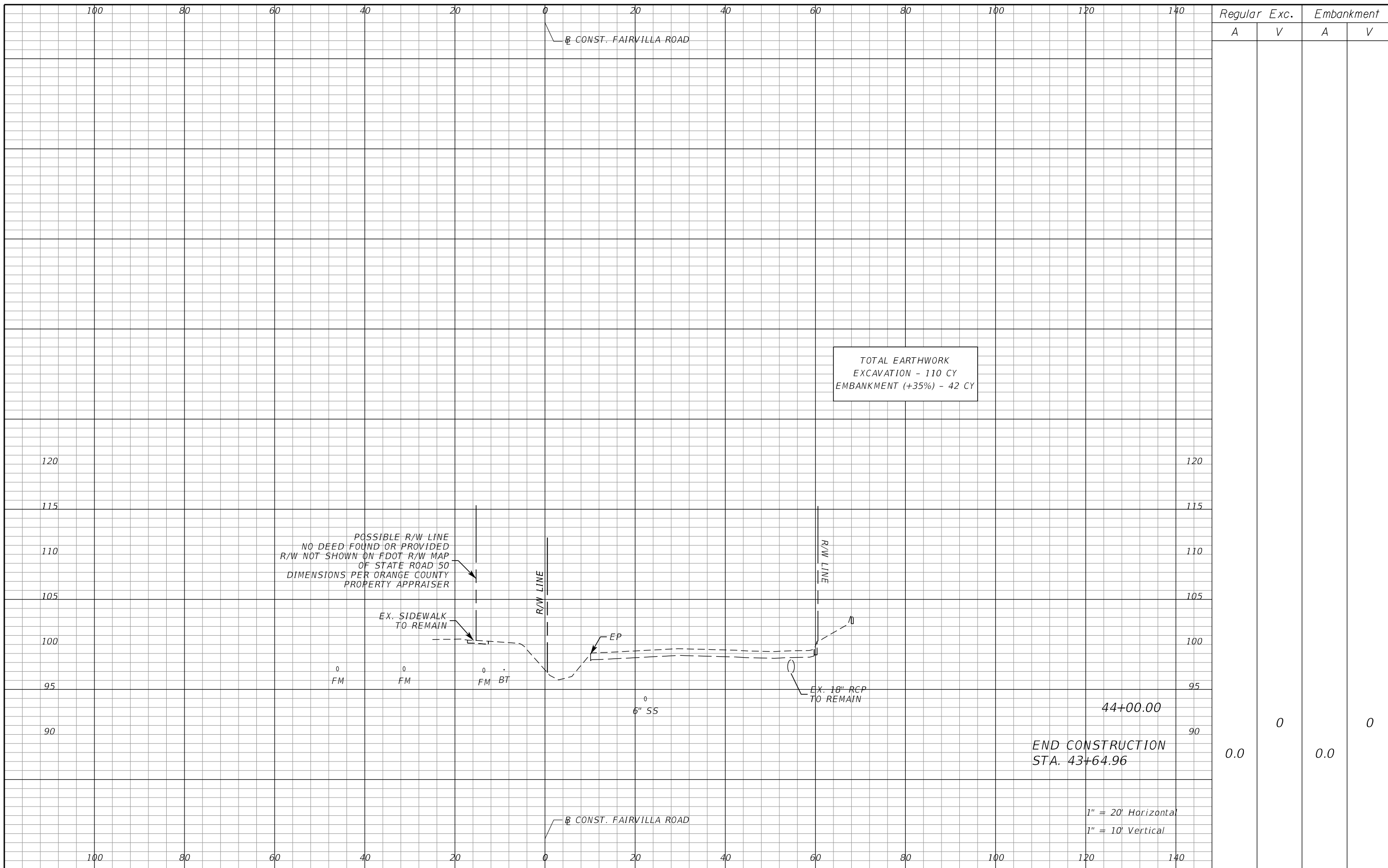
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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET NO.
21

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p 407.971.8850



TOTAL EARTHWORK
EXCAVATION - 110 CY
EMBANKMENT (+35%) - 42 CY

POSSIBLE R/W LINE
NO DEED FOUND OR PROVIDED
R/W NOT SHOWN ON FDOT R/W MAP
OF STATE ROAD 50
DIMENSIONS PER ORANGE COUNTY
PROPERTY APPRAISER

44+00.00
END CONSTRUCTION
STA. 43+64.96

1" = 20' Horizontal
1" = 10' Vertical

Regular		Exc.		Embankment	
A	V	A	V	A	V
0.0		0		0.0	0

REVISIONS		
DATE	BY	DESCRIPTION

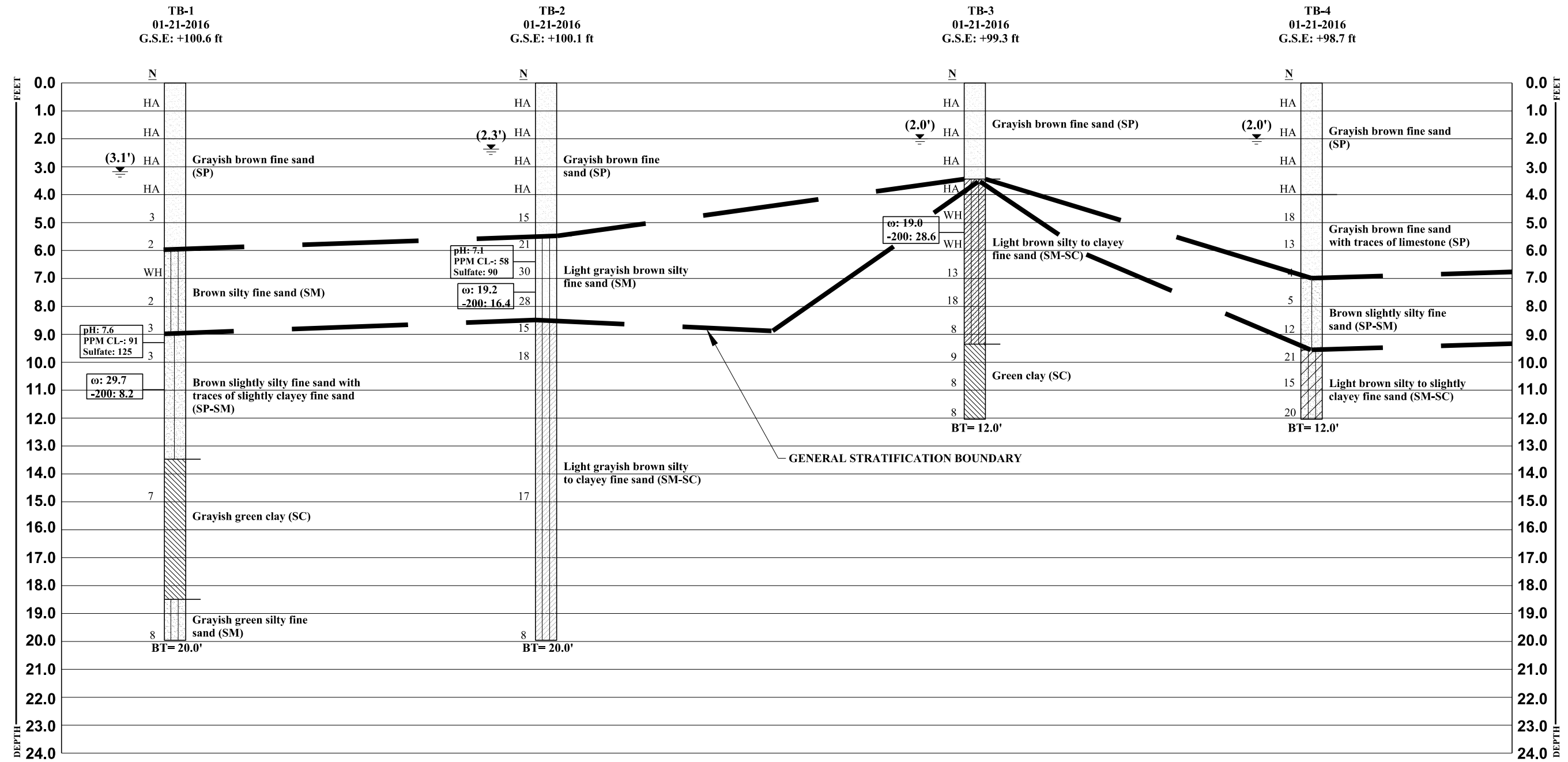
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**CROSS SECTIONS
FAIRVILLA ROAD**

SHEET NO.
22



LEGEND

- BORINGS DRILLED ON DATE NOTED
- WATER LEVEL MEASURED ON DATE OF DRILLING
- STANDARD PENETRATION TEST RESISTANCE (BLOWS/FT)
- BORING TERMINATION DEPTH IN FEET
- NATURAL MOISTURE CONTENT %
- PERCENT PASSING US # 200 SIEVE
- HAND AUGERED
- SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- SAMPLER ADVANCED UNDER WEIGHT OF ROD
- WATER LEVEL NOT ENCOUNTERED ON DATE OF DRILLING
- CHLORIDE ION CONCENTRATION (MG/L)
- SULFATE ION CONCENTRATION (MG/L)
- SURVEYED GROUND SURFACE ELEVATION (FT NAVD)

GRANULAR MATERIALS

Relative Density	SPT (Blows/ft.)
Very loose	Less than 4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Greater than 50

SILTS AND CLAYS

Consistency	SPT (Blows/ft.)
Very soft	Less than 2
Soft	2-4
Firm	4-8
Stiff	8-15
Very stiff	15-30
Hard	Greater than 30

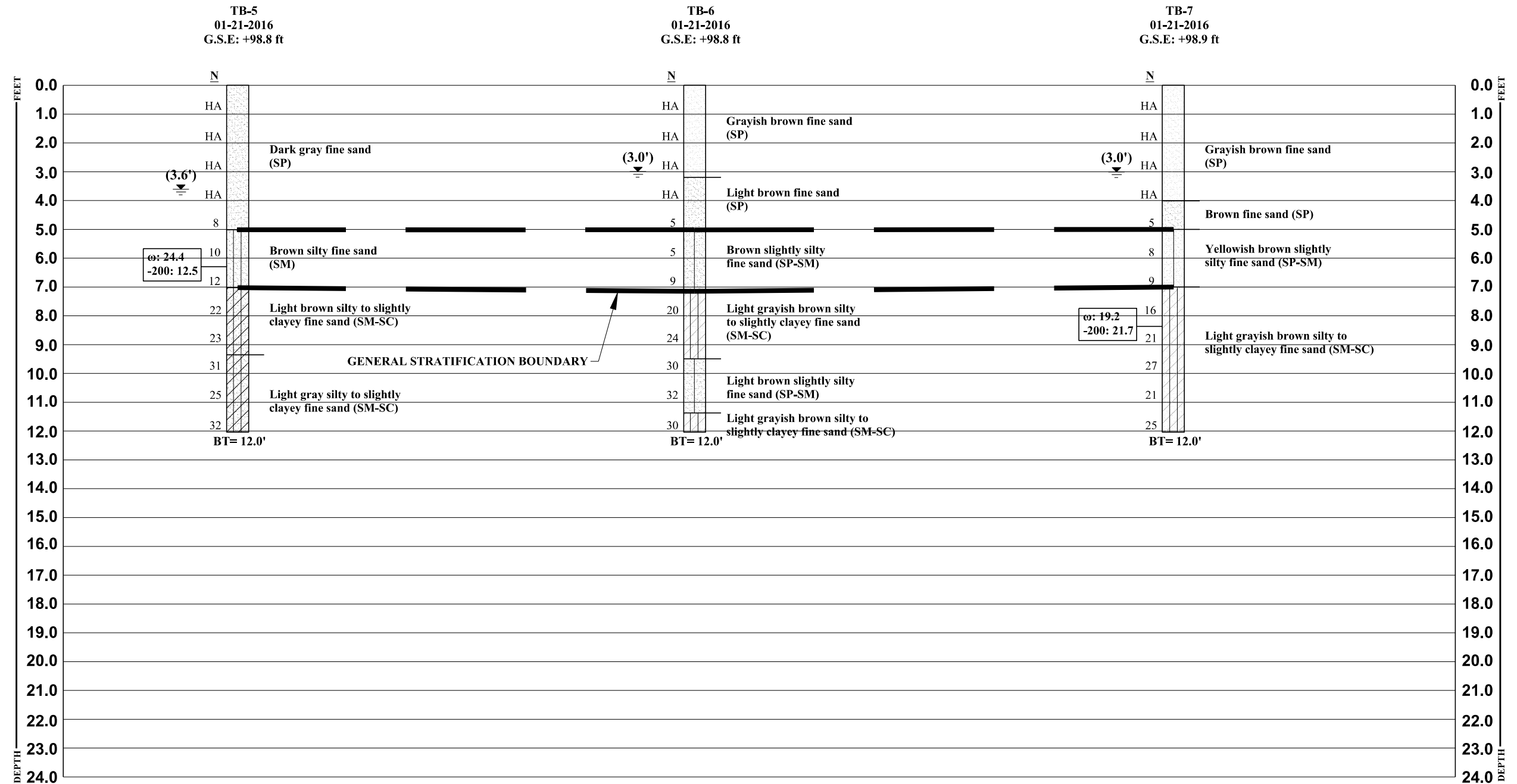
REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



SOIL PROFILES

SHEET NO.
23



LEGEND

- BORINGS DRILLED ON DATE NOTED
- WATER LEVEL MEASURED ON DATE OF DRILLING
- STANDARD PENETRATION TEST RESISTANCE (BLOWS/FT)
- BORING TERMINATION DEPTH IN FEET
- NATURAL MOISTURE CONTENT %
- PERCENT PASSING US # 200 SIEVE
- HAND AUGERED
- SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- SAMPLER ADVANCED UNDER WEIGHT OF ROD
- WATER LEVEL NOT ENCOUNTERED ON DATE OF DRILLING
- CHLORIDE ION CONCENTRATION (MG/L)
- SULFATE ION CONCENTRATION (MG/L)
- SURVEYED GROUND SURFACE ELEVATION (FT NAVD)

GRANULAR MATERIALS

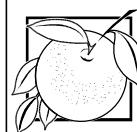
Relative Density	SPT (Blows/ft.)
Very loose	Less than 4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Greater than 50

SILTS AND CLAYS

Consistency	SPT (Blows/ft.)
Very soft	Less than 2
Soft	2-4
Firm	4-8
Stiff	8-15
Very stiff	15-30
Hard	Greater than 30

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



**ORANGE COUNTY
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FLORIDA**



SOIL PROFILES

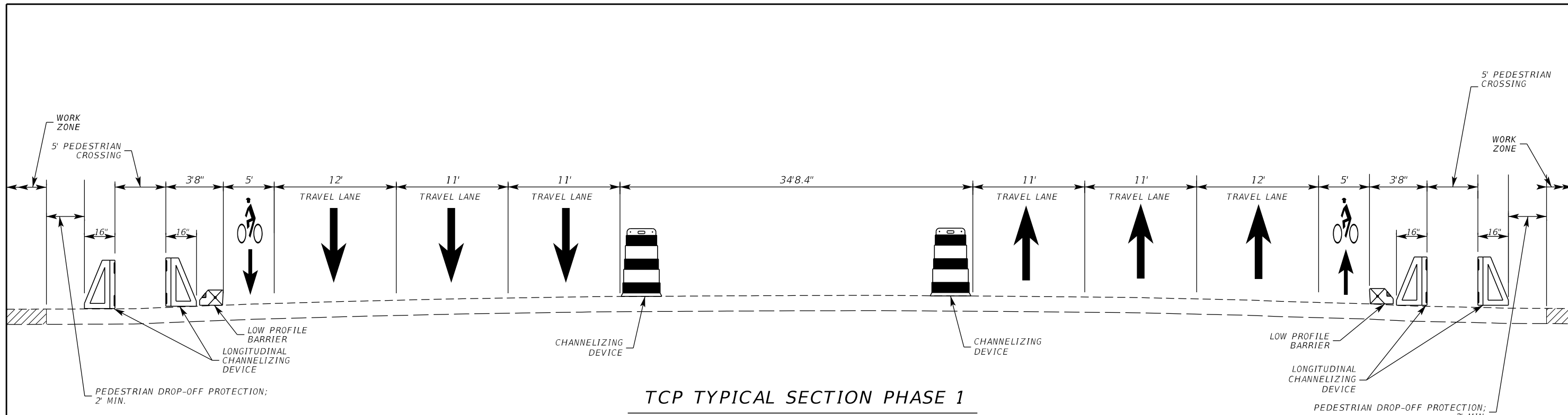
SHEET NO.

24

TRAFFIC CONTROL GENERAL NOTES

1. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) (LATEST PUBLISHED EDITION), CHAPTER VI AND FY2016-17 FDOT DESIGN STANDARDS AT ALL TIMES. ANY AND ALL WORK CONDUCTED WITHIN THE FDOT R/W SHALL MEET AND CONFORM TO THE FY2016-17 FDOT DESIGN STANDARDS AND JULY 2016 SPECIFICATIONS.
2. ALL TRAFFIC CONTROL DEVICES (TEMPORARY SIGNS, PAVEMENT MARKINGS, BARRIER WALL, ETC.) REQUIRED DURING A CONSTRUCTION PHASE SHALL BE INSTALLED AND APPROVED BY THE TRAFFIC OPERATIONS ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION AND WILL BE MAINTAINED IN ACCORDANCE WITH INDEX 600 OF THE FY2016-17 FDOT DESIGN STANDARDS AND JULY 2016 SPECIFICATIONS.
3. ALL SIGNS 48" X 48" OR LARGER SHALL BE MAINTAINED ON TWO (2) BREAKAWAY SUPPORTS OR YIELDING POSTS AS SHOWN IN FIGURE 6-1 OF THE MUTCD. THE CONTRACTOR SHALL USE THE MUTCD TO DETERMINE THE APPROPRIATE PLACEMENT AND ELEVATION OF CONSTRUCTION SIGNS. REFLECTIVITY SHALL ADHERE TO THE FY2016-17 FDOT STANDARDS AND JULY 2016 SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION.
4. VEHICULAR ACCESS TO RESIDENCES AND BUSINESSES WILL BE MAINTAINED AT ALL TIMES.
5. ALL OPERATIONS REQUIRING LANE CLOSURES SHALL BE SUBMITTED TO THE ORANGE COUNTY TRAFFIC OPERATIONS ENGINEER WITH LANE CLOSURES DATA SHEET AS REQUIRED BY FDOT.
6. EASTBOUND LANE CLOSURES ARE PROHIBITED BETWEEN THE HOURS OF 7:00AM AND 9:00AM. WESTBOUND LANE CLOSURES ARE PROHIBITED BETWEEN THE HOURS OF 3:00PM AND 7:00PM.
7. THE EXISTING REGULATORY POSTED SPEED OF 45 MPH WILL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION ON COLONIAL DRIVE.
8. TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORSEEN EMERGENCY CONDITIONS MAY REQUIRE THE TRAFFIC OPERATIONS ENGINEER TO MODIFY CHANNELIZATIONS. THE CONTRACTOR WILL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE TRAFFIC OPERATIONS ENGINEER WITHOUT DELAY.
9. THE CONTRACTOR WILL PROVIDE OFF DUTY LAW ENFORCEMENT OFFICER(S) TO BE USED FOR TRAFFIC CONTROL FOR MAJOR CHANGES IN TRAFFIC MOVEMENTS (INTERSECTION CHANGES, ETC.) AS DIRECTED BY THE TRAFFIC OPERATIONS ENGINEER. THE COST SHALL BE INCLUDED IN THE PRICE OF BID ITEM NO. 102-14.
10. ALL TEMPORARY MARKINGS SHALL BE IN PLACE ONE (1) HOUR BEFORE SUNSET.
11. IF THE CONTRACTOR ELECTS TO USE TEMPORARY SHEET PILING OR SHORING FOR THE INSTALLATION OF THE STORM DRAIN SYSTEM, ALL SUCH SHORING OR SHEETING SHALL BE REMOVED AFTER STORM DRAIN SYSTEM INSTALLATION IS COMPLETE. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ORANGE COUNTY FOR REVIEW AND APPROVAL. SHOP DRAWINGS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.
12. THE CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE TO THE DOWNSTREAM RECEIVING WATER BODY IF CONSTRUCTION ACTIVITIES OBSTRUCT THE NORMAL DRAINAGE FLOW PATH. ANY PUMP SYSTEMS SHALL BE ADEQUATE FOR NORMAL FLOWS ANTICIPATED.
13. PORTABLE CHANGEABLE MESSAGE SIGNS ARE TO BE USED AT PROJECT TERMINI FOR 14 DAYS IMMEDIATELY BEFORE BEGIN CONSTRUCTION. THE MESSAGE TO BE USED ON PORTABLE CHANGEABLE MESSAGE SIGNS WILL BE ESTABLISHED AT THE PRECONSTRUCTION CONFERENCE.
14. CONTRACTOR SHALL COORDINATE WITH LYNX REGARDING ANY CONSTRUCTION ACTIVITIES IMPACTING LYNX TRANSIT OPERATIONS.

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DATE	BY	DESCRIPTION				25



TCP TYPICAL SECTION PHASE 1

COLONIAL DRIVE
STA. 120+00.00

PHASE 1

THE INTENT OF THIS PHASE IS TO INSTALL PIPE UNDER COLONIAL DRIVE

1. INSTALL EROSION CONTROL DEVICES
2. INSTALL DETOUR SIGNAGE. CLOSE FAIRVILLA ROAD.
3. MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC ON EXISTING PAVEMENT AND SIDEWALKS, PATTERNS SHOWN IN PLANS.
4. ADJUST SIGNAL TO INDICATE SOLID RED FOR SIDE STREET MOVEMENTS AND FLASHING YELLOW FOR COLONIAL DRIVE MOVEMENTS.
5. INSTALL DRAINAGE PIPES AND INLETS WITHIN WORK ZONE.
6. WHEN DRAINAGE WORK IS COMPLETED, RE-ESTABLISH ORIGINAL TRAFFIC PATTERNS AND SIGNAL OPERATION PRIOR TO PROCEEDING TO PHASE II

PHASE 2

THE INTENT OF THIS PHASE IS TO MILL AND RESURFACE COLONIAL DRIVE

1. OPEN FAIRVILLA ROAD, REMOVE DETOUR SIGNAGE
2. MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC IN ORIGINAL PATTERNS
3. RESTORE ORIGINAL SIGNAL OPERATIONS
4. MILL AND RESURFACE COLONIAL DRIVE
5. APPLY FRICTION COURSE AND PAVEMENT MARKINGS USING STD. INDEX 613

REVISIONS		
DATE	BY	DESCRIPTION

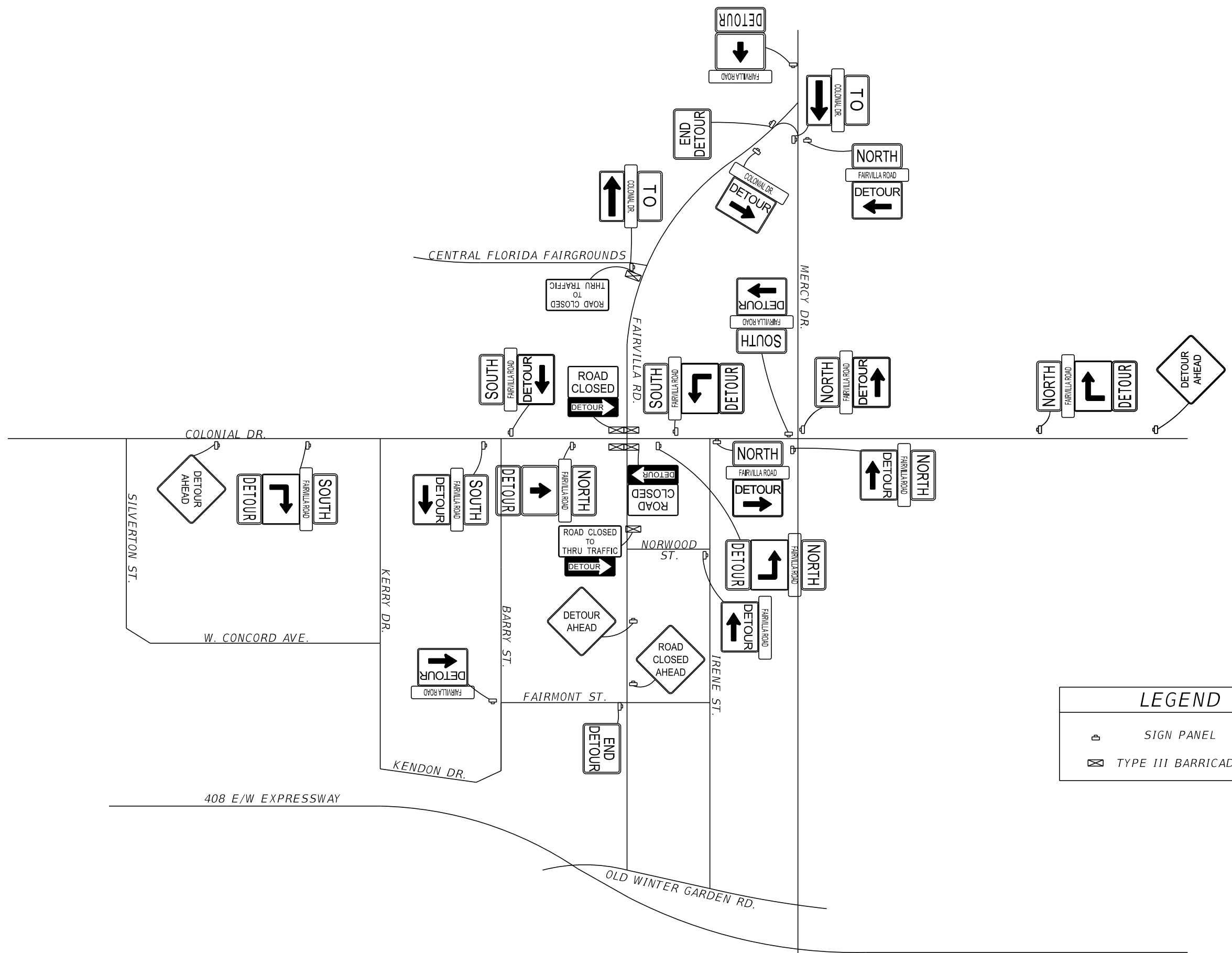
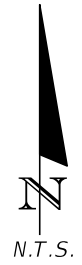
**BARRY STREET
DRAINAGE IMPROVEMENTS**



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**TEMPORARY TRAFFIC CONTROL
TYPICAL SECTION**

SHEET NO.
26



LEGEND	
	SIGN PANEL
	TYPE III BARRICADE

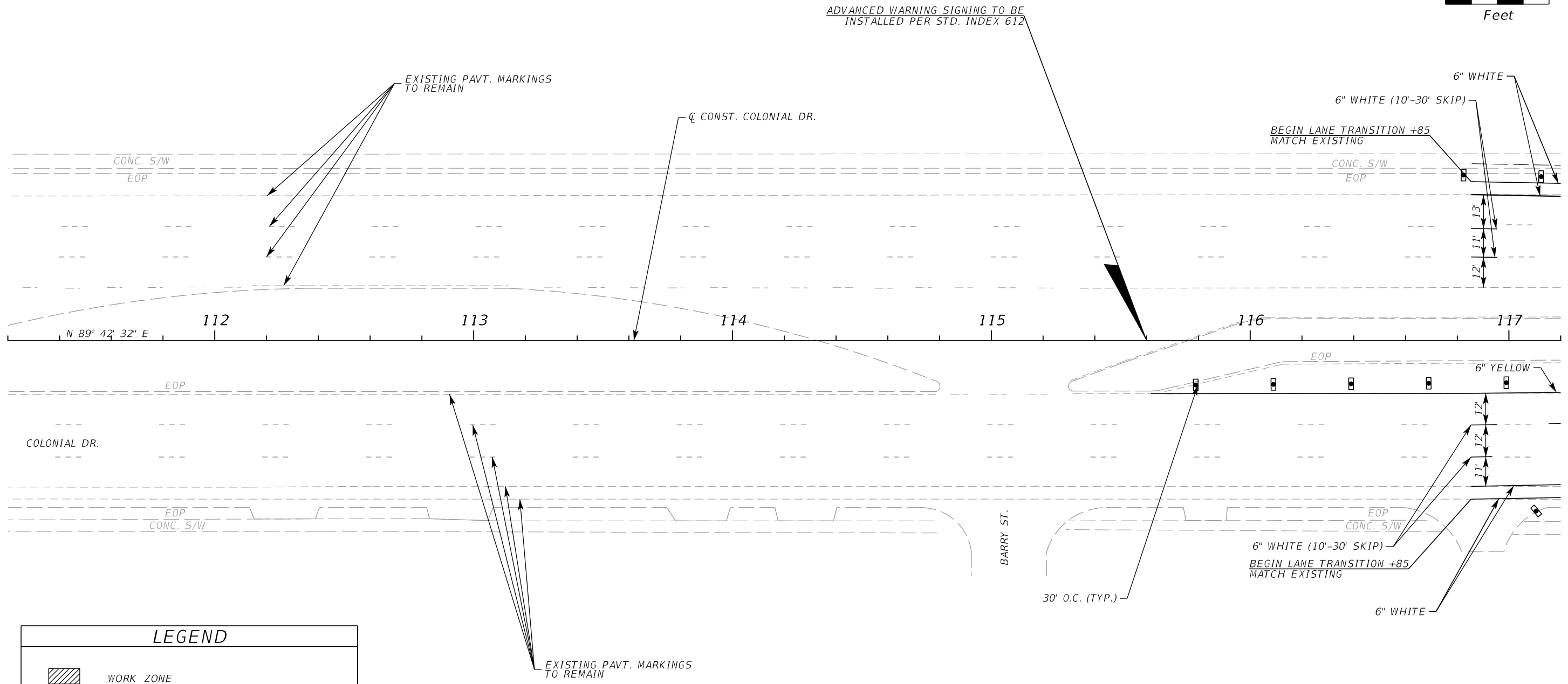
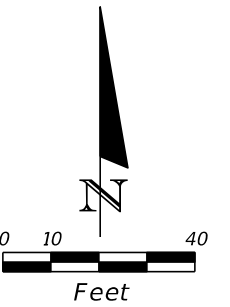
REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



DETOUR PLAN

SHEET NO.
27



LEGEND	
	WORK ZONE
	LONGITUDINAL CHANNELIZATION DEVICE
	CHANNELIZATION DEVICE
	WORK ZONE SIGN
	LOW PROFILE TEMPORARY BARRIER

REMOVE EXISTING EB & WB MAINLINE PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLAN

+85

REVISIONS		
DATE	BY	DESCRIPTION

BARRY STREET DRAINAGE IMPROVEMENTS

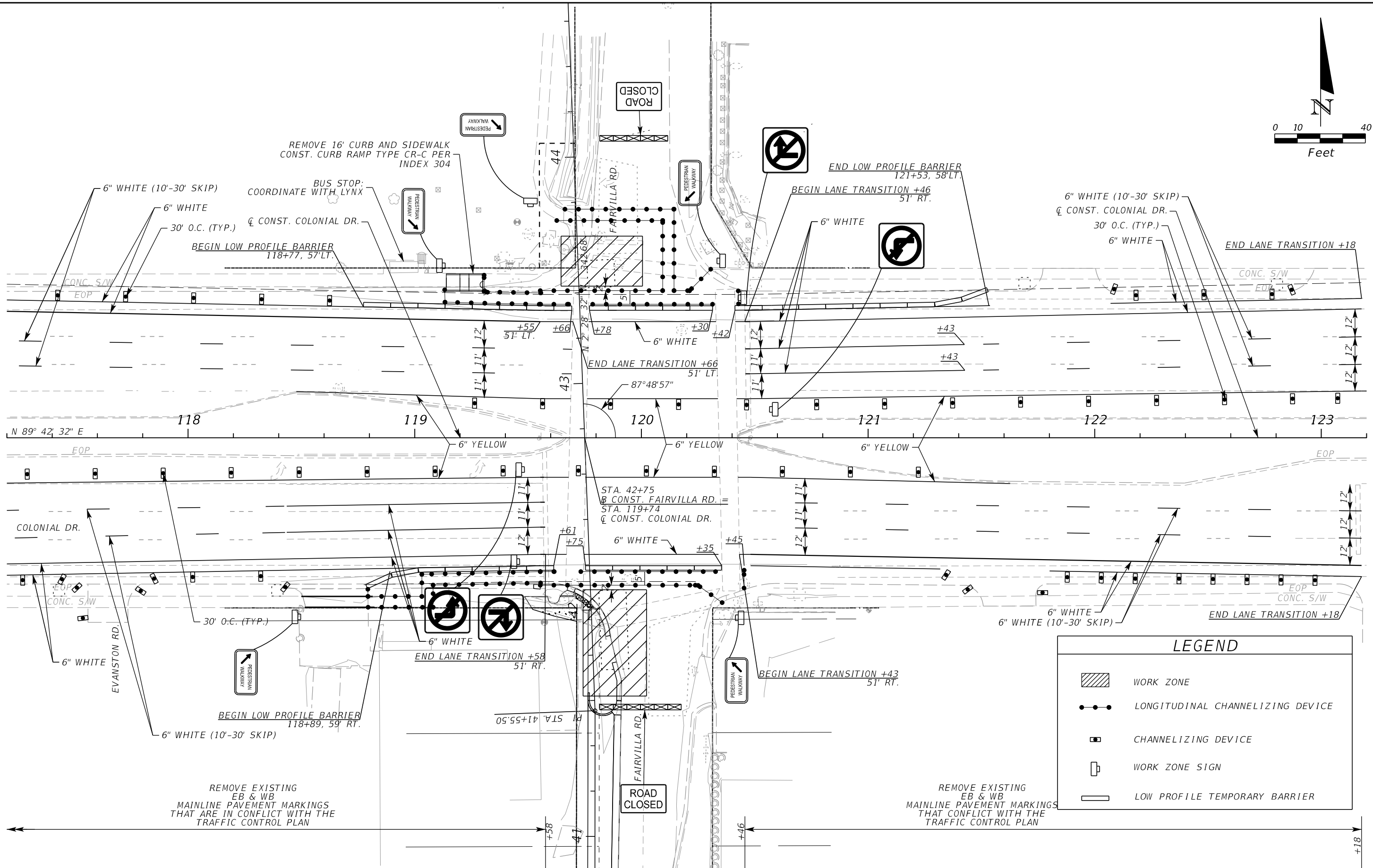
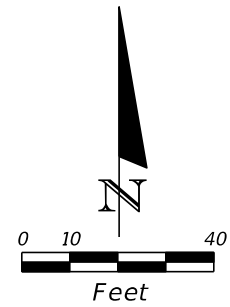


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TEMPORARY TRAFFIC CONTROL PLAN

SHEET NO.
 28



LEGEND	
	WORK ZONE
	LONGITUDINAL CHANNELIZING DEVICE
	CHANNELIZING DEVICE
	WORK ZONE SIGN
	LOW PROFILE TEMPORARY BARRIER

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**

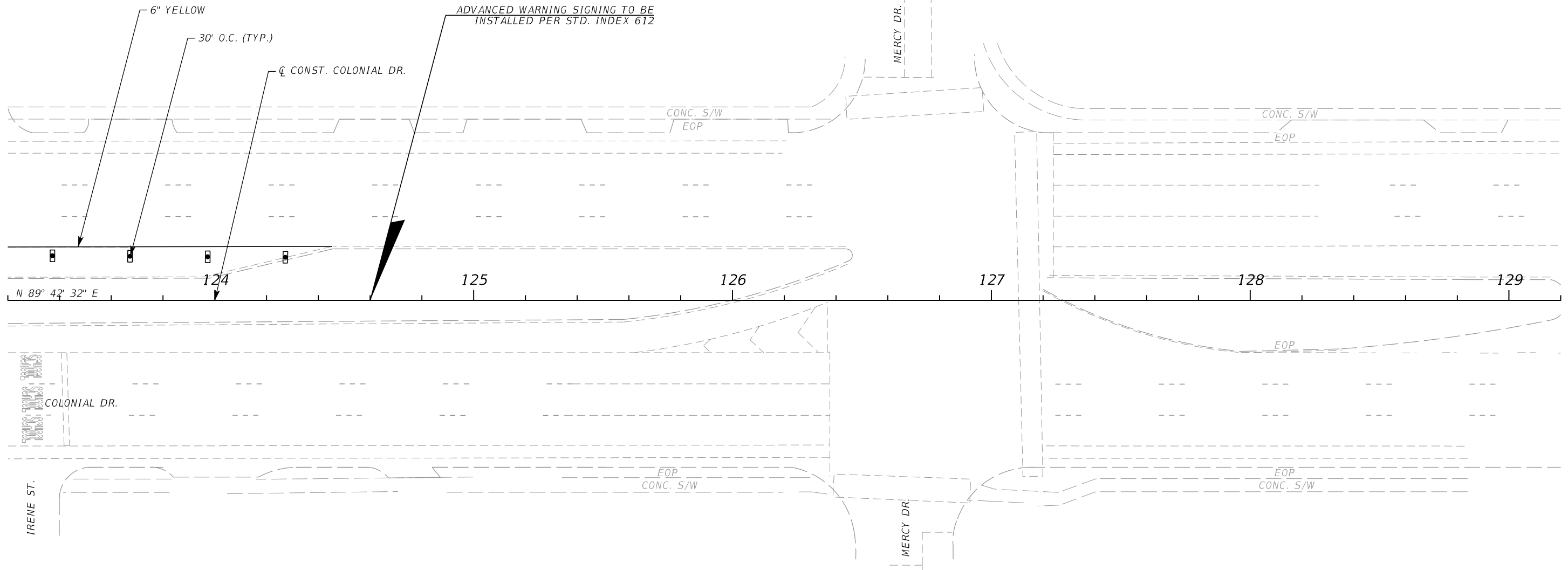
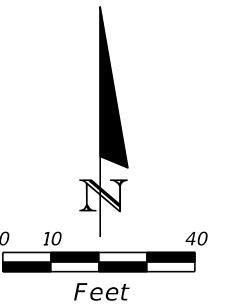
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FLORIDA**

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 PE No. 51905 Oviedo, Florida 32765
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**TEMPORARY TRAFFIC CONTROL
PLAN**

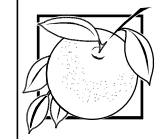
SHEET
NO.
29



LEGEND	
	WORK ZONE
	LONGITUDINAL CHANNELIZATION DEVICE
	CHANNELIZATION DEVICE
	WORK ZONE SIGN
	LOW PROFILE TEMPORARY BARRIER

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



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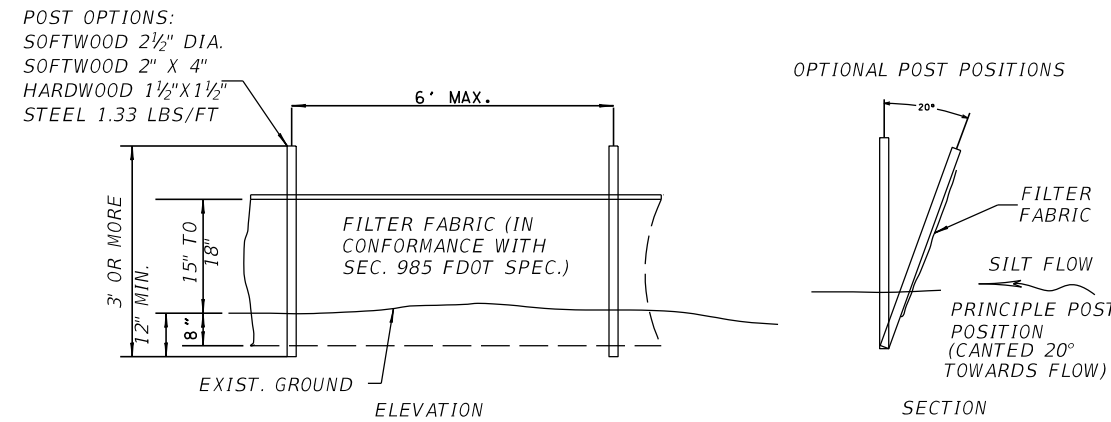
**TEMPORARY TRAFFIC CONTROL
PLAN**

SHEET
NO.
30

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).

SILT FENCE DETAILS

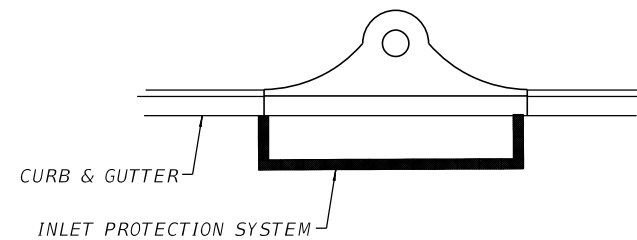


NOTES:

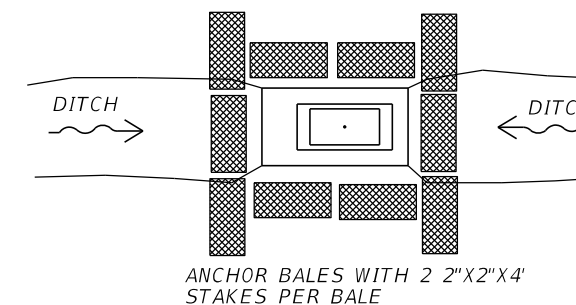
1. DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATER COURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS ARE TO BE USED AT PERMANENT BODIES OF WATER.
2. WHERE USED AS SLOPE PROTECTION SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

EXISTING AND PROPOSED INLET



DITCH BOTTOM INLETS



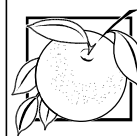
NOTES:

1. TYPE I AND II SYNTHETIC BARRIERS SHOULD BE SPACED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL MANUAL.
2. SYNTHETIC BALES SHALL BE TRENCHED 3" TO 4" AND ANCHORED WITH 2 - 1" X 2" (OR 1" DIA.) X 4" WOOD STAKES. STAKES OF OTHER MATERIALS OR SHAPES PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
3. RAILS AND POSTS SHALL BE 2"X4" WOOD. OTHER MATERIALS PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER.
4. ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER.
5. WHERE USED IN CONJUNCTION WITH SILT FENCE, SYNTHETIC BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.

REVISIONS

DATE	BY	DESCRIPTION

BARRY STREET DRAINAGE IMPROVEMENTS



ORANGE COUNTY
GOVERNMENT
FLORIDA



Steven M. Sommerfeldt, PE 3000 Dovera Drive, Suite 200
PE No. 64074 Oviedo, Florida 32765
Certificate of Authorization No. 7074 p. 407.971.8850

EROSION CONTROL DETAILS

SHEET
NO.

31

The following narrative is the Stormwater Pollution Prevention Plan and contains references to the FDOT Standard Specifications for Road and Bridge Construction (July 2016), the FDOT Design Standards (FY2016-17), 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 (July 2016) 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 is the construction of stormwater culverts along Fairvilla Road and the cross drain at SR 50. The project area includes approximately 660 linear feet of the west right-of-way along Fairvilla Road and approximately 140 linear feet within the intersection of Fairvilla Road and SR 50. The project begins approximately 660' south of the intersection with SR 50, and ends at approximately the northwest corner of the Fairvilla Road and SR 50 intersection.

1.b Sequence of Major Soil Disturbing Activities:

In the Section 104 Erosion Control Plan, the Contractor shall provide a detailed sequence of construction for all construction activities. The Contractor shall follow the sequence of major activities described below, unless the Contractor proposes a different sequence that is equal or better at controlling erosion and trapping sediment and is approved by the County.

1. Excavate the unwanted, existing soils to be hauled overland for proper disposal. Remove existing soils and prepare the area for proposed improvements.
2. Construct the proposed inlets, manholes and culverts.
3. Stabilize the site with asphalt, concrete and sod.

1.c Area Estimates:

Total project area: 37.2 acre.
Total area to be disturbed: 0.37 acre.

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 generally stratified into two layers. The uppermost soil layer is grayish brown and light brown fine sand to a depth of 4-6 ft below grade. The next layer is generally brown silty fine sand which is slightly silty and clayey at some locations.

1.f Outfall Information Description:

The existing system outfalls to Lake Lawne through the SR 50 stormwater system.

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 and Profile 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.

The Summary of Quantities provides quantities for silt fencing and inlet protection systems.

* **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 drains north via the proposed culverts to the SR 50 stormwater system, which outfalls to Lake Lawne.

* **Discharge Points To Surface Waters:**
The discharge is shown on the Plan Sheets.
Locations: Lake Lawne - N: 1535735.62, E: 515344.75

* **Receiving Waters:**
Receiving Water Name: Lake Lawne

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:

A Storm Drain System will be constructed to convey runoff downstream.

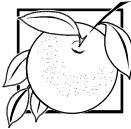
2.c Other Controls:

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			DATE	BY	DESCRIPTION	 ORANGE COUNTY GOVERNMENT FLORIDA	 Inwood consulting engineers <small>Steven M. Sommerfeldt, PE 3000 Dovers Drive, Suite 200 PE No. 64074 Oviedo, Florida 32765 Certificate of Authorization No. 7074 p 407.971.8850</small>	STORMWATER POLLUTION PREVENTION PLAN	SHEET NO.
DATE	BY	DESCRIPTION							32

* 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:

General permit to Counties, Municipalities, and other Agencies to conduct stormwater retrofit activities per Rule 62-330.451, FAC.

SFWMD Permit Number: 48-02569-P

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.

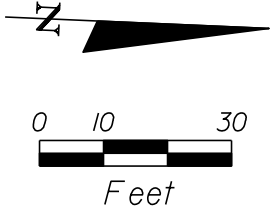
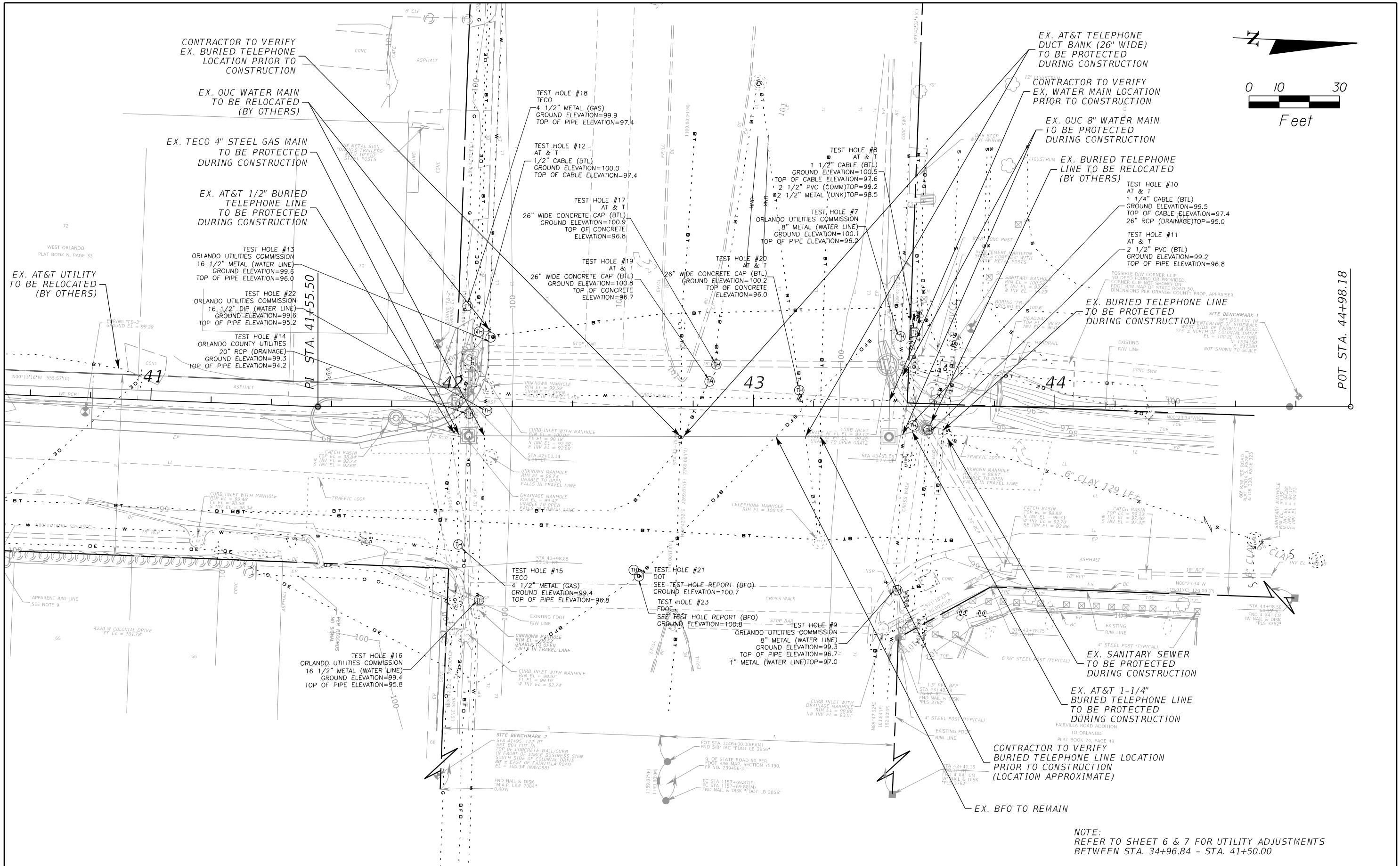
5.0 NON-STORMWATER DISCHARGES:

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			BARRY STREET DRAINAGE IMPROVEMENTS	 ORANGE COUNTY GOVERNMENT FLORIDA	 <small>Steven M. Sommerfeldt, PE 3000 Dovera Drive, Suite 200 PE No. 64074 Oviedo, Florida 32765 Certificate of Authorization No. 7074 p 407.971.8850</small>	STORMWATER POLLUTION PREVENTION PLAN	SHEET NO.
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NOTE:
REFER TO SHEET 6 & 7 FOR UTILITY ADJUSTMENTS
BETWEEN STA. 34+96.84 - STA. 41+50.00

REVISIONS		
DATE	BY	DESCRIPTION

**BARRY STREET
DRAINAGE IMPROVEMENTS**



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UTILITY ADJUSTMENTS

SHEET NO.
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