

**Miami-Dade County**  
Department of Transportation  
and Public Works

SET # 1 OF 2 SETS



**VOLUME III of III**

**PLANS FOR:**

**Improvements to SW 87 Avenue Bridge Over Canal C-100**

**Miami-Dade County**

**Small Business Enterprise-Construction Program (SBE-CONST.):**

SBE-Con 22.01%

**Small Business Enterprise-Services Program (SBE-S):**

SBE-S 0.26%

**DTPW Capital Improvements Engineer:**

Katherine Fernandez

**RPQ Issue Date:**

May 26, 2022

Miscellaneous Construction Contracts (MCC) Program:  
MCC 7360 Plan -CICC 7360-0/08, Request for Price Quotation (RPQ) No. 20220010



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\*These sheets are contained in a separate digitally signed and sealed document.

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2021-22 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

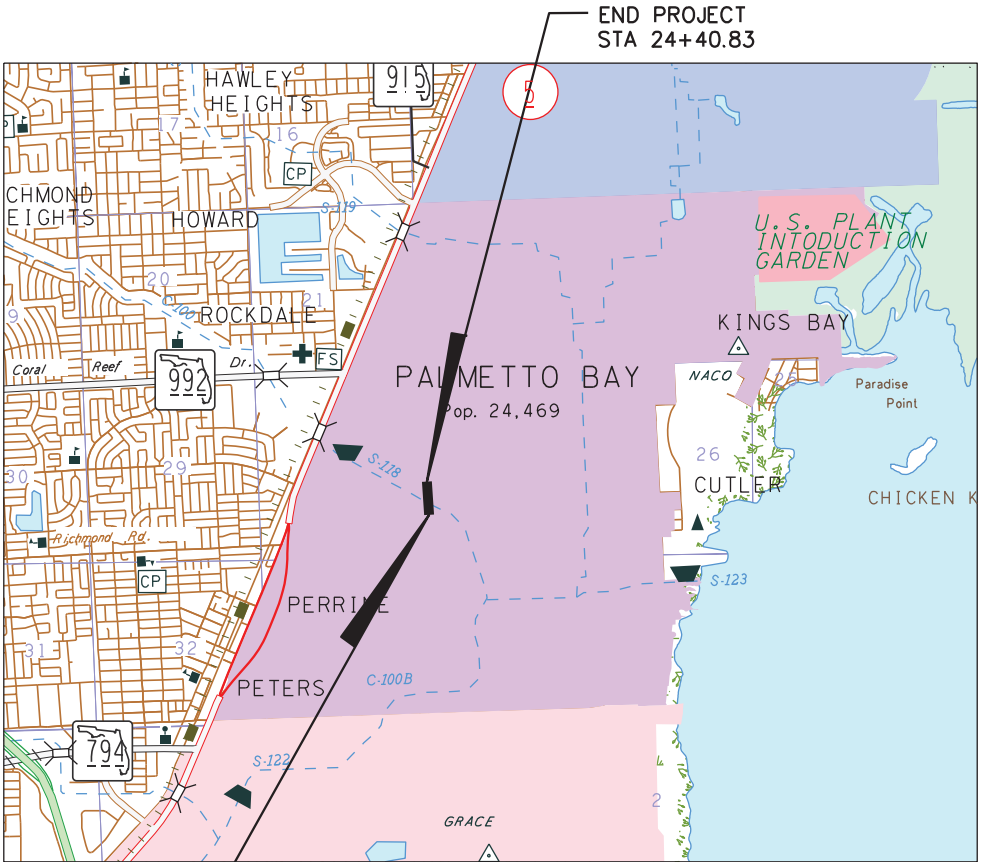
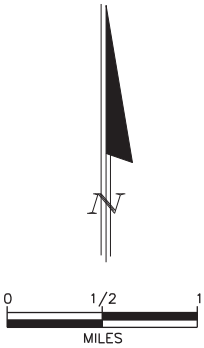
Standard Plans for Bridge Construction are included in the Structures Plans Component.

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND SPECIFICATIONS PARTS 1, 2 AND 3. THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC STANDARD PLANS, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AS AMENDED BY CONTRACT DOCUMENTS.



PLANS FOR PROPOSED  
IMPROVEMENTS TO  
SW 87th AVENUE  
OVER THE C-100 CANAL  
FROM SW 164 ST TO SW 163 TERR.

MIAMI-DADE COUNTY PROJECT NO. 20210098



BEGIN PROJECT  
STA 12+71.88

PREPARED FOR



MIAMI-DADE COUNTY  
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS  
HIGHWAY DIVISION

STEPHEN P. CLARK CENTER  
111 NW 1 ST  
MIAMI, FLORIDA 33128

BY



FINAL PLANS  
MAY 2022

**NOTE:**  
ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

LENGTH OF JOB		
	LIN. FT.	MILES
ROADWAY	1,102.61	0.209
BRIDGE	66.34	0.012
GROSS LENGTH OF JOB	1,168.95	0.221
EXCEPTIONS	N/A	N/A
NET LENGTH OF JOB	1,168.95	0.221

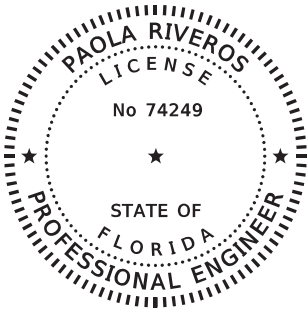
APPROVED	_____
	COUNTY ENGINEER
RECOMMENDED	_____
	ASSISTANT DIRECTOR
SUBMITTED	_____
	HIGHWAY DIVISION

PROPOSED _____	CHECK _____
DESIGN _____	DRAWN _____
DATE _____	SHEET 1 OF 81

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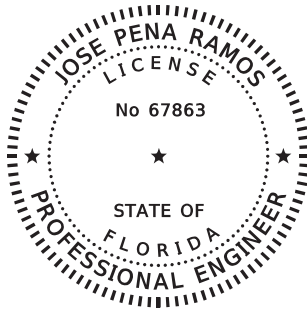


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**Paola Riveros**  
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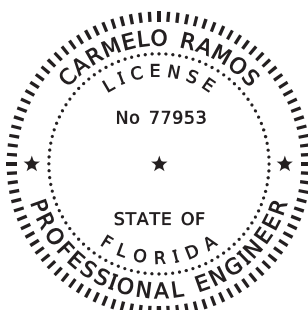


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1-10 (LANDSCAPE).

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Kenneth Eric Gardner  
DN: c=US, st=Florida,  
l=Hialeah, o=GSLA  
DESIGN INC.,  
cn=Kenneth Eric  
Gardner,  
email=ken@gsladesign.com  
Date: 2022.05.13  
15:23:38 -04'00'

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**R.J. Behar & Company, Inc.**  
Engineers • Planners  
6861 SW 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332

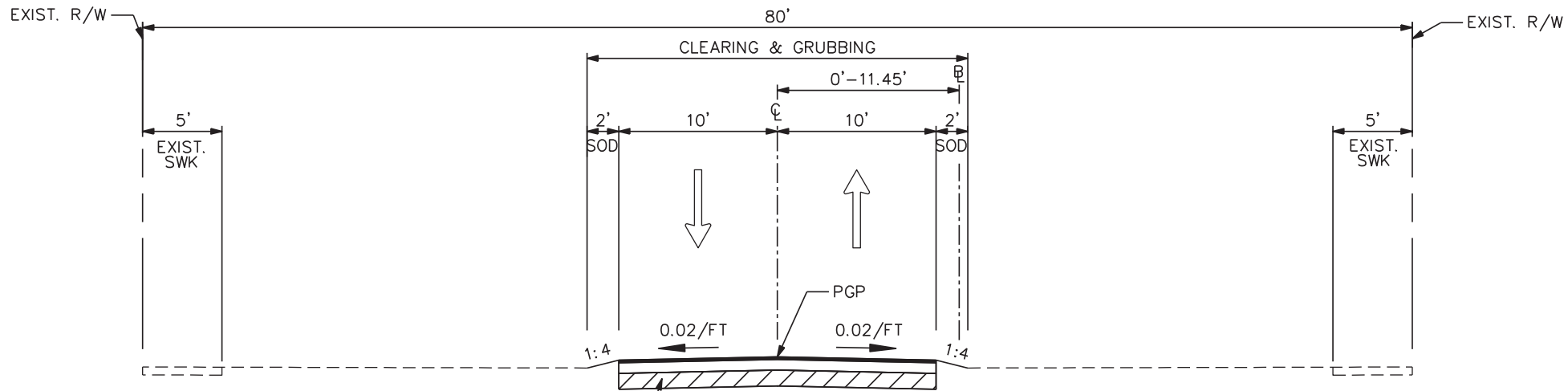
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HIGHWAY DIVISION  
STEPHEN P. CLARK CENTER  
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SIGNATURE SHEET



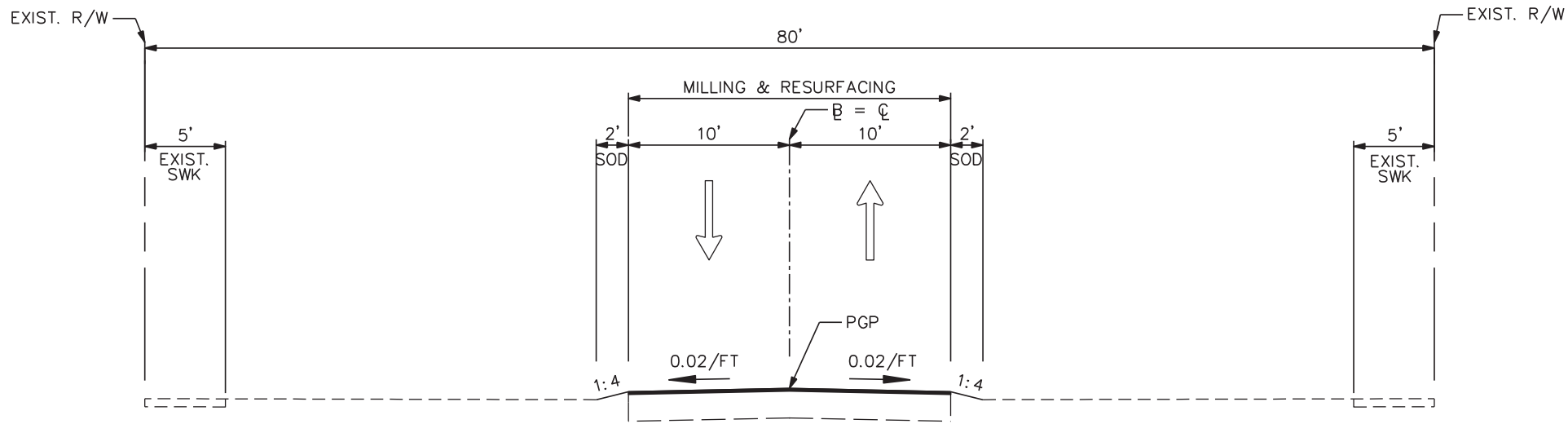


12" TYPE B STABILIZATION  
CBR 30

TYPICAL SECTION  
SW 87TH AVENUE  
STA. 12+71.88 TO STA. 16+49.98  
STA. 22+10.00 TO STA. 24+40.83

SW 164TH STREET  
STA. 54+08.80 STA. 56+09.61

RECONSTRUCTION  
LIMEROCK BASE (8" THICK) (PRIMED) WITH  
TRAFFIC C, SP-12.5 (2") AND  
FRICTION COURSE, TRAFFIC C, FC-9.5 (1")



TYPICAL SECTION  
SW 163RD TERRACE  
STA. 74+65.04 TO STA. 75+06.04  
STA. 75+97.04 TO STA. 76+38.04

MILLING  
MILL EXISTING ASPHALT PAVEMENT (1" AVG. DEPTH)

RESURFACING  
FRICTION COURSE, TRAFFIC C, FC-9.5 (1")

SW 87th AVE  
DESIGN SPEED = 35 MPH

SW 164th ST & SW 163rd TER:  
DESIGN SPEED = 25 MPH

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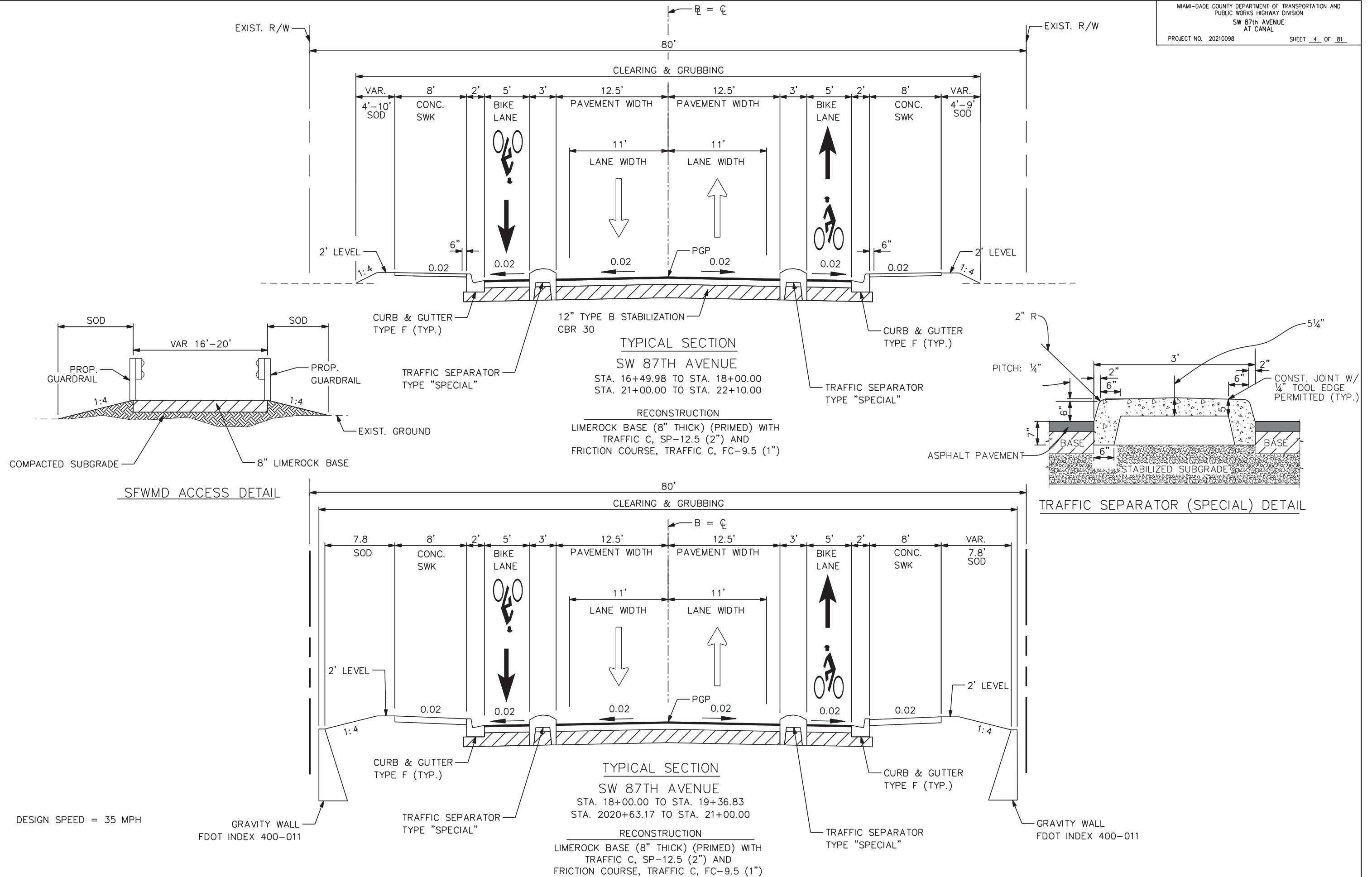
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TYPICAL SECTION





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DEPARTMENT OF TRANSPORTATION  
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TYPICAL SECTION

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SUMMARY OF ROADWAY QUANTITIES					
PAY ITEM NO	PAY ITEM DESCRIPTION	UNIT	TOTAL		
			P	F	
101-1-A	MOBILIZATION	LS	1		
102-1A	MAINTENANCE OF TRAFFIC (INCLUDING TEMPORARY REFLECTIVE PAVEMENT MARKERS, MARKINGS,TRAFFIC CONES, TEMPORARY SIGNS, FLAG MEN, ETC.)	LS	1		
104-11	FLOATING TURBIDITY BARRIER	LF	112		
104-13-1	STAKED SILT FENCE (TYPE III)	LF	2706		
104-18	INLET PROTECTION SYSTEM	EA	8		
110-1-1B	CLEARING AND GRUBBING	LS	1		
110-22A	TREE ROOT AND BRANCH PRUNING	EA	5		
120-1	REGULAR EXCAVATION	CY	328		
120-4	SUBSOIL EXCAVATION	CY	3629		
120-5	CHANNEL EXCAVATION	CY	649		
120-6	EMBANKMENT	CY	5375		
160-4	TYPE 'B' STABILIZATION (12") (MIN. C.B.R. OF 30)	SY	4381		
210-1-2	LIMEROCK BASE (8" ) (PRIMED)	SY	4068		
327-70-01	MILLING, 1" AVERAGE DEPTH	SY	327		
334-1-13	TRAFFIC LEVEL C, SP-12.5 (2")	TN	420		
337-7-82	FRICTION COURSE, TRAFFIC LEVEL C, FC-9.5 (1' THICK)	TN	228		
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN	7		
400-0-11	CONCRETE CLASS NS, GRAVITY WALL	CY	133		
425-1	INLETS, CURB, TYPE 9, <10'	EA	3		
425-1-902B	INLETS, (SPECIAL) (>10')	EA	1		
425-1-475	INLETS, CURB, TYPE 7, PARTIAL	EA	1		
425-1-479	INLETS, CURB, TYPE 7, MODIFY	EA	3		
425-1-521	INLETS, DT BOT, TYPE C,<10'	EA	2		
425-1-541A	INLETS, DT BOT, TYPE D,JBOT, <10'	EA	1		
425-2-041	MANHOLES, P-7, <10'	EA	2		
425-2-041A	MANHOLES, P-7, >10'	EA	4		
425-5	MANHOLE, ADJUST	EA	2		
430-94-1-1	DESILT PIPE (0" TO 48")	LF	351		
430-175-118	PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 18"S/CD	LF	81		
430-175-124	PIPE CULVERT,OPTIONAL MATERIAL,ROUND, 24"S/CD	LF	319		
430-175-148	PIPE CULVERT, OPT MATERIAL, ROUND, 48"S/CD	LF	16		
430-175-218	PIPE CULVERT,OPTIONAL MATERIAL,OTHER-ELIP/ARCH, 18"S/CD	LF	20		
430-524-100	STRAIGHT CONCRETE ENDWALLS, 24", SINGLE, ROUND	EA	1		
460-5-1830	MANATEE GATE - (PIPE DIAMETERS 18" TO 30", OR EQUIVALENT)	EA	1		
460-5-3648	MANATEE GATE - (PIPE DIAMETERS 36" TO 48", OR EQUIVALENT)	EA	1		
443-70-4	FRENCH DRAIN, 24"	LF	498		
527-2	DETECTABLE WARNING ON WALKING SURFACE/CURB RAMP DETECTABLE WARNING SURFACE	SF	235		
520-1-10	CONCRETE CURB AND GUTTER (TYPE "F") INCLUDES COST OF LIMEROCK	LF	1197		
520-70	CONCRETE TRAFFIC SEPARATOR, SPECIAL VARIABLE WIDTH	SY	235		
522-1	CONCRETE SIDEWALK (4" THICK)	SY	718		
522-2	CONCRETE SIDEWALK (6" THICK) (INCLUDING PEDESTRIAN RAMP)	SY	137		
530-3-4	RIPRAP, RUBBLE, F&I, DITCH LINING	TN	219		
530-4-6	ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM, THICKNESS 6"	SY	325		
530-74	BEDDING STONE	TN	3		
536-1-1	GUARDRAIL-ROADWAY	LF	371		
536-73	GUARDRAIL REMOVAL	LF	139		
550-10-928	FENCING (SPECIAL) (5.1' TO 6' HEIGHT)	LF	180		
550-60-915	SFWM D ACCESS GATE	LS	1		
575-1-1	SODDING (PENSACOLA BAHIA OR MATCH EXISTING) (INCLUDES WATERING AND MAINTENANCE)	SY	1082		

PAY ITEM NOTES

- 102-1A
- TO BE ACCOMPLISHED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 600 SERIES, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION (ANSI D6 1-1978), PUBLIC WORKS MANUAL OF METROPOLITAN DADE COUNTY, AND THE LATEST REVISIONS OF THE AFORE MENTIONED MANUALS. INCLUDES THE COST OF FURNISHING, INSTALLING, MAINTAINING, AND REMOVING ALL ITEMS OF MAINTENANCE OF TRAFFIC NOT PAID FOR UNDER SEPARATE ITEMS INCLUDING BUT NOT LIMITED TO SIGNS, BARRICADES, FLASHING LIGHTS, TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKINGS, TRAFFIC SIGNAL MODIFICATION FOR TRAFFIC CONTROL, ETC.
- 110-1-1B
- INCLUDES REMOVAL OF EXISTING PAVEMENT, CONCRETE SIDEWALK, DRIVEWAYS, CURB AND GUTTER, DRAINAGE STRUCTURES AND PIPES, MISCELLANEOUS CONCRETE, VEGETATION, TREES AND DEBRIS TO BE DISPOSED OF IN LEGAL AREAS PROVIDED BY THE CONTRACTOR. INCLUDES THE COST OF CLEANING-OUT ALL EXISTING DRAINAGE STRUCTURES WHICH ARE TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION.
- 425-1 TO  
425-2
- COST OF BAFFLE, MATERIALS, METAL PIPE ENCASEMENT, INLET AND MANHOLE, PAVEMENT AND BASE, LABOR & CONSTRUCTION SHALL BE INCLUDED IN COST OF STRUCTURES.
- 425-1-319A
- INCLUDES THE COST OF SKIMMER TYPE II
- 443-70-4
- INCLUDES THE COST OF EXCAVATION TO PLAN ELEVATION, PERFORATED PIPE, BALLAST ROCK, PLASTIC FILTER FABRIC AND BACKFILLING WITH SELECT FILL (SEE DETAIL OF EXFILTRATION DRAIN TO DETERMINE NON-PERFORATED PIPE QUANTITY) AND ALL APPLICABLE ITEMS REQUIRED TO CONSTRUCT EXFILTRATION DRAIN.
- 522-1
- INCLUDES THE COST OF PEDESTRIAN RAMPS.
- 530-4-9
- INCLUDES CONCRETE FOR TOP TERMINATION TRENCH.
- 550-60-915
- SPECIAL TYPE GATE, 16 FEET OPENING.
- 575-1-1
- INCLUDES SOD TO BE USED IN THE RESTORATION OF LAWNS AND MAY BE INCREASED OR DECREASED AS DIRECTED BY THE ENGINEER. PENSACOLA OR TO MATCH EXISTING SOD.

- ALLOWABLE PIPE OPTIONS ARE:
1. STEEL REINFORCED CONCRETE PIPE.
  2. ALUMINUM SPIRAL RIB 12 GA.
  3. ALUMINIZED STEEL SPIRAL RIB 12 GA.
  4. HIGH DENSITY POLYETHYLENE, CL II

FOR SIGNING AND MARKING QUANTITIES SEE SHEET 51  
FOR LIGHTING QUANTITIES SEE SHEET 78  
FOR LANDSCAPE QUANTITIES SEE SHEET 5 (LANDSCAPE).  
FOR BRIDGE QUANTITIES SEE SHEET 59

EX-1

CATCH BASIN  
RIM ELEV: 5.08'  
BOTTOM ELEV: (-)3.3'  
N 15"Ø CMP, INVERT ELEV: 3.3'  
S 36"-WIDE TRENCH

EX-2

CATCH BASIN  
RIM ELEV: 5.00'  
BOTTOM ELEV: (-)7.4'  
N 15"Ø CMP, INVERT ELEV: 1.2'  
S 36"-WIDE TRENCH

EX-3

CATCH BASIN  
RIM ELEV: 5.29'  
BOTTOM ELEV: (-)3.3'  
S 15"Ø CMP, INVERT ELEV: 0.8'

EX-4

CATCH BASIN  
RIM ELEV: 5.41'  
BOTTOM ELEV: (-)3.1'  
S 15"Ø CMP, INVERT ELEV: 2.1'

EX-5

CATCH BASIN  
RIM ELEV: 5.71'  
BOTTOM ELEV: (-)1.3'  
N 24"Ø UNKNOWN PIPE,  
INVERT ELEV: 1.8'

EX-6

CATCH BASIN  
RIM ELEV: 5.62'  
BOTTOM ELEV: (-)1.8'  
N 24"Ø UNKNOWN PIPE,  
INVERT ELEV: (-)0.4'

EX-7

STORM SEWER MANHOLE  
RIM ELEV: 6.64'  
BOTTOM ELEV: (-)3.8'  
PIPES NOT VISIBLE

EX-8

STORM SEWER MANHOLE  
RIM ELEV: 6.46'  
BOTTOM ELEV: (-)3.2'  
PIPES NOT VISIBLE

EX-9

STORM SEWER MANHOLE  
RIM ELEV: 9.01'  
BOTTOM ELEV: (-)4.6'  
PIPES NOT VISIBLE

EX-10

STORM SEWER MANHOLE  
RIM ELEV: 9.00'  
BOTTOM ELEV: (-)5.3'  
PIPES NOT VISIBLE

EX-11

48"Ø OUTFALL  
PIPE IN ENDWALL  
INVERT ELEV: (-)1.0'

EX-12

24"Ø RCP  
PIPE IN ENDWALL  
INVERT ELEV: 1.0'

EX-13

CATCH BASIN  
RIM ELV: 5.14'  
BOTTOM ELV: 2.3'  
E 18"Ø CMP, INVERT ELV: 2.4'  
S 24" CMP, INVERT ELV: 2.4'

EX-14

CATCH BASIN  
RIM ELV: 5.06'  
BOTTOM ELV: 1.9'  
W 18"Ø CMP, INVERT ELV: 2.3'

R E V I S I O N S								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



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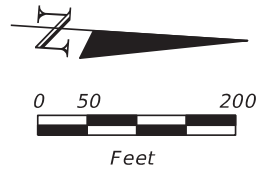
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DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS  
**HIGHWAY DIVISION**  
  
STEPHEN P. CLARK, CENTER  
111 NW 1 ST  
MIAMI, FLORIDA 33128

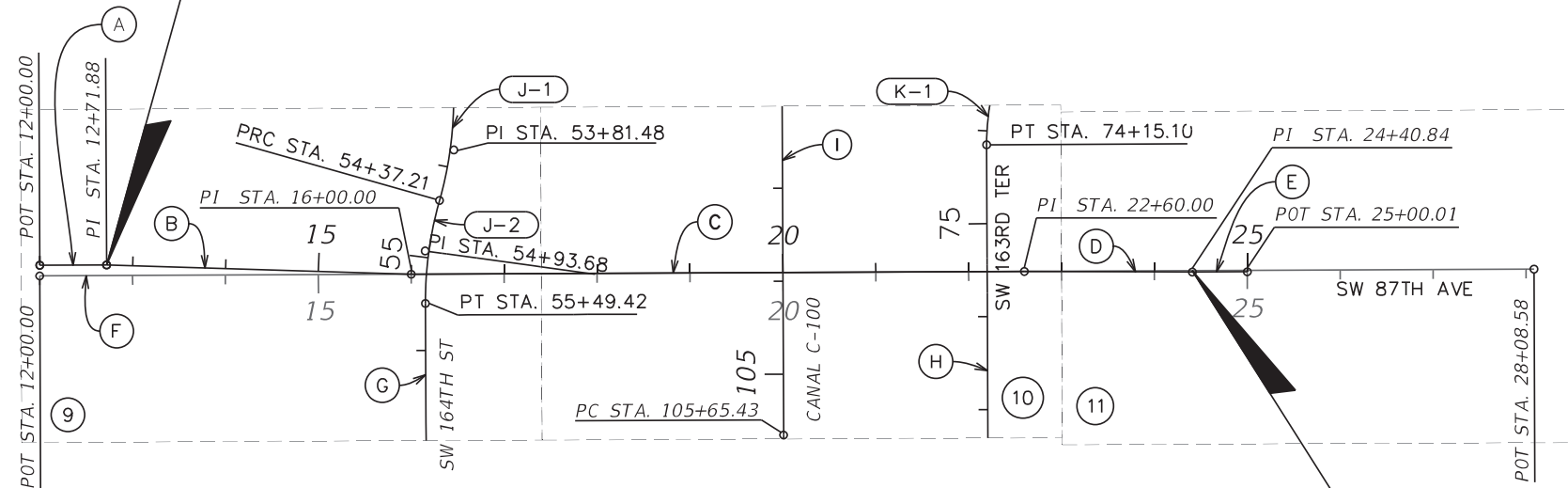
# EXISTING DRAINAGE STRUCTURES



amarinezamarinez



BEGIN PROJECT  
STA. 12+71.88, 11.45' LT  $\hat{C}$  CONST. =  
STA. 12+72.08  $\hat{L}$  SURVEY



END PROJECT  
STA. 24+40.83, 1.42' RT  $\hat{C}$  CONST. =  
STA. 24+40.83  $\hat{L}$  SURVEY

SW 164TH ST  
CURVE DATA (J-1)  
PI STA. = 53+81.48  
 $\Delta$  = 16° 04' 22" (RT)  
D = 14' 19' 26"  
T = 56.48  
L = 112.21  
R = 400.00  
PC STA. = 53+25.00  
PT STA. = 54+37.21

SW 163RD TER  
CURVE DATA (K-1)  
PI STA. = 73+35.69  
 $\Delta$  = 37° 50' 19" (LT)  
D = 22' 55' 06"  
T = 85.69  
L = 165.10  
R = 250.00  
PC STA. = 72+50.00  
PT STA. = 74+15.10

SW 164TH ST  
CURVE DATA (J-2)  
PI STA. = 54+93.68  
 $\Delta$  = 16° 04' 22" (LT)  
D = 14' 19' 26"  
T = 56.48  
L = 112.21  
R = 400.00  
PC STA. = 54+37.21  
PT STA. = 55+49.42

SEGMENT DATA			
SEGMENT	BEARING	DISTANCE	DESCRIPTION
A	N 3° 59' 14" W	71.88	SW 87 AVE CENTER LINE OF CONSTRUCTION
B	N 1° 59' 14" W	328.12	SW 87 AVE CENTER LINE OF CONSTRUCTION
C	N 3° 59' 14" W	660.00	SW 87 AVE CENTER LINE OF CONSTRUCTION
D	N 3° 32' 13" W	180.84	SW 87 AVE CENTER LINE OF CONSTRUCTION
E	N 3° 59' 14" W	59.17	SW 87 AVE CENTER LINE OF CONSTRUCTION
F	N 3° 59' 14" W	1608.58	SW 87 AVE BASE LINE OF SURVEY
G	N 86° 00' 46" E	153.51	SW 164 ST
H	N 86° 00' 46" E	366.98	SW 163 TER
I	N 86° 00' 46" E	371.93	CANAL C-100

5/13/2022

F:\21030\_SW 87 Bridge over Canal C-100\CADD\roadway\PLAYRD01.dgn

amarinez

11:50:49 AM

REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY



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6861 SW 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332

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COUNTY



DEPARTMENT OF TRANSPORTATION  
AND PUBLIC WORKS  
HIGHWAY DIVISION  
STEPHEN P. CLARK CENTER  
111 NW 1 ST  
MIAMI, FLORIDA 33128

PROJECT LAYOUT

F:\21030\_SW 87 Bridge over Canal C-100\CADD\roadway\gntrd01.dgn

amarinez

11:50:49 AM

5/13/2022

GENERAL NOTES

1. B.M. DATA IS NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D.–29).
2. ANY N.G.V.D. BENCH MARK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED AND PROPERLY REFERENCED BY A REGISTERED–LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THE SITE. IF ANY MONUMENT IS IN DANGER OF DAMAGE, THE PROJECT ENGINEER SHALL NOTIFY RON TAYLOR, FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (FDEP) SURVEYING AND MAPPING, 3900 COMMONWEALTH BLVD., MAIL STATION 105, TALLAHASSEE, FLORIDA 32399–3000 TELEPHONE (850) 245–2606.
3. ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED BY THE CONTRACTOR AS FOLLOWS: CORNERS AND MONUMENTS IN CONFLICT WITH THE WORK AND IN DANGER OF BEING DAMAGED, DESTROYED, OR COVERED SHALL BE PROPERLY REFERENCED BY A REGISTERED–LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THE SITE. THE CONTRACTOR SHALL RETAIN THE LAND SURVEYOR TO REFERENCE, AND RESTORE UPON COMPLETION OF THE WORK, ALL SUCH CORNERS AND MONUMENTS AND SHALL FURNISH TO MIAMI–DADE COUNTY PUBLIC WORKS DEPARTMENT A SIGNED AND SEALED COPY OF THE LAND SURVEYOR’S REFERENCE DRAWING.
4. ALL STATIONS AND OFFSETS REFER TO CENTERLINE OF CONSTRUCTION, UNLESS OTHERWISE STATED.
5. ALL GRADES SHOWN IN PLAN ARE FINISHED GRADES.
6. THE CONTRACTOR SHALL PAINT ALL STATIONS WITH STENCILED NUMBERS ON THE FACE OF CURB:  
A. FROM THE BEGINNING OF THE PROJECT WHERE THE CURB IS TO REMAIN.  
B. AT NEW CURB NOT LATER THAN 72 HOURS AFTER BEING POURED.  
C. WHERE CURB DOES NOT EXIST AND SHALL NOT BE CONSTRUCTED,  
THE CONTRACTOR SHALL MAINTAIN STATIONING WITH SURVEYING STAKES.  
CONTRACTOR SHALL MAINTAIN THE STATION MARKS VISIBLE UNTIL FINAL INSPECTION.
7. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI–DADE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER STATE OR LOCAL AGENCY WITH JURISDICTION. IT IS THE INTENT OF THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
8. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE EPA AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).
9. THE LOCATION AND SIZE OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE ONLY. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL UTILITIES BY ELECTRONIC METHODS AND BY PRE–TRENCHING IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATION. ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS MUST BE RESOLVED BY THE ENGINEER AND THE OWNER. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
10. PLEASE CALL MR. MIKE WHITLING AT 305–375–2655 CONCERNING SURVEY RELATED QUESTIONS.
11. EXISTING TOPOGRAPHIC INFORMATION WAS OBTAINED FROM SURVEY PREPARED BY MIAMI–DADE COUNTY DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
12. CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE–CALL AT 1–(800)–432–4770 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES. A CONTRACTOR’S REPRESENTATIVE MUST BE PRESENT WHEN UTILITY COMPANIES LOCATE THEIR FACILITIES.
13. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD AND UNDERGROUND UTILITIES.
14. MIAMI–DADE WATER AND SEWER DEPARTMENT REQUIRES THAT ACCESS TO ALL WATER AND SEWER VALVES, SANITARY MANHOLES, AND OTHER CONTROL MECHANISMS BE MAINTAINED THROUGHOUT CONSTRUCTION IN THE EVENT OF AN EMERGENCY TO ENSURE THE PUBLIC HEALTH AND SAFETY. COVERING VALVE BOXES AND MANHOLES CAN BE CONSIDERED UNAUTHORIZED OBSTRUCTION OF AND TAMPERING WITH DEPARTMENT UTILITIES. ALL REQUESTS FOR UTILITY ADJUSTMENTS MUST BE MADE IN WRITING AT LEAST TWO (2) WEEKS IN ADVANCE. FOR MANHOLE AND VALVES, CONTACT THE CONSTRUCTION MANAGEMENT SECTION, PUMP STATIONS UNIT, 3071 SW 38 AVENUE, FAX NO. 305–668–3626. THE DEPARTMENT WILL MAKE ONE FINAL AND PERMANENT ADJUSTMENT AT NO COST TO THE REQUESTING AGENCY. FOR THE ADJUSTMENT OF WATER METERS, CONTACT THE CHIEF OF METER OPERATIONS AND MAINTENANCE, FAX NO. 305–545–3482. FOR ANY FIRE HYDRANTS THAT ARE DAMAGED OR BUMPED DURING CONSTRUCTION, CONTACT THE MDWASD HYDRANT SHOP AT 305–805–4575 BEFORE POURING CONCRETE FOR THE SIDEWALK. IN THE EVENT OF A WATER OR SEWER EMERGENCY, CONTACT MIAMI DADE WATER AND SEWER DEPARTMENT AT 305–274–9272. THIS LINE IS OPEN 24 HOURS, 7 DAYS A WEEK.
15. KNOWN UTILITY COMPANIES IN THE PROJECT LIMITS INCLUDE, BUT ARE NOT LIMITED TO:  

ATLANTIC BROADBAND	(305) 861 – 8069	RED FLEX CAMERAS	(915) 727 – 1990
AT&T	(305) 913 – 1408	SUN GUIDE	
CENTURY LINK	(720) 888 – 1089	VERIZON/MCI	
COMCAST CABLE	(954) 444 – 5113	MIAMI–DADE WATER & SEWER	(786) 268 – 5320
CROWN CASTLE	(786) 246 – 7827		
ENERGY TRANSFER	(407) 838 – 7171		
FPL	(305) 442 – 5172		
HT LOCATING	(786) 345 – 0991		
MASTEC	(305) 431 – 6014		
NEXT ERA ENERGY	(305) 835 – 3618		
PRG CONSULTING	(816) 886 – 8574		
16. THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, GAS, WATER, AND/OR SEWER SERVICE LATERALS WHICH MAY NOT BE SHOWN IN PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERAL SERVICES FROM THE UTILITY COMPANIES. THE ADDITIONAL COST OF EXCAVATING, INSTALLING, BACKFILLING, AND COMPACTING AROUND THESE LATERAL SERVICES MUST BE INCLUDED IN THE BID RELATED ITEM FOR THE WORK BEING DONE.
17. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY SHALL BE RESTORED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
18. ANY ENCROACHMENT WITHIN THE LIMITS OF CONSTRUCTION SHALL BE RELOCATED OR PROTECTED BY THE ADJACENT PROPERTY OWNER AT THEIR EXPENSE.
19. CLEARING AND GRUBBING, GRADING AND OTHER INCIDENTAL WORK NECESSARY FOR HARMONIZATION OUTSIDE R/W SHALL BE INCLUDED IN RELATED BID ITEMS.
20. ALL GRASS AREAS AFFECTED BY CONSTRUCTION SHALL BE RE–SODDED.

21. THE CONTRACTOR SHOULD TAKE SPECIAL NOTE OF SOIL CONDITIONS THROUGHOUT THIS PROJECT. ANY SPECIAL SHORING, SHEETING OR OTHER PROCEDURES NECESSARY TO PROTECT ADJACENT PROPERTY, PUBLIC OR PRIVATE, DURING THE EXCAVATION OF SUBSOIL MATERIAL AND EXFILTRATION TRENCH, OR FILLING OF ANY AREA, OR FOR ANY OPERATION DURING CONSTRUCTION, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
22. IF SHEETING, SHORING, OR DEWATERING, INCLUDING WELL POINTS ARE NECESSARY, THE CONTRACTOR MUST MONITOR AND CONTROL ALL WORK THAT MAY CAUSE CRACKING TO ANY ADJACENT BUILDING, STRUCTURE, OR PROPERTY AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY THESE OPERATIONS. COST OF SHEETING, SHORING, OR DEWATERING SHALL BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE DEWATERING PERMIT. COST OF THE PERMIT AND DEWATERING SHALL BE INCLUDED IN THE THE RELATED BID ITEM FOR THE WORK BEING DONE.
24. THE CONTRACTOR WILL RESTRICT PERSONNEL, THE USE OF EQUIPMENT, AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION AND DESIGNATED STAGING AREA.
25. EXPLORATORY OR PRE–TRENCHING IN THE ALIGNMENT AND GRADE OF PROPOSED PIPES STRUCTURES, FRENCH DRAINS, CONDUITS, POLE FOUNDATIONS AND/OR SUB–GRADE SHALL BE PERFORMED SEVEN DAYS IN ADVANCE OF ITS CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE UNDERGROUND UTILITY OWNERS AND THE DEPARTMENT WITH IMMEDIATE NOTIFICATION OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THIS NOTIFICATION SHALL PROVIDE SURVEY INFORMATION ABOUT EXISTING UTILITY ALIGNMENT, GRADE AND POSSIBLE CONFLICTS. PAYMENT FOR EXPLORATORY OR PRE–TRENCHING, SURVEY AND BACKFILLING SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE.
26. ALL DITCH EXCAVATIONS SHALL BE PERFORMED IN FULL COMPLIANCE WITH THE PROVISIONS OF THE TRENCH SAFETY ACT.
27. ALL EXCESS MATERIAL, AS DESIGNATED BY THE ENGINEER, IS TO BE DISPOSED BY THE CONTRACTOR IN AREAS PROVIDED BY HIM WITHIN 72 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR’S EXPENSE.
28. ALL DISPOSAL OF MATERIALS, RUBBISH, AND DEBRIS SHALL BE MADE AT A LEGAL DISPOSAL SITE OR BY OTHER PRIOR APPROVED MANNER. MATERIAL CLEARED FROM THE SITE AND DEPOSITED ON ADJACENT OR NEARBY PROPERTY WILL NOT BE CONSIDERED AS HAVING BEEN DISPOSED OF SATISFACTORILY.
29. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ENGINEER, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE ENGINEER WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE PROJECT ENGINEER.
30. EXISTING ABOVE GROUND FEATURES ARE SHOWN ACCORDING TO THE BEST AVAILABLE DATA AND MAY NOT ACCURATELY REFLECT PRESENT CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH CURRENT SITE CONDITIONS, AND SHALL REPORT DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING WORK.
31. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES AND UTILITIES, WHICH MAY NOT BE SHOWN ON PLANS. ANY STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING IMPROVEMENT NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARY DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED UNDER THIS CONTRACT, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.
32. CONTRACTOR SHALL AVOID DAMAGE TO ANY EXISTING TREES TO REMAIN. EXISTING TREES SHALL BE REMOVED ONLY IF REQUIRED FOR CONSTRUCTION. THOSE TREES NOT INTERFERING WITH CONSTRUCTION SHALL BE PROTECTED IN PLACE.
33. THE CONTRACTOR SHALL USE A STREET SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO THE WORK.
34. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR ALL ITEMS USED IN THIS PROJECT.
35. WHEN DISSIMILAR MATERIAL CONNECTIONS ARE MADE, SUCH AS CONCRETE TO METAL, THE DISSIMILAR MATERIAL SHALL BE SEPARATED BY COATING THE CONTACT SURFACE WITH BITUMASTIC MATERIAL.
36. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING EXISTING AND NEW INLETS CLEAN OF MILLING MATERIAL, LIMEROCK, DEBRIS, ETC. DURING THE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. ALL LINES AND STRUCTURES SHALL BE CLEANED PRIOR TO FINAL INSPECTION AND ACCEPTANCE.
37. CAST IRON PRODUCTS: HEAVY–DUTY CLASSIFICATION SUITABLE FOR HIGHWAY TRAFFIC LOADS OR 16,000 LBS WHEEL LOADS.
38. STEEL GRATING AND COVERS: TRAFFIC CLASSIFICATION H–20; 16,000 LBS OVER 8”X20” AREA.
39. EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE NOTED.
40. EXISTING MANHOLES AND INLETS SCHEDULED TO REMAIN SHALL BE THOROUGHLY CLEANED BY REMOVING ALL DEBRIS AND SEDIMENTS, AND THE INTERIOR SHALL BE SEALED WITH AN APPROVED NON–TOXIC BITUMASTIC SEALANT.
41. PRIOR TO CONSTRUCTION THE CONTRACTOR WILL INSPECT ALL EXISTING STRUCTURES WHICH ARE TO REMAIN AND NOTIFY THE ENGINEER OF ANY OBVIOUS STRUCTURAL DEFICIENCIES.
42. CONTRACTOR SHALL ADJUST ALL EXISTING CATCH BASINS, GRATES, AND STORM MANHOLE COVERS TO MEET NEW GRADES WHERE APPLICABLE.
43. ELEVATIONS AND OFFSETS SHOWN AT DRAINAGE STRUCTURES REFER TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
44. RADII ON CURB RETURNS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
45. PRIOR TO CONSTRUCTION THE CONTRACTOR WILL VERIFY INVERT ELEVATIONS OF ALL PIPES WHICH ARE TO REMAIN AND NOTIFY THE ENGINEER OF ANY ELEVATION DEVIATIONS.
46. THERE SHALL BE NO MORE THAN THREE LATERAL DRAINAGE INSTALLATIONS WITHOUT BACKFILLING. BACKFILLING OF LATERAL DRAINAGE SHALL NOT LAG MORE THAN 72 HOURS BEHIND THE START OF EXCAVATION.
47. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES EXTEND INTO THE STABILIZED PORTION OF THE ROADBED AND EXTREME CAUTION SHOULD BE USED IN THE STABILIZING OPERATIONS AT THESE LOCATIONS.
48. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, INSTALLATION, AND MAINTENANCE OF ALL TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH SPECIFICATIONS OUTLINED IN THE PUBLIC WORKS DEPARTMENT MANUAL, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND THE FDOT STANDARD PLANS.
49. WHERE NEW PAVEMENT MEETS EXISTING, CONNECTION SHALL BE MADE IN A NEAT STRAIGHT LINE AND FLUSH WITH THE EXISTING PAVEMENT.
50. THE LOCATION OF SOME DRIVEWAYS IS APPROXIMATE. VERIFICATION OF EXACT LOCATION AND DIMENSIONS IS RECOMMENDED.
51. EXISTING DRIVEWAYS WITHIN THE LIMITS OF THIS PROJECT ARE TO BE REPLACED AT THE SAME LOCATION AND WIDTH, UNLESS OTHERWISE SHOWN IN PLANS.
52. WHERE CONNECTIONS TO EXISTING SIDEWALKS AND DRIVEWAYS ARE NOT INDICATED ON PLANS, PROPER CONNECTIONS ARE TO BE MADE AS DIRECTED BY THE ENGINEER. DROP CURB AND DRIVEWAY CONNECTIONS SHALL BE PROVIDED FOR ACCESS TO ALL PRIVATE PROPERTIES ADJACENT TO THE PROJECT. PAYMENT SHALL BE INCLUDED IN THE COST OF RELATED BID ITEMS.
53. CONTRACTOR TO INSTALL ½” PREFORMED EXPANSION JOINT WHEN PROPOSED SIDEWALK IMPROVEMENTS IS IMMEDIATELY ADJACENT TO EXISTING CONCRETE SLAB AND/OR BUILDING.

54. THE SIDEWALK AT DRIVEWAY TURNOUTS SHALL BE 6” CONCRETE.
55. COMPLETE AS–BUILT INFORMATION RELATIVE TO LOCATION AND DEPTH OF PIPES, MANHOLES, ETC. SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE WORK. ALL ELEVATIONS SHALL BE TAKEN BY A FLORIDA REGISTERED SURVEYOR AND SHOWN ON THE RECORD DRAWINGS.
56. DESIGN WATER TABLE ELEVATION: 3.00 FT
57. MIAMI–DADE COUNTY FLOOD CRITERIA ELEVATION: 7.00 FT
58. THE INFORMATION PROVIDED IN THESE DRAWINGS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH BIDS WILL BE BASED.
59. THE APPLICABLE PROCEDURES FOR WASTE HANDLING SPECIFIED IN THE DERM APPROVED WASTE RELOCATION PLAN AND HAZARDOUS WASTE CONTINGENCY PLAN DATED APRIL 29, 2013 AND REVISED AUGUST 1, 2013 SHALL APPLY.
60. CONTRACTOR SHALL DISPOSE ANY SOLID WASTE ENCOUNTERED WITHIN THE PROJECT LIMITS TO A CLASS I SOLID WASTE SITE.
61. CONTRACTOR SHALL REPLACE ANY EXISTING GEOTEXTILE BETWEEN THE SUBGRADE AND THE LIMEROCK THAT IS DAMAGED DURING CONSTRUCTION. CONTRACTOR TO VERIFY EXACT LOCATIONS DURING CONSTRUCTION.
62. WORK TO BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
63. CONTRACTOR TO PROVIDE A HEALTH AND SAFETY PLAN (HASP) SIGNED BY A CERTIFIED INDUSTRIAL HYGIENIST.
64. CONTRACTOR TO PROVIDE AN APPROVED SOIL MANAGEMENT PLAN, INCLUSIVE OF DUST CONTROL (IF SOIL CONTAMINATION REMAINS).
65. OUTFALLS TO BE CLEANED AND DESILTED.
66. ALL SALVAGEABLE MATERIALS THAT ARE TO BE REMOVED MUST BE DELIVERED AND UNLOADED AT MIAMI DADE ROAD, BRIDGE, AND CANAL MAINTENANCE DIVISION.  
9301 NW 58TH STREET  
MIAMI, FL 33178  
TELEPHONE NUMBER: 305–592–3116
67. REFER TO MIAMI DADE COUNTY PUBLIC WORKS MANUAL STANDARD G 2.1 FOR UTILITY PLACEMENT WITHIN PUBLIC RIGHT OF WAY.



R.J. Behar & Company, Inc.  
Engineers • Planners  
6861 SW 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332

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CHECKED BY			CHECKED BY		
SUPERVISED BY:					



DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS  
HIGHWAY DIVISION  
STEPHEN P. CLARK CENTER  
111 NW 1 ST  
MIAMI, FLORIDA 33128

GENERAL NOTES



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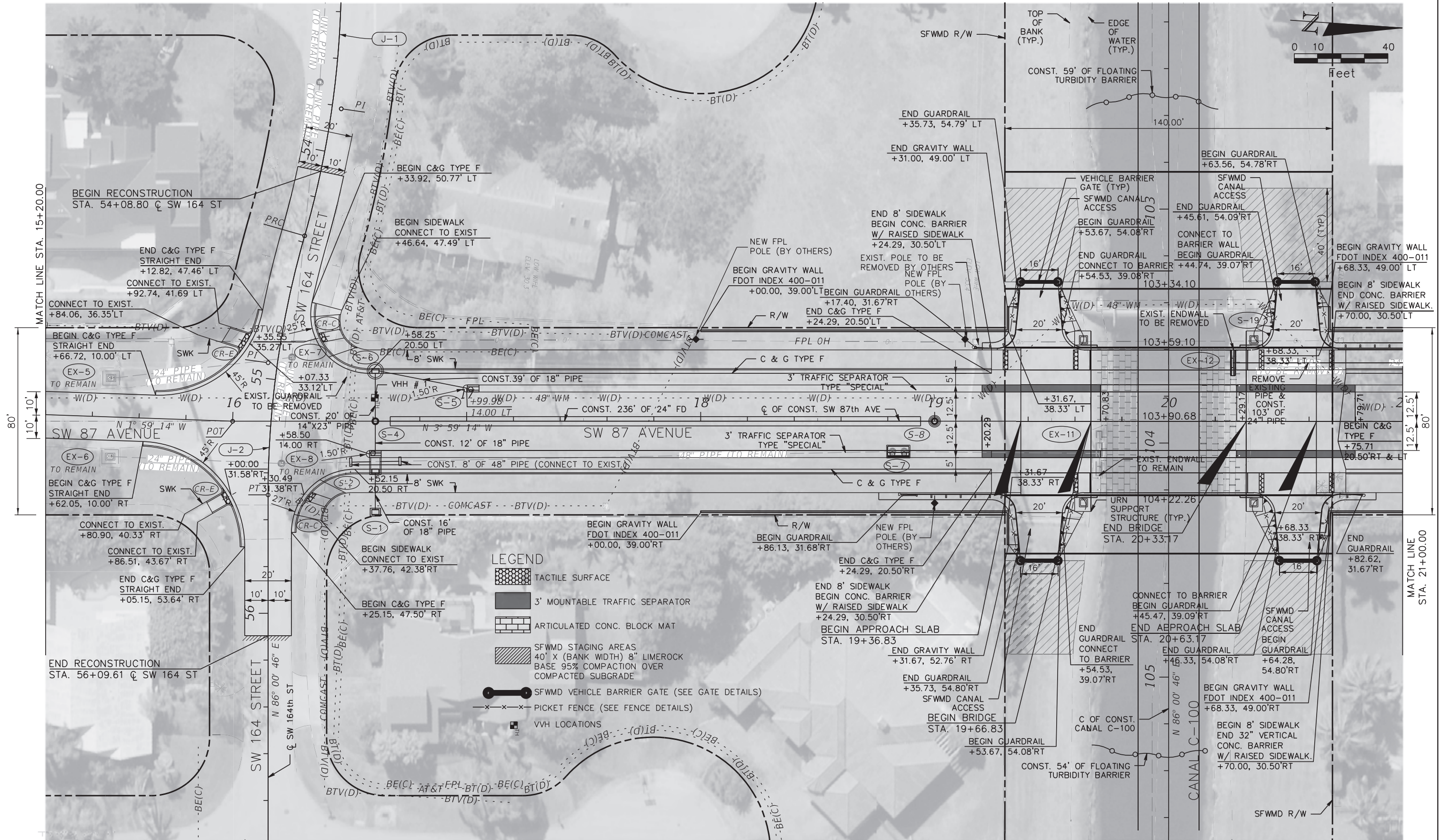
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111 NW 1 ST  
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ROADWAY PLAN





REVISIONS					
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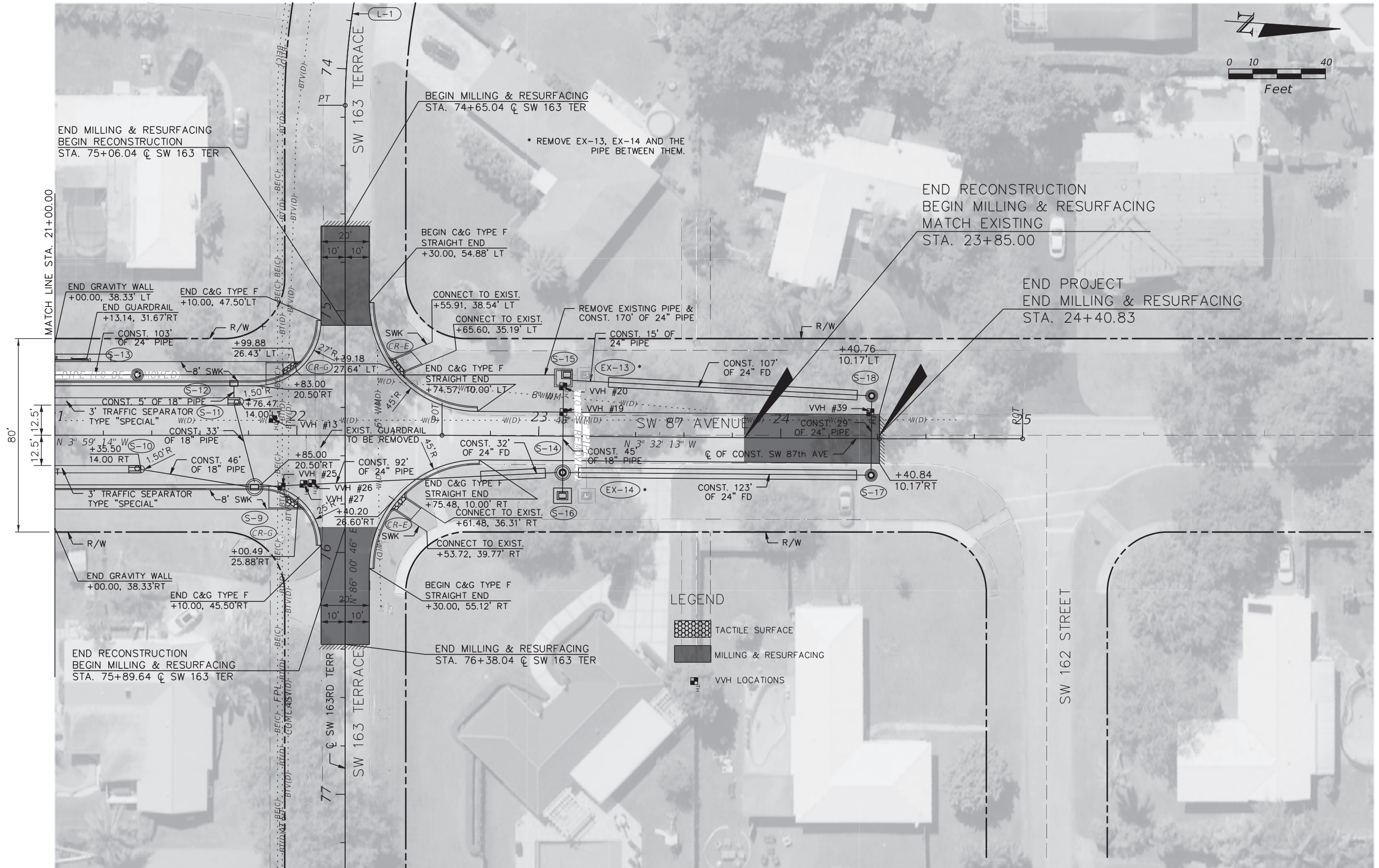
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ROADWAY PLAN





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amarinez

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5/13/2022

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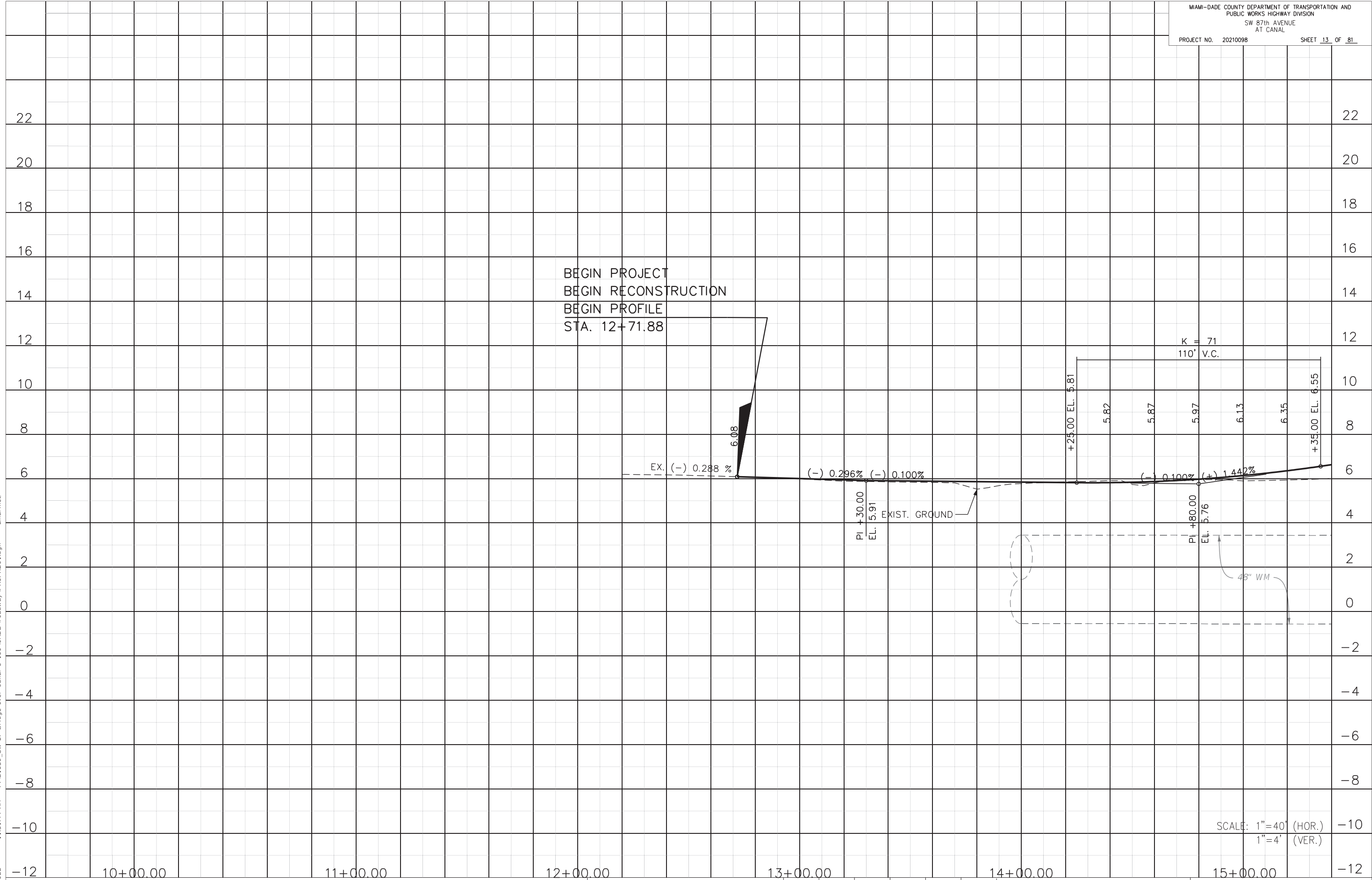


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ROADWAY PLAN



5/13/2022 11:51:44 AM F:\21030\_SW 87 Bridge over Canal C-100\CADD\roadway\PROF\RD01.dgn amarinez



SCALE: 1"=40' (HOR.)  
1"=4' (VER.)

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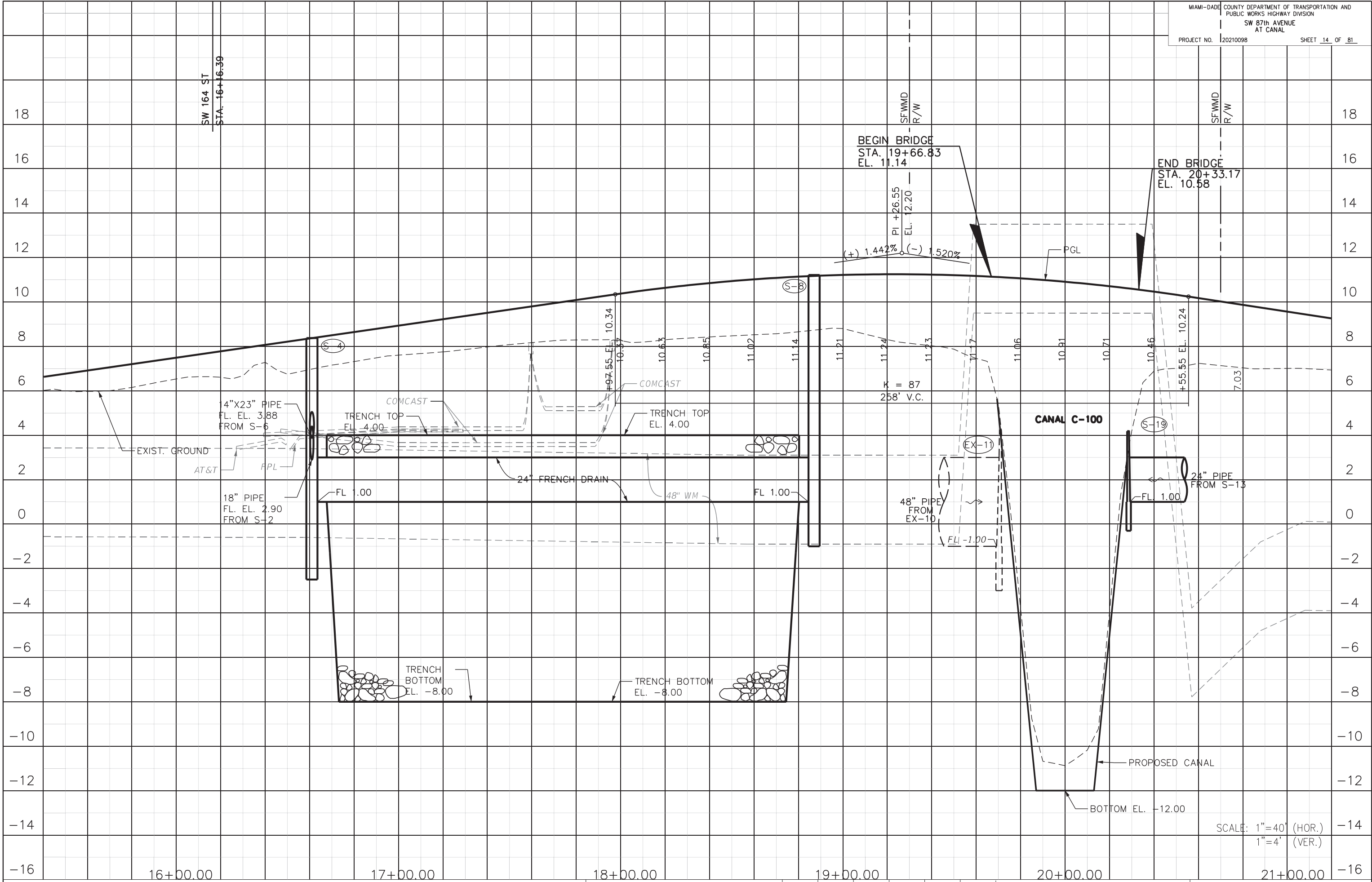
MIAMI-DADE COUNTY



DEPARTMENT OF TRANSPORTATION  
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ROADWAY PROFILE

11/13/2022 11:51:45 AM F:\21030\_SW 87 Bridge over Canal C-100\CADD\roadway\PROF\RD02.dgn amarinez



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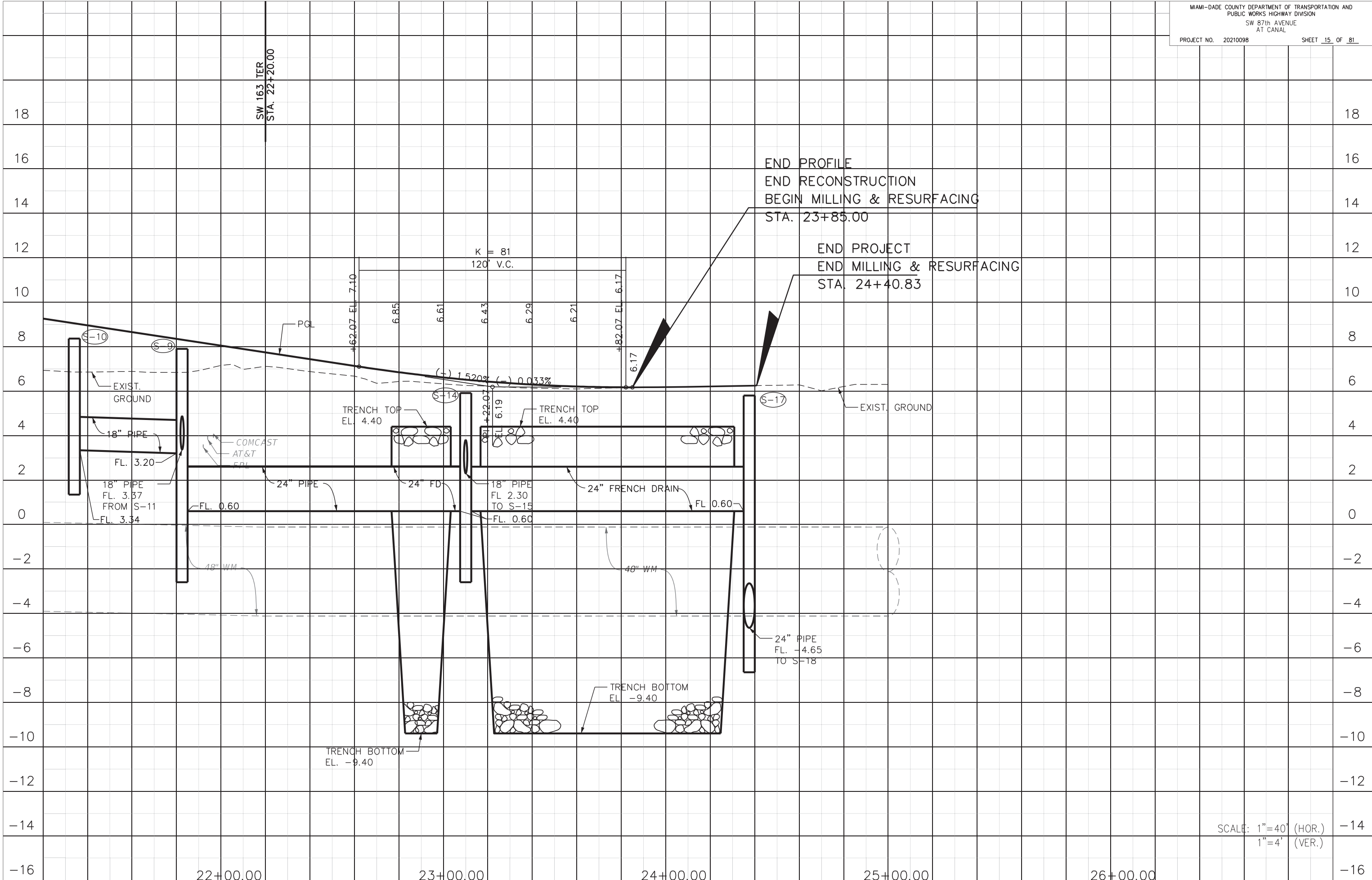
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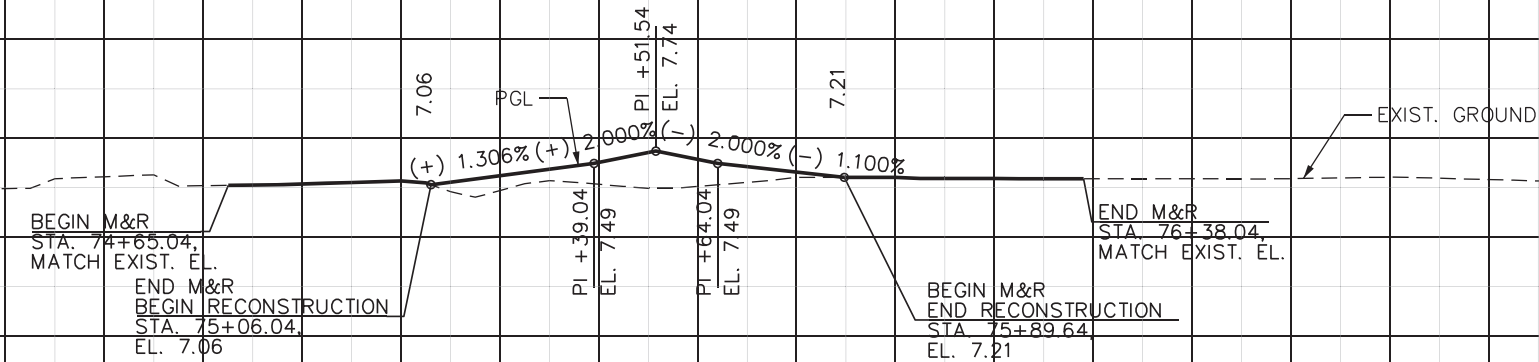
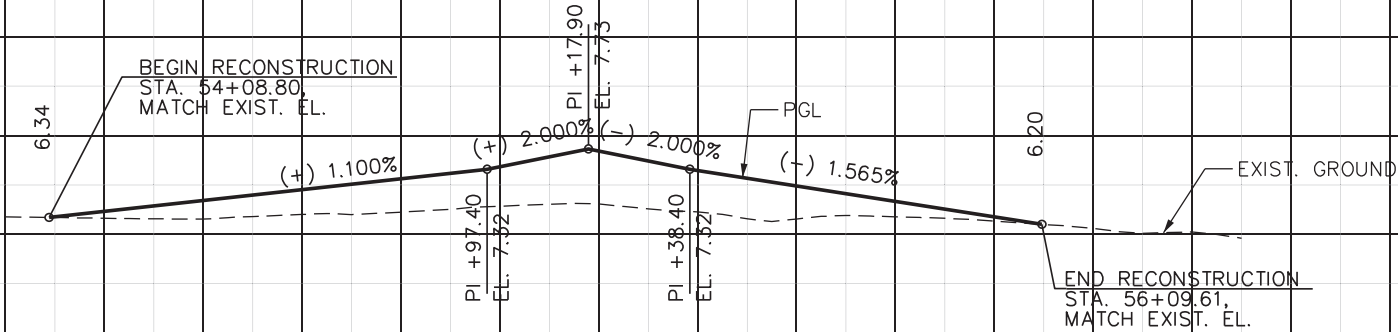
ROADWAY PROFILE

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5/13/2022 2:01:03 PM F:\21030\_SW 07 Bridge over Canal C-100\CADD\roadway\PROF RD04.dgn amarinez



SCALE: 1"=40' (HOR.)  
1"=4' (VER.)

REVISIONS

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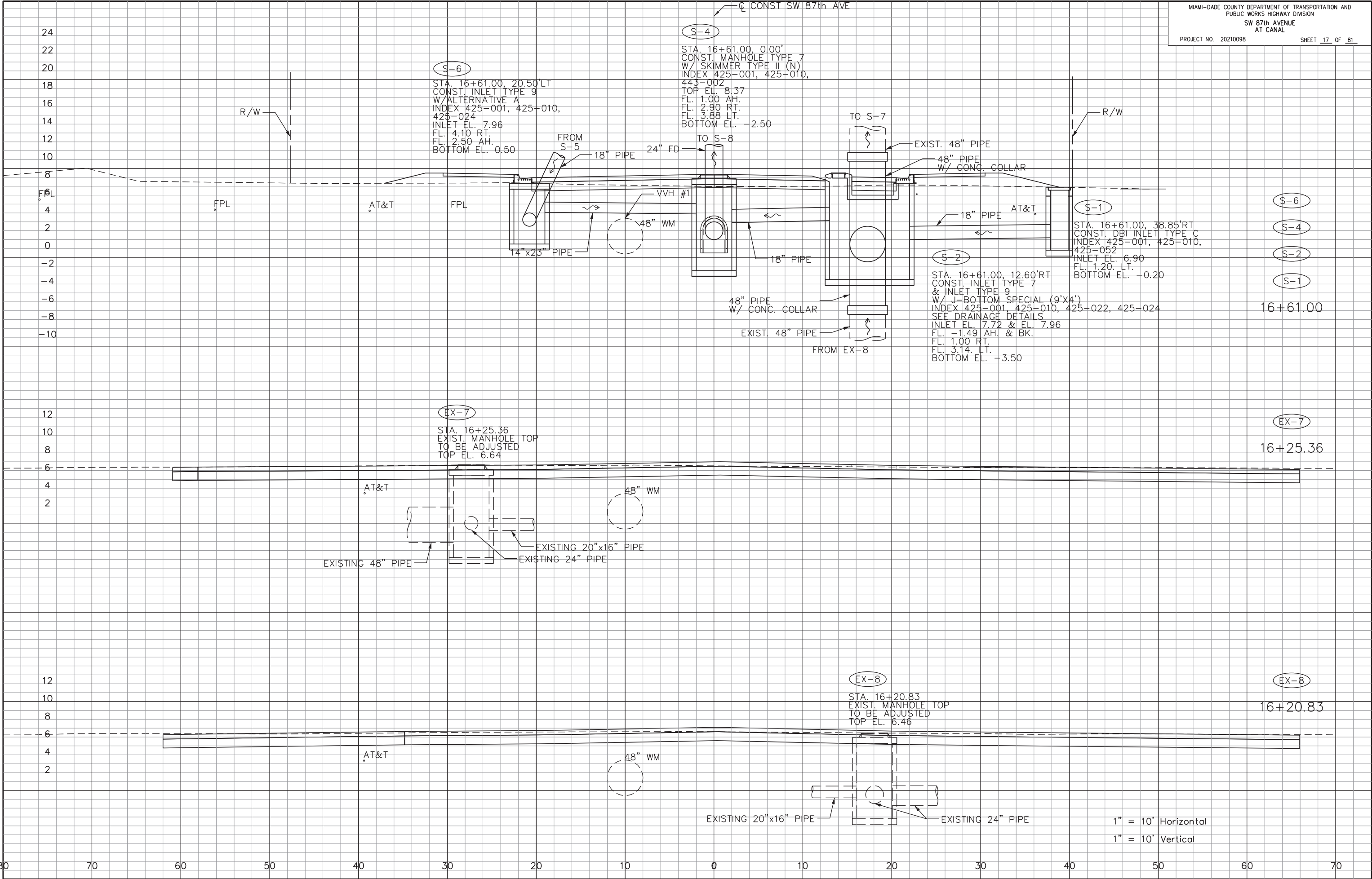
ROADWAY PROFILE

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5/13/2022



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5/13/2022

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CONST SW 87th AVE

R/W

R/W

PROPOSED 24" F.D.

48" WM

S-7

STA. 18+81.95, 11.45'RT  
REMOVE STRUCTURE TOP  
CONSTRUCT MANHOLE TYPE 7 (SPECIAL)  
& J-BOX EXTENSION  
425-001, 425-010  
SEE DRAINAGE DETAILS  
TOP EL. 11.29

EXIST. 48" PIPE

TO S-3

S-7

18+81.95

S-5

STA. 17+02.80, 14.00'LT  
CONST. INLET TYPE 7 MODIFIED  
W/ BOTTOM (4'X4')  
INDEX 425-001, 425-010,  
425-022  
INLET EL. 8.27  
FL. 4.20 BK.  
BOTTOM EL. 2.20

R/W

R/W

FPL

AT&T

FPL

48" WM

PROPOSED 24" F.D.

TO S-6

18" PIPE

S-5

17+02.80

1" = 10' Horizontal

1" = 10' Vertical

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



**R.J. Behar & Company, Inc.**  
Engineers • Planners  
6861 SW 198 Avenue, Suite 302  
Pembroke Pines, Florida 33332

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DEPARTMENT OF TRANSPORTATION  
AND PUBLIC WORKS  
HIGHWAY DIVISION  
STEPHEN P. CLARK CENTER  
111 NW 1 ST  
MIAMI, FLORIDA 33128

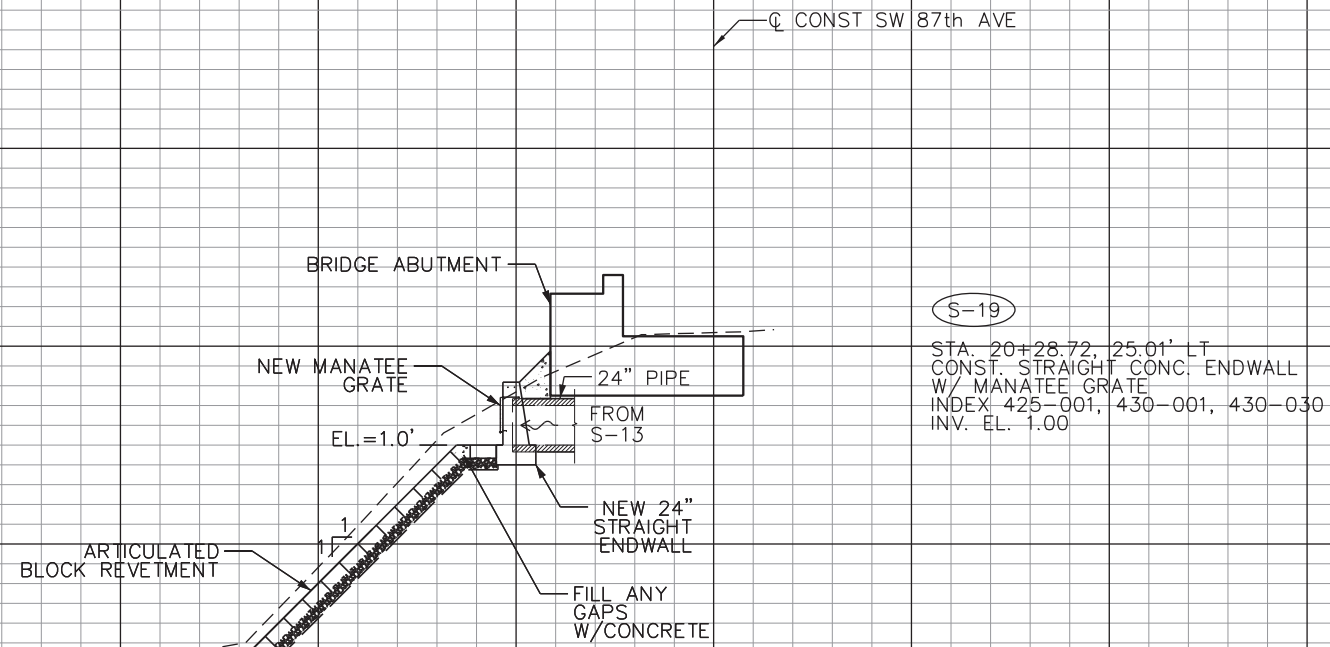
**DRAINAGE STRUCTURE  
SHEETS**

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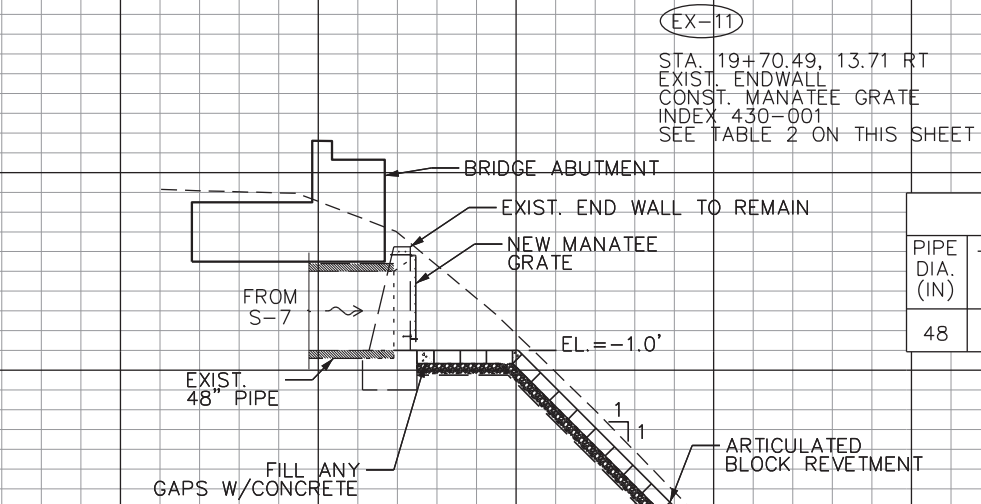
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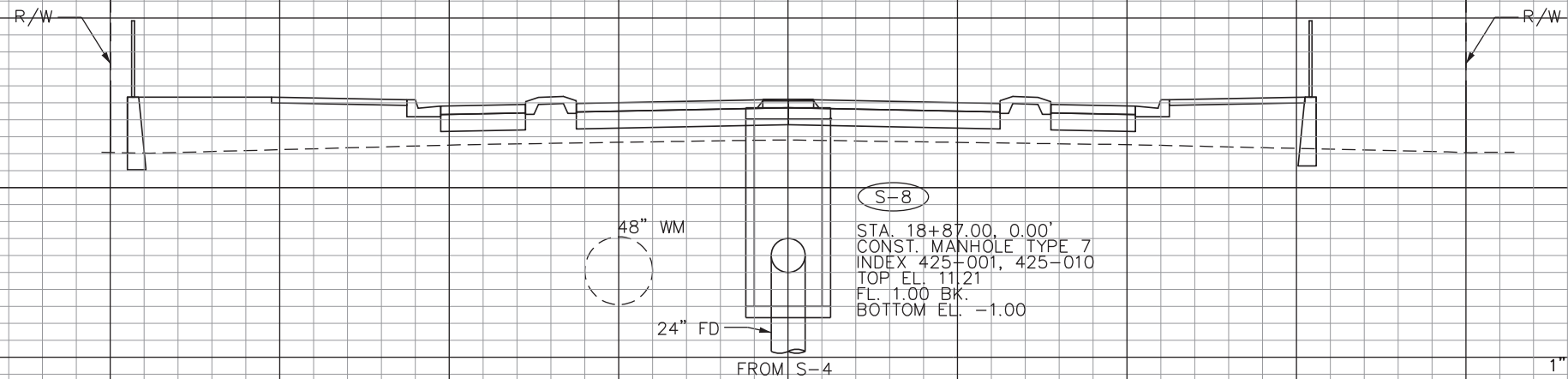
S-19  
STA. 20+28.72, 25.01' LT  
CONST. STRAIGHT CONC. ENDWALL  
W/ MANATEE GRATE  
INDEX 425-001, 430-001, 430-030  
INV. EL. 1.00



EX-11  
STA. 19+70.49, 13.71 RT  
EXIST. ENDWALL  
CONST. MANATEE GRATE  
INDEX 430-001  
SEE TABLE 2 ON THIS SHEET

MANATEE GRATE  
WORK WITH INDEX 430-001

TABLE 2 - SINGLE GUARD								
PIPE DIA. (IN)	TOP STEEL BRACKET	BOTTOM STEEL PLATE	NUMBER OF HOLES	NUMBER OF VERT. BARS	VERTICAL BARS SIZE	NUMBER OF HORIZ. BARS	HORIZONTAL BARS SIZE	WEIGHT LBS.
48	4'-10"	6'-0"	8	8	5/8"	5	5/8"	111



S-8  
STA. 18+87.00, 0.00'  
CONST. MANHOLE TYPE 7  
INDEX 425-001, 425-010  
TOP EL. 11.21  
FL. 1.00 BK.  
BOTTOM EL. -1.00

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

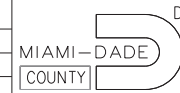
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DRAINAGE STRUCTURE  
SHEETS

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CROSSING BETWEEN S-13 AND S-15  
AT STA. 21+92.00, OFF. 34.62' LT.

FPL (TO BE  
RELOCATED  
BY OTHERS)  
24" PIPE  
FL. 2.29

S-12

STA. 21+74.00, 21.50' LT  
CONST. INLET TYPE 9  
INDEX 425-001, 425-010,  
425-024  
INLET EL. 7.90  
FL. 3.80 RT.  
BOTTOM EL. 1.80

S-11

STA. 21+74.00, 12.60' LT  
CONST. INLET TYPE 7 MODIFIED  
W/ BOTTOM (2'X4')  
INDEX 425-001, 425-010,  
425-022  
INLET EL. 7.61  
FL. 3.67 RT & LT.  
BOTTOM EL. 1.67

CONST SW 87th AVE

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND  
PUBLIC WORKS HIGHWAY DIVISION  
SW 87th AVENUE  
AT CANAL  
PROJECT NO. 20210098 SHEET 20 OF 81

CROSSING BETWEEN S-9 AND S-14  
AT STA. 21+92.00, OFF. 20.96' RT.

24" PIPE / FD  
FPL (TO BE  
RELOCATED  
BY OTHERS)  
FL. 3.04

S-12

S-11

21+74.00

S-9

STA. 21+82.50, 21.50' RT  
CONST. INLET TYPE 9  
W/ ALT. A  
INDEX 425-001, 425-010,  
425-024  
INLET EL. 7.90  
FL. 3.20 BK.  
FL. 3.37 LT.  
FL. 0.60 AH.  
BOTTOM EL. -1.40

S-9

21+82.50

VVH # 13 48" WM

S-13

STA. 21+34.04, 25.01' LT  
CONST. MANHOLE TYPE 7  
INDEX 425-001, 425-010  
TOP EL. 9.06  
FL. 1.85 AH. & BK.  
BOTTOM EL. -0.15

S-10

STA. 21+34.04, 14.00' RT  
CONST. INLET TYPE 7 MODIFIED  
W/ BOTTOM (4'X4')  
INDEX 425-001, 425-010,  
425-022  
INLET EL. 8.36  
FL. 3.34 AH  
BOTTOM EL. 1.34

S-13

S-10

21+34.04

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

REVISIONS

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DRAINAGE STRUCTURE  
SHEETS

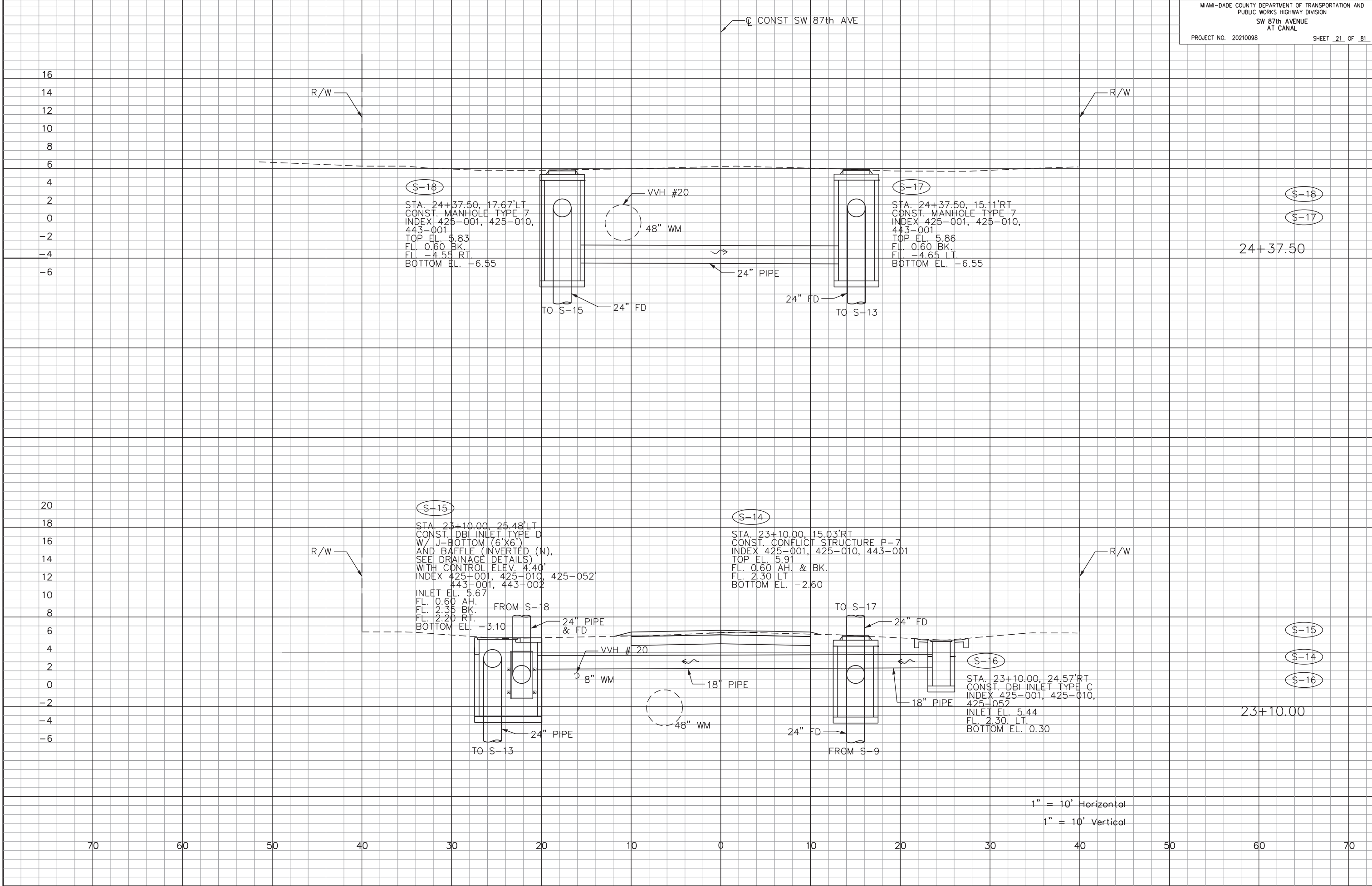


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**DRAINAGE STRUCTURE SHEETS**

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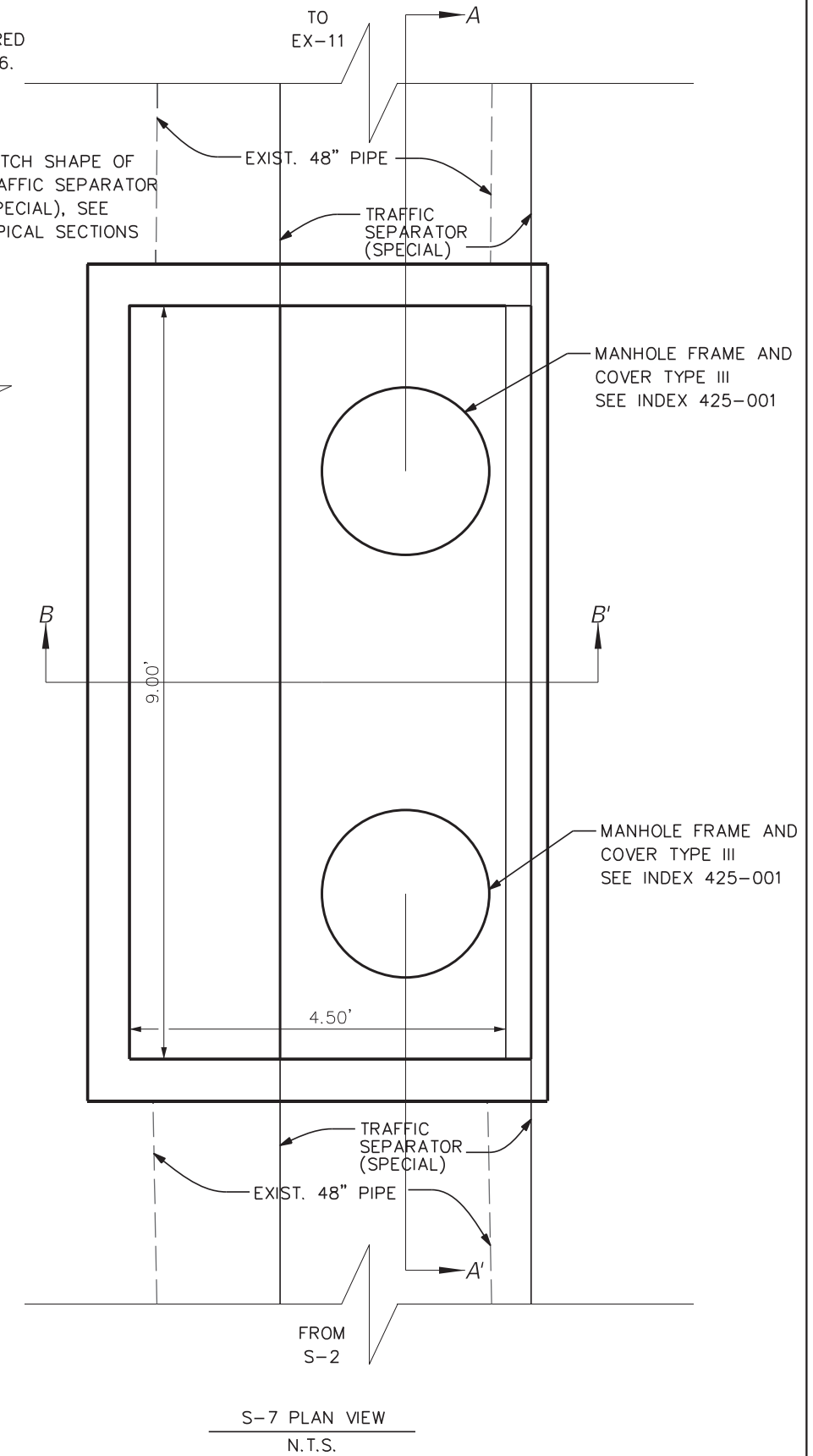
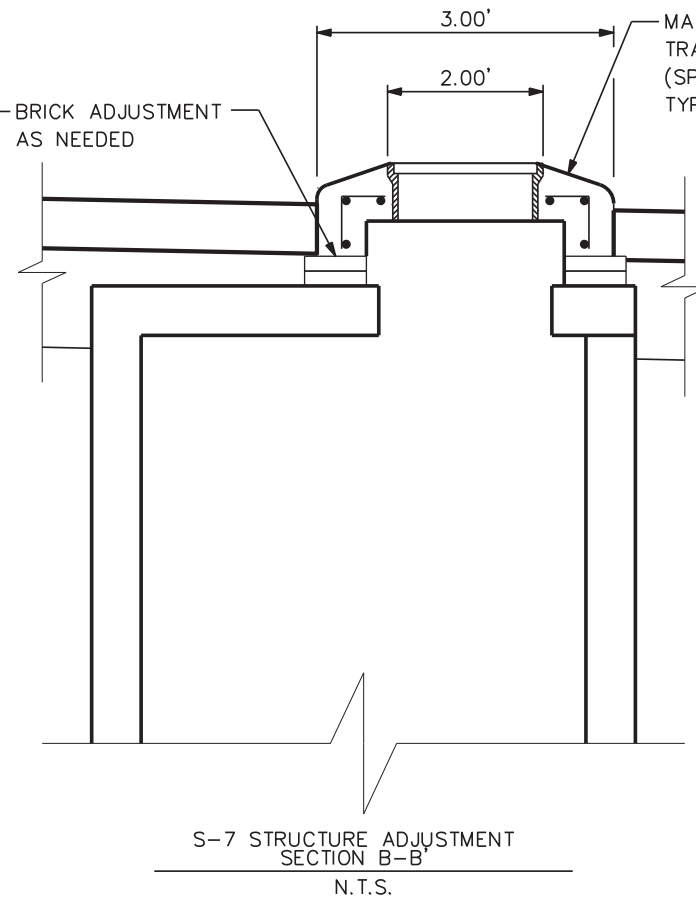
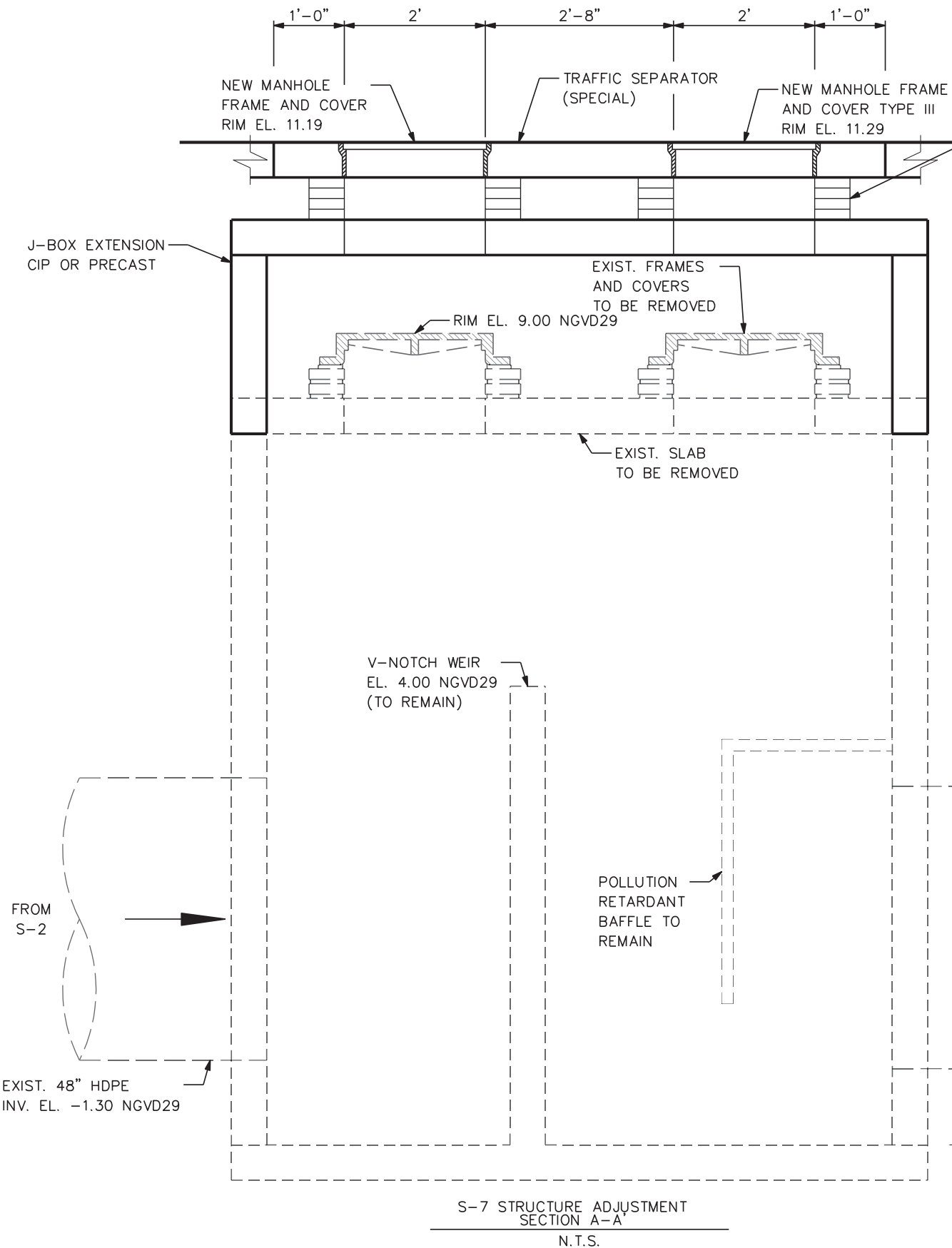
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CHECKED BY			CHECKED BY		
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MIAMI-DADE  
COUNTY

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## DRAINAGE DETAILS

- NOTES:
- CONTRACTOR SHALL EXCAVATE THE EXISTING STRUCTURE AND TAKE ALL NECESSARY MEASUREMENTS PRIOR TO ORDERING THE NEW PRECAST SECTIONS OR PIECES.
  - INVERT ELEVATIONS FROM AS-BUILT PLANS PREPARED BY MPG TECHNICAL GROUP CORP, DATED MAY 2006.



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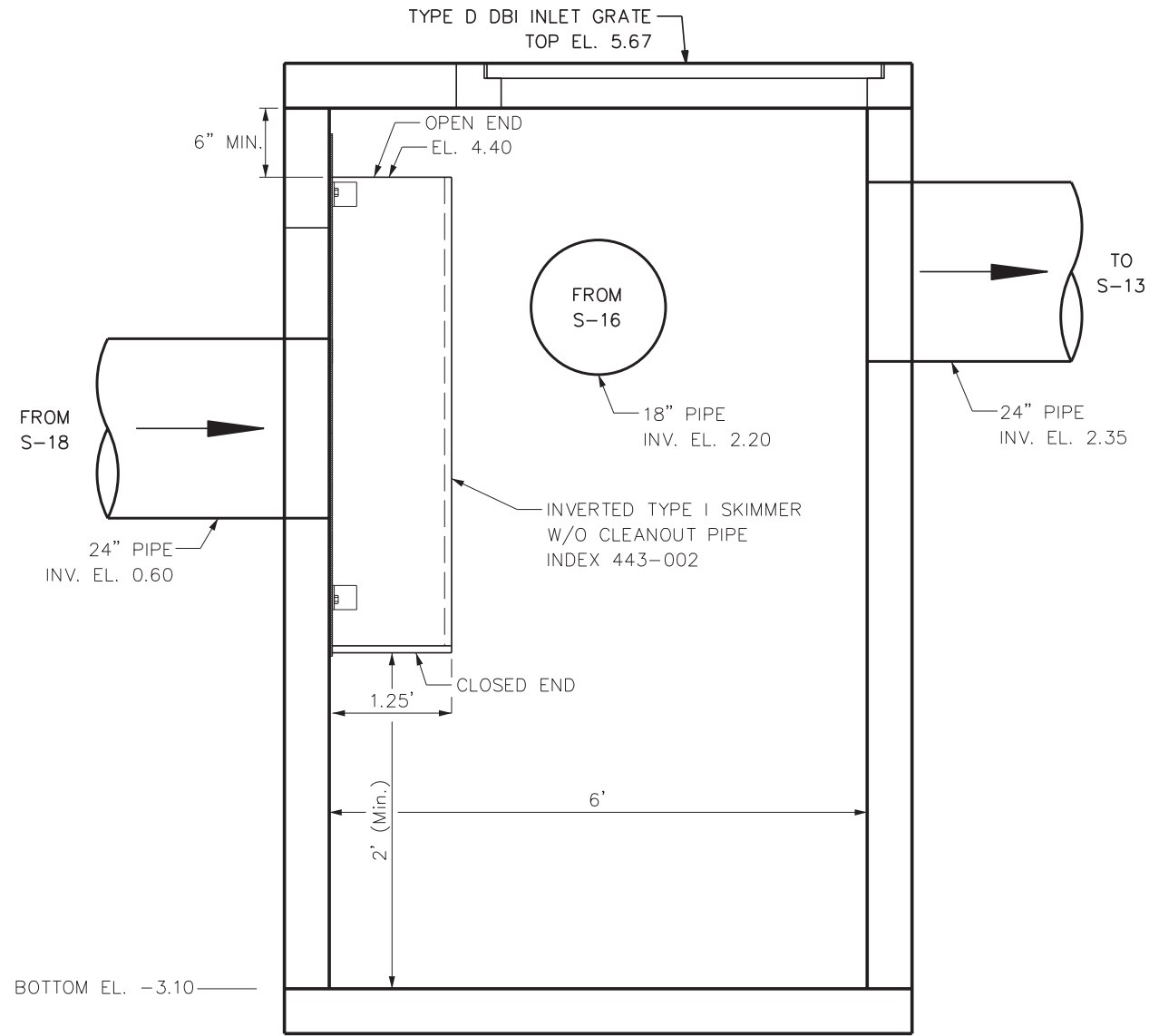
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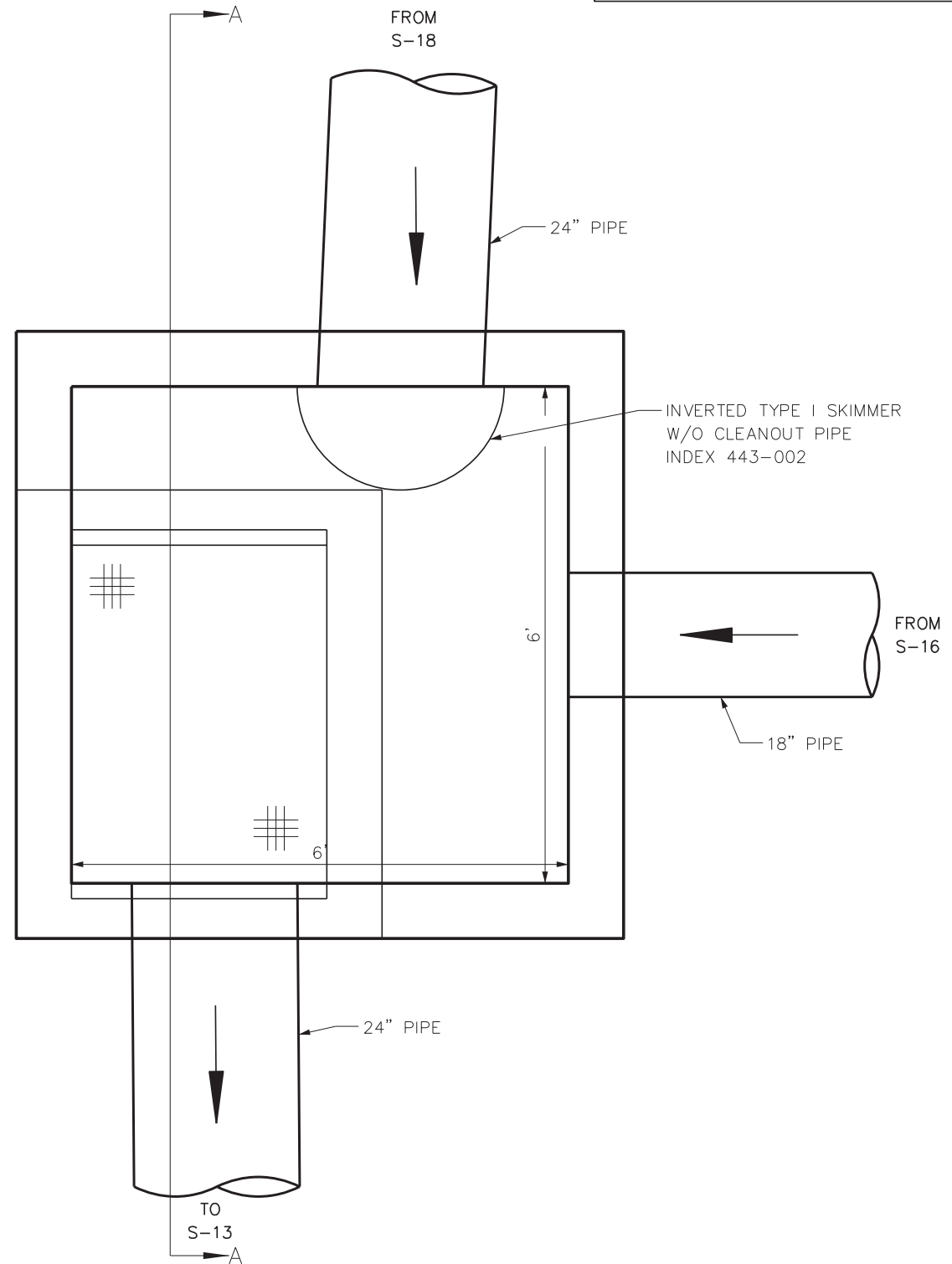
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DRAINAGE DETAILS



S-15 SECTION A-A'  
N.T.S.



S-15 PLAN VIEW  
N.T.S.

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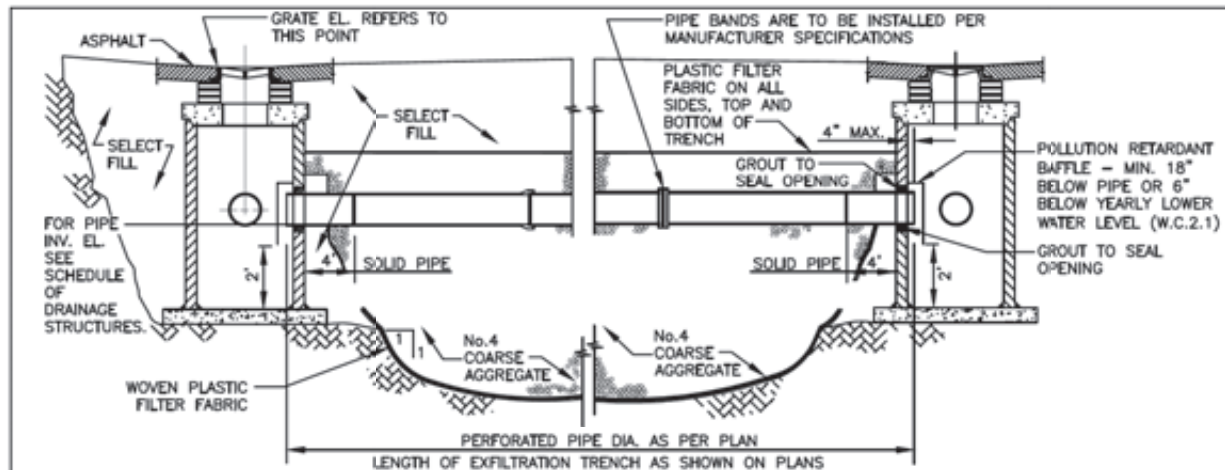
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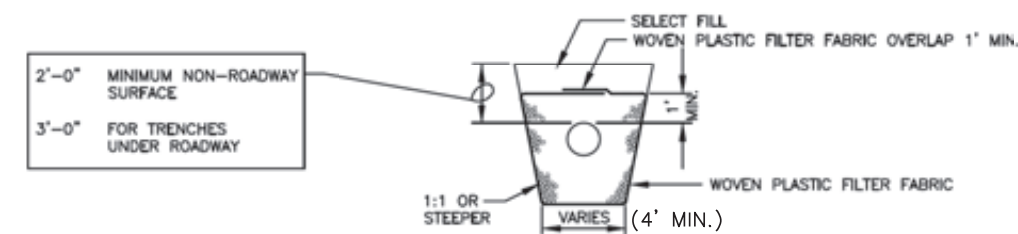
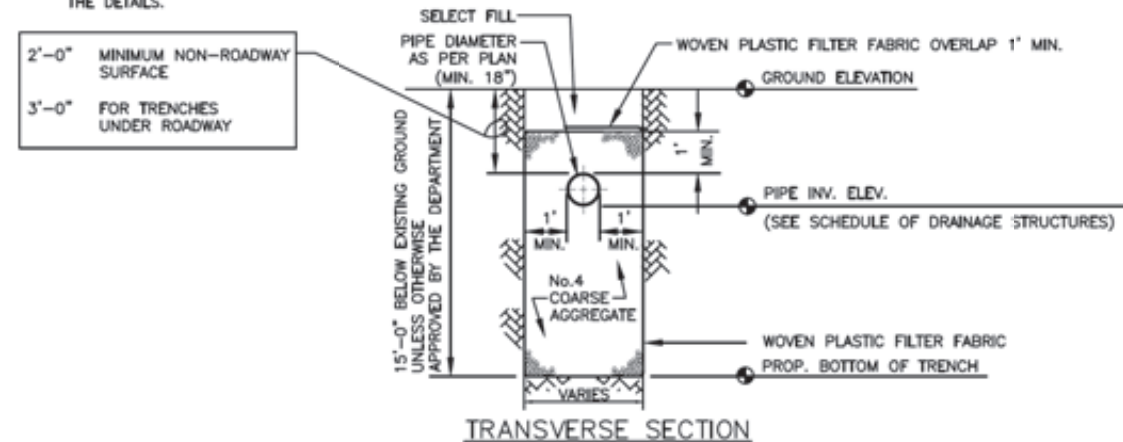
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DRAINAGE DETAILS



**NOTE**

1—AFTER THE COARSE AGGREGATE HAS BEEN PLACED TO THE PROPER ELEVATION IT SHALL BE CAREFULLY WASHED DOWN WITH CLEAN WATER, OR TAMPERED, TO ALLOW FOR INITIAL SETTLEMENT THAT MAY OCCUR. IF SETTLEMENT DOES TAKE PLACE, ADDITIONAL No.4 COARSE AGGREGATE SHALL BE ADDED TO RESTORE THE PROPER ELEVATION SO THAT THE EXFILTRATION TRENCH IS COMPLETED IN ACCORDANCE WITH THE DETAILS.



\* MAY BE USED IN AREAS WHERE TRENCH WALLS WILL NOT STAND VERTICAL, OR WHERE CAVE-IN BELOW THE WATER TABLE IS LIKELY TO OCCUR. TO BE USED AT THE ENGINEER'S DISCRETION.

**NOTES (CONTINUED ON NEXT PAGE)**

1. PLASTIC FILTER FABRIC SHALL BE WOVEN MONOFILAMENT POLYPROPYLENE GEOTEXTILE. PERMITTIVITY SHALL BE GREATER THAN 0.50 SEC AND FLOW RATE GREATER OR EQUAL TO 50 gal/min.
2. MAXIMUM EXFILTRATION RATE WHICH CAN BE USED IN CALCULATING FRENCH DRAIN LENGTH IS 0.1 cfs/lf.

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED <u>04/16/2015</u>	REVISED <u>02/08/2011</u> <u>09/26/2012</u> <u>10/19/2012</u>	STANDARD STORM DRAINAGE DETAIL EXFILTRATION TRENCH ( FRENCH DRAIN )	SD 1.1 SHEET 1 OF 2
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**NOTES CONTINUED**

3. THE MINIMUM PIPE DIAMETER FOR DRAINAGE SYSTEM WITHIN THE ROADWAY RIGHT-OF-WAY SHALL BE 18 INCHES. 15 INCH PIPE MAY BE USED IN PRIVATE ROADWAYS.
4. NO TREES TO BE PLANTED WITHIN 5 FEET OF THE EDGE OF THE TRENCH.
5. TYPE "P" S.D. 2.6 STRUCTURE IS RECOMMENDED FOR SMALL DRAINAGE AREAS LESS THAN 0.2 ACRE PER CATCH BASIN.
6. TYPE "J" S.D. 2.6 STRUCTURE IS RECOMMENDED FOR AREAS LARGER THAN 0.2 ACRE.
7. ALL INVERTS OF PERFORATED PIPES TO BE AT MEAN HIGH OCTOBER WATER TABLE W.C. 2.2.
8. PIPES CAN BE ALLOWED BELOW MEAN HIGH OCTOBER WATER TABLE DUE TO UTILITY CONFLICTS OR IN ORDER TO PROVIDE THE REQUIRED MINIMUM COVER.
9. NEOPRENE GASKET REQUIRED FOR BAFFLES ON ALL CONTACT EDGES MOUNTED ON WALL.
10. OIL AND GREASE BAFFLE IS REQUIRED FOR ALL DRAINAGE STRUCTURES PRECEDING AN OUTFALL OR EXFILTRATION TRENCHES, IN PROJECTS LOCATED IN WELLFIELD PROTECTION AREAS, ROAD INTERSECTIONS WITH TRAFFIC LIGHTS, AND LARGE PARKING LOTS WHICH INCLUDE 15 PARKING SPACES OR MORE.
11. OIL AND GREASE BAFFLE MAY BE WAIVED IN SUBURBAN RESIDENTIAL AREAS.

**GENERAL NOTES FOR PIPE CULVERTS**

CONTRACTOR HAS THE OPTION OF INSTALLING ANY PIPE MEETING THE REQUIREMENTS OF SECTION 443-2 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS LONG AS THE MANUFACTURER IS LISTED, AT THE TIME OF PIPE INSTALLATION, IN FDOT'S LIST OF PRODUCERS WITH ACCEPTED QUALITY CONTROL PROGRAMS. PIPES WITH LESS THAN A 100-YEAR CERTIFICATION CANNOT BE USED ON SECTION LINE, HALF SECTION LINE, COLLECTOR ROADWAYS, AND ARTERIALS. 50-YEAR PIPE CERTIFICATION REQUIRED FOR ALL OTHER MINOR/LOCAL ROADWAYS.

MINIMUM NUMBER OF PERFORATION IN PIPE CULVERTS		
PIPE DIAMETER (Inches)	OUTER SHELL	LINER
	No. of 3/8" Dia. Holes (PER LIN. FT. OF PIPE)	No. of 3/8" Dia. Holes (PER LIN. FT. OF PIPE)
15	100	50
18	120	60
24	160	80
30	200	100
36	240	120
42	275	140
48	315	150
54	355	180
60	395	200
72	470	235
84	550	275

**NOTE:**

PERFORATIONS SHALL BE UNIFORMLY SPACED AROUND THE FULL PERIPHERY OF THE PIPE TO WITHIN 4" OF EACH END OF EACH LENGTH OF PIPE. THE NUMBER OF PERFORATIONS PER LINEAR FOOT OF PIPE AND THE DIAMETER OF THE PERFORATIONS SHALL BE AS SHOWN ON THE ABOVE TABLE.

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	APPROVED <u>04/16/2015</u>	REVISED <u>06-04-86</u> <u>10-22-13</u> <u>05-02-81</u>	STANDARD STORM DRAINAGE DETAIL EXFILTRATION TRENCH ( PIPE CULVERT NOTES )	SD 1.1 SHEET 2 OF 2
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**REVISIONS**

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MIAMI-DADE COUNTY	DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION STEPHEN P. CLARK CENTER 111 NW 1 ST MIAMI, FLORIDA 33128
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DRAINAGE DETAILS



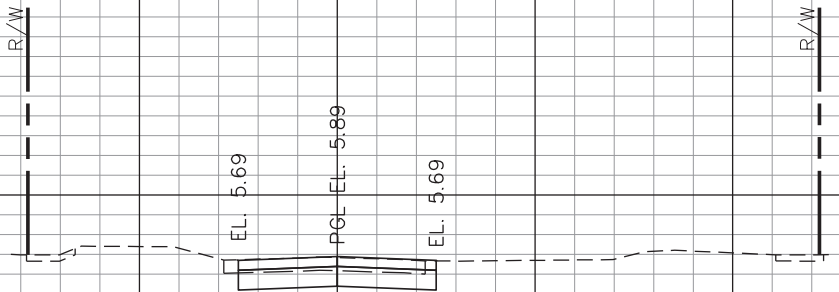
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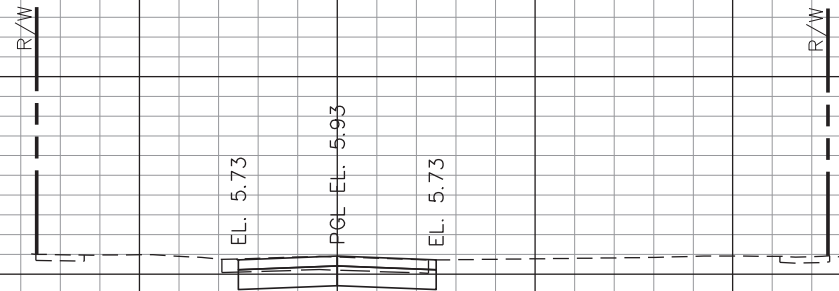
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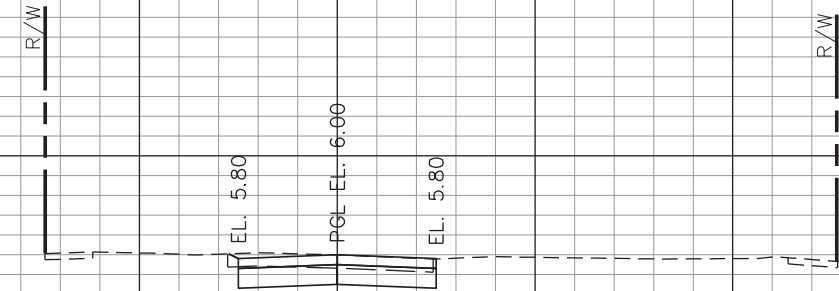
CONST SW 87th AVE



13+50.00



13+25.00



13+00.00

BEGIN PROJECT STA. 12+71.88  
BEGIN EARTHWORK STA. 12+71.88  
1" = 20' Horizontal  
1" = 10' Vertical

Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0	0	18	17	0	0
0	0	18	18	0	0
0	0	20	18	0	0



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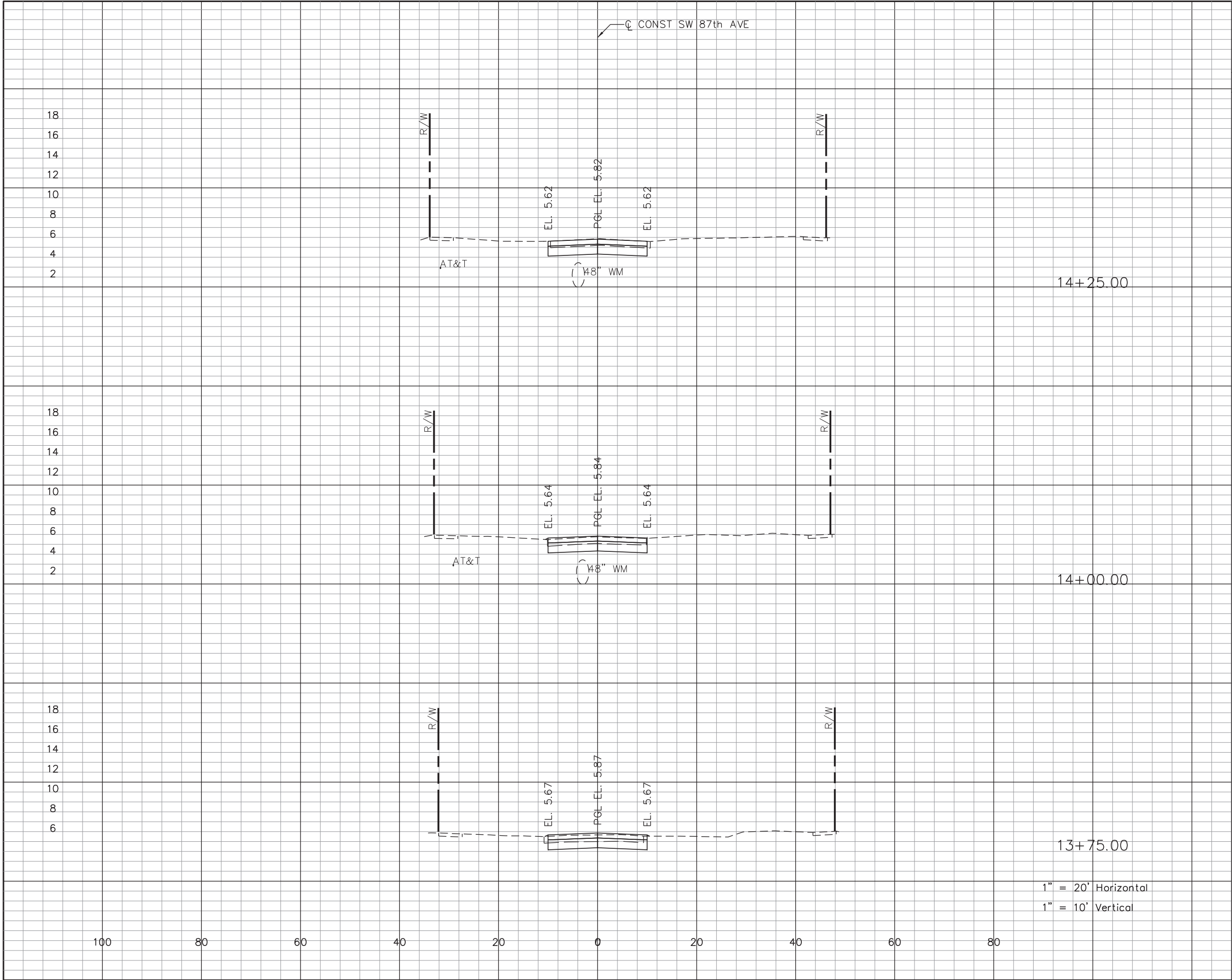
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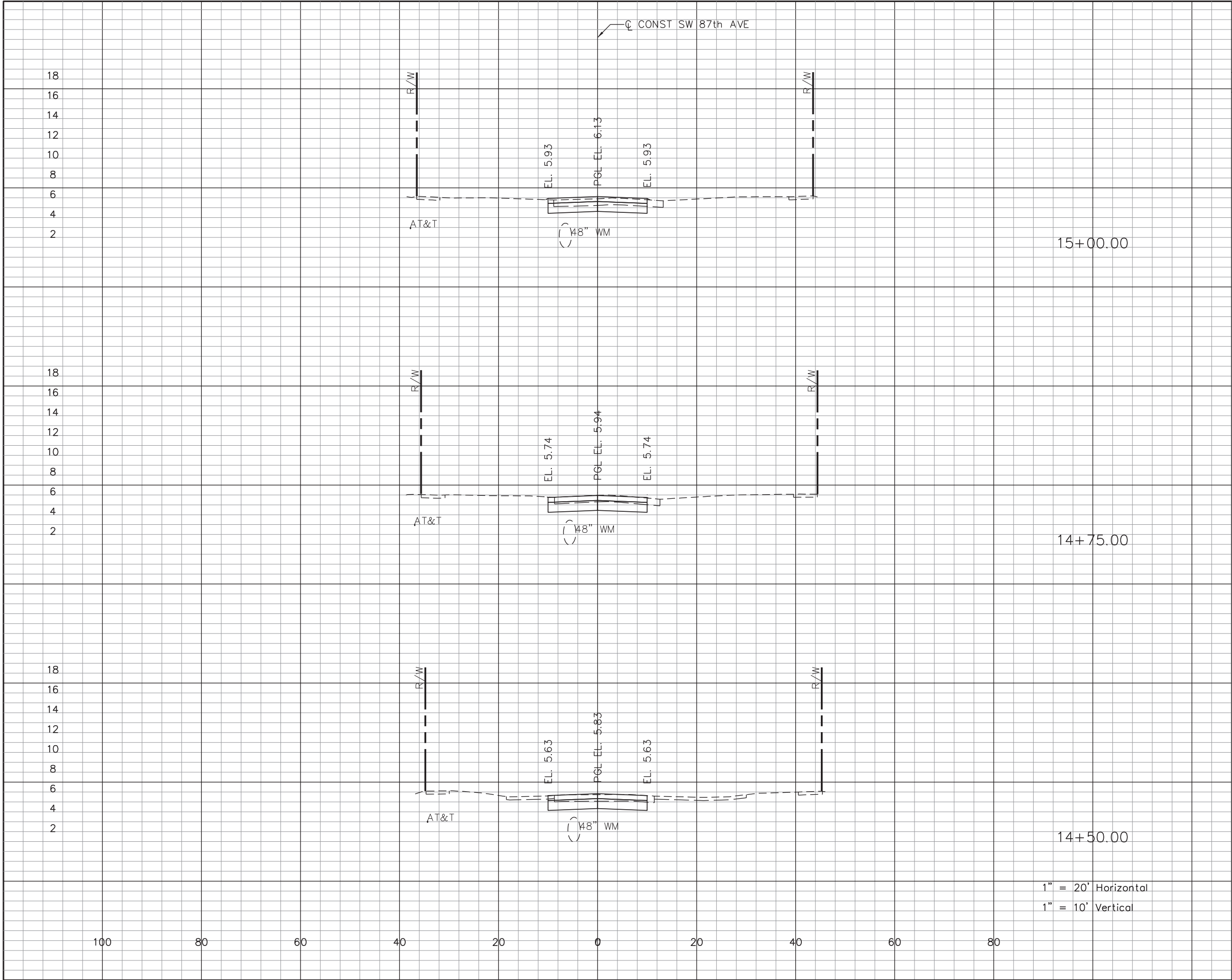
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION SW 87th AVENUE AT CANAL PROJECT NO. 20210098      SHEET <u>27</u> OF <u>81</u>					
Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0	0	19	16	0	0
0	0	17	15	0	0
0	0	16	16	0	0
1" = 20' Horizontal 1" = 10' Vertical					
CROSS SECTIONS					

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MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION SW 87th AVENUE AT CANAL PROJECT NO. 20210098 SHEET <u>28</u> OF <u>81</u>					
Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0	0	15	16	0	0
0	0	19	17	0	0
0	0	18	17	0	0
1" = 20' Horizontal 1" = 10' Vertical					
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION STEPHEN P. CLARK CENTER 111 NW 1 ST MIAMI, FLORIDA 33128					
CROSS SECTIONS					

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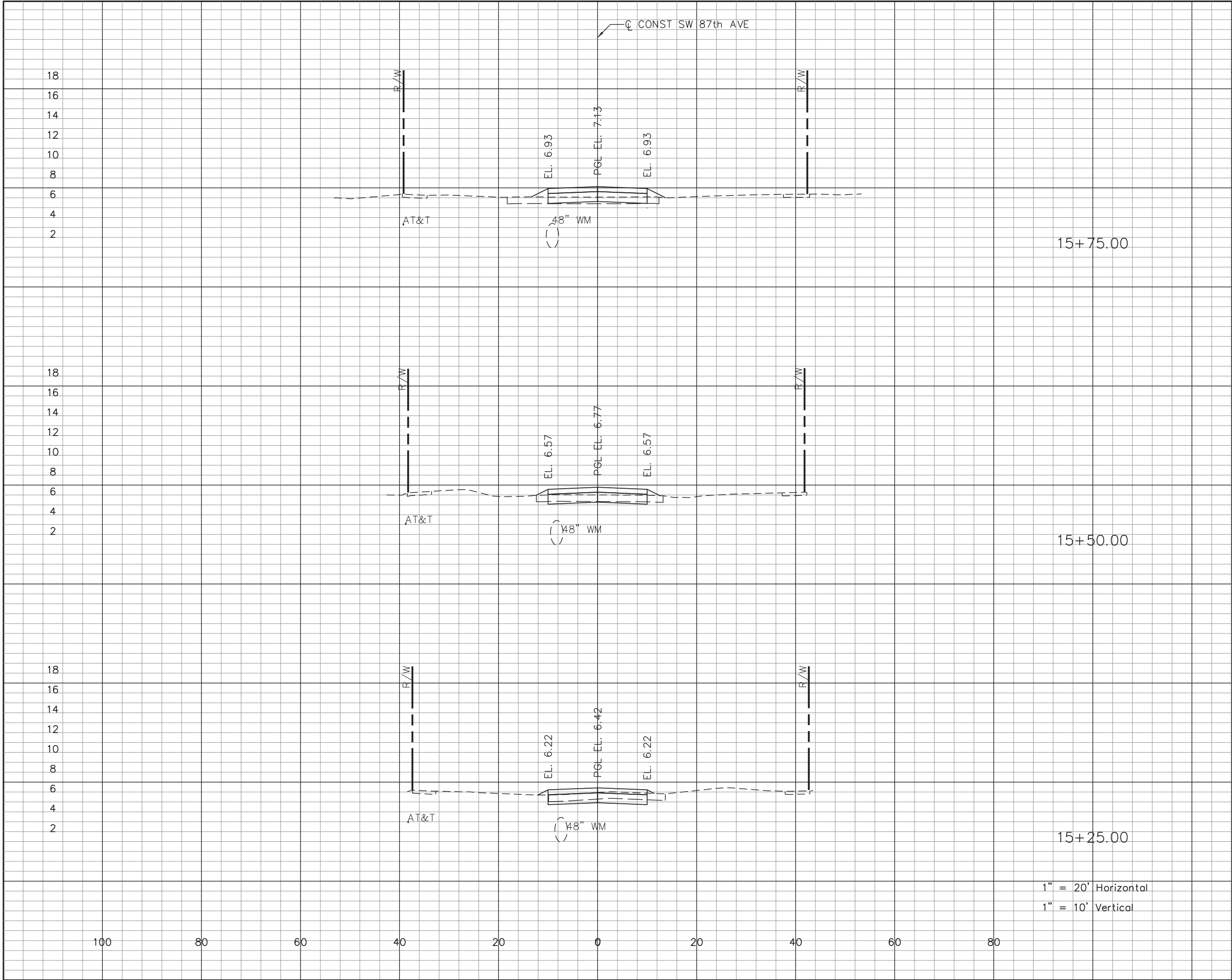
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Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0	0	2	4	2	0
0	0	5	7	2	1
0	0	10	11	0	0

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

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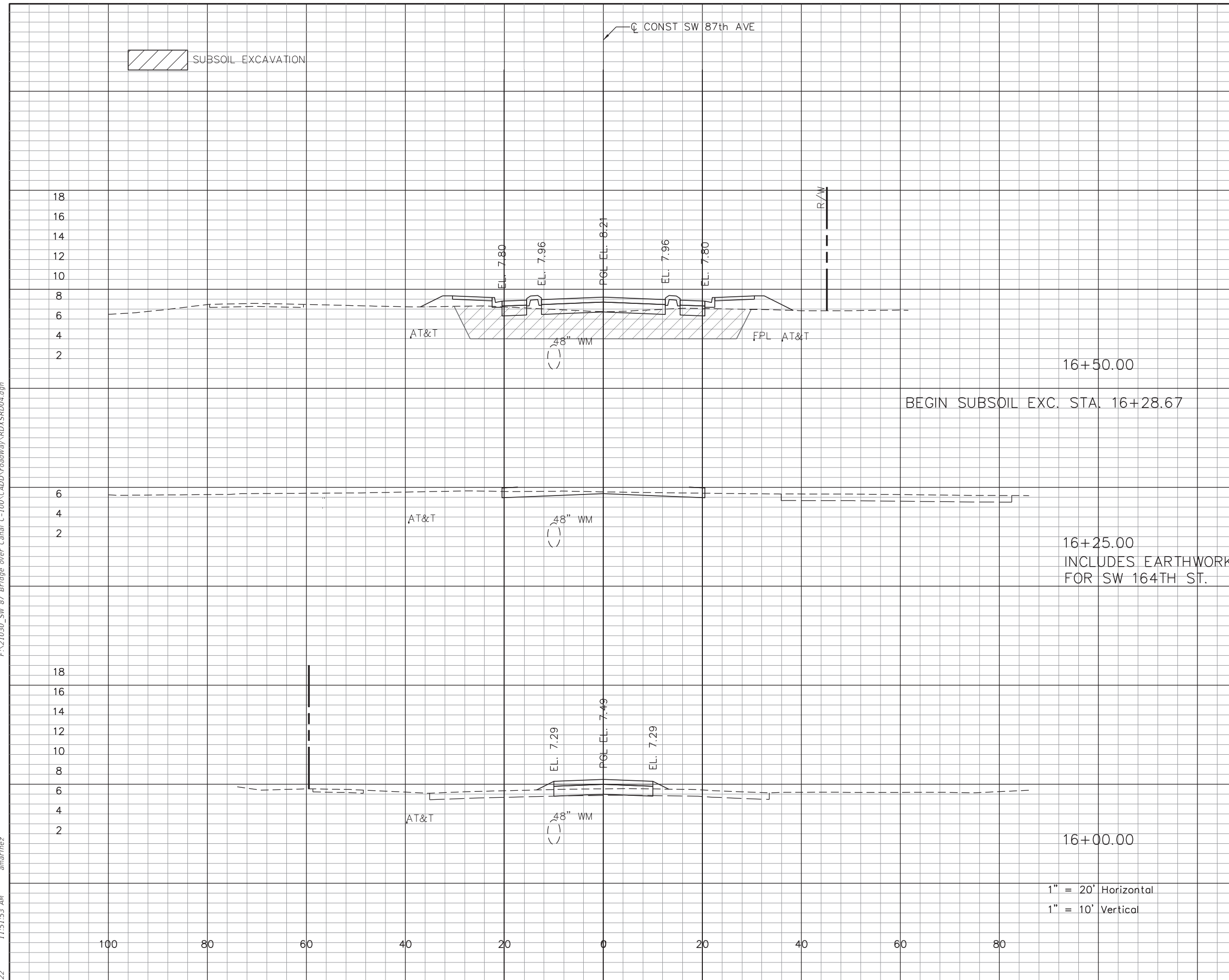
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CROSS SECTIONS

Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
171	0	2	1	206	20
0	0	73	109	29	34
0	0	1	1	3	3

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CROSS SECTIONS
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CONCRETE PROTECTION SLAB



SUBSOIL EXCAVATION

CONST SW 87th AVE

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND  
PUBLIC WORKS HIGHWAY DIVISION  
SW 87th AVENUE  
AT CANAL

PROJECT NO. 20210098

SHEET 31 OF 81

Subsoil Exc.

Regular Exc.

Embankment

A

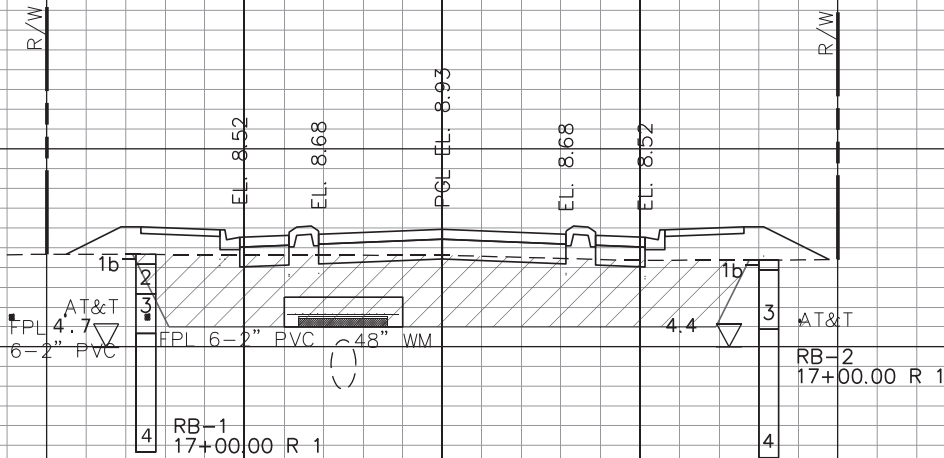
V

A

V

A

V



17+00.00

208

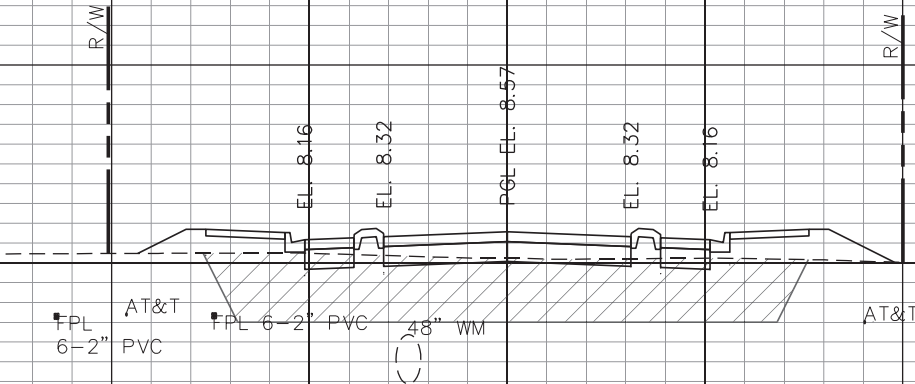
185

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0

258

227



16+75.00

191

168

1

1

232

203

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

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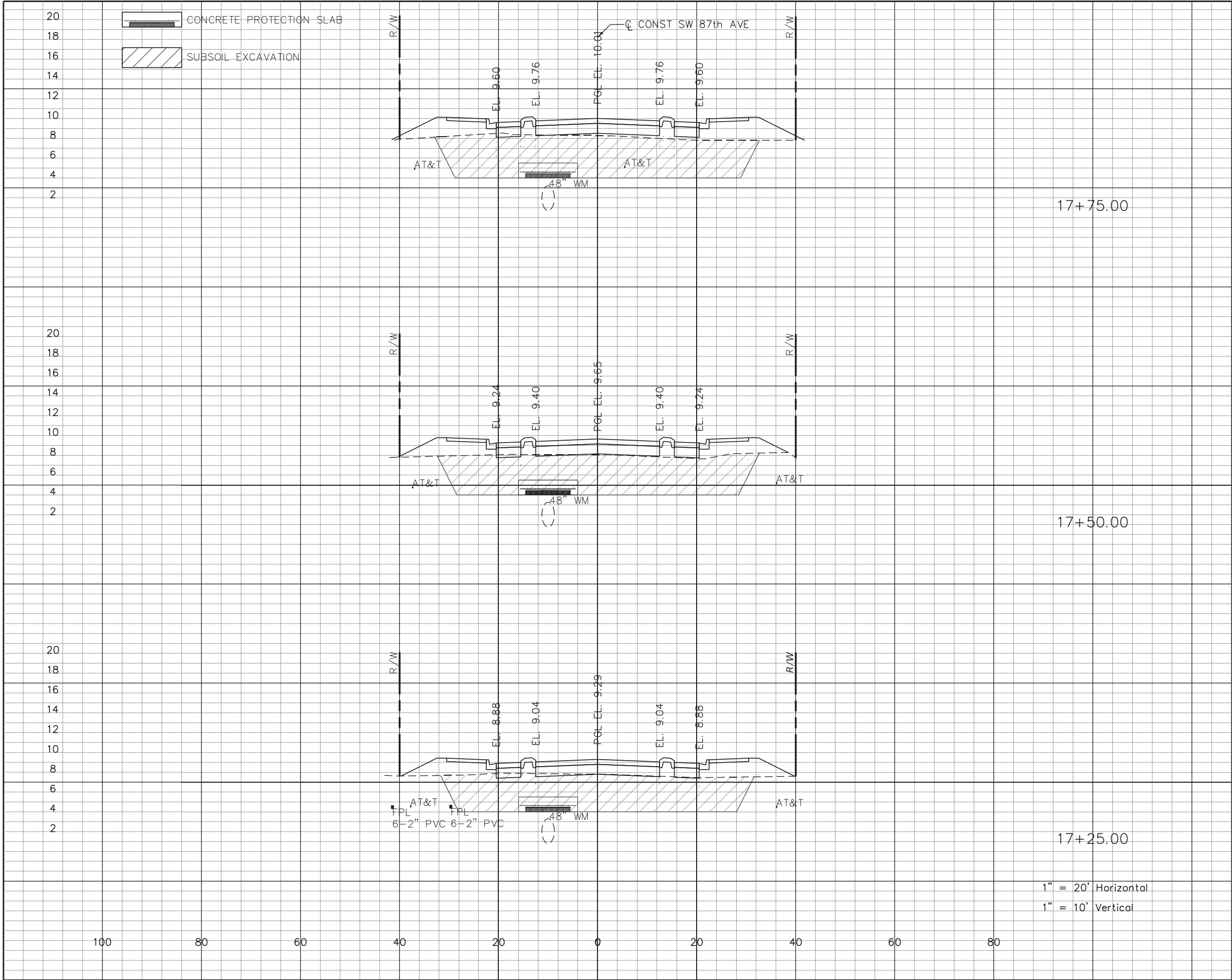
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amarinez

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5/13/2022



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

Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
257	231	0	0	347	302
243	215	0	0	313	268
221	199	0	0	288	253

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



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Pembroke Pines, Florida 33332

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AND PUBLIC WORKS  
HIGHWAY DIVISION  
STEPHEN P. CLARK CENTER  
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MIAMI, FLORIDA 33128

CROSS SECTIONS

F:\21030\_SW 87 Bridge over Canal C-100\CADD\roadway\RD\XSRD04.dgn

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5/13/2022



CONCRETE PROTECTION SLAB



SUBSOIL EXCAVATION

CONST SW 87th AVE

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND  
PUBLIC WORKS HIGHWAY DIVISION  
SW 87th AVENUE  
AT CANAL

PROJECT NO. 20210098

SHEET 33 OF 81

Subsoil Exc.

Regular Exc.

Embankment

A

V

A

V

A

V

20

18

16

14

12

10

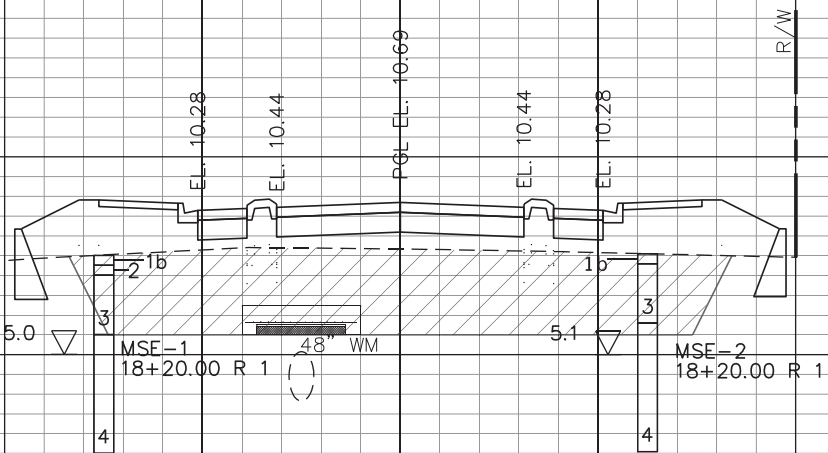
8

6

4

2

0



18+25.00

267

248

15

13

382

340

20

18

16

14

12

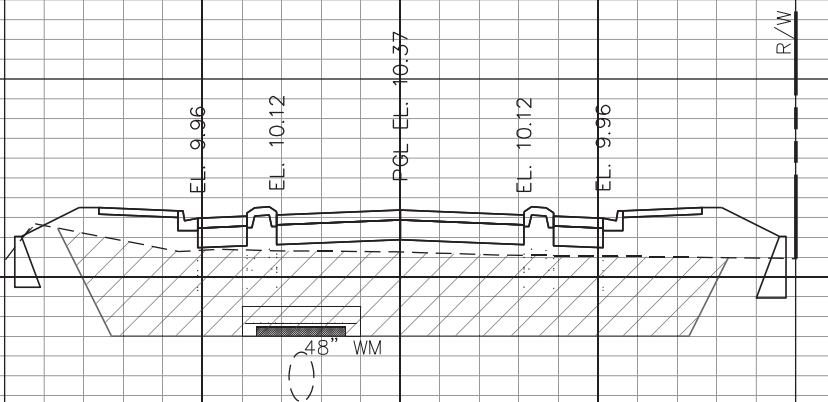
10

8

6

4

2



18+00.00

269

243

14

13

354

324

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

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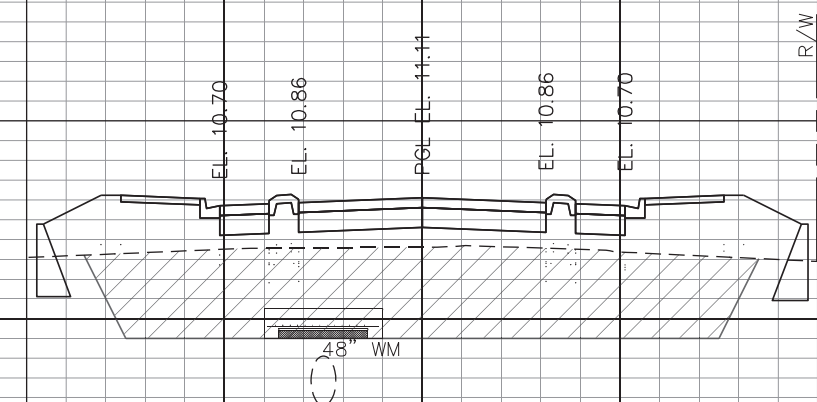


SUBSOIL EXCAVATION

CONST SW 87th AVE

Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V

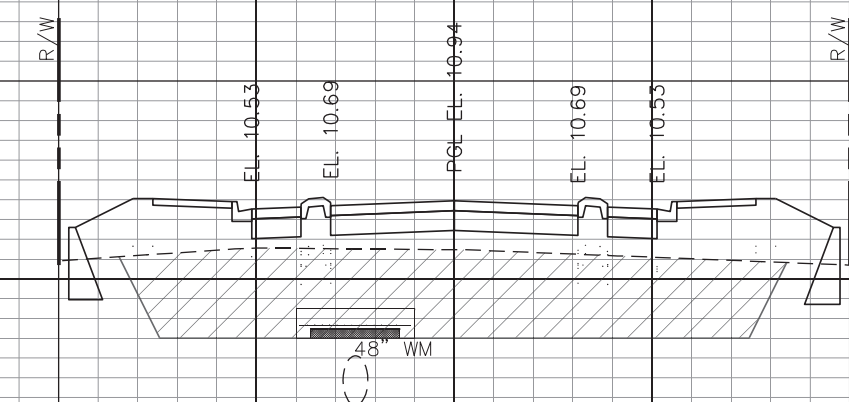
20  
18  
16  
14  
12  
10  
8  
6  
4  
2



18+75.00

287	260	15	14	413	367
-----	-----	----	----	-----	-----

20  
18  
16  
14  
12  
10  
8  
6  
4  
2



18+50.00

275	251	15	14	399	362
-----	-----	----	----	-----	-----

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

100 80 60 40 20 0 20 40 60 80

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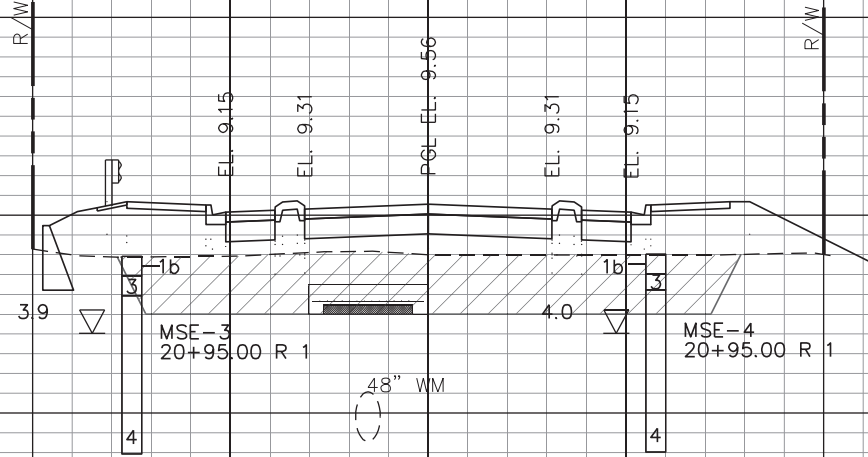
amarinez

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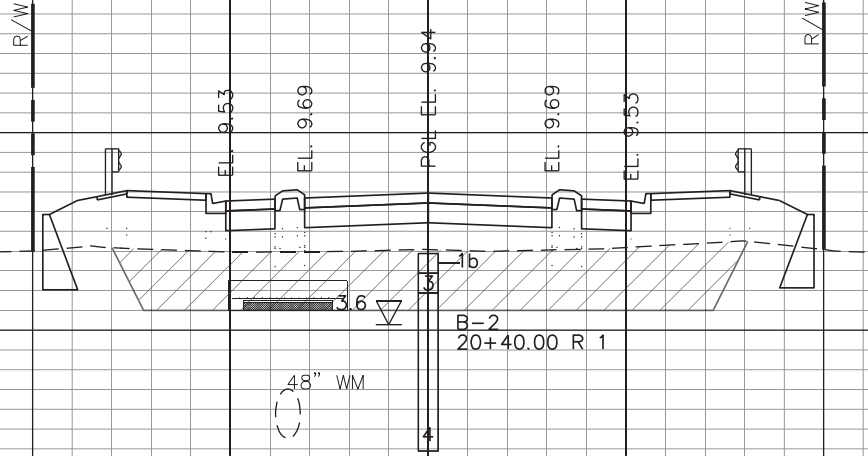
5/13/2022

CONCRETE PROTECTION SLAB  
SUBSOIL EXCAVATION

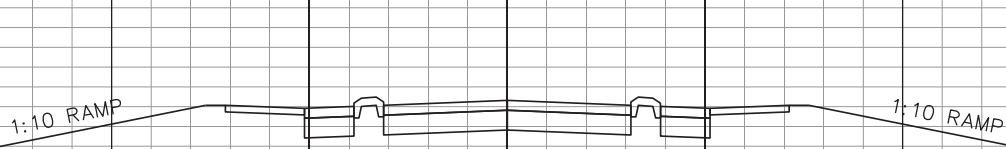
CONST SW 87th AVE



21+00.00



20+75.00



20+60.00

END BRIDGE STA. 20+33.17

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

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION  
SW 87th AVENUE AT CANAL  
PROJECT NO. 20210098 SHEET 36 OF 81

Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
181	171	0	8	324	312
188	0	17	4	349	165

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CROSS SECTIONS

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CONCRETE PROTECTION SLAB



SUBSOIL EXCAVATION

CONST SW 87th AVE

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND  
PUBLIC WORKS HIGHWAY DIVISION  
SW 87th AVENUE  
AT CANAL

PROJECT NO. 20210098

SHEET 37 OF 81

Subsoil Exc.

Regular Exc.

Embankment

A

V

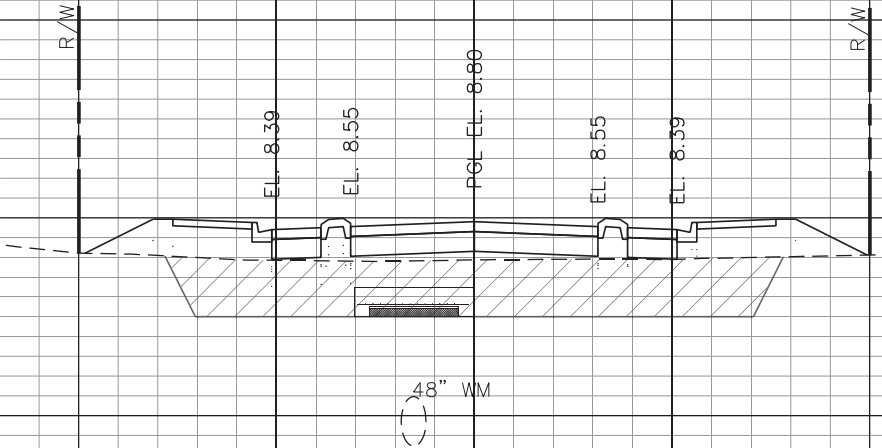
A

V

A

V

18  
16  
14  
12  
10  
8  
6  
4  
2  
0



21+50.00

172

162

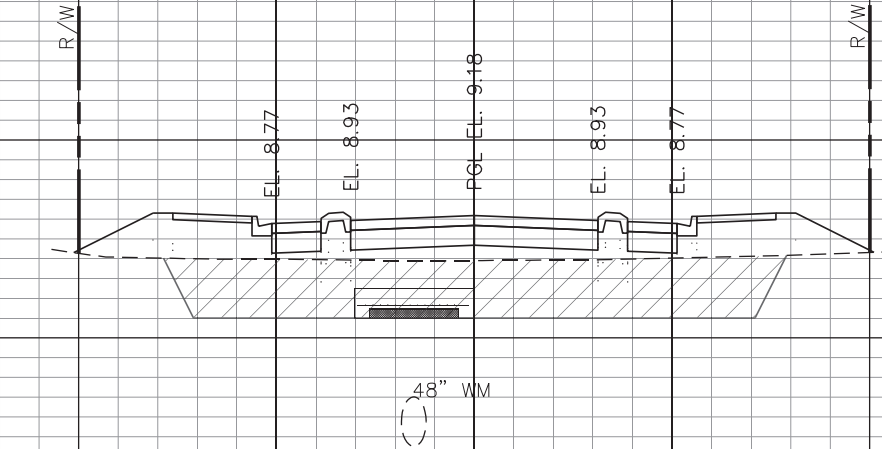
0

0

258

253

18  
16  
14  
12  
10  
8  
6  
4  
2  
0



21+25.00

178

166

0

0

289

284

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

REVISIONS

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CROSS SECTIONS

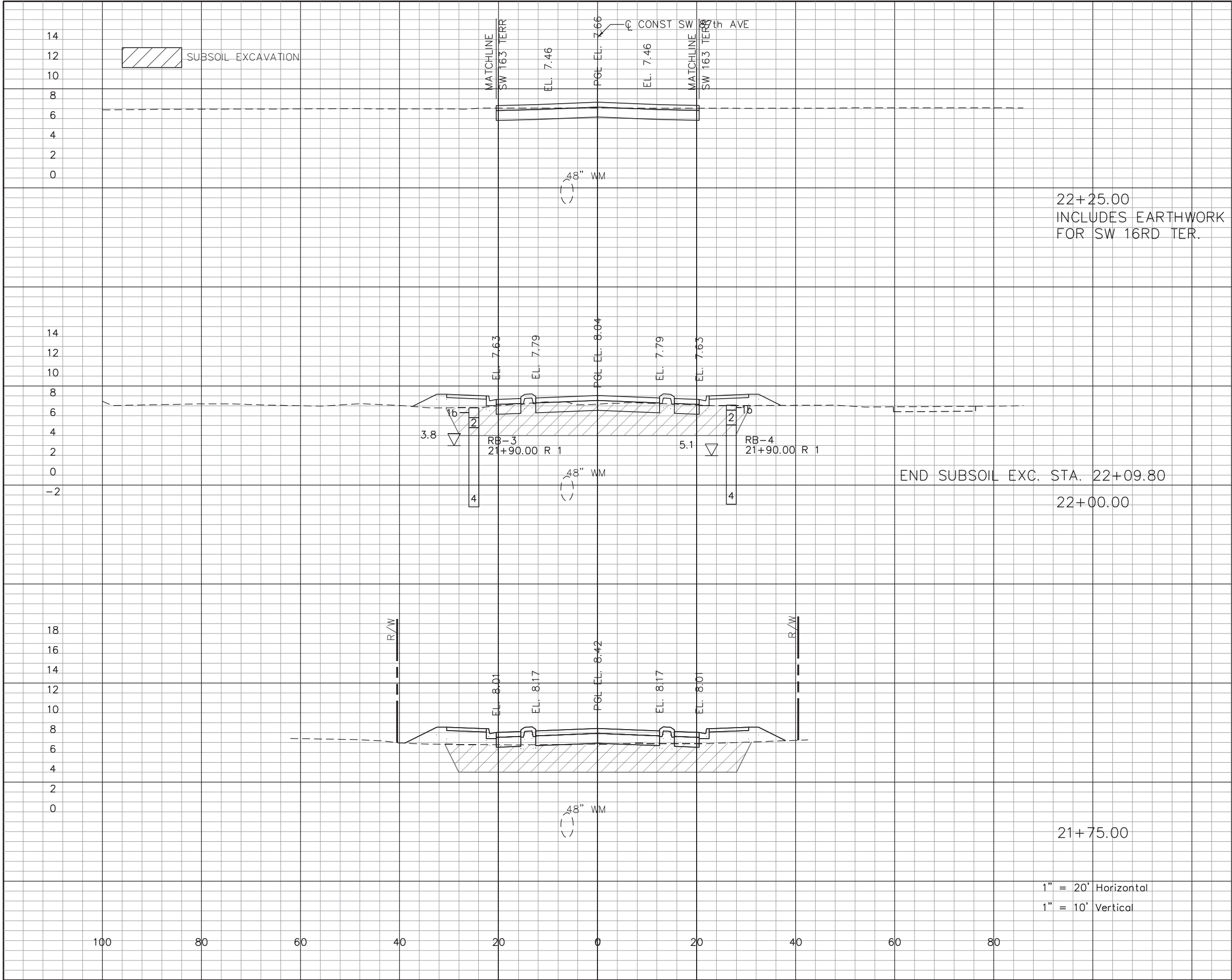


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amarinez

11:51:54 AM

5/13/2022



Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0	0	121	54	30	24
184	163	10	5	211	204
168	157	0	0	229	225

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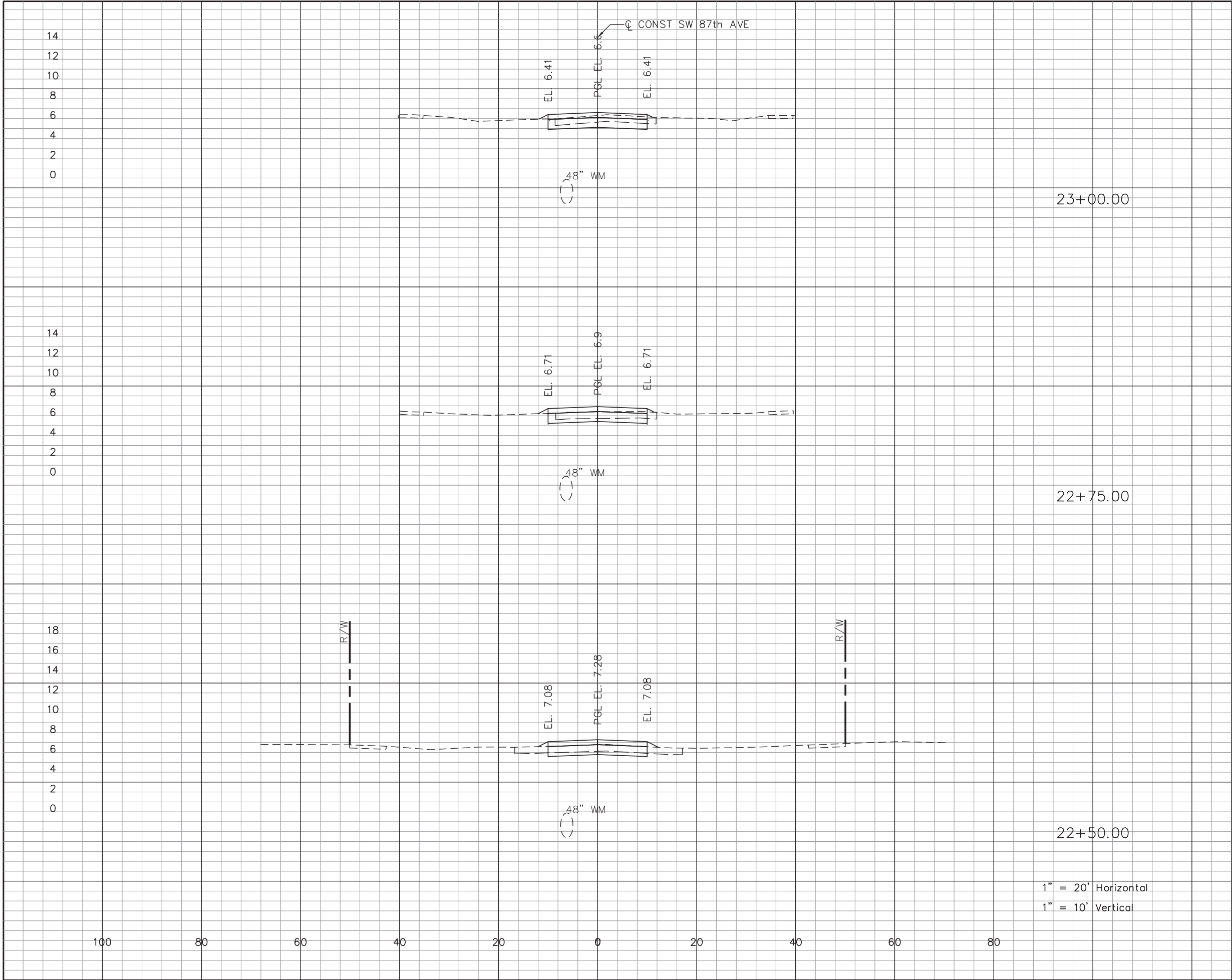
CROSS SECTIONS

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5/13/2022



Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V
0	0	12	10	1	1
0	0	10	8	1	1
0	0	9	14	1	1

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CROSS SECTIONS

F:\21030\_SW 87 Bridge over Canal C-100\CADD\Roadway\RD\XSRD04.dgn 5/13/2022 11:51:54 AM amartinez

CONST SW 87th AVE

Subsoil Exc.		Regular Exc.		Embankment	
A	V	A	V	A	V

SUMMARY OF EARTHWORK

	CY	
	P	F
SUBSOIL EXC.	3629 CY	
REGULAR EXC.	473 CY	
EMBANKMENT	5416 CY	

18  
16  
14  
12  
10  
8  
6  
4  
2  
0

R/W

48" WM

END PROJECT STA. 24+40.83  
END EARTHWORK STA. 23+85.00  
23+20.00

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

100 80 60 40 20 0 20 40 60 80

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



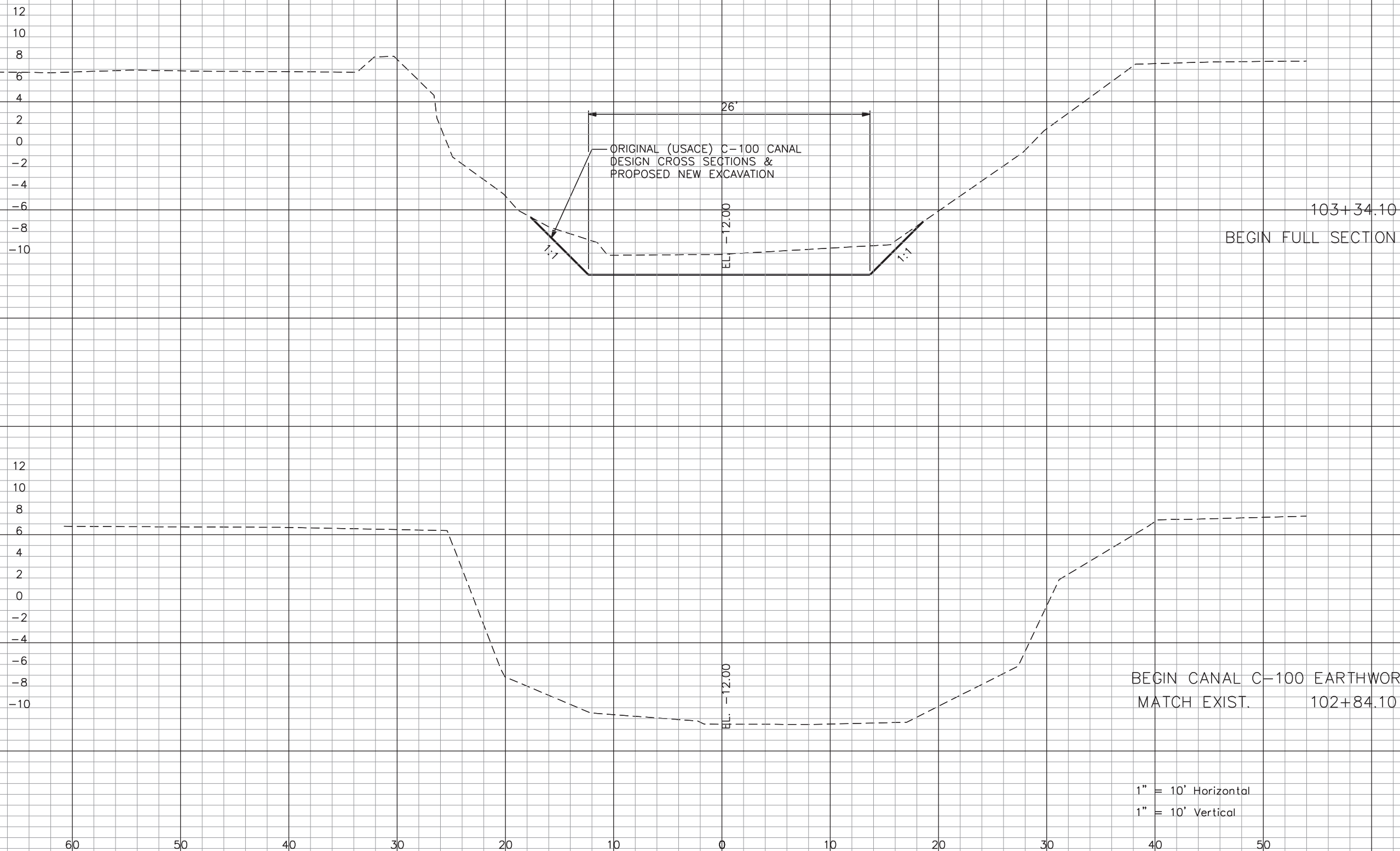
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CHECKED BY			CHECKED BY		
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CROSS SECTIONS

[illegible]

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DESIGNED BY			DRAWN BY		
CHECKED BY			CHECKED BY		
SUPERVISED BY:					



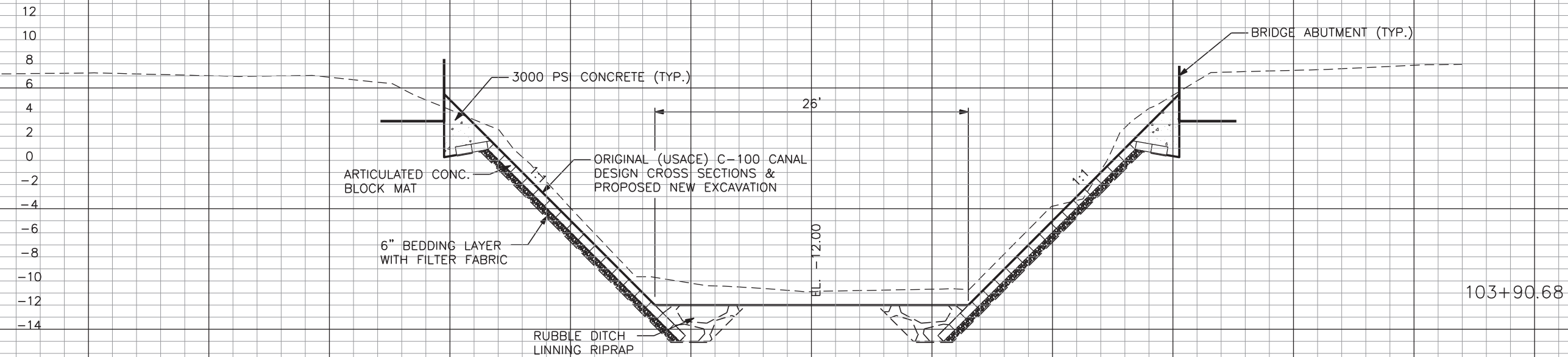
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HIGHWAY DIVISION  
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## CANAL CROSS SECTIONS

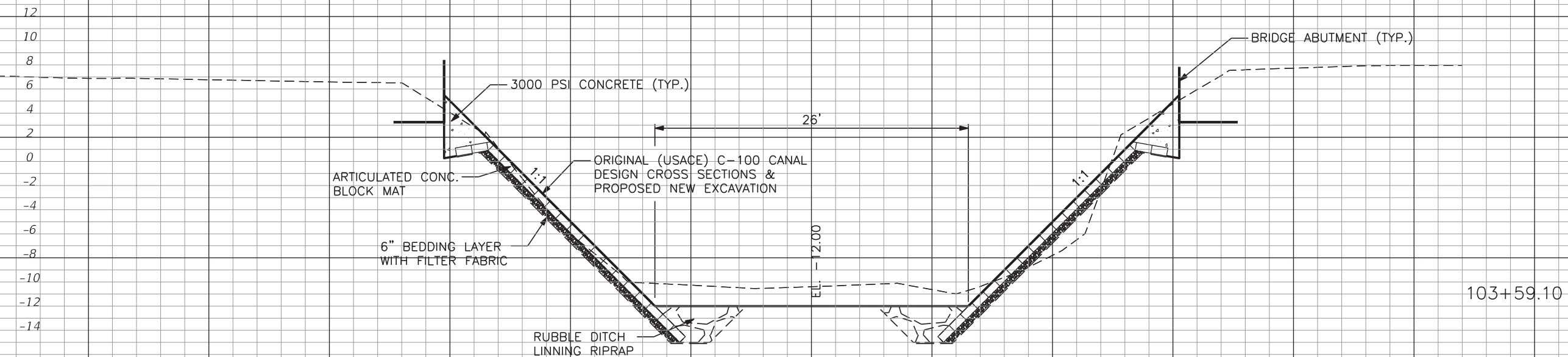


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5/13/2022 11:51:55 AM amariniez

Regular		Exc.	Embankment	
A		V	A	V



0	0	0	0
48.5	54.1	0	0



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

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

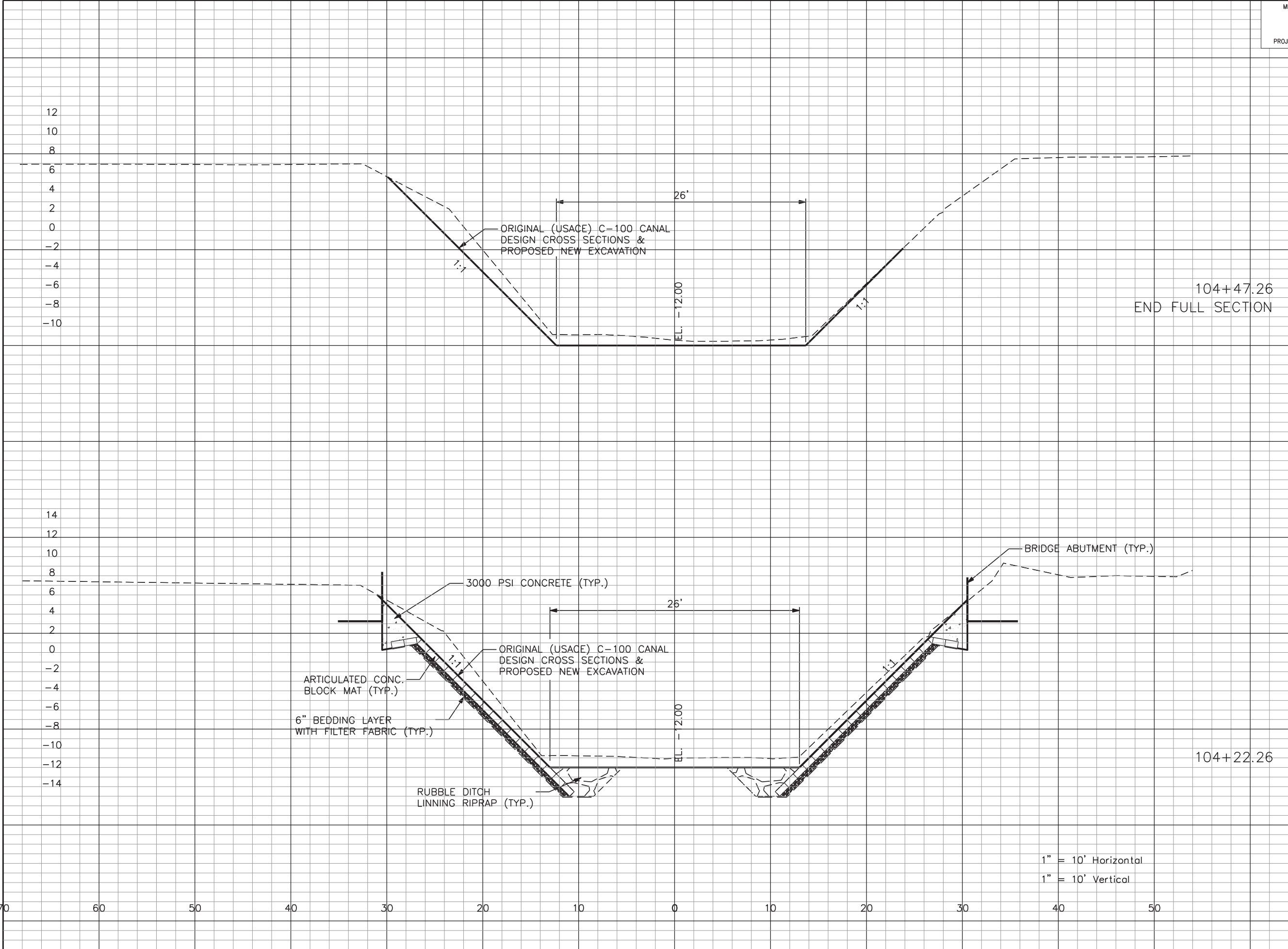
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DESIGNED BY		DRAWN BY	
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CANAL CROSS  
SECTIONS

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5/13/2022 11:51:55 AM amariniez




Regular		Exc.	Embankment	
A		V	A	V
52.4		56.1	0	0
68.9		137.3	0	0

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



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CHECKED BY			CHECKED BY		
SUPERVISED BY:					



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CANAL CROSS SECTIONS

5/13/2022 11:51:55 AM amariniez F:\21030\_SW 87 Bridge over Canal C-100\CADD\drainage\DRK5RD02.dgn

Regular		Exc.	Embankment	
A		V	A	V

12  
10  
8  
6  
4  
2  
0  
-2  
-4  
-6  
-8  
-10

7060504030201001020304050

EL. -12.00

END CANAL C=100 EARTHWORK  
MATCH EXIST. 104+97.26

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

032.300

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



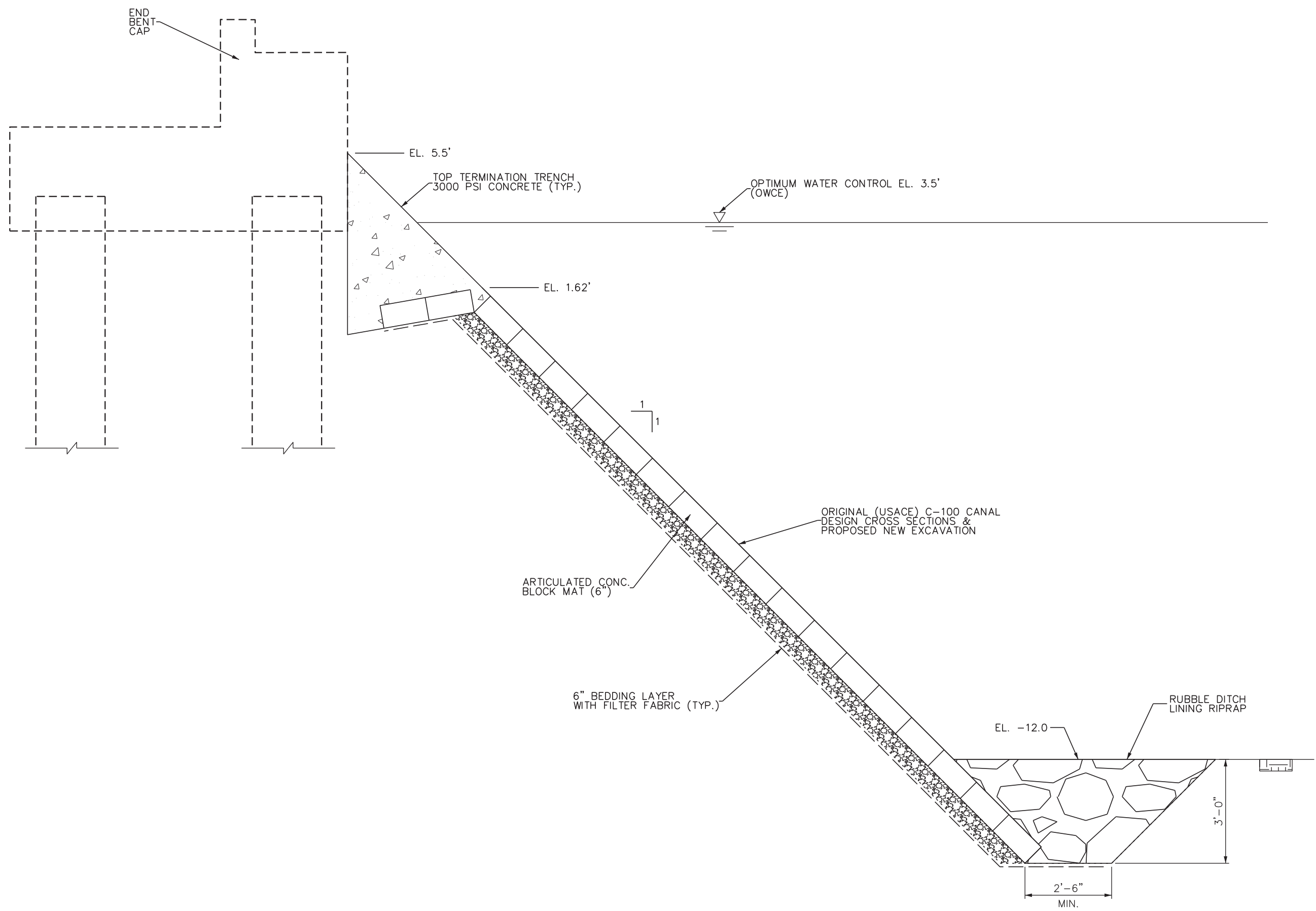
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CANAL CROSS  
SECTIONS



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MIAMI-DADE COUNTY



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SLOPE PROTECTION  
DETAIL



F:\21030\_SW 87 Bridge over Canal C-100\CADD\drainage\SWPPRD01.DGN

11:51:56 AM  
amarinez

5/13/2022

STORMWATER POLLUTION PREVENTION PLAN

NARRATIVE DESCRIPTION

THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE CONTAINS REFERENCES TO THE CONTRACT DOCUMENTS, THE FDOT DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF SEVERAL ITEMS INCLUDING: THIS NARRATIVE DESCRIPTION, THE REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN (ECP) PREPARED AND SUBMITTED IN ACCORDANCE WITH SECTION 104 OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS MODIFIED BY THE CONTRACT DOCUMENTS, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1.0 SITE DESCRIPTION:

1.a. NATURE OF CONSTRUCTION ACTIVITY:

S.W. 87TH AVENUE ROADWAY IMPROVEMENTS PROJECT CONSISTS OF APPROXIMATELY 0.221 MILES OF CORRIDOR (0.209 MILES OF ROADWAY AND 0.012 MILES OF BRIDGE) IMPROVEMENTS INCLUDING MILLING & PAVEMENT RESURFACING, ROADWAY WIDENING, NEW ROADWAY CONSTRUCTION, SIDEWALKS, BIKE LANES, TRAFFIC SEPARATORS, CONC. BARRIERS, GRAVITY WALLS, SWALES, BRIDGE CONSTRUCTION AND DRAINAGE IMPROVEMENTS. THE PROJECT LIMITS OF CONSTRUCTION ARE FROM APPROX. 350' SOUTH OF SW 164TH STREET TO APPROX. 220' NORTH OF SW 163RD TERRACE.

1.b. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

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 ENGINEER.

a. CLEARING & GRUBBING AND EARTHWORK

- b. EARTHWORK ASSOCIATED WITH ROADWAY, SIDEWALK, SWALE, CURB AND GUTTER BASE AND PAVEMENT, GRAVITY WALLS AND BRIDGE.
- c. CHANNEL EXCAVATION AND REVETMENT.

1.c. AREA ESTIMATES:

TOTAL SITE AREA: 1.12 AC.  
TOTAL AREA TO BE DISTURBED: 0.94 AC.

1.d. RUNOFF DATA:

RUNOFF COEFFICIENTS:  
BEFORE: C= 0.44  
DURING: C= 0.65  
AFTER: C= 0.86

SOILS DATA: THE RESULTS OF THE SOIL BORINGS ALONG THE ROADWAY CORRIDOR ARE SHOWN IN THE GEOTECHNICAL REPORT (PREPARED BY HR ENGINEERING SERVICES INC.) AND INCLUDED AS PART OF THE CONSTRUCTION DOCUMENTS.

1.e. 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.

- \* APPROXIMATE SLOPES: THE SLOPES OF THE SITE CAN BE SEEN IN THE ROADWAY CROSS SECTION SHEETS.
- \* AREAS OF SOIL DISTURBANCE: THE AREAS TO BE DISTURBED ARE INDICATED ON THE ROADWAY PLAN SHEETS AND THE ROADWAY CROSS SECTION SHEETS. ANY AREAS WHERE PERMANENT FEATURES ARE SHOWN TO BE CONSTRUCTED ABOVE OR BELOW THE EXISTING GROUND WILL BE DISTURBED.
- \* AREAS TO BE STABILIZED: AREAS WHERE PERMANENT STABILIZATION IS REQUIRED ARE INDICATED ON THE TYPICAL SECTIONS.
- \* SURFACE WATER: SURFACE WATER WITHIN THE PROJECT LIMITS INCLUDE THE SFWMD C-100 CANAL.
- \* DISCHARGE POINTS TO SURFACE WATERS: THERE ARE TWO EXISTING DISCHARGE POINTS. SEE ITEM I.f. FOR OUTFALLS LOCATION AND RECEIVING SURFACE WATER NAMES.

1.f. OUTFALL INFORMATION:

THERE ARE TWO EXISTING OUTFALLS WITHIN THE PROJECT LIMITS AS OUTLINED BELOW:

DESCRIPTION: 48" ROUND PIPE WITH STRAIGHT ENDWALL  
LOCATION: LATITUDE 25°37' 04"N, LONGITUDE 80°19' 59"  
EST. DRAINAGE AREA SIZE: 11.89 ACRES  
RECEIVING WATER NAME: C-100

DESCRIPTION: 24" ROUND PIPE WITH STRAIGHT ENDWALL  
LOCATION: LATITUDE 25°37' 05", LONGITUDE: 80°19' 59"W  
EST. DRAINAGE AREA SIZE: 17.19 ACRES  
RECEIVING WATER NAME: C-100

2.0 CONTROLS:

2.a. EROSION AND SEDIMENT CONTROLS:

IN THE 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 OUTLINED IN THE CONSTRUCTION PLANS. THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIFY THEM IN THE EROSION CONTROL PLAN, SUBJECT TO APPROVAL OF THE ENGINEER. AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADOPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES AND THE NEED FOR BETTER PRACTICES.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR THE INSTALLATION OF THESE CONTROLS BUT BEFORE BEGINNING ANY OTHER WORK WITHIN THE PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

MAINTENANCE OF TRAFFIC NARRATIVE:

REFER TO TRAFFIC CONTROL PLANS AND NOTES. SEE ROADWAY PLANS.

2.a.1 STABILIZATION PRACTICES:

IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS BEFORE THE ACTIVITY. 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 ENGINEER:

TEMPORARY:  
\* ARTIFICIAL COVERINGS  
\* TURF AND SOD

PERMANENT:  
\* ASPHALT OR CONCRETE SURFACE  
\* SOD

2.a.2 STRUCTURAL PRACTICES:

IN THE 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 ENGINEER.

TEMPORARY:  
\* SILT FENCES AND INLET PROTECTION SYSTEM IN ACCORDANCE WITH THE FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL.  
\* TURBIDITY BARRIERS ON EACH SIDE OF CANAL WORK.

PERMANENT:  
\* SOD

2.b. STORMWATER MANAGEMENT:

RUNOFF WILL BE ROUTED, VIA OVERLAND FLOW, TOWARDS EXISTING INLETS, SWALES, PIPES, AND PROPOSED SWALES. WATER QUALITY FOR ADDITIONAL IMPERVIOUS AREA WILL BE PROVIDED BY PROPOSED SWALES. THE DRAINAGE SYSTEMS HAVE BEEN DESIGNED TO COMPLY WITH ALL APPLICABLE DESIGN STANDARDS.

2.c. OTHER CONTROLS:

2.c.1 WASTE DISPOSAL:

IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SANITARY WASTE AND HAZARDOUS WASTE TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

- \* PROVIDING LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING ALL CONSTRUCTION ACTIVITIES.
- \* DISPOSING OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.
- \* 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 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

- \* COVERING LOADED HAUL TRUCKS WITH TARPULINS.
- \* REMOVING EXCESS DIRT FROM ROADS DAILY.
- \* STABILIZING CONSTRUCTION ENTRANCES ACCORDING TO THE FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL AND MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS.
- \* USING ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION AND MILLING OPERATIONS.

2.c.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS:

IN THE 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 EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROCEDURES FOR APPLYING FERTILIZERS AND PESTICIDES.

2.C.5 TOXIC SUBSTANCES:

IN THE 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.

3.0 MAINTENANCE:

IN THE 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:

- INLET PROTECTION. THE CONTRACTOR SHOULD REPLACE INLET PROTECTION AS REQUIRED DUE TO DAMAGE
- FLOATING TURBITY BARRIER
- SILT FENCE

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY



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MIAMI-DADE COUNTY



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HIGHWAY DIVISION  
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MIAMI, FLORIDA 33128

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4.0 INSPECTIONS:

QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAGES AND RECORD THE 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. THE FOLLOWING, AT A MINIMUM, SHOULD BE INSPECTED WITH THE ABOVE-MENTIONED FREQUENCIES:

- \* POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.
- \* POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM SEWER SYSTEMS.
- \* DISTURBED AREAS OF THE SITE THAT HAVE BEEN FULLY 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 ENGINEER.

5.0 NON-STORMWATER DISCHARGES

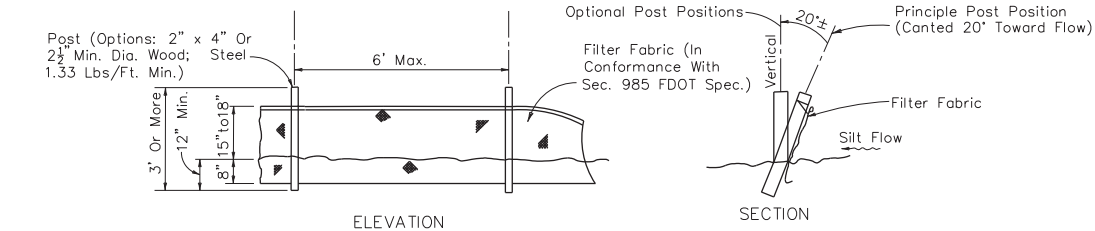
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORMWATER DISCHARGES. IF THE CONTRACTOR ENCOUNTERS CONTAMINATED SOIL OR GROUNDWATER, CONTACT MIAMI-DADE COUNTY IMMEDIATELY.

6.0 NPDES SUBMITTALS:

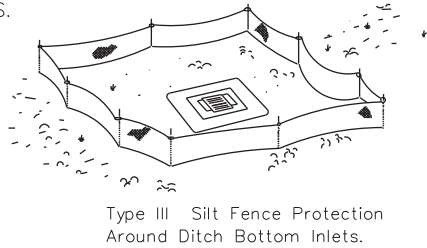
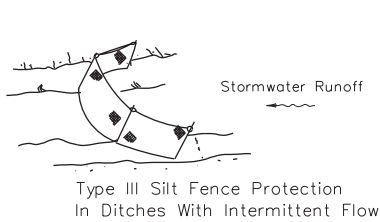
THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING AN EROSION CONTROL PLAN (ECP) TO MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION FOR REVIEW AND APPROVAL PRIOR TO THE CONTRACTOR'S SUBMITTAL FOR THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. IF THIS STORWATER POLLUTION PREVENTION PLAN (SWPPP) IS ADOPTED AS PART OF THE CONTRACTOR'S ECP FOR THE PROJECT, COPIES OF THE SWPPP SHEETS AND OTHER PLAN SHEETS INCLUDED BY REFERENCE SHALL BE INCLUDED WITH THE ECP SUBMITTAL. THE CONTRACTOR MAY ELECT TO SUBMIT A REVISED SWPPP THAT IS IN COMPLIANCE WITH STORMWATER REGULATIONS AT 40 CFR 122.26 (BX14) AND STATE WATER QUALITY STANDARDS.

THE CONTRACTOR SHOULD BE AWARE THAT MODIFICATION OF THE TRAFFIC CONTROL PLANS MAY REQUIRE THE CONTRACTOR TO MODIFY THE SWPPP. THE CONTRACTOR'S MODIFIED SWPPP MUST BE PROVIDED TO MIAMI-DADE COUNTY FOR REVIEW PRIOR TO THE DEP APPLICATION SUBMITTAL.

THE NPDES PERMIT APPLICATION SHOULD BE SUBMITTED TO THE DEP THIRTY (30) DAYS BEFORE TO ANY CLEARING AND GRUBBING ACTIVITIES. NO SOIL DISTURBING ACTIVITIES CAN BE CONDUCTED UNTIL THE NPDES PACKAGE HAS BEEN MAILED TO THE FDEP, PROCESSED, AND APPROVED.



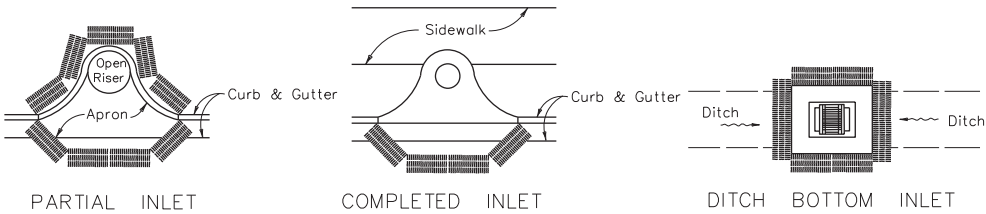
TYPE III SILT FENCE DETAIL  
N.T.S.



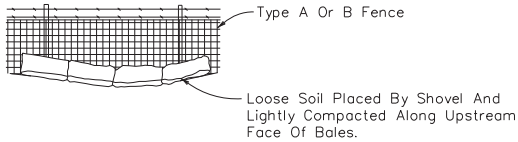
Notes:

1. Spacing for Silt Type III Fence to be in accordance with Chart I, Sheet 1 of 3 per 2010-FDOT Standard Index 102
2. Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS  
N.T.S.



PROTECTION AROUND INLETS OR SIMILAR STRUCTURES  
N.T.S.



BALES BACKED BY FENCE  
N.T.S.

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

1. Type I and II Synthetic Barrier should be spaced in accordance with Chart 1, sheet 1 of 3 per 2010-FDOT Index 102.
2. Bales shall be anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape 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" x 4" 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, bales shall be placed on the upstream side of the fence.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



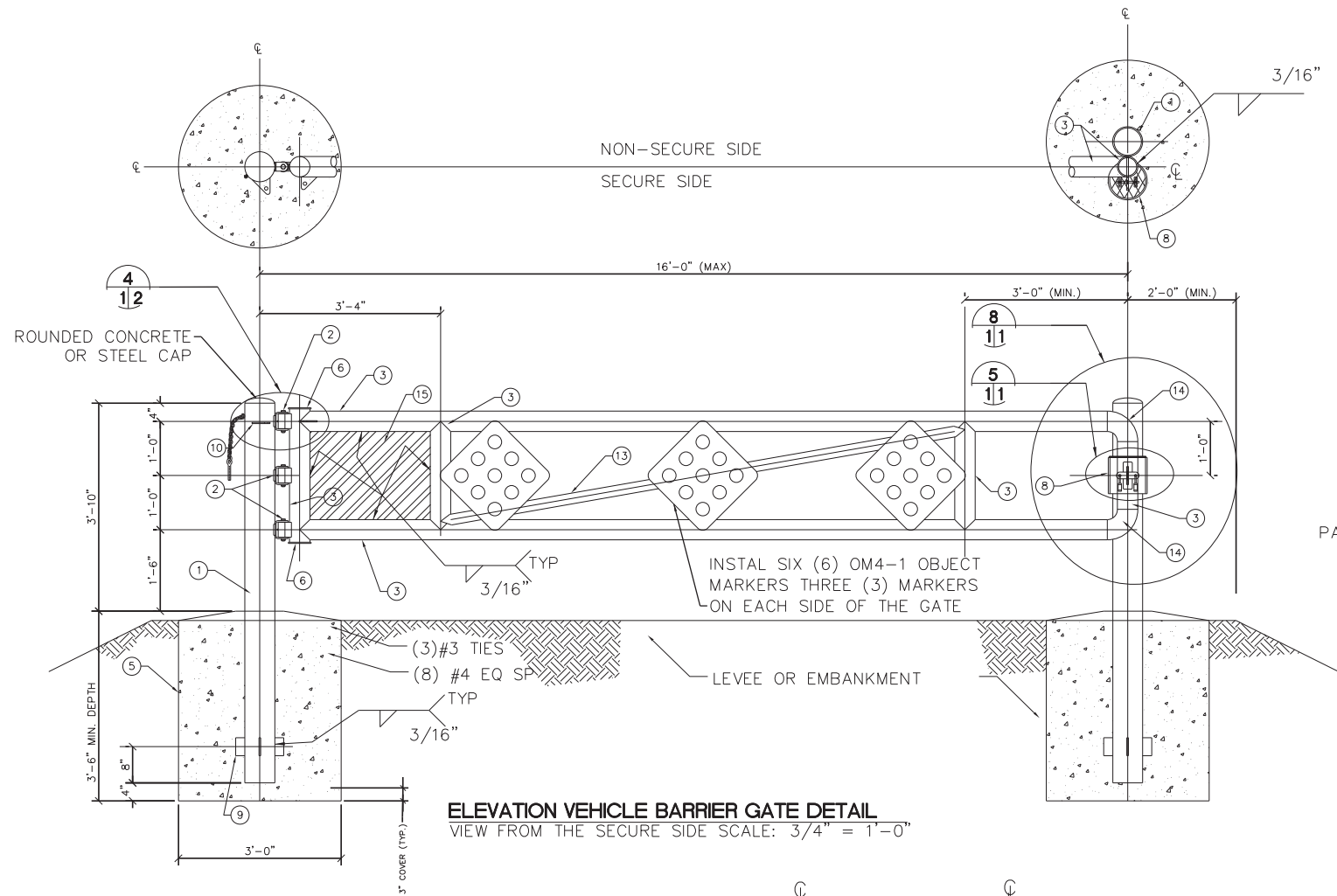
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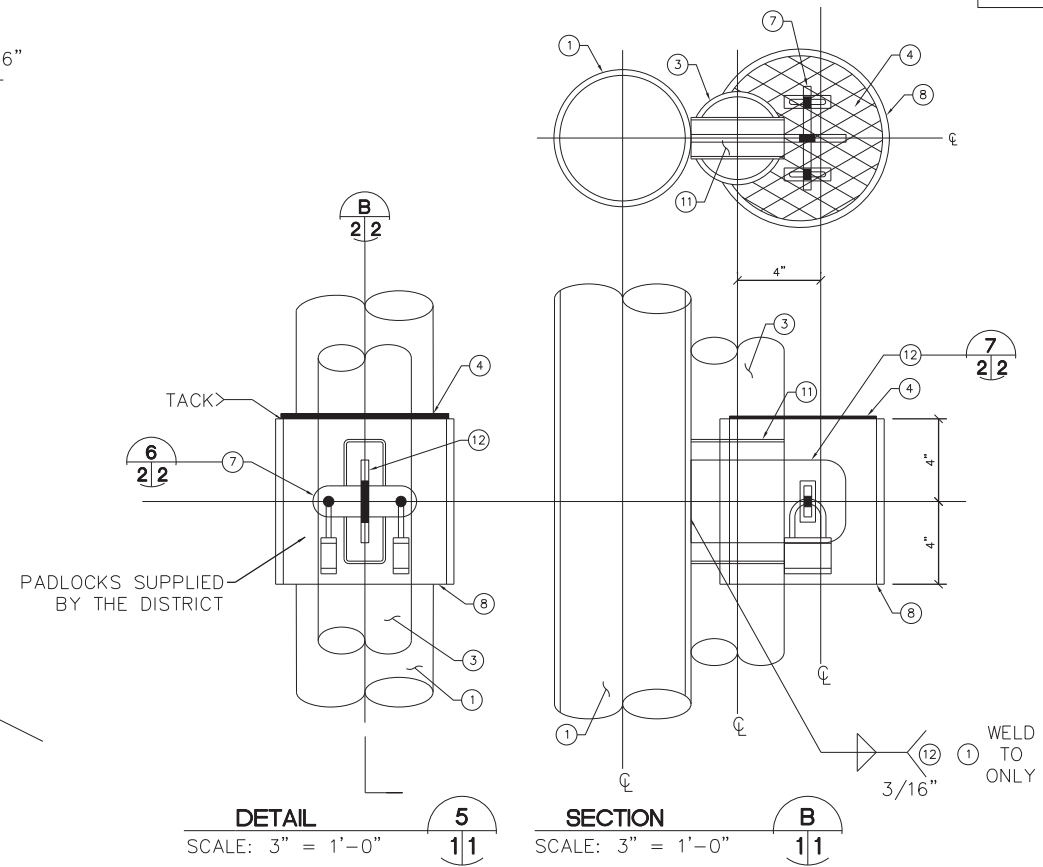


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STORM WATER POLLUTION  
PREVENTION PLAN (2)

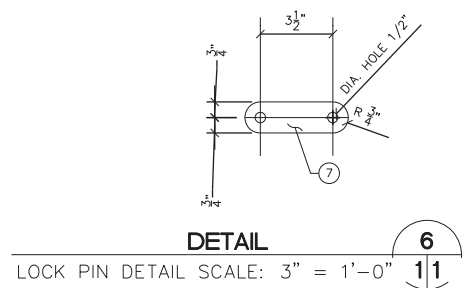


**ELEVATION VEHICLE BARRIER GATE DETAIL**  
VIEW FROM THE SECURE SIDE SCALE: 3/4" = 1'-0"



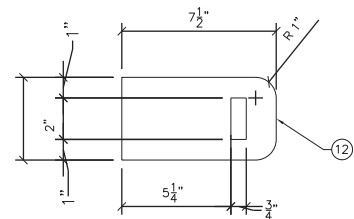
**DETAIL**  
SCALE: 3" = 1'-0"

**SECTION**  
SCALE: 3" = 1'-0"



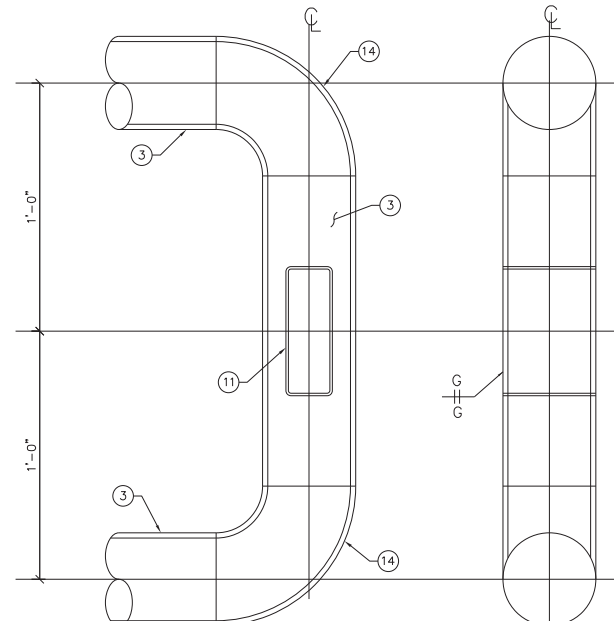
**DETAIL**

LOCK PIN DETAIL SCALE: 3" = 1'-0"



**DETAIL**

LOCK TONGUE DETAIL SCALE: 3" = 1'-0"



**DETAIL**

SCALE: 3" = 1'-0"

LOCK TONGUE SLOT  
DETAIL (ITEM NOT  
SHOWN FOR CLARITY)

**GENERAL NOTES:**

1. SEE SHEET 48 FOR KEYNOTES AND GENERAL NOTES.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT 3301 GUN CLUB ROAD WEST PALM BEACH, FLORIDA 33406		PROTECTIVE COATING SYSTEM	
		SYSTEM S-7	
SERVICE:		STEEL; SEVERE EXPOSURE, NON-IMMERSION. EXTERIOR OR INTERIOR. DTM ACRYLIC. SAFETY YELLOW.	
SURFACE PREPERATION		SSPC-SPI AND SP6. CLEAN AND DRY.	
FIRST COAT:		DIRECT TO METAL ACRYLIC SAFETY YELLOW. APPLY A MINIMUM OF 2.5 MILS DRY FILM THICKNESS, OR GREATER AS REQUIRED BY MANUFACTURER.	
SECOND COAT:		SAME AS FIRST COAT	
THIRD COAT:		NOT REQUIRED.	
SYSTEM TOTAL:		5.0 MILS DRY FILM THICKNESS.	
VOLATILE ORGANIC CONTENT:		MAXIMUM 2.08 LB PER GAL (<250 G/L)	
COATING MANUFACTURER		PROTECTIVE COATING SYSTEM	
BENJAMIN MOORE & CO. SHERWIN-WILLIAMS TNEMEC		FIRST COAT DTM ACRYLIC GLOSS ENAMEL P28-15 PRO INDUSTRIAL DTM ACRYLIC GLOSS ENDURATONE 1028	SECOND COAT SAME AS 1ST COAT SAME AS 1ST COAT SAME AS 1ST COAT

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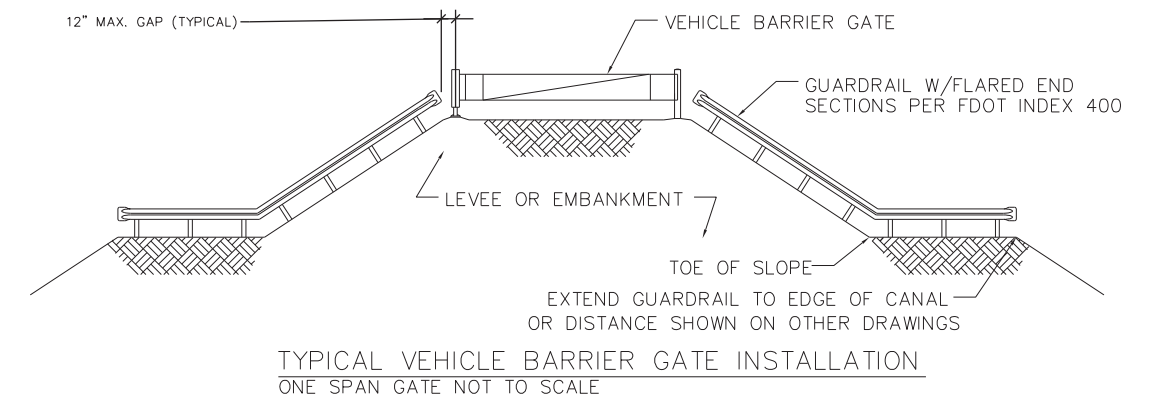
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SFWMD  
GATE DETAILS (1)



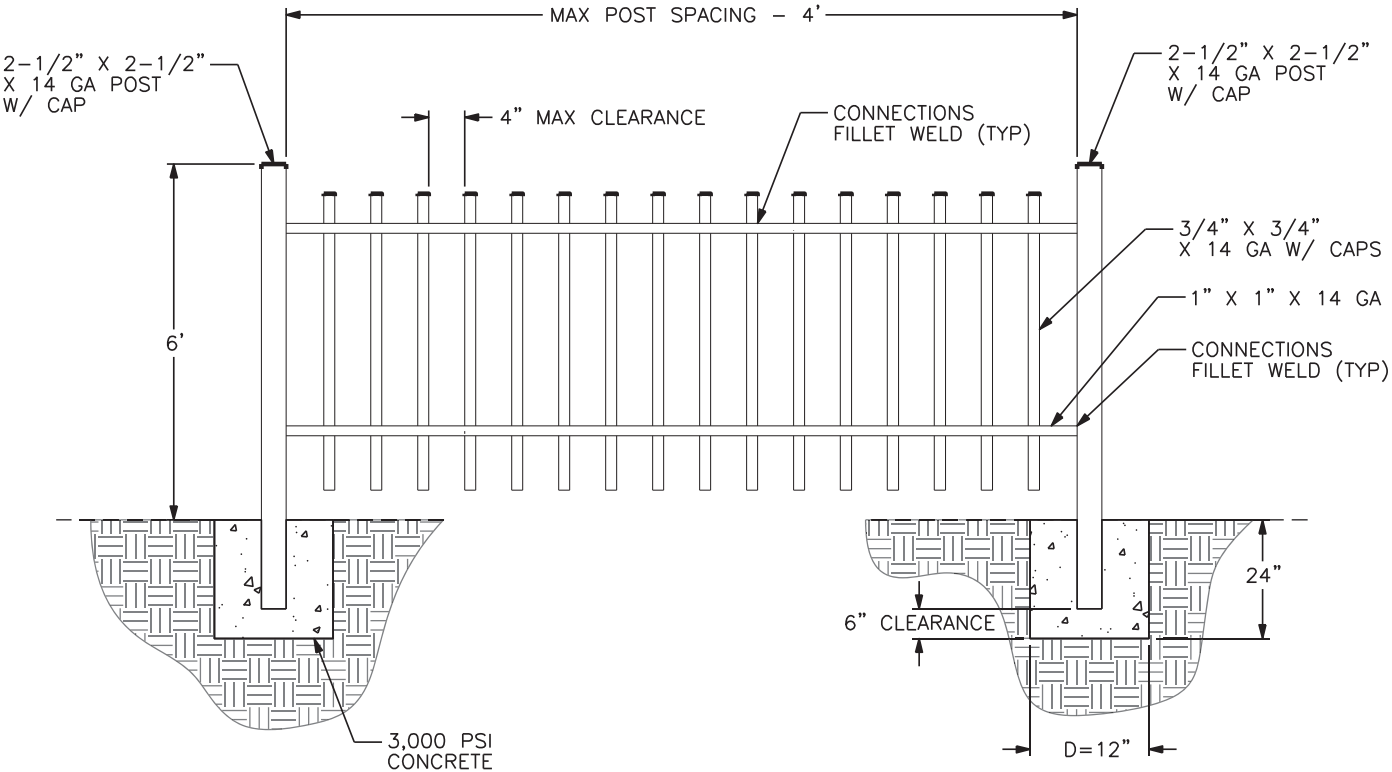


1. ALL POST AND FRAMEWORK SHALL BE GALVANIZED STEEL SCHEDULE 40 PIPE.
2. ALL WELDS SHALL BE COATED WITH COLD GALVANIZING COMPOUND.
3. ALL JOINTS SHALL BE WELDED ALL AROUND AND WELDS TO BE GROUND SMOOTH.
4. WELDS AT HINGE SHALL BE SIZED TO DEVELOP FULL CAPACITY OF THE HINGE.
5. FINISH FOR ALL METAL SURFACES SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM 123.
6. PADLOCKS TO BE PROVIDED BY DISTRICT.
7. ALL CONCRETE SHALL BE 3,000 PSI.
8. ALL EXPOSED STEEL SURFACES OF THE GATE SHALL BE COATED WITH COATING SYSTEM S-7. COATING COLOR SHALL BE OSHA SAFETY YELLOW.
9. GATES TO SWING IN TOWARD THE SECURE SIDE OF FACILITY ACCESS ROAD.
10. USE HEAVY DUTY ROLLER BEARING HINGE AS MANUFACTURED BY GUARDIAN, OR APPROVED EQUAL. MINIMUM HINGE CAPACITY 3000 LB. PER PAIR.
11. SUBMIT SHOP SUBMITTALS INDICATING DIMENSIONS, WELDMENTS, DETAILS, HINGES AND ASSEMBLIES.
12. SPECIFY CABLE AND CHAIN BERM BARRIERS AT LOCATIONS DESIGNATED BY THE DISTRICT AS HIGH SECURITY.

MARK	DESCRIPTION	REMARKS
①	6" DIA. SCH 40 PIPE (GALV.)	CONCRETE FILLED
②	HEAVY DUTY HINGE, (GALV.)	(3) REQ'D. FOR (1) SPAN (SEE NOTE 10)
③	4" DIA. SCH 40 PIPE (GALV.)	
④	EXPANDED METAL COVER	
⑤	CONCRETE BASE	3000 PSI
⑥	1/4" PLATE (GALV.)	CAP PLATE (TOP AND BOTTOM)
⑦	1/4" PLATE (GALV.)	LOCK PIN
⑧	8" DIA. SCH 40 PIPE (GALV.)	
⑨	1/4"x 2"x 4" PLATE (GALV.)	(4) EACH REQ'D PER POST
⑩	1/4" PLATE (GALV.)	HINGE PIN
⑪	HHS (HOLLOW STRUCTURAL SECTION) 6"x2"x $\frac{1}{8}$ "	SLOT LINER FOR LOCK PIN TONGUE
⑫	1/4" PLATE (GALV.)	LOCK PIN TONGUE
⑬	2" DIA SCH 40 PIPE (GALV)	
⑭	4" DIA SCH 40 90° PIPE ELBOW (GALV)	
⑮	1/4" PLATE (GALV.)	

SFWMD  
GATE DETAILS (2)





STEEL PICKET FENCE DETAIL  
NTS

NOTE: STEEL PICKET FENCE SHALL BE PAINTED BLACK.

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FENCE DETAILS

# TABULATION OF QUANTITIES

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND  
PUBLIC WORKS HIGHWAY DIVISION  
SW 87th AVENUE  
AT CANAL  
PROJECT NO. 20210098 SHEET 51 OF 81

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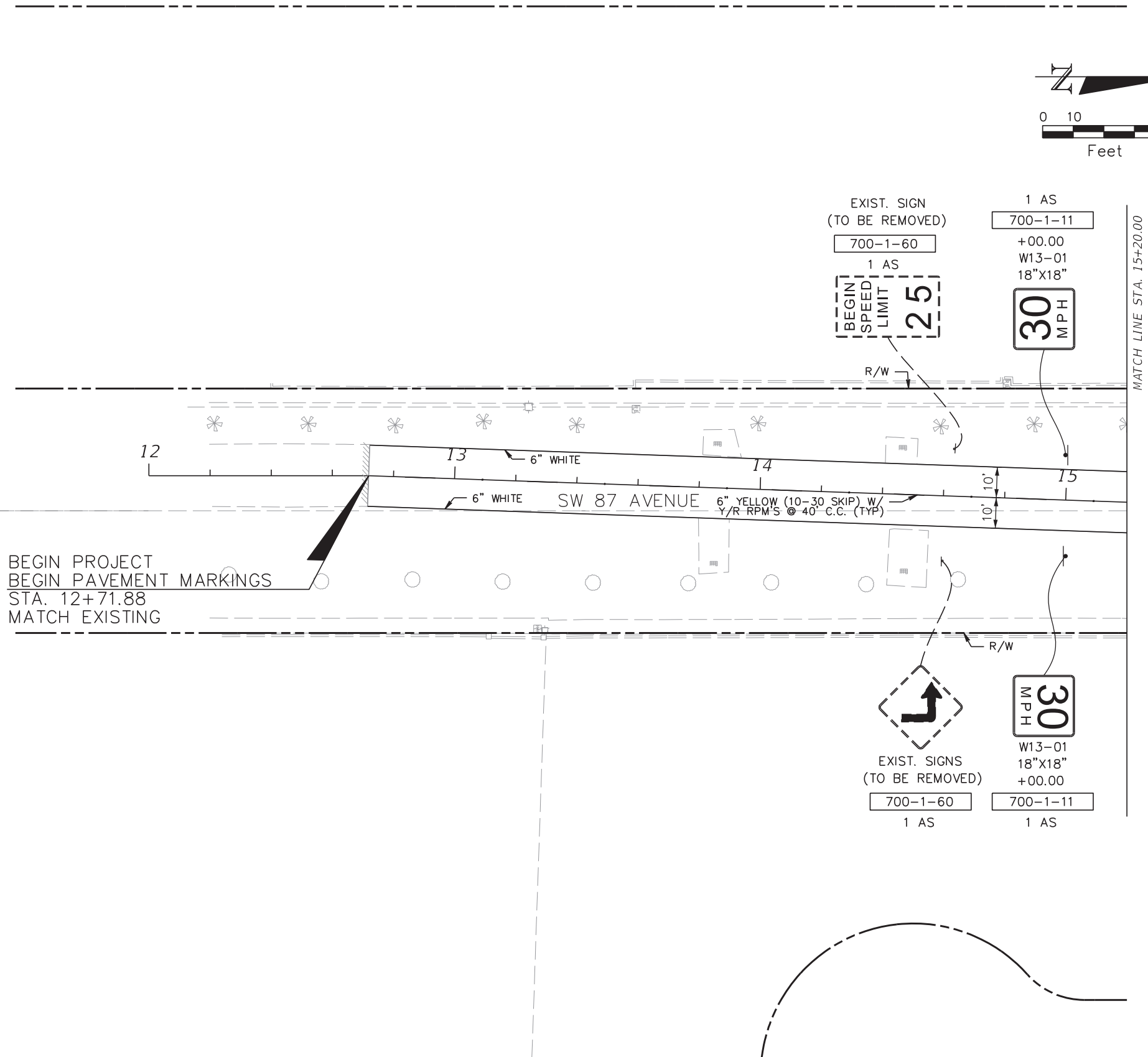
## SIGNING AND PAVEMENT MARKING QUANTITIES

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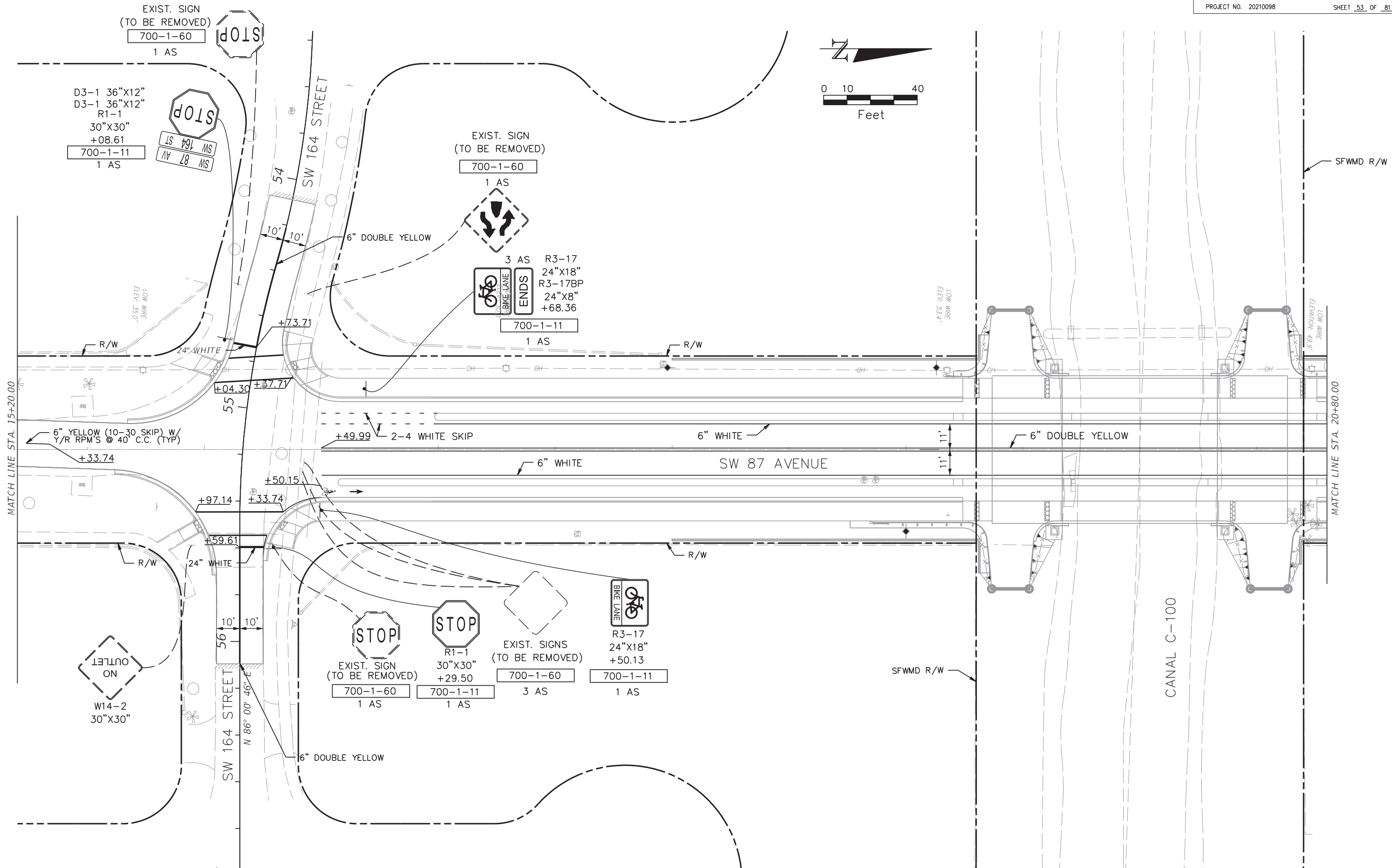
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## SIGNING AND PAVEMENT MARKING PLAN



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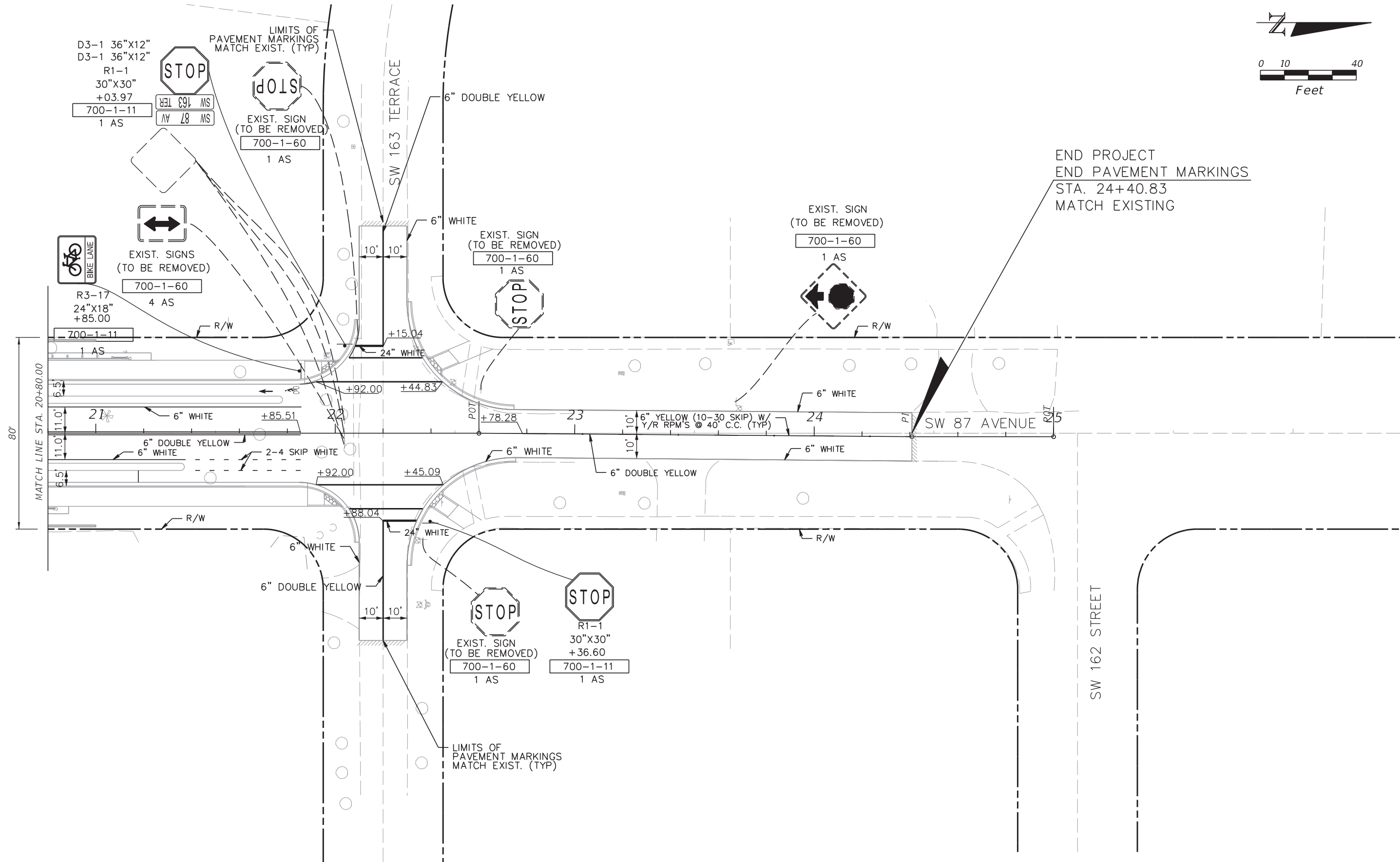
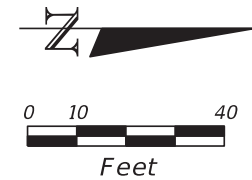
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SIGNING AND PAVEMENT  
MARKING PLAN



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SIGNING AND PAVEMENT  
MARKING PLAN



TTCP GENERAL NOTES

1. TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS. THE CURRENT EDITION OF THE FLORIDA D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS (600 SERIES), THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS MINIMUM CRITERIA.

2. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL POTHOLES THAT DEVELOP WITHIN THE PROJECT LIMITS AND WILL MAINTAIN A SUPPLY OF COLD MIX ON THE PROJECT SITE TO EXPEDITE THOSE REPAIRS. COST OF REPAIR TO BE INCLUDED IN PAY ITEM FOR MAINTENANCE OF TRAFFIC.

3. AT THE DISCRETION OF THE ENGINEER, IF A LANE CLOSURE CAUSES EXTENDED CONGESTION DELAY, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME THAT THE TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.

4. THE TRAFFIC AND TRAVEL WAYS SHALL NOT BE ALTERED (I.E. NARROWING OR CLOSING TRAVEL LANES) BY THE CONTRACTOR TO CREATE A WORK ZONE UNTIL ALL LABOR, MATERIALS AND EQUIPMENT ARE AVAILABLE FOR CONSTRUCTION IN THAT AREA.

5. A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE KEPT OPEN AT ALL TIMES. THE TEMPORARY LANE CLOSURES SHALL OCCUR ONLY DURING NON-PEAK HOURS OR NON-SPECIAL EVENT WEEKENDS. PEAK HOURS ARE FROM 6:00 AM TO 9:00 AM AND FROM 3:30 PM TO 6:30 PM DAILY. MILLING & RESURFACING SHALL BE DONE FROM 9:00 AM TO 3:30 PM ONLY. SPECIAL EVENTS SHALL BE NORMALLY SCHEDULED BY LOCAL MUNICIPALITIES.

6. REGULATORY SPEED ESTABLISHED WITHIN THE WORK ZONE TRAVEL WAYS SHALL BE 35 M.P.H. FOR SW 87TH AVE AND 25 MPH FOR SW 164TH ST AND SW 163RD TERR.

7. AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL COVER WORK ZONE SIGNS WHEN CONDITIONS NO LONGER WARRANT THEIR USE. COST OF COVERING AND UNCOVERING THE SIGNS SHALL BE INCLUDED IN PAY FOR MAINTENANCE OF TRAFFIC.

8. CONTRACTOR SHALL REMOVE, RELOCATE OR COVER ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS (TCP). WHEN THE CONFLICT NO LONGER EXISTS. THE CONTRACTOR SHALL RESTORE THE SIGNS TO THEIR ORIGINAL POSISTION. COST OF TEMPORARILY REMOVING, RELOCATION, COVERING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM FOR MAINTENANCE OF TRAFFIC.

9. ARROWS ON THE TCP DENOTE THE DIRECTION OF TRAFFIC ONLY AND DO NOT REFLECT PAVEMENT MARKINGS UNLESS SPECIFICALLY NOTED.

10. EACH EXISTING STREET NAME AND STOP SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE LOCATION FOR THE DURATION OF THE PROJECT. WHEN NO LONGER AFFECTED BY CONSTRUCTION, THESE SIGNS SHALL BE RESTORED TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY RELOCATION AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM MAINTENANCE OF TRAFFIC.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORM WATER FROM ROADWAYS INCLUDING USE OF TEMPORARY PUMPS AND PIPES, UTILIZED FOR MAINTAINING TRAFFIC IN A MANNER APPROVED BY THE ENGINEER. COST FOR REMOVING THE STORM WATER SHALL BE INCLUDED IN PAY ITEM MAINTENANCE OF TRAFFIC.

12. CONTRACTOR SHALL COORDINATE HIS STAGING AREAS WITHIN THE AVAILABLE RIGHT-OF-WAY AND LOCAL MUNICIPALITIES AND AS APPROVED BY THE ENGINEER. CONTRACTOR SHALL MEET ALL LOCAL CODES.
13. ALL PROPERTIES SHALL HAVE ACCESS AT ALL TIMES. THIS WILL REQUIRE COORDINATION WITH THE PROPERTY OWNERS AND/OR RESIDENTS, AND USE OF TEMPORARY STEEL PLATING AS REQUIRED. IF A DRIVEWAY CLOSURE IS NECESSARY. THE PROPERTY OWNER AND/OR RESIDENT SHALL BE NOTIFIED SEVEN (7) DAYS IN ADVANCE OF THE CLOSURE IN ADDITION TO THE LOCATION OF THE TEMPORARY ACCESS. IF THE PROPERTY HAS MORE THAN ONE DRIVEWAY. AT LEAST ONE DRIVEWAY SHALL REMAIN OPEN TO MAINTAIN ACCESS. THE COST OF THIS SHALL BE INCLUDED IN PAY ITEM FOR, MAINTENANCE OF TRAFFIC.

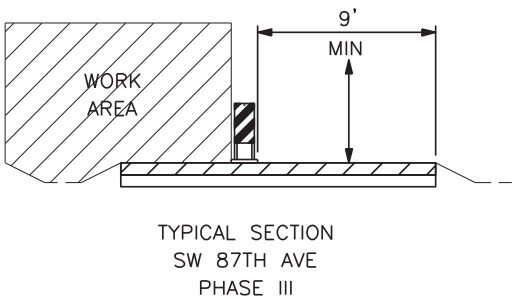
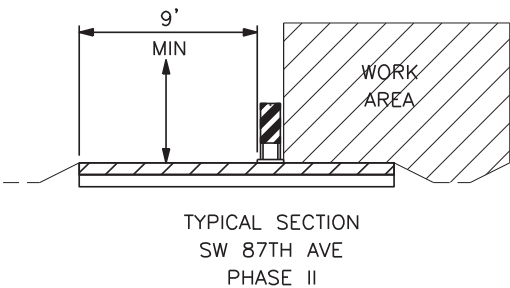
14. IN THE EVENT OF A HURRICANE OR OTHER EVACUATION NEED, THE CONTRACTOR WHEN NOTIFIED BY THE ENGINEER, SHALL COORDINATE THE SECURING OF ALL LOOSE MATERIAL, OPEN CLOSED LANES, BACK FILL EXCAVATIONS, REMOVE OBSTRUCTIONS TO DRAINAGE AND WATER FLOW, AND ANY OTHER MEASURES REQUIRED BY THE ENGINEER.

15. RESURFACING CAN ONLY BE DONE IN ONE DIRECTION AT A TIME.

16. PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAFFIC SHALL BE SAFELY MAINTAINED AND GUIDED USING APPROVED WARNING LIGHTS, SIGNING, AND CHANNELIZATION DEVICES ON AT LEAST ONE SIDE OF THE PROJECT AT ALL TIMES THROUGHOUT THE PROJECT LIMITS. THE TRAVEL PATH SHALL BE A MINIMUM OF A 4 FEET WIDE WITH A SMOOTH SURFACE THAT IS NOT SLICK AND IT SHOULD BE RAMPED AS NECESSARY FOR CONTINUITY. COST TO CONSTRUCT AND MAINTAIN THE SAFE TRAVEL PATH AS REQUIRED SHALL BE INCLUDED IN PAY ITEM FOR MAINTENANCE OF TRAFFIC. SEE INDEX 102-660. GUIDE PEDESTRIAN TRAFFIC TO NEAREST SAFE CROSSING WITH APPROPRIATE SIGNING.

17. CONTRACTOR SHALL SUBMIT A DETAILED TEMPORARY TRAFFIC CONTROL PLAN FOR APPROVAL BY THE OWNER PRIOR TO START WORK.

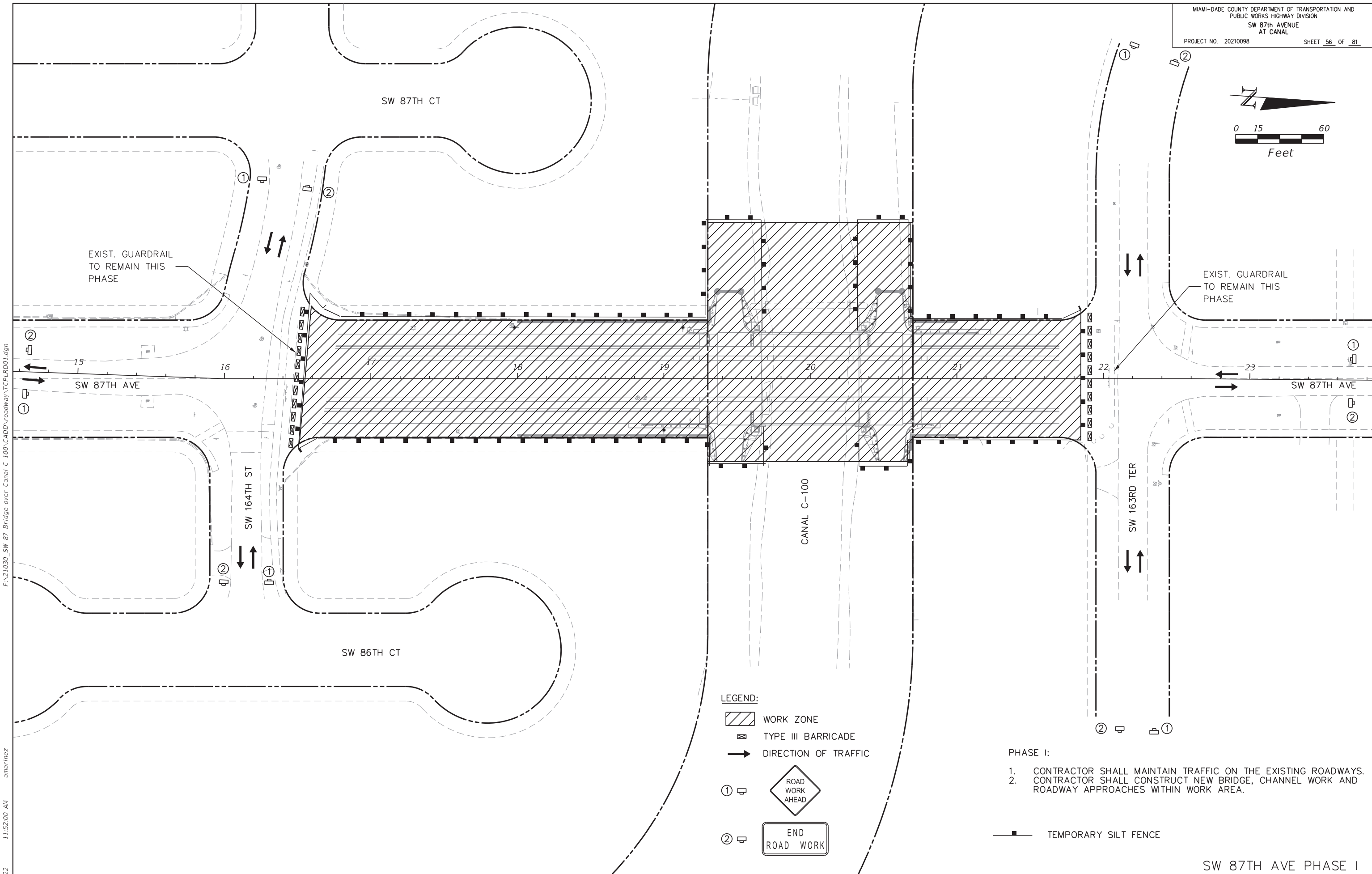
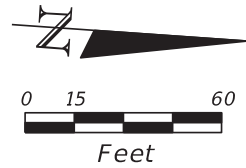
18. CONTRACTOR SHALL CONSTRUCT A TEMPORARY DRAINAGE SYSTEM OF THE SAME SIZE AS THE EXISTING OUTFALL (EX-12) TO PROVIDE SERVICE DURING CONSTRUCTION OF NEW SYSTEM, S-19 TO S-15. COSTS TO BE INCLUDED IN MAINTENANCE OF TRAFFIC PAY ITEM.



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R E V I S I O N S										<b>R.J. Behar &amp; Company, Inc.</b> Engineers • Planners 6861 SW 196 Avenue, Suite 302 Pembroke Pines, Florida 33332	<table><tr><td></td><td>NAME</td><td>DATE</td><td></td><td>NAME</td><td>DATE</td></tr><tr><td>DESIGNED BY</td><td></td><td></td><td>DRAWN BY</td><td></td><td></td></tr><tr><td>CHECKED BY</td><td></td><td></td><td>CHECKED BY</td><td></td><td></td></tr><tr><td colspan="6">SUPERVISED BY:</td></tr></table>		NAME	DATE		NAME	DATE	DESIGNED BY			DRAWN BY			CHECKED BY			CHECKED BY			SUPERVISED BY:						 <div>DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION STEPHEN P. CLARK CENTER 111 NW 1 ST MIAMI, FLORIDA 33128</div>	TEMPORARY TRAFFIC CONTROL PLAN
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- PHASE I:
1. CONTRACTOR SHALL MAINTAIN TRAFFIC ON THE EXISTING ROADWAYS.
  2. CONTRACTOR SHALL CONSTRUCT NEW BRIDGE, CHANNEL WORK AND ROADWAY APPROACHES WITHIN WORK AREA.

TEMPORARY SILT FENCE

SW 87TH AVE PHASE I

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6861 SW 196 Avenue, Suite 302  
Pembroke Pines, Florida 33332

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MIAMI-DADE COUNTY

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HIGHWAY DIVISION  
STEPHEN P. CLARK CENTER  
111 NW 1 ST  
MIAMI, FLORIDA 33128

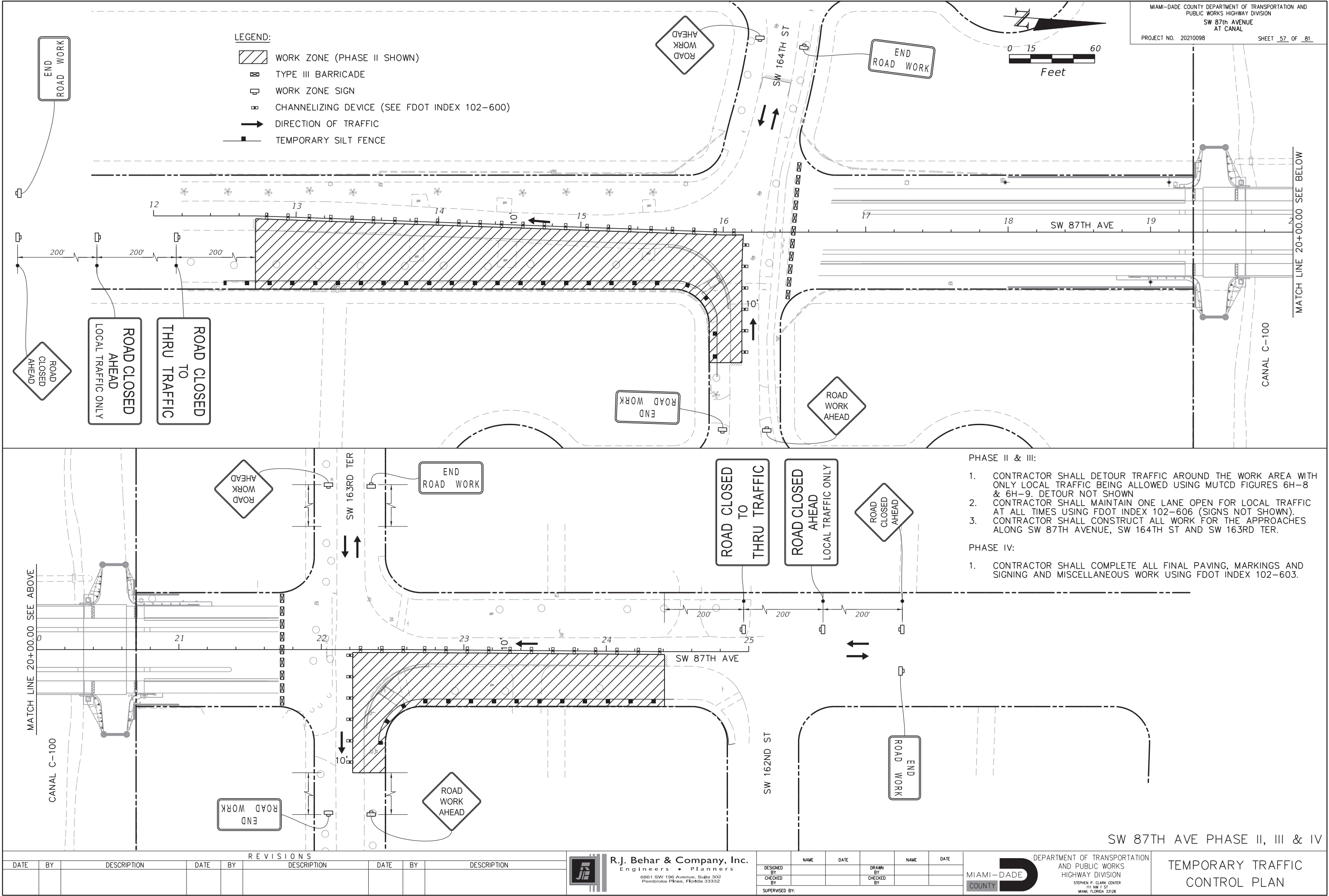
TEMPORARY TRAFFIC CONTROL PLAN

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TEMPORARY TRAFFIC  
CONTROL PLAN