CONTRACT PLANS FOR

BRIDGE REPLACEMENT AT SW 136TH STREET OVER THE C-100A CANAL (BRIDGE NO. 874420)

MIAMI-DADE COUNTY
PROJECT NO. 20140030
ROADWAY IMPACT FEE

COMPONENTS OF CONTRACT PLANS SET

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
LIGHTING PLANS
STRUCTURES PLANS

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

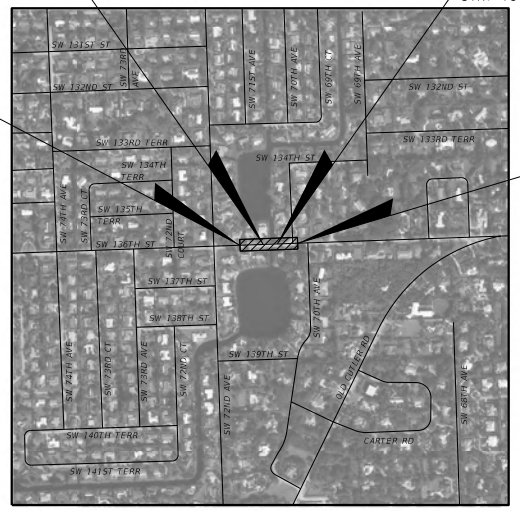
INDEX OF SHEETS

BEGIN BRIDGE
STA. 14+49.28

END BRIDGE
STA. 15+25.52

BEGIN PROJECT
STA. 11+91.42

END PROJECT
STA. 17+41.59



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

LENGTH OF JOB		
	LINEAR FEET	MILES
ROADWAY	473.9	0.090
BRIDGE	76.25	0.014
GROSS LENGTH OF PROJECT	550.15	0.104
EXCEPTIONS		
NET LENGTH OF PROJECT	550.15	0.104

GOVERNING DESIGN STANDARDS:

Florida Department of Transportation, FY2017-18 Design Standards eBook (DSeB) and applicable Design Standards Revisions (DSRs) at the following website: http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, January 2017 Standard Specifications for Road and Bridge Construction at the following website: http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks

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PREPARED FOR

MIAMI-DADE COUNTY

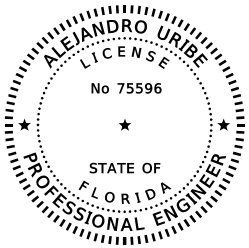
MIAMI DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

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

BY

Gannett Fleming

800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Alejandro Uribe
2023.05.03 14:50:38 -04'00'

ON THE DATE ADJACENT TO THE SEAL

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ALEJANDRO URIBE, P.E. NO: 75596
GANNETT FLEMING, INC.
800 N.W. 62ND AVENUE, STE 490
MIAMI, FLORIDA 33126

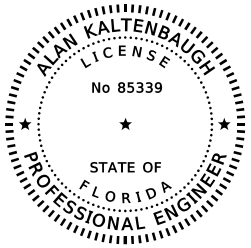
THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2-3	TYPICAL SECTIONS
4	ROADWAY SUMMARY OF QUANTITIES
5	GENERAL NOTES
6	ROADWAY PLAN/PROFILE
7 - 11	CROSS SECTIONS
42 - 42A	TEMPORARY TRAFFIC CONTROL PLAN
43	PROJECT NETWORK CONTROL

SIGNNING & PAVEMENT MARKINGS PLANS

SHEET NO.	SHEET DESCRIPTION
12	SIGNING & PAVEMENT MARKINGS



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Alan Kaltenbaugh
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ALAN KALTENBAUGH, P.E. NO: 85339
GANNETT FLEMING, INC.
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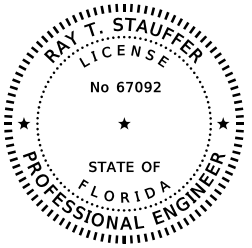
LIGHTING PLANS

SHEET NO.	SHEET DESCRIPTION
13	LIGHTING SUMMARY OF QUANTITIES AND GENERAL NOTES
14	LIGHTING PLAN
15	ELECTRICAL SERVICE DETAILS
16	DMX COMMUNICATION WIRING DETAIL
17	FLOOD LIGHT MOUNTING DETAIL



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Ray Stauffer
Digitally signed by Ray Stauffer
Date: 2023.05.03 14:08:58 -04'00'

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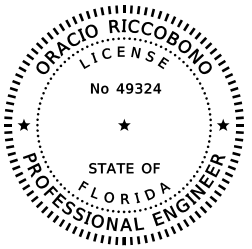
RAY T. STAUFFER, P.E. NO: 67092
GANNETT FLEMING, INC.
800 NW 62 AVENUE, SUITE 490
MIAMI, FLORIDA 33126

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

STRUCTURES PLANS

SHEET NO.	SHEET DESCRIPTION
18	BRIDGE GENERAL NOTES (1 OF 2)
19	BRIDGE GENERAL NOTES (2 OF 2)
20	BRIDGE SUMMARY OF QUANTITIES
21	PLAN AND ELEVATION
22	TYPICAL SECTION
25	FOUNDATION LAYOUT
26	PILE DATA TABLE
27	END BENT 1
27A	END BENT 4
28	END BENT DETAILS 1
28A	END BENT DETAILS 2
29	BENT 2 & 3
30	BENT DETAILS
31	FINISH GRADE ELEVATIONS
32	SUPERSTRUCTURE PLAN
33	SUPERSTRUCTURE DETAILS (1 OF 2)
34	SUPERSTRUCTURE DETAILS (2 OF 2)
35	EXPANSION JOINT DETAILS
36	APPROACH SLAB PLAN
37	APPROACH SLAB DETAILS
38	REINFORCING BAR LIST 1
38A	REINFORCING BAR LIST 2
39	SLOPE PROTECTION DETAILS
40	MISCELLANEOUS DETAILS 1
40A	MISCELLANEOUS DETAILS 2
41	LOAD RATING SUMMARY SHEET



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Oracio Riccobono
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ORACIO RICCOBONO, P.E. NO: 49324
GEOSOL, INC.
5795-A NW 151ST STREET
MIAMI LAKES, FLORIDA 33014

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

STRUCTURES PLANS

SHEET NO.	SHEET DESCRIPTION
23	REPORT OF CORE BORINGS (1 OF 2)
24	REPORT OF CORE BORINGS (2 OF 2)

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	AS		DRAWN BY	AS	
CHECKED BY	AU		CHECKED BY	AU	

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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

SIGNATURE SHEET

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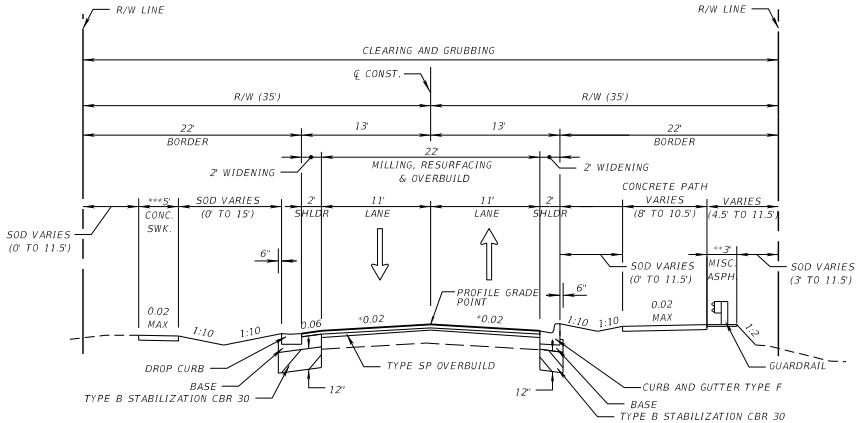

* MATCH EXISTING CROSS SLOPES FROM STA. 11+91.42 TO STA. 12+05.00 AND FROM STA. 17+30.00 TO STA. 17+41.59

** PROPOSED GUARDRAIL FROM STA. 14+00.76 TO STA. 14+19.28

*** PROPOSED SIDEWALK FROM STA. 13+47.83 TO STA. 14+19.28

TYPICAL SECTION
SW 136 STREET
STA. 11+91.42 TO STA. 14+19.28
STA. 16+35.65 TO STA. 17+41.59

MILLING

MILL EXISTING ASPHALT PAVEMENT FOR DEPTH (1")

RESURFACING

TYPE SP STRUCTURAL COURSE (TRAFFIC B) PG76-22 (1")

OVERBUILD FOR SLOPE

TYPE SP OVERBUILD (TRAFFIC B) PG76-22 THICKNESS VARIES ($\frac{3}{8}$" TO 6")

WIDENING

OPTIONAL BASE GROUP 6 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) PG76-22 (2")

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 6 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) PG76-22 (1")

DRIVEWAY RECONSTRUCTION

OPTIONAL BASE GROUP 6 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC A) (1")
OR STAMPED ASPHALT

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	AS		DRAWN BY	AS	
CHECKED BY	AU		CHECKED BY	AU	

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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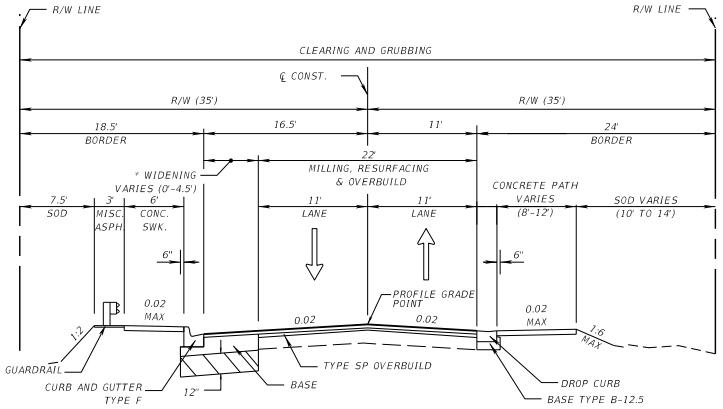
TYPICAL SECTION



TYPICAL SECTION
SW 136 STREET
STA. 15+45.52 TO STA. 16+35.65

MILLING

MILL EXISTING ASPHALT PAVEMENT FOR DEPTH (1")

RESURFACING

TYPE SP STRUCTURAL COURSE (TRAFFIC B) PG76-22 (1")

OVERBUILD FOR SLOPE

TYPE SP OVERBUILD (TRAFFIC B) PG76-22 THICKNESS VARIES (3/8" TO 1½")

WIDENING

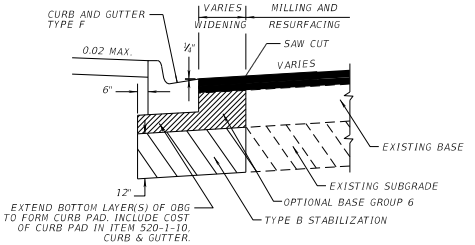
OPTIONAL BASE GROUP 6 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) PG76-22 (2")

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 6 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) PG76-22 (1")

DRIVEWAY RECONSTRUCTION

OPTIONAL BASE GROUP 6 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC A) (1")



TYPICAL WIDENING DETAIL
N.T.S.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	AS		DRAWN BY	AS	
CHECKED BY	AU		CHECKED BY	AU	

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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

TYPICAL SECTION

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SUMMARY OF PAY ITEMS

PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	QUANTITY
101-1-A	MOBILIZATION	LS	1.00
102-1A	MAINTENANCE OF TRAFFIC	LS	1.00
104-11	FLOATING TURBIDITY BARRIER	LF	79.80
108-1	PROTECTION OF EXISTING STRUCTURES - INSPECTION AND SETTLEMENT MONITORING	LS	1.00
108-2	PROTECTION OF EXISTING STRUCTURES - VIBRATION MONITORING	LS	1.00
110-1-1B	CLEARING ANG GRUBBING	LS	1.00
120-1	REGULAR EXCAVATION (INC. 10% CONTINGENCY)	CY	127.60
120-6	EMBANKMENT (INC. 30% CONTINGENCY)	CY	157.30
160-4	TYPE B STABILIZATION (12" THICK)(MIN. C.B.R. 30)	SY	204.20
285-706	OPTIONAL BASE, BASE GROUP 06	SY	385.80
0327-70-1A	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	1348.90
0334-1-11	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC A	TN	9.50
0334-1-52	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC B, PG76-22	TN	306.40
0339-1	MISCELLANEOUS ASPHALT PAVEMENT (INCLUDING APRONS)	TN	9.90
0425-4 (2)	INLETS, ADJUST	EA	1.00
0520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	579.00
0520-2-12B	CONCRETE CURB, TYPE D (INCLUDES COST OF LIMEROCK)	LF	13.90
0522-1	CONCRETE SIDEWALK, 4" THICK	SY	326.60
0522-2	CONCRETE SIDEWALK, 6" THICK	SY	181.20
0523-1	PATTERNED PAVEMENT, VEHICULAR AREAS	SY	15.40
0536-1-0	GUARDRAIL - ROADWAY, GENERAL TL-2	LF	114.94
0536-8-12	APPROACH TRANSITION TO RIGID BARRIER CONNECTION, F&I, TL-2	EA	2.00
0536-85-24	GUARDRAIL END ANCHORAGE ASSEMBLY/END TREATMENT- PARALLEL	EA	2.00
0570-1-2	PERFORMANCE TURF, SOD	SY	738.90
0700-1-60	SINGLE POST SIGN, REMOVE	AS	1.00
0700-2-50	MULTI-POST SIGN, RELOCATE	AS	1.00
0701-17-101A	PROFILED THERMOPLASTIC,STANDARD- CONCRETE SURFACES, WHITE, SOLID,6"	LF	76.25
0706-1-12	REFLECTIVE PAVEMENT MARKER, TYPE B	EA	34.00
0710-11-121	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 6"	LF	1118.51
0710-11-123	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 12"	LF	84.00
0710-11-124	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 18"	LF	68.00
0710-11-125	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 24"	LF	19.30
0710-11-221	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 6"	LF	985.09
0711-11-123	THERMOPLASTIC, STD, WHITE, SOLID, 12'' FOR CROSSWALK AND ROUNDABOUT	LF	84.00
0711-11-124	THERMOPLASTIC, STD, WHITE, SOLID, 18'' FOR DIAGONAL AND CHEVRONS	LF	68.00
0711-11-125	THERMOPLASTIC, STD, WHITE, SOLID, 24'' FOR STOP LINE AND CROSS WALKS	LF	19.30
0711-16-101A	THERMOPLASTIC, STD-OTHER SURFACES, WHITE, SOLID, 6''	LF	966.01
0711-16-201A	THERMOPLASTIC, STD-OTHER SURFACES, YELLOW, SOLID, 6''	LF	805.59
0713-103-101A	PERMANENT TAPE, WHITE, SOLID, 6'' FOR CONCRETE BRIDGES	LF	152.50
0713-103-201A	PERMANENT TAPE, YELLOW, SOLID, 6'' FOR CONCRETE BRIDGES	LF	305.00

SUMMARY OF EARTHWORK

ITEM	QUANTITY (CY)
ROADWAY EXCAVATION	103.0
ROADWAY EXCAVATION + 10%	113.3
ROADWAY FILL	191.0
ROADWAY FILL + 30%	248.3
EXCESS MATERIAL	-135.0

NOTES:

1. THE EARTHWORK COMPUTATIONS WERE BASED ON THE CONSTRUCTION OF LIMEROCK BASE (8" THICK) ON THE CROSS SECTIONS.
2. EXCESS MATERIAL TO BE DISPOSED OF BY CONTRACTOR IN LEGAL AREAS PROVIDED BY HIM / HER. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM.

ITEM NO.

102-1A TO BE ACCOMPLISHED IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 102-600 SERIES, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION (AMSI D6 1-19781, PUBLIC WORKS MANUAL OF MIAMI-DADE COUNTY, AND THE LATEST REVISIONS OF THEAFOREMENTIONED MANUALS. INCLUDES 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, TRAFFIC SIGNAL MODIFICATION FOR TRAFFIC CONTROL, ETC.

108-X INCLUDES THE COST OF INSPECTION AND SETTLEMENT MONITORING AND VIBRATION MONITORING PER FDOT SPECIFICATIONS 108.

110-1-1B INCLUDES THE REMOVAL OF EXISTING PAVEMENT, SIDEWALKS, DRIVEWAYS, CURB & GUTTER, GUARDRAIL, DRAINAGE STRUCTURES AND PIPES, TREES AND VEGETATION, DRIVEWAYS, MISCELLANEOUS CONCRETE AND SAWCUTTING TO BE DISPOSED OF BY THE CONTRACTOR IN LEGAL AREAS PROVIDED BY THE CONTRACTOR. INCLUDES COST OF CLEANING-OUT ALL EXISTING DRAINAGE STRUCTURES WHICH ARE TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION, AND REQUIRE CLEANING AS DIRECTED BY THE ENGINEER.

120-X THESE ARE ESTIMATED QUANTITIES AND MAY BE INCREASED OR DECREASED BY THE ENGINEER.

0334-1-52

0536-1-0 THIS ITEM INCLUDES THE COST OF REMOVAL, TRANSPORTING AND OFF-LOADING OF ALL SALVAGABLE EXISTING GUARDRAIL TO (MIAMI-DADE COUNTY MAINTENANCE YARD). ONLY GUARDRAIL STEEL POST SHALL BE USED.

1. B.M. DATA IS NORTH AMERICA VERTICAL DATUM OF 1988 (N.A.V.D.-88).

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 NATURAL RESOURCES BUREAU OF SURVEYING AND MAPPING, 3900 COMMONWEALTH BLVD., MAIL STATION 105, TALLAHASSEE, FLORIDA 32399-3000 TELEPHONE (850)488-2427.

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 DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS 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 DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS, 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 HAND EXCAVATION 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. BASELINE CONTROL SURVEY CONDUCTED BY M.G.VERA & ASSOC. PLEASE CALL MR. MANNY VERA AT 305-221-6210 CONCERNING SURVEY RELATED QUESTIONS.

11. EXISTING TOPOGRAPHIC INFORMATION HAS BEEN OBTAINED FROM SURVEY PREPARED BY M.G.VERA & ASSOCIATES.

12. CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE-CALL AT 811 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. THE COST OF ADDITIONAL ADJUSTMENTS WILL BE THE RESPONSIBILITY OF 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:

AT&T DISTRIBUTION	305-222-8745
COMCAST CABLE	954-447-6405
DADE COUNTY PUBLIC WORKS AND TRAFFIC	305-412-0891 EXT. 201
FLORIDA GAS TRANSMISSION COMPANY	407-838-7171
FLORIDA POWER AND LIGHT	305-442-5129
MIAMI DADE WATER AND SEWER	786-268-5320

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. (120-1 REGULAR EXCAVATION)

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. (110-1-1B CLEARING AND GRUBBING)

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. ANY OFF-SITE STORAGE WILL REQUIRE APPROVAL FROM THE ENGINEER.

25. PRE-TRENCHING IN THE ALIGNMENT AND GRADE OF PROPOSED PIPES STRUCTURES, FRENCH DRAINS, SLAB COVERED TRENCHES, CONDUITS, POLE FOUNDATIONS AND/OR SUB-GRADE SHALL BE PERFORMED SEVEN DAYS IN ADVANCE OF ITS CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE UNDERGROUND UTILITY OWNERS AND THE DEPARTMENT WITH SEVEN DAYS ADVANCE NOTICE OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THIS NOTIFICATION SHALL PROVIDE SURVEY INFORMATION ABOUT EXISTING UTILITY ALIGNMENT, GRADE AND POSSIBLE CONFLICTS. PAYMENT FOR PRE-TRENCHING, SURVEY AND BACKFILLING SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE. (120-1 REGULAR EXCAVATION)

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 TO RELOCATE TREES AS DIRECTED BY THE ENGINEER. 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. THE CONTRACTOR IS ADVISED THAT A TREE REMOVAL PERMIT WILL BE REQUIRED FOR TREE REMOVAL. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO REMOVING ANY TREE, AND WILL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS.

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. STRUCTURES MUST BE CAPABLE OF SUSTAINING HEAVY TRAFFIC LOADS.

38. CAST IRON PRODUCTS: HEAVY-DUTY CLASSIFICATION SUITABLE FOR HIGHWAY TRAFFIC LOADS OR 16,000 LBS WHEEL LOADS.

39. STEEL GRATING AND COVERS: TRAFFIC CLASSIFICATION H-20; 16,000 LBS OVER 8"X20" AREA.

40. EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL REMAIN UNLESS OTHER WISE NOTED.

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. EXISTING MANHOLE TOPS, VALVE BOXES, AND OTHER UTILITY CASTINGS THAT RE TO REMAIN WITHIN THE LIMITS OF MILLING AND RESURFACING OR PAVEMENT RECONSTRUCTION WORK ARE TO BE ADJUSTED BY THE UTILITY OWNER SUCH THAT THEY ARE FLUSH WITH THE FINISHED PAVEMENT ELEVATIONS.

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 DESIGN STANDARDS.

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. (339-1 MISCELLANEOUS ASPHALT PAVEMENT, 520-1-10 CONCRETE CURB & GUTTER, TYPE F, 522-1 (1) CONCRETE SIDEWALK 4" THICK)

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. ALL BUS STOP SIGNS TO BE FURNISHED BY MIAMI-DADE TRANSIT. ENGINEER TO CONTACT MIAMI-DADE COUNTY TRANSIT AT (305)637-3753 ONE (1) WEEK PRIOR TO POURING SIDEWALKS AND COORDINATE THE REMOVAL AND REPLACEMENT OF BUS STOP SIGNS AND BENCHES.

56. 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.

57. DESIGN WATER TABLE ELEVATION: 3.5' NGVD

58. MIAMI-DADE COUNTY FLOOD CRITERIA ELEVATION: 6.0' NGVD

59. 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.

60. ALL SALVAGEBLE MATERIALS THAT ARE REMOVED MOST BE DELIVERED AND UNLOADED AT THE MIAMI-DADE ROAD, BRIDGE, AND CANAL MAINTENANCE DIVISION.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	AS		DRAWN BY	AS	
CHECKED BY	AU		CHECKED BY	AU	

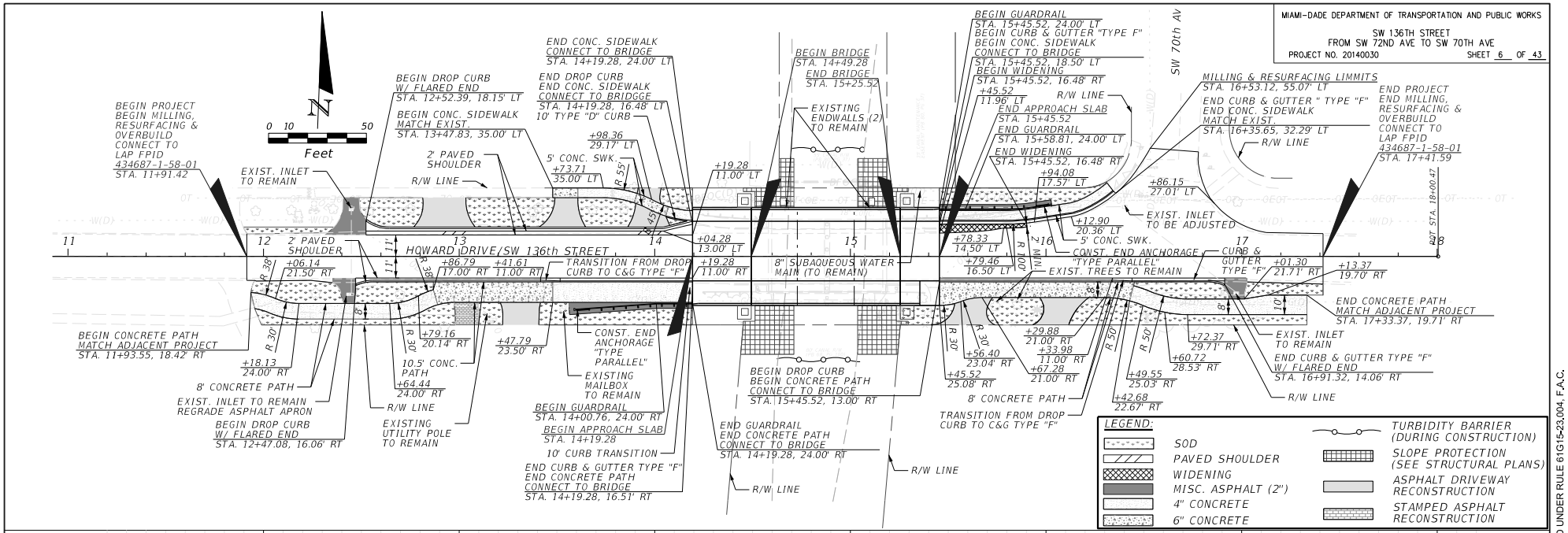
SUPERVISED BY: WALDO GONZALEZ, PE

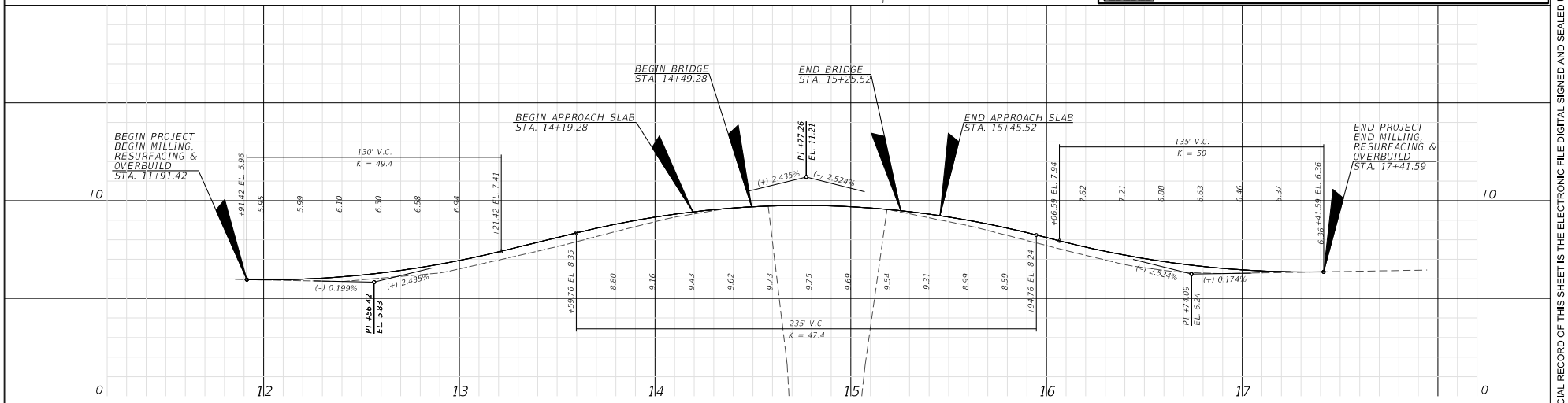
MIAMI-DADE COUNTY

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

GENERAL NOTES

9/18/2





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

ROADWAY PLAN/PROFILE

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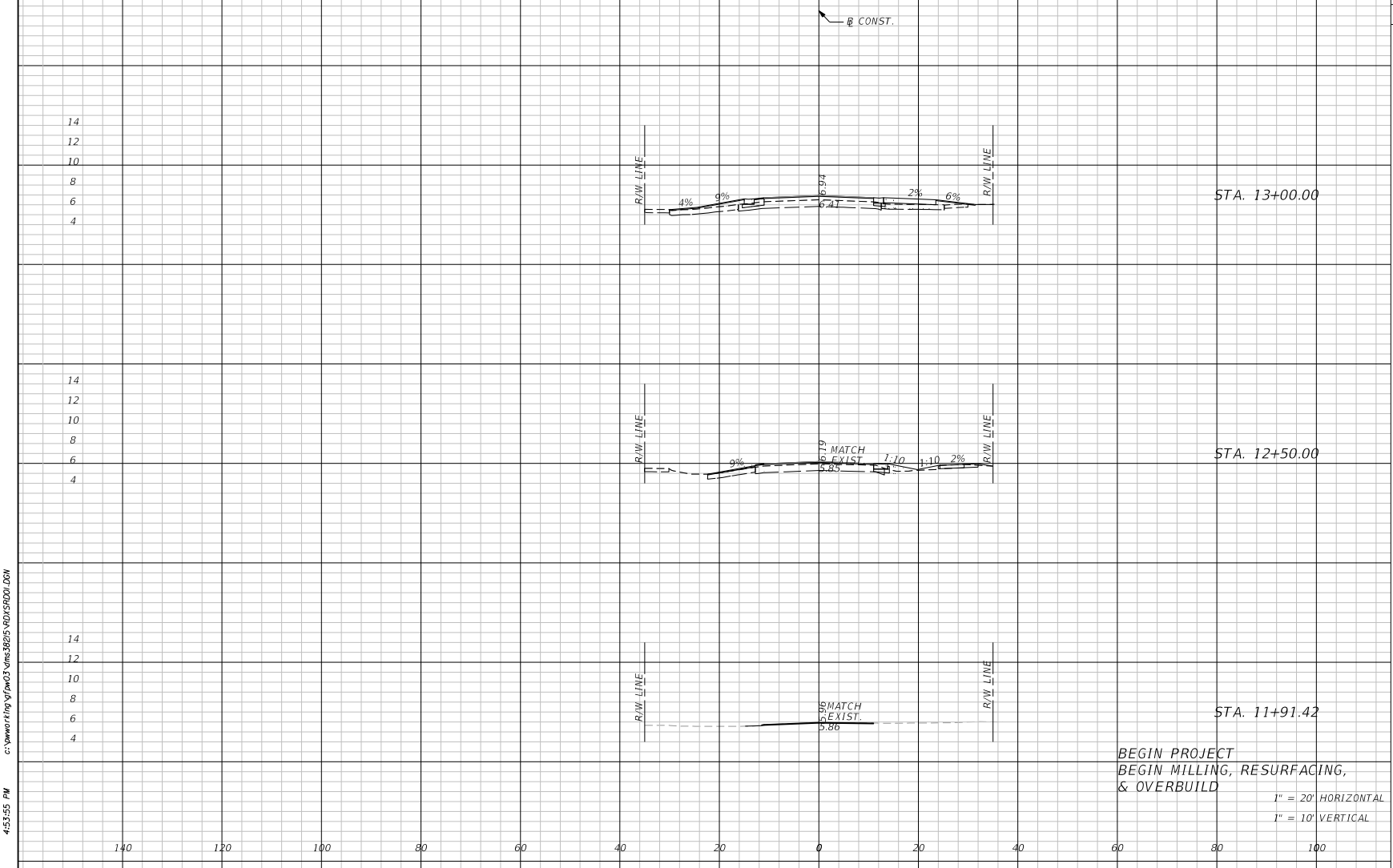
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE

PROJECT NO. 20140030 SHEET 7 OF 43



	Regular Exc.		Embankment	
	A	V	A	V
STA. 13+00.00	3	6	0	3
STA. 12+50.00	3	3	3	3
STA. 11+91.42	0	0	0	0

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MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
STEPHEN P. CLARK CENTER
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MIAMI, FLORIDA 33128

CROSS SECTIONS

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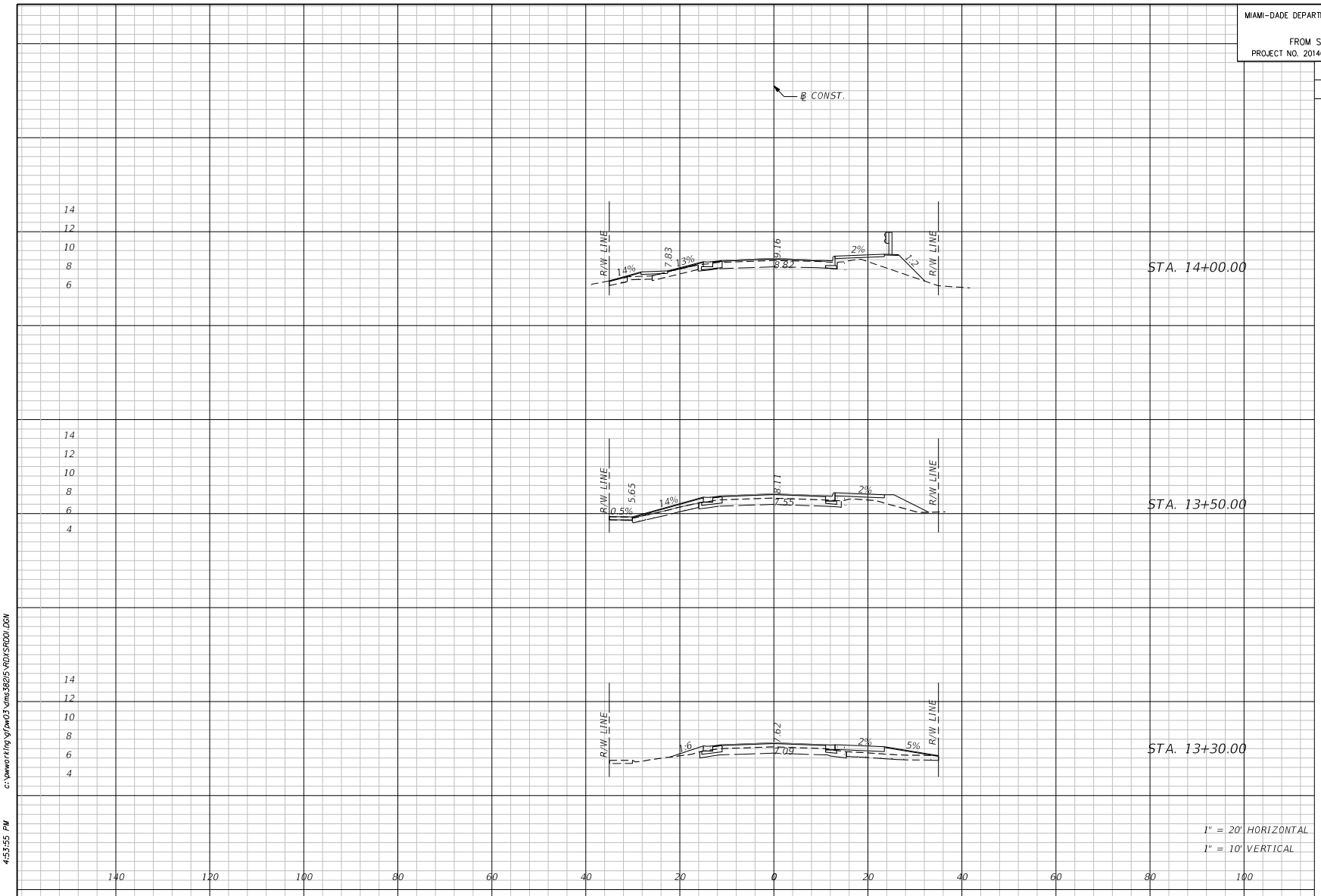
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE

PROJECT NO. 20140030 SHEET 8 OF 43



Regular Exc.		Embankment	
A	V	A	V
7	10	7	10
4	4	4	4
6	5	8	4

REVISIONS

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CHECKED BY	AU		CHECKED BY	AU	

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
STEPHEN P. CLARK CENTER
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MIAMI, FLORIDA 33128

CROSS SECTIONS

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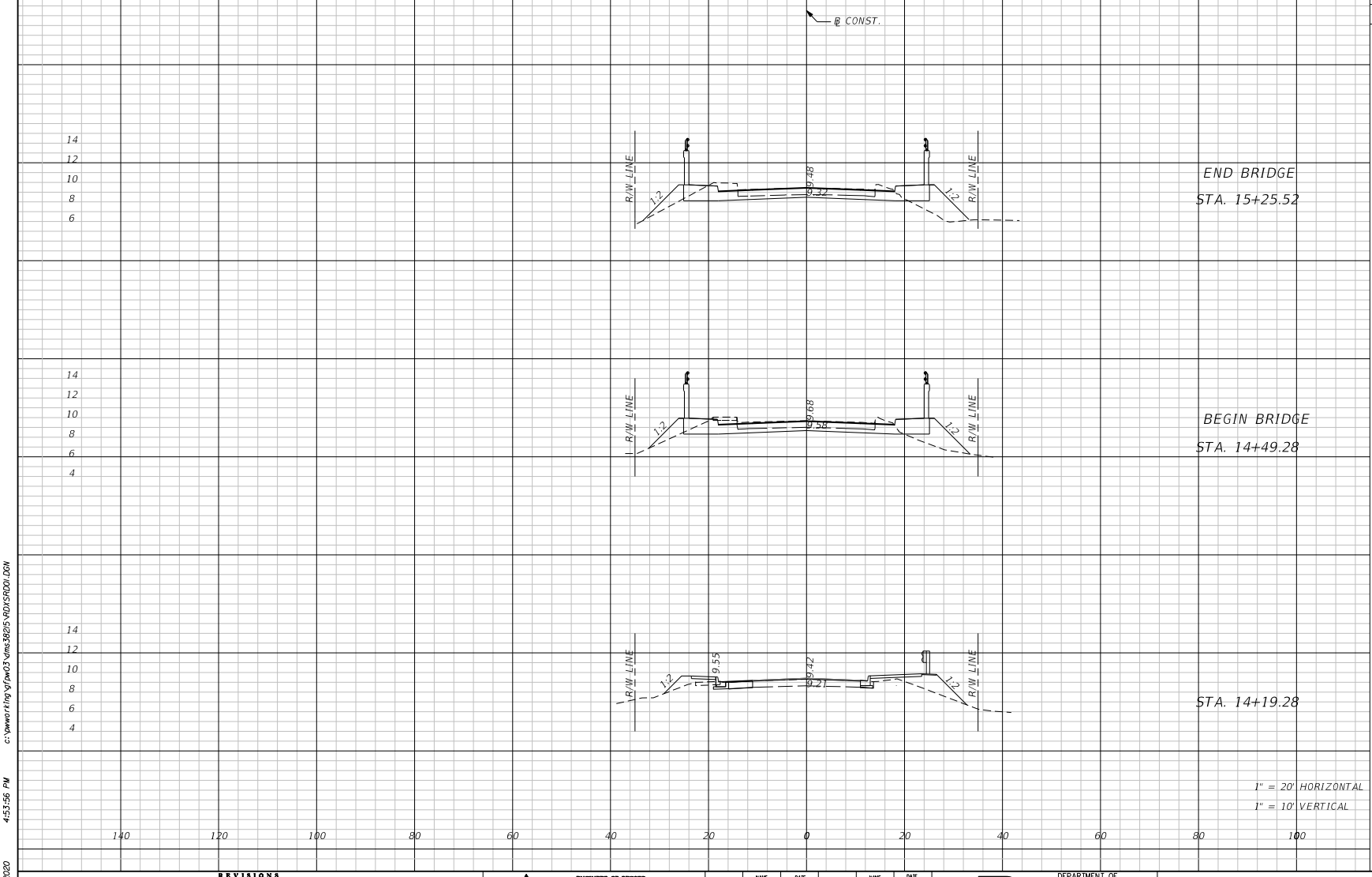
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE

PROJECT NO. 20140030 SHEET 9 OF 43



	Regular Exc.		Embankment	
	A	V	A	V
END BRIDGE STA. 15+25.52	49	0	26	0
BEGIN BRIDGE STA. 14+49.28	49	33	23	23
STA. 14+19.28	10	6	19	9

REVISIONS

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MIAMI-DADE COUNTY

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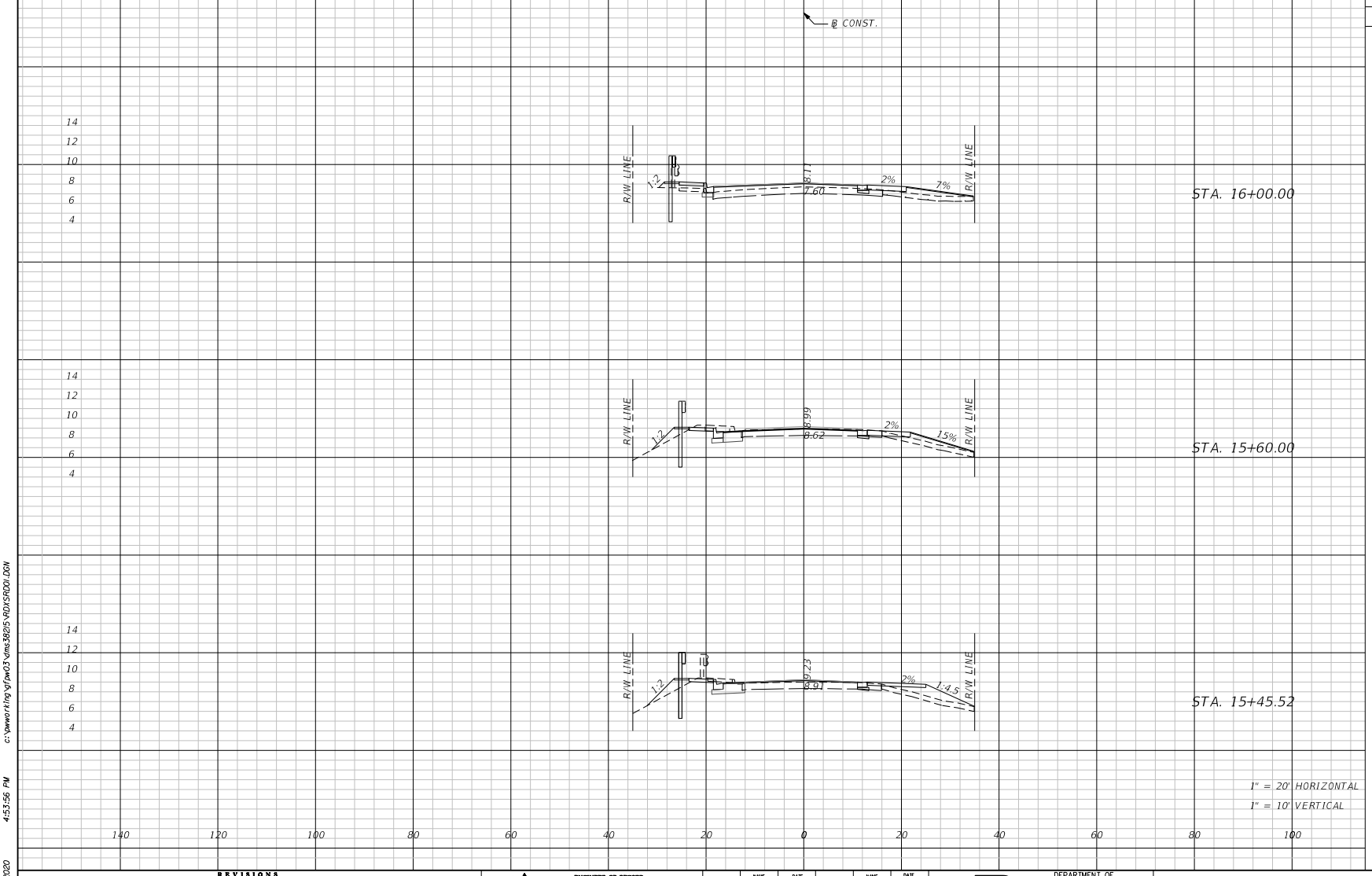
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE

PROJECT NO. 20140030 SHEET 10 OF 43



	Regular Exc.		Embankment	
	A	V	A	V
STA. 16+00.00	2	14	7	22
STA. 15+60.00	13	2	17	3
STA. 15+45.52	14	23	23	18

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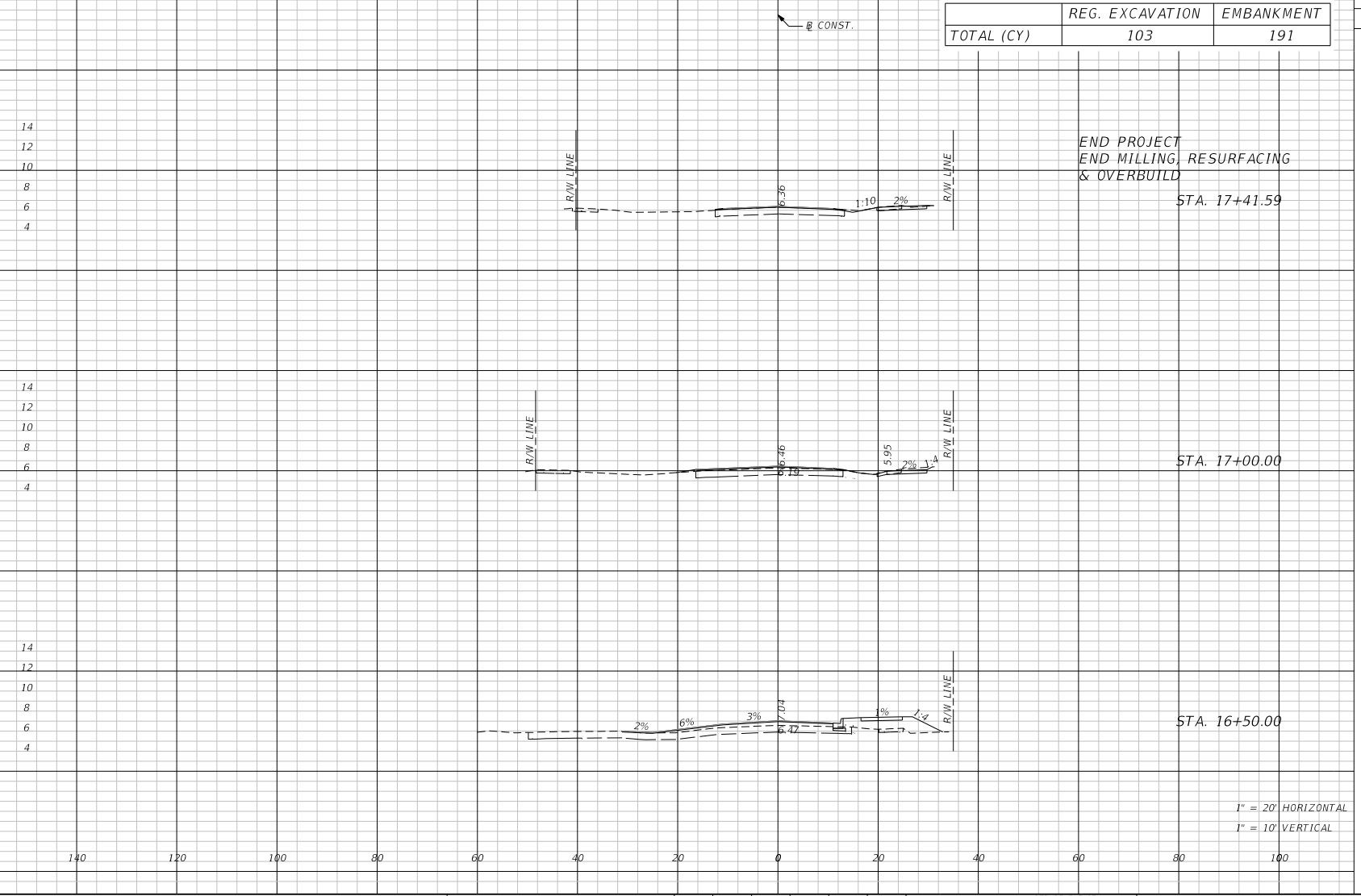
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 11 OF 43

	REG. EXCAVATION	EMBANKMENT
TOTAL (CY)	103	191



1" = 20' HORIZONTAL
1" = 10' VERTICAL

	Regular Exc.		Embankment	
	A	V	A	V
	2	4	0	1
	3	4	1	6
	1	3	6	12

REVISIONS					
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MIAMI-DADE COUNTY

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STEPHEN P. CLARK CENTER
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CROSS SECTIONS

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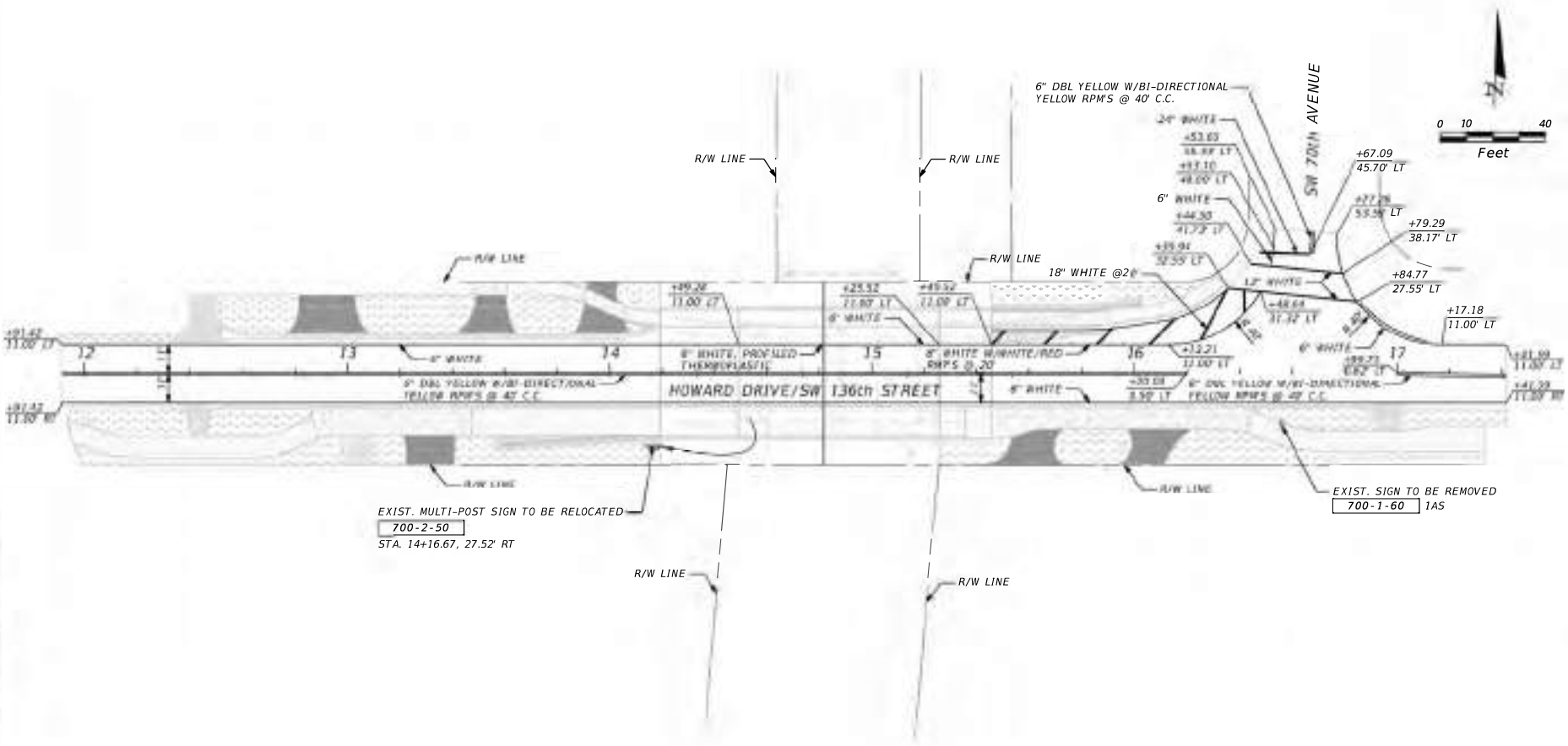
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE

PROJECT NO. 20140030 SHEET 12 OF 43



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MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
STEPHEN P. CLARK CENTER
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SIGNING & PAVEMENT MARKINGS

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LIGHTING NOTES:

1. ENDS OF CONDUITS SHALL BE SEALED WITH POLYURETHANE FOAM AFTER WIRING IS COMPLETE. FOAM SEAL SHALL NOT BE USED AS A MEANS TO PROTECT CONDUCTORS FROM ABRASION IN RACEWAYS. GALVANIZED RIGID METAL CONDUIT SHALL HAVE PROPER FITTINGS TO PROTECT CONDUCTORS FROM ABRASION.

2. SPLICES AND CONNECTIONS MADE IN PULL BOXES SHALL BE PROPERLY TAPED AND HEAT SHRINK TUBES OR CAPS SHALL BE USED TO WATERPROOF THESE CONNECTIONS. ONLY USE GEL CAP SPLICES IN GROUND LEVEL PULL BOXES.

3. GROUND RODS ARE TO BE LOCATED AT EACH PULL BOX ASSOCIATED WITH A LIGHTING POLE OR ELECTRICAL LOAD CENTER. INSTALL TWO 5/8"X 20' COPPER CLAD STEEL GROUNDING ELECTRODES AT EACH SERVICE POINT. THEY MUST BE SPACED A MINIMUM OF SIX FEET AND SIX INCHES FROM EACH OTHER WHEN INSTALLED AS AN ARRAY. WHEN THE GROUNDING ELECTRODE CONDUCTOR IS ENCLOSED IN A METAL RACEWAY, BOTH ENDS OF THE RACEWAY AND ALL INTERVENING RACEWAYS AND METALLIC ENCLOSURES CONTAINING THE GROUNDING ELECTRODE CONDUCTOR MUST BE BONDED TO THE GROUNDING ELECTRODE CONDUCTOR.

4. ALL GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED AS PER MAINTENANCE AGENCY SPECIFICATIONS.

5. SYSTEM SHALL BE GROUNDED WITH INSULATED GREEN #6 THW CONDUCTORS RUN INSIDE THE CONDUIT.

6. INSTALLATIONS OF NEW PULL BOXES SHALL BE PERFORMED BY A QUALIFIED ELECTRICAL CONTRACTOR. WHEN A NEW PULL BOX IS REPLACING AN EXISTING PULL BOX, THE CONTRACTOR SHALL ADJUST CONDUITS AND CABLES TO FIT THE NEW PULL BOX ELEVATION.

7. COLOR CODING OF CONDUCTORS:

A. WIRING FOR 120 VOLT SYSTEM SHALL BE CODED AS FOLLOWS:

PHASES "A-1,2"-BLACK
NEUTRAL-WHITE
GROUND-GREEN

B. COLORS ON CONDUCTOR 6 AWG AND SMALLER SHALL BE INTEGERAL PART OF INSULATION, ON CONDUCTOR 4 AWG AND LARGER CONDUCTORS, EITHER COLOR CODING TAPE OR PAINTED WITH TWO COATS OF CORRECT COLOR PAINT AT ALL TERMINALS AND CONNECTIONS POINTS.

TABULATION OF QUANTITIES

PAY ITEM NO.		DESCRIPTION	QUANTITY (SHEET 3)
620-1-1	LF	GROUNDING ELECTRODE, F&I	80
630-2-11	LF	CONDUIT - OPEN TRENCH: 2-2" PVC F&I	75
630-2-12	LF	CONDUIT - DIRECTIONAL BORE UNDER PAVEMENT: 2-2" HDPE, F&I	250
630-2-14	LF	CONDUIT - ABOVEGROUND: 1-2" GALVANIZED, F&I	25
635-2-11	EA	PULL BOX - 13" x 24" COVER SIZE, F&I	8
635-3-13	EA	JUNCTION BOX - EMBEDDED, F&I (10" x 10" BOX)	6
639-1-111	AS	POWER SERVICE - OVERHEAD, METER FUNISHED BY POWER COMPANY, F&I	1
641-2-11	EA	PRESTRESSED CONCRETE POLE - TYPE P-11 PEDESTAL, F&I	1
715-1-12	LF	LIGHTING - CONDUCTORS: NO. 8 TO NO. 6 AWG, F&I	2525
715-1-13	LF	LIGHTING - CONDUCTORS: NO. 4 TO NO. 2 AWG, F&I	90
715-7-11	EA	LOAD CENTER - SECONDARY VOLTAGE, F&I (INCLUDES SWITCH, WEATHERHEAD AND WIRE AT SERVICE POINTS)	1
715-11-115	EA	LUMINAIRE ROADWAY - WALL MOUNT, F&I	6
715-11-118	EA	LUMINAIRE ROADWAY - FLOOD, F&I	16

LIGHTING DESIGN CRITERIA:

1. AVERAGE MAINTAINED ILLUMINATION = N/A

2. UNIFORMITY RATIO = N/A

3. MAXIMUM TO MINIMUM RATIO (LESS THAN 10:1) = N/A

4. LIGHT SOURCE = LIGHT EMITTING DIODE (LED)

5. AESTHETIC LIGHTING NOT REQUIRED TO MEET FDOT LIGHTING DESIGN CRITERIA

LEGEND:

SYMBOLS	DESCRIPTION
	RECESSED, 70 WATT LED, WALL MOUNTED LUMINAIRE WITH ASYMMETRICAL DISTRIBUTION DIE CAST ALUMINUM WITH INTEGRAL WIRING COMPARTMENT (BEGA CATALOG NO. 2315 LED). SURFACE MOUNTED THROUGH BACK WITH 3/4" THREADED CONDUIT. DESIGNED FOR CANAL BRIDGE LIGHTING. INTEGRAL BALLAST WIRED FOR 120 VOLT CIRCUIT. EACH LED FIXTURE SHALL INCLUDE A 6"X8" JUNCTION BOX INSTALL BELOW THE LED HOUSING FOR CONNECTING TO THE 2" PVC CONDUIT IN THE BARRIER WALL. THERE WILL BE A 3/4" CONDUIT CONNECTING THE LED AND THE JUNCTION BOX.
	FLOOD LIGHT ARRAY, (4) 230 WATT LED, WALL MOUNTED LUMINAIRE. SURFACE MOUNTED WITH MOUNTING BRACKET AND TILT LOCK SYSTEM (SGM LIGHT ITEM NO. 80230503). . MOUNTING BRACKET SECURED WITH PROVIDED M-10 NUTS AND SCREWS. DESIGNED FOR ARCHITECTURAL LIGHTING. INTEGRAL BALLAST WIRED FOR 240 VOLT CIRCUIT.
	NEW PULL BOX. STANDARD MDC SIZE FOR GROUND (15 1/2" x 25" x 12"). INTALL STANDARD CONCRETE APRON AROUND ALL GROUND LEVEL PULL BOXES.
—— ● ——	NEW 2-2" P.V.C. UNDERGROUND CONDUIT WITH RHW-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE SHOWN ON LIGHTING PLANS) PROVIDE WITH MINIMUM 1#6 THW GREEN INSULATED BOND (COPPER) INSIDE CONDUIT.
—— ●● ——	NEW 2-2" H.D.P.E. UNDERPAVEMENT OR UNDERGROUND DIRECTIONAL BORE CONDUIT WITH RHW-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE SHOWN ON LIGHTING PLANS) PROVIDE WITH MINIMUM 1#6 THW GREEN INSULATED BOND (COPPER) INSIDE CONDUIT.
	NEW 2-2" CONDUIT MOUNTED INSIDE BRIDGE WALL WITH RHW-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE SHOWN ON LIGHTING PLANS) PROVIDE WITH MINIMUM 1#6 THW GREEN INSULATED BOND (COPPER) INSIDE CONDUIT.
	PROPOSED SERVICE POINT

SUBMITTAL DATA:

PRIOR TO ANY PROCUREMENT ORDER THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, EQUIPMENT SPECIFICATIONS OR DESIGN DATA FOR ALL MATERIALS PROPOSED FOR THE PROJECT AND SHALL INCLUDE, BUT NOT LIMITED TO:

A. SHOP DRAWINGS FOR THE LUMINARIES.

B. CONDUCTORS, CONDUIT, GROUND RODS AND PULL BOXES.

C. FUSES, FUSE HOLDERS, SURGE PROTECTORS.

D. SAFETY SWITCHES, PANELS, CIRCUIT BREAKERS, AND OTHER MAJOR SERVICE POINT COMPONENTS.

FOUR COPIES OF THE SHOP DRAWINGS AND DESIGN DATA SHALL BE SUBMITTED TO THE ENGINEER WITH A COPY OF THE SUBMITTAL LETTER SENT TO THE DEPARTMENT'S RESIDENT CONSTRUCTION ENGINEER IN CHARGE OF THE PROJECT.

5/3/2023

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
7300 CORPORATE CENTER DRIVE - SUITE 701
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	PD	08/28/2019	DRAWN BY	KP	08/28/2019
CHECKED BY	CS	08/28/2019	CHECKED BY		

SUPERVISED BY: WALDO GONZALEZ, PE

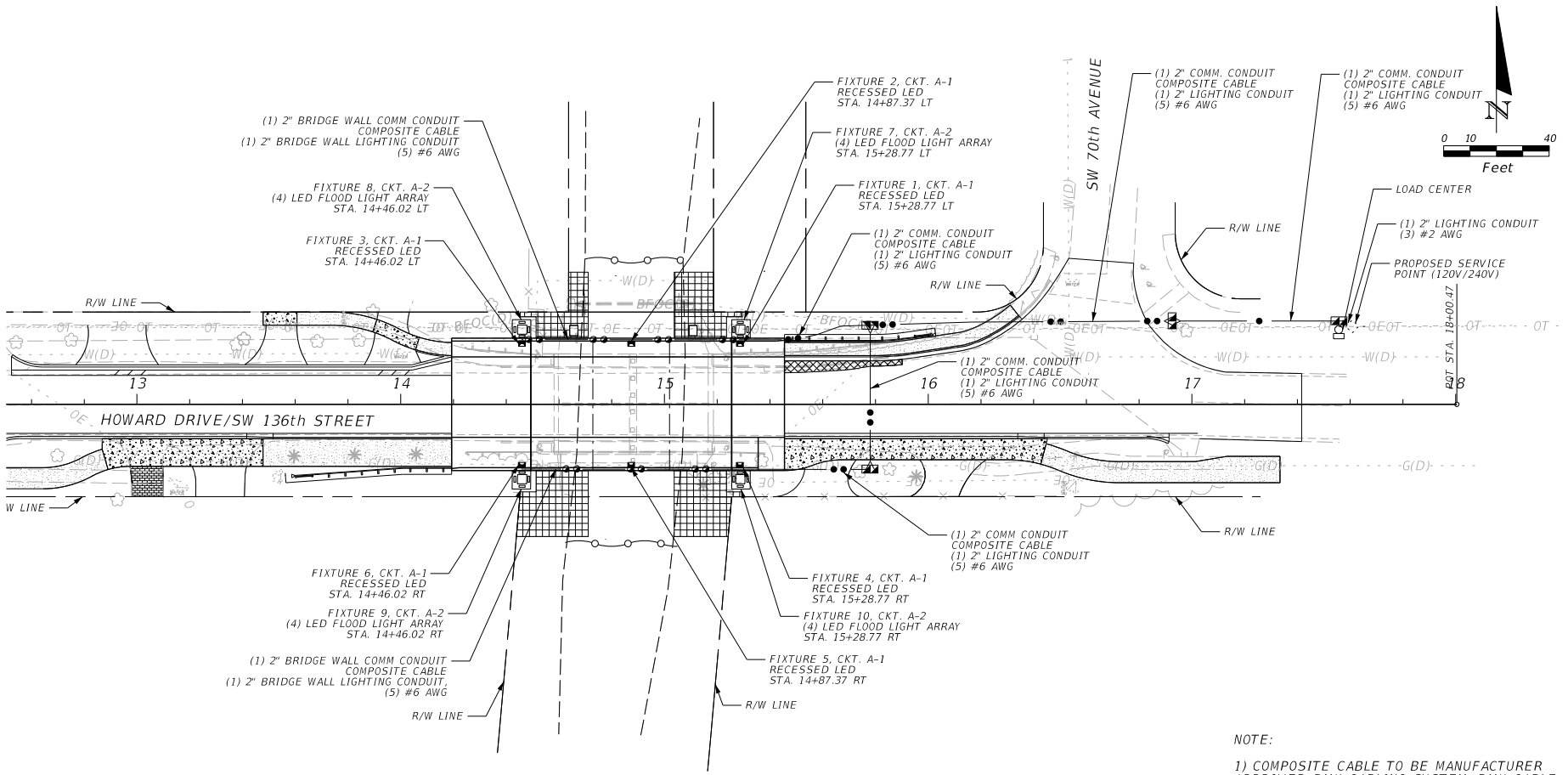
MIAMI-DADE COUNTY

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

LIGHTING SUMMARY OF QUANTITIES AND GENERAL NOTES

MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 14 OF 43



NOTE:

1) COMPOSITE CABLE TO BE MANUFACTURER APPROVED DMX CABLING SYSTEM. DMX CABLE TO BE TERMINATED IN THE PHOTO CONTROLLER WITH A 120 OHM DMX TERMINATION.

2) STANDARD CONCRETE APRONS SHALL BE INSTALLED AROUND ALL GROUND LEVEL PULL BOXES.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
7500 CORPORATE CENTER DRIVE, SUITE 701
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802
H. C. SHERROD, P.E. LICENSE NO. 62343

	NAME	DATE		NAME	DATE
DESIGNED BY	PD	08/28/2019	DRAWN BY	KP	08/28/2019
CHECKED BY	CS	08/28/2019	CHECKED BY		

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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

LIGHTING PLAN

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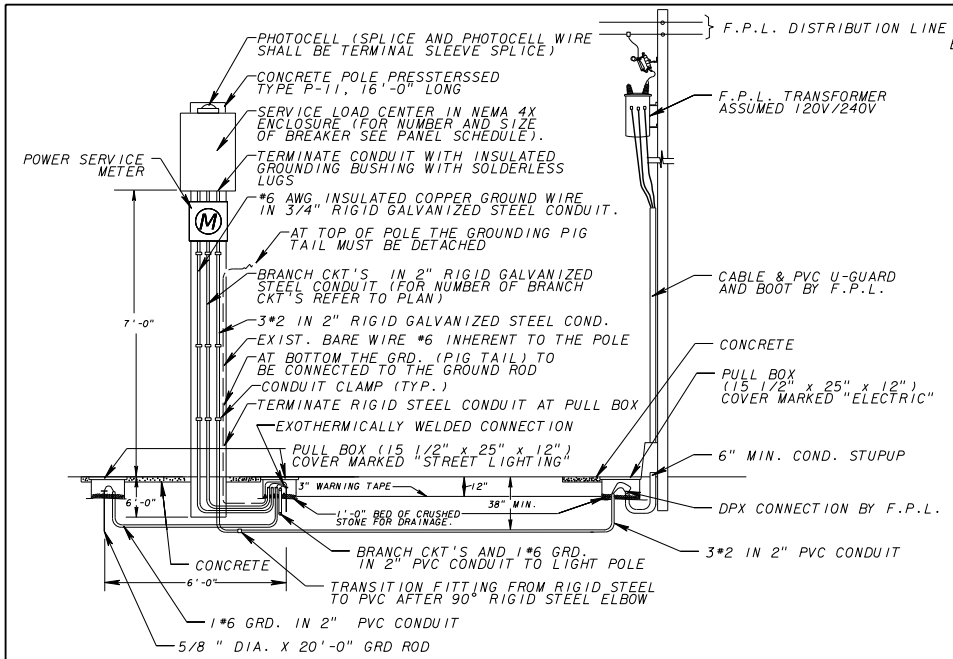
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITAL SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 15 OF 43



SERVICE POINT DISCONNECT
(HOWARD DR/SW 136TH ST STA. 17+57.40)

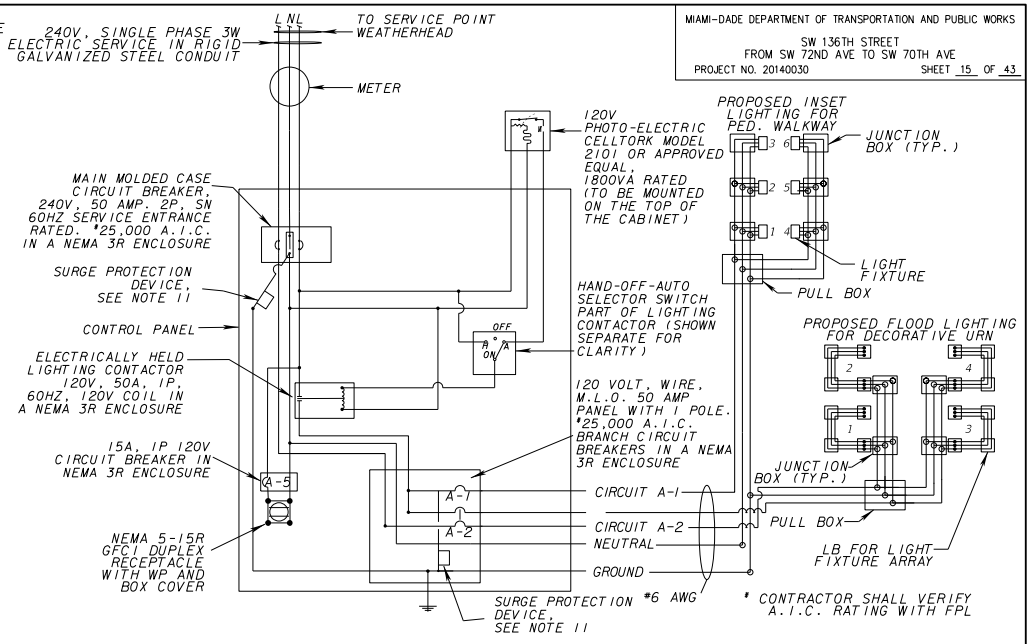
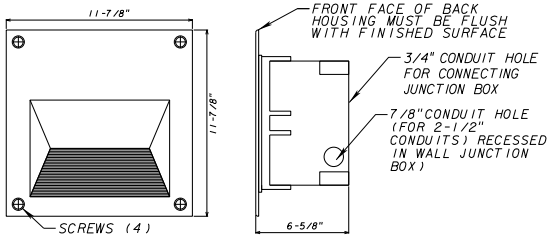


PHOTO CONTROLLER WIRING DIAGRAM



PROPOSED INSET LIGHT DETAIL

NOTES:

1. THE ENCLOSURE SHALL BE NEMA 4X (STAINLESS STEEL), POLE MOUNTED, RIGIDLY ATTACHED TO THE POLE FACE.

2. THE ENCLOSURE DOOR SHALL BE SECURED BY LOCKABLE LATCH.

3. 240 VOLT MINIMUM RATING BOLT-IN TYPE BREAKERS SHALL BE USED.

4. A 600V LIGHTNING PROTECTOR SHALL BE WIRED OUTSIDE THE ENCLOSURE.

5. A MAIN BREAKER IS REQUIRED IN ALL SERVICE PANELS WITH 2 OR MORE FEEDER BREAKERS.

6. ALL SERVICE EQUIPMENT SHALL BE UL APPROVED.

7. BUS BAR TO BE COPPER COATED AND HAVE A MINIMUM RATING OF 100 AMPS WHEN MAIN BREAKER EXCEEDS 100 AMPS. BUSBAR TO MATCH BREAKER AMPERAGE.

8. LOCATE CONTACTOR, TRANSFORMER, AND H.O.A. SWITCH INSIDE ENCLOSURE. THE ENCLOSURE TO BE SIZED TO ACCOMODATE AS MANY BREAKERS AS CALLED FOR AND ALL OTHER SERVICE EQUIPMENT.

9. THE ENCLOSURE TO BE RIGIDLY ATTACHED TO THE POLE FACE.

10. CONTRACTOR SHALL COORDINATE WITH F.P.L. ENGINEERS FOR THE INSTALLATION OF THE F.P.L. RISER WHICH INCLUDES A CONNECTION FEE. (THIS FEE SHALL BE INCLUDED IN BID ITEM 715-7-11) THIS LAYOUT HAVE BEEN APPROVED BY THE MAINTENANCE AGENCY (MIAMI-DADE COUNTY AND F.D.O.T. DISTRICT SIX).

11. SURGE PROTECTION DEVICE (SPD), UL 1449 THIRD EDITION LISTED, BY ATLANTIC SCIENTIFIC MODEL ZONE DEFENDER OR EQUAL, RATED FOR 80KA MINIMUM. THIS UNIT SHALL BE MOUNTED IN THE INTERIOR OF THE CABINET, ON THE LOAD SIDE OF THE MAIN CIRCUIT BREAKER. THE SPD SHALL BE INSTALLED IN SUCH A WAY THAT THE STATUS LED CAN BE OBSERVED WHEN THE CABINET DOOR IS OPEN. DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH NEC AND LOCAL CODES.

FIXTURE DATA

FIXTURE NO.	CIRCUIT	STATION	DIST. OR ARM	LUMINAIRE WATTAGE	MOUNTING HEIGHT	POLE SETBACK	PAY ITEM
1	A-1	15+28.77 LT	FLUSH MOUNT	70	2.5'	RECESSED IN BRIGE 1 WALL	715-11-115
2	A-1	14+87.37 LT	FLUSH MOUNT	70	2.5'	RECESSED IN BRIGE 1 WALL	715-11-115
3	A-1	14+46.02 LT	FLUSH MOUNT	70	2.5'	RECESSED IN BRIGE 1 WALL	715-11-115
4	A-1	15+28.77 RT	FLUSH MOUNT	70	2.5'	RECESSED IN BRIGE 1 WALL	715-11-115
5	A-1	14+87.37 RT	FLUSH MOUNT	70	2.5'	RECESSED IN BRIGE 1 WALL	715-11-115
6	A-1	14+46.02 RT	FLUSH MOUNT	70	2.5'	RECESSED IN BRIGE 1 WALL	715-11-115
7	A-2	15+28.77 LT	FLOOD ARRAY	230 * 4	NA	SURFACE MOUNTING BRACKETS	715-11-118
8	A-2	14+46.02 LT	FLOOD ARRAY	230 * 4	NA	SURFACE MOUNTING BRACKETS	715-11-118
9	A-2	15+28.77 RT	FLOOD ARRAY	230 * 4	NA	SURFACE MOUNTING BRACKETS	715-11-118
10	A-2	14+46.02 RT	FLOOD ARRAY	230 * 4	NA	SURFACE MOUNTING BRACKETS	715-11-118

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
7500 CORPORATE CENTER DRIVE, SUITE 701
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802
H. C. SHERROD, P.E. LICENSE NO. 62343

	NAME	DATE		NAME	DATE
DESIGNED BY	PD	08/28/2019	DRAWN BY	KP	08/28/2019
CHECKED BY	CS	08/28/2019	CHECKED BY		

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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

ELECTRICAL SERVICE DETAILS

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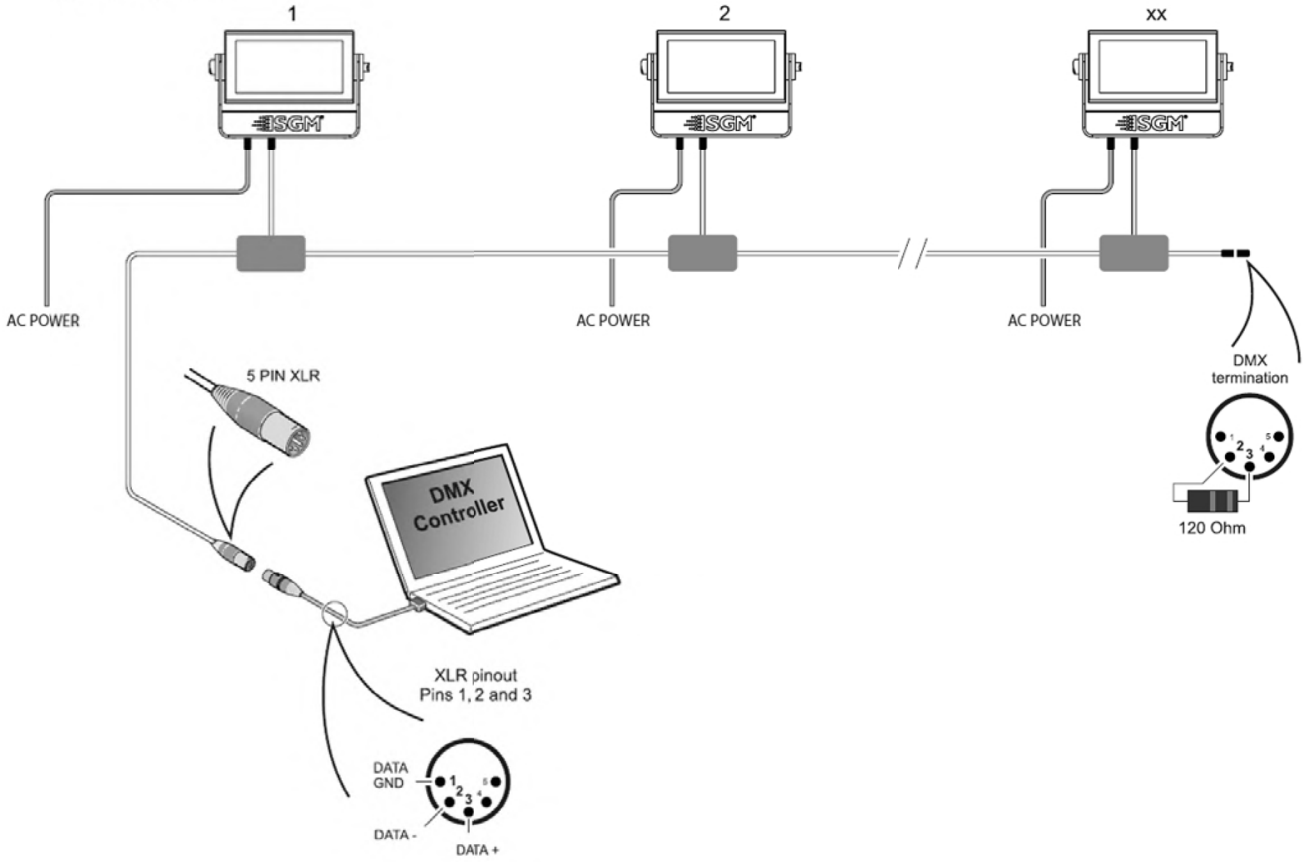
i-2 POI

CONNECTION DIAGRAM



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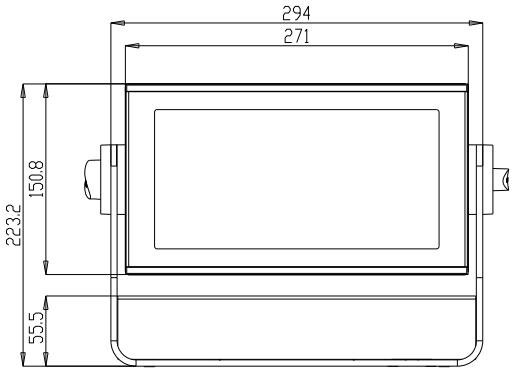
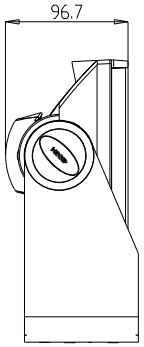
MIAMI-DADE COUNTY

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

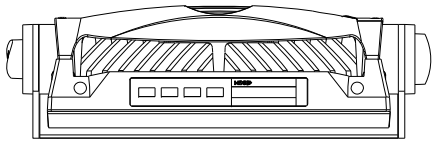
DMX COMMUNICATION WIRING DETAIL



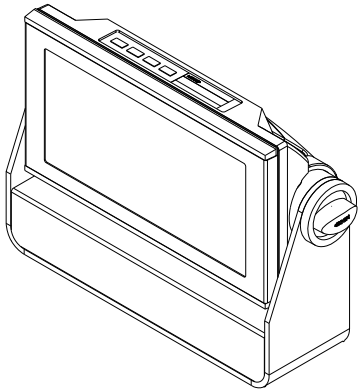
FRONT VIEW



SIDE VIEW



TOP VIEW



ISOMETRIC VIEW

NOTE:

1) FLOOD LIGHTS HAVE LOCKING POINTS IN THE BASE FOR INSTALLATION OF RIGGING AND WILL COME WITH M-10 NUTS AND M-10 SCREWS.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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MIAMI-DADE COUNTY

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

FLOOD LIGHT MOUNTING DETAIL

A. DESIGN SPECIFICATIONS
1. FDOT STRUCTURES MANUAL DATED JANUARY 2017 AND SUBSEQUENT STRUCTURES DESIGN BULLETINS.
2. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) BRIDGE DESIGN SPECIFICATIONS, 7th EDITION AND ALL SUBSEQUENT INTERIMS.
3. FDOT PLANS PREPARATION MANUAL DATED JANUARY, 2017 AND SUBSEQUENT ROADWAY DESIGN BULLETINS.

B. GOVERNING STANDARDS AND CONSTRUCTION SPECIFICATIONS
FLORIDA DEPARTMENT OF TRANSPORTATION, 2017 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN, AND JANUARY 2017 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

C. VERTICAL DATUM
ELEVATIONS ARE BASED ON NAVD88. (NAVD88=NGVD29-1.54 FT.)

D. ENVIRONMENT

BRIDGE NUMBER	SUPERSTRUCTURE CONCRETE	SUBSTRUCTURE CONCRETE
874495	(SLIGHTLY AGGRESSIVE)	(MODERATELY AGGRESSIVE)

E. DESIGN METHODOLOGY
LOAD AND RESISTANCE FACTOR DESIGN (LRFD) METHOD USING STRENGTH, SERVICE [EXTREME EVENT] AND FATIGUE LIMIT STATES.

F. DESIGN LOADINGS
1. LIVE LOADS: HL-93 WITH DYNAMIC LOAD ALLOWANCE
2. DEAD LOADS:
- 32" VERTICAL SHAPE TRAFFIC RAILING 420 PLF
- PEDESTRIAN/BICYCLE BULLET RAILING 36 PLF
- REINFORCED CONCRETE 150 PCF
- FUTURE WEARING SURFACE 15 PSF
3. CONSTRUCTION LOADS:
CONTRACTOR TO PROVIDE FORMWORK DESIGN SIGNED AND SEALED BY ENGINEER IN STATE OF FLORIDA FOR FORMWORK, CONSIDERING THE FOLLOWING:
- FINISHING MACHINE LOAD: (PER CONTRACTOR)
- FINISHING MACHINE WHEEL LOCATION BEYOND THE EDGE OF DECK 6 INCHES
- CONSTRUCTION LIVE LOAD: 20 PSF EXTENDED OVER THE ENTIRE BRIDGE WIDTH AND 50-FEET IN LONGITUDINAL LENGTH CENTERED ON THE FINISHING MACHINE.
- LIVE LOAD AT OR NEAR THE OUTSIDE EDGE OF DECK DURING DECK CASTING: 75 PLF APPLIED AS A MOVING LOAD OVER A LENGTH OF 20 FEET.
- CONSTRUCTION INACTIVE DESIGN WIND SPEED: 90 MPH
- VELOCITY PRESSURE EXPOSURE COEFFICIENT (KZ): 1.14
- CONSTRUCTION ACTIVE DESIGN WIND SPEED: 30 MPH
4. UTILITIES: NO ALLOWANCE FOR UTILITY LOADS HAS BEEN INCLUDED IN THE DESIGN.
5. SEISMIC LOADS ARE IN ACCORDANCE WITH AASHTO SPECIFICATIONS AS MODIFIED BY "STRUCTURES DESIGN GUIDELINES", SECTION 2.3.
6. WIND LOADS ARE IN ACCORDANCE WITH AASHTO SPECIFICATIONS AS MODIFIED BY "STRUCTURES DESIGN GUIDELINES", SECTION 2.4.

G. MATERIALS
1. REINFORCING STEEL: GRADE 60 CARBON STEEL PER FDOT SPECIFICATIONS SECTION 931.
2. CONCRETE:

CONCRETE CLASS	MIN. 28-DAY COMPRESSIVE STRENGTH (PSI)	MODULUS OF ELASTICITY (PSI)	LOCATION OF CONCRETE IN STRUCTURE
II	F'C = 4,500	3.9 X 10^6	APPROACH SLAB
II	F'C = 3,400	3.4 X 10^6	TRAFFIC RAILING BARRIER
IV	F'C = 5,500	4.3 X 10^6	BRIDGE DECK, SUBSTRUCTURE
V	F'C = 6,000	4.5 X 10^6	PRESTRESSED CONCRETE PILING

CONCRETE COVER:

CAST-IN-PLACE SUPERSTRUCTURE	2"
CAST-IN-PLACE SUBSTRUCTURE (CAST AGAINST EARTH)	4"
CAST-IN-PLACE SUBSTRUCTURE (FORMED SURFACES)	3"
PRECAST MEMBERS (PILING)	3"

CONCRETE COVER DIMENSIONS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE SPECIFICATIONS SECTION 415 FOR ALLOWABLE TOLERANCES. ALL DIMENSIONS PERTAINING TO THE LOCATION OF REINFORCING STEEL ARE TO CENTERLINE OF BAR EXCEPT WHERE CLEAR DIMENSION IS NOTED TO FACE OF CONCRETE.
3. PLAIN ELASTOMERIC (NEOPRENE) BEARING PADS SHALL BE 50 DUROMETER WITH A SHEAR MODULUS, G = .115 KSI. FURNISH AND INSTALL PER FDOT SPECIFICATIONS.

H. DESIGN TEMPERATURES

MEAN	RISE FROM MEAN	FALL FROM MEAN	RANGE
70° F	35° F	35° F	70° F

COEFFICIENT OF THERMAL EXPANSION = 6.0 X 10^{-6} / °F

I. CHAMFER
ALL EXPOSED EDGES AND CORNERS OF CONCRETE SHALL BE CHAMFERED $\frac{3}{4}$" UNLESS OTHERWISE NOTED.

J. PLAN DIMENSIONS
ALL DIMENSIONS IN THESE PLANS ARE MEASURED IN FEET EITHER HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.

K. BRIDGE FLOOR GROOVING
BRIDGE FLOOR AND APPROACH SLABS SHALL RECEIVE A CLASS 4 FLOOR FINISH IN ACCORDANCE WITH SECTION 400-15.2.5 OF THE FDOT SPECIFICATIONS.

L. UTILITIES
1. FOR PLAN LOCATIONS OF EXISTING UTILITIES, SEE PLAN AND ELEVATION SHEET(S) FOR DISPOSITION OF UTILITIES. ALL INVOLVED UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO STARTING WORK. UTILITIES SHOWN IN PLANS ARE AT APPROXIMATE LOCATIONS.
2. THE CONTRACTOR SHALL NOTIFY ALL INVOLVED UTILITY COMPANIES PRIOR TO STARTING WORK. EXISTING UTILITY PILE BENTS TO BE REMOVED BY UTILITY OWNER. FOR DISPOSITION OF UTILITIES, SEE ROADWAY PLANS.

M. BRIDGE NAME AND NUMBER
PLACE THE FOLLOWING BRIDGE NAME AND NUMBER ON THE TRAFFIC RAILINGS IN ACCORDANCE WITH THE TRAFFIC RAILING DESIGN STANDARDS:
- SW 136th STREET OVER C-100A CANAL (BRIDGE NUMBER 874495)

N. SCREEDING DECKS
SCREED THE RIDING SURFACE OF THE BRIDGE DECK AND APPROACH SLABS TO ACHIEVE THE FINISH GRADE ELEVATIONS SHOWN IN THE PLANS. ACCOUNT FOR THEORETICAL DEFLECTIONS DUE TO SELF WEIGHT, DECK CASTING SEQUENCE, DECK FORMING SYSTEMS, CONSTRUCTION LOADS, OVERLAYS AND TEMPORARY SHORING, ETC. AS REQUIRED.

O. JOINTS IN CONCRETE
CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS INDICATED IN THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

P. EXISTING BRIDGE CONSTRUCTION CONSIDERATIONS
1. DIMENSION VERIFICATION: UNLESS OTHERWISE NOTED, THE DIMENSIONS, ELEVATIONS AND INTERSECTING ANGLES SHOWN ARE BASED ON THE INFORMATION AS DETAILED IN THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES AND MAY NOT REPRESENT AS-BUILT CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THIS DATA BEFORE BEGINNING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. FOR EXISTING BRIDGE PLANS, SEE MIAMI DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS PROJECT NO. 4509. (SHEETS BX-1 THRU BX-13)

Q. TRAFFIC CONTROL PLANS
FOR MAINTENANCE OF TRAFFIC REQUIREMENTS AND DETAILS, SEE ROADWAY PLANS. SHEET NO. 42.

R. TURBIDITY BARRIER
PROVIDE FLOATING TURBIDITY BARRIER AS SHOWN ON SHEET 6 OF ROADWAY PLANS, IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS AND FDOT INDEX 103 OF THE ROADWAY AND TRAFFIC DESIGN STANDARDS, 2017. TURBIDITY CURTAIN SHALL BE OF SUFFICIENT DEPTH TO REACH THE BOTTOM OF THE CANAL.

S. ALUMINUM PEDESTRIAN BICYCLE RAILING
CONTRACTOR SHALL TACK WELD WASHERS & NUTS TO BASE PLATE TO PREVENT THEFT.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

BRIDGE GENERAL NOTES (1 OF 2)

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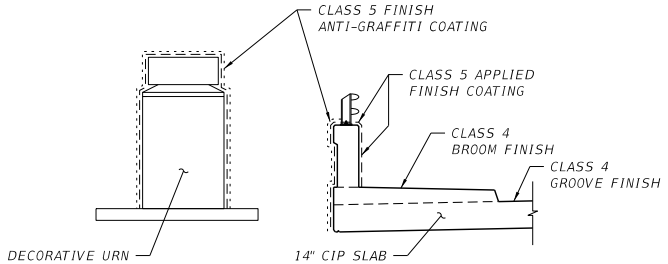
T. APPLIED FINISH COATING
A CLASS 5 FINISH COATING, FEDERAL COLOR NUMBER 20475, SHALL BE APPLIED TO THE PORTIONS OF THE STRUCTURES SHOWN ON THE SURFACE FINISH DETAIL ON THIS SHEET.

U. BID ITEM NOTES
1. FOR SUMMARY OF BRIDGE QUANTITIES, SEE SHEET 20.
2. PAYMENT FOR INCIDENTAL ITEMS, NOT SPECIFICALLY COVERED IN THE INDIVIDUAL BID ITEMS, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR BID ITEMS.
3. BID ITEM NO. 400-7 INCLUDES AREA OF APPROACH SLAB GROOVING.
4. FOR MAINTENANCE OF TRAFFIC BID ITEM NOTES, SEE ROADWAY PLANS, SHEET NO. 4.
5. SEE FDOT SPECIFICATIONS 400-22 FOR METHOD OF MEASUREMENT NOTES.
6. SEE FDOT SPECIFICATIONS 400-23 FOR BASIS OF PAYMENT NOTES.
7. THE COST OF PREFORMED HOLES SHALL BE INCLUDED IN THE UNIT COSTS OF PAY ITEM 455-34-3 OR PAY ITEM 455-143-3.



SURFACE FINISH DETAILS

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

BRIDGE GENERAL NOTES (2 OF 2)

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SUMMARY OF STRUCTURE QUANTITIES - BRIDGE 874495

SECTION	PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
					P	F	P	F		
LUMP SUM ITEMS	110-3	REMOVAL OF EXISTING STRUCTURE		LS	1		1			
FOUNDATION	455-34-3	PRESTRESSED CONCRETE PILING, 18" SQUARE		LF	1,170		1,170			
	455-143-3	TEST PILES-PRESTRESSED CONCRETE, 18" SQUARE		LF	253		253			
SUBSTRUCTURE	400-4-5	CONCRETE CLASS IV		CY	81.9		81.9			
	415-1-5	REINFORCING STEEL		LB	12,114		12,114			
APPROACH SLABS	400-2-10	CONCRETE CLASS II		CY	98.5		98.5			
	415-1-9	REINFORCING STEEL		LB	19,449		19,449			
SUPERSTRUCTURE	400-4-4	CONCRETE CLASS IV		CY	225.4		225.4			
	415-1-4	REINFORCING STEEL		LB	55,934		55,934			
	400-9	BRIDGE DECK PLANING & GROOVING, DECK 8.5"		SY	427		427			
		AND GREATER								
	458-1-11	BRIDGE DECK EXPANSION JOINT, NEW CONSTRUCTION,		LF	100		100			
		POURED JOINT W/ BACKER ROD								
RAILING/ BARRIERS	515-4-2	BULLET RAIL, DOUBLE RAIL		LF	243		243			
	521-5-4	CONCRETE TRAFFIC RAILING, BRIDGE 32"		LF	243		243			
		VERTICAL FACE								
	630-2-16	CONDUIT, FURNISH AND INSTALL, EMBEDDED		LF	729		729			
SPECIAL FEATURES	530-4-9	ARTICULATED CONCRETE BLOCK REVETMENT SYSTEM,		SY	654		654			
		THICKNESS 9"								
	425-1-511	INLET (TYPE B) (<10') FOR URN FEATURE		EA	4		4		FOR AESTHETIC URN FEATURE	
	400-148	PLAIN NEOPRENE BEARING PADS		CF	9.8		9.8			
	635-3-13	JUNCTION BOX, FURNISH AND INSTALL, EMBEDDED		EA	6		6			
	400-143	CLEANING AND COATING CONCRETE SURFACE,		SF	2,669		2,669		CLEANING AND COATING OF	
		CLASS 5 FINISH							CONCRETE SURFACE WITH	
									CLASS 5 FINISH	

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

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SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

BRIDGE SUMMARY OF QUANTITIES

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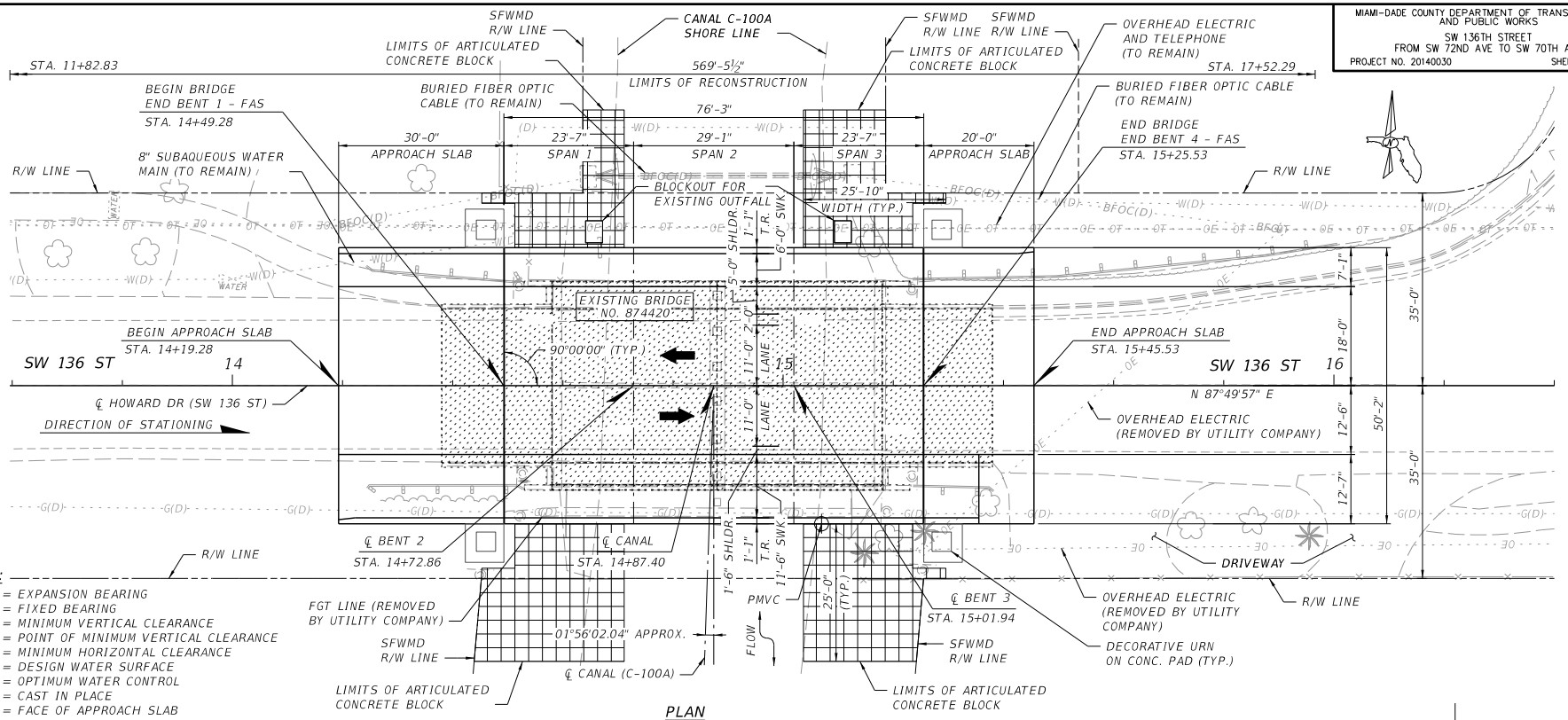
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 21 OF 43

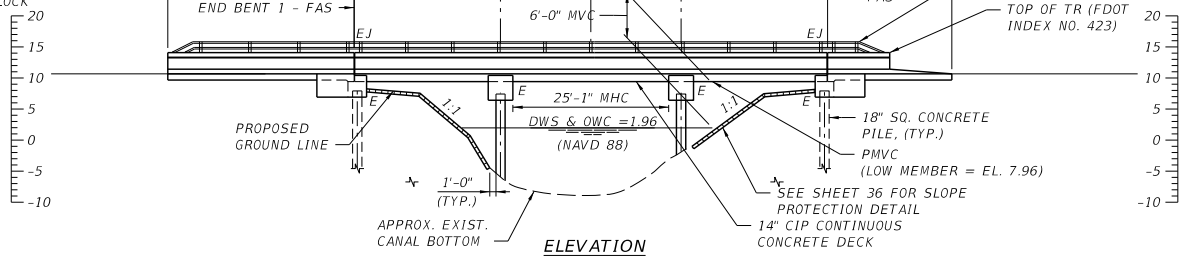


PLAN

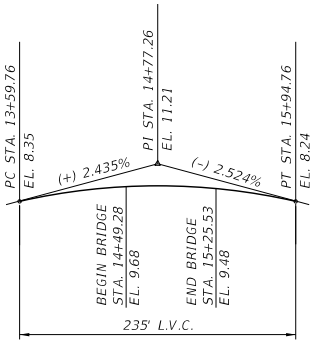
LEGEND:

E	= EXPANSION BEARING
F	= FIXED BEARING
MVC	= MINIMUM VERTICAL CLEARANCE
PMVC	= POINT OF MINIMUM VERTICAL CLEARANCE
MHC	= MINIMUM HORIZONTAL CLEARANCE
DWS	= DESIGN WATER SURFACE
OWC	= OPTIMUM WATER CONTROL
CIP	= CAST IN PLACE
FAS	= FACE OF APPROACH SLAB
R/W	= RIGHT-OF-WAY
FGT	= FLORIDA GAS & TRANSMISSION
TR	= TRAFFIC RAILING
EJ	= EXPANSION JOINT
	= APPROX. BORING LOCATION
	= POINT OF MINIMUM VERTICAL CLEARANCE
	= EXISTING BRIDGE TO BE REMOVED
	= ARTICULATED CONCRETE BLOCK

ELEVATIONS ARE BASED ON NAVD88.
(NAVD88=NGVD29-1.54 FT.)



ELEVATION



VERTICAL CURVE DATA

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

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CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

PLAN AND ELEVATION

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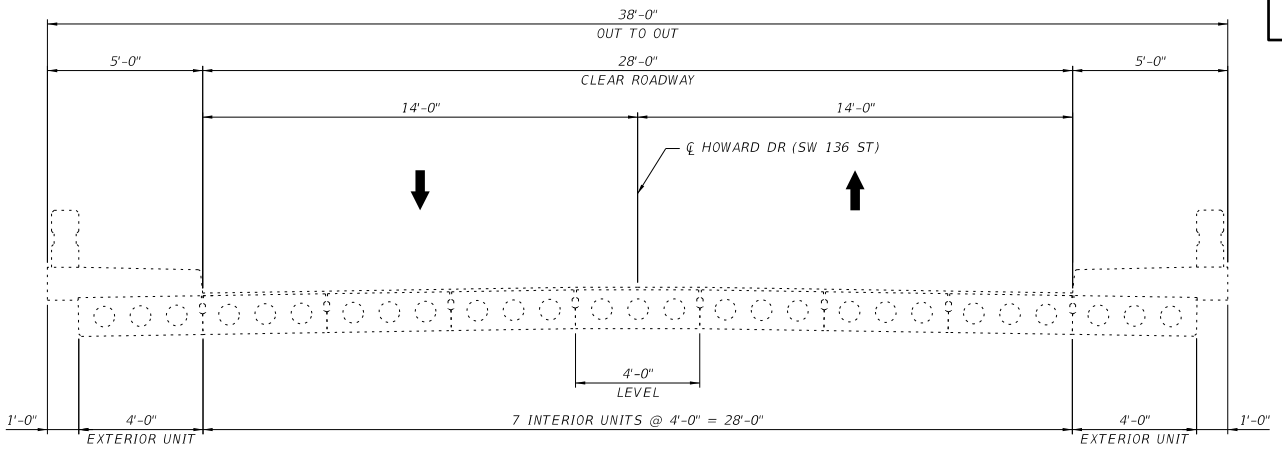
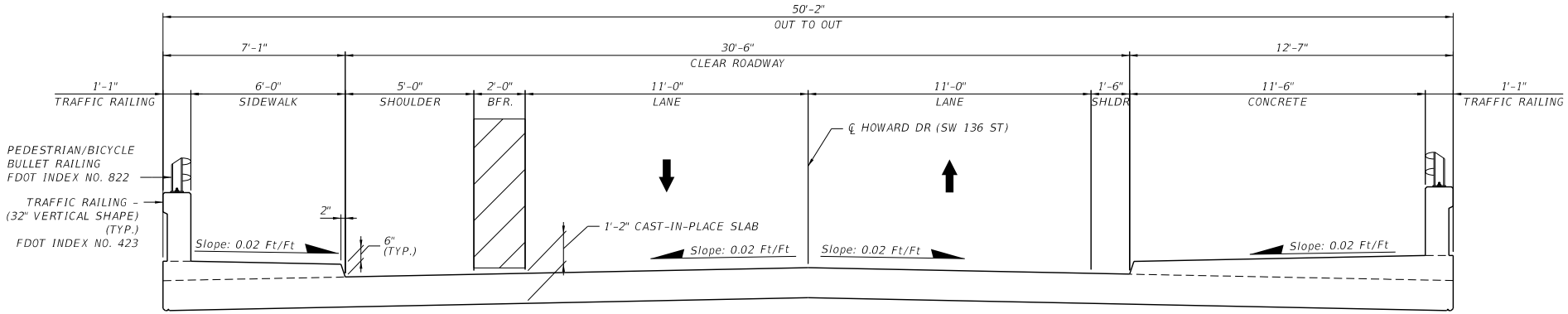


EXISTING SECTION THROUGH BRIDGE



BFR. = BUFFER

PROPOSED SECTION THROUGH BRIDGE

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

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SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

TYPICAL SECTION

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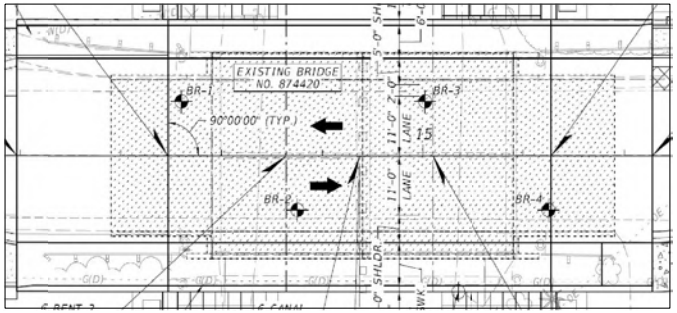
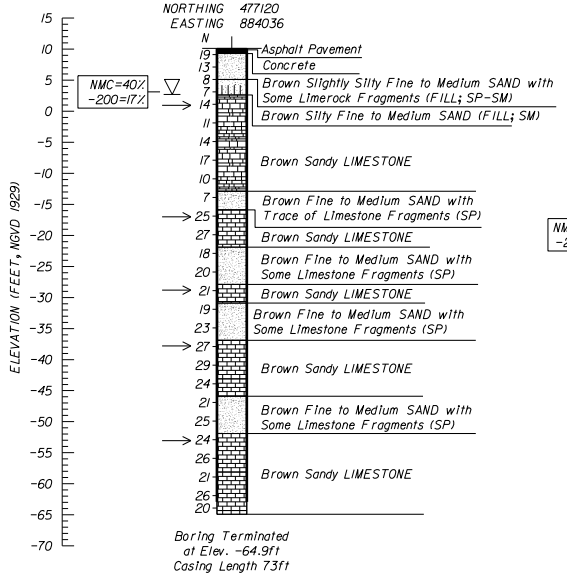
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 23 OF 43



N.T.S.

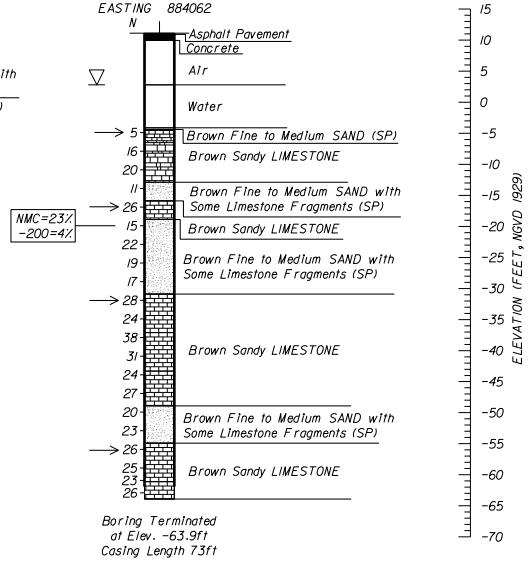
BORING LOCATION PLAN

BOR # BR-1
STA. 14+52 Howard Dr. C/L Const.
OFF. 10'LT
ELEV. +10.1'
DATE 1/5/2017
DRILLER R. Morales - GEOSOL, Inc.
HAMMER Auto
RIG B-53
NORTHING 477120
EASTING 884036



Boring Terminated
at Elev. -64.9ft
Casing Length 73ft

BOR # BR-2
STA. 14+75 Howard Dr. C/L Const.
OFF. 10'RT
ELEV. +11.1'
DATE 1/7/2017
DRILLER R. Morales - GEOSOL, Inc.
HAMMER Auto
RIG B-53
NORTHING 477101
EASTING 884062



Boring Terminated
at Elev. -63.9ft
Casing Length 73ft

0 4 20
Feet
VERTICAL SCALE
HORIZONTAL SCALE: N.T.S.

LEGEND

- ASPHALT PAVEMENT/CONCRETE
- SAND (FILL; SP-SM)
- SAND (FILL; SM)
- UPPER LIMESTONE FORMATION
- SAND (SP, SP-SM)
- LOWER LIMESTONE FORMATION
- WATER TABLE AT TIME OF DRILLING
- APPROXIMATE SPT BORING LOCATION
- CASING USED
- N — NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION (UNLESS OTHERWISE NOTED).
- NMC — NATURAL MOISTURE CONTENT (%)
- -200 — FINES PASSING THE #200 SIEVE (%)
- PERIODIC TOTAL LOSS OF DRILLING FLUID CIRCULATION

NOTES:

1) SPT BORINGS PERFORMED PER ASTM D-1586 WITH A HAMMER WEIGHT OF 140 LBS FALLING 30 INCHES.

ENVIRONMENTAL CLASSIFICATION:
SUPERSTRUCTURE: SLIGHTLY AGGRESSIVE
SUBSTRUCTURE: MODERATELY AGGRESSIVE

WATER:

pH:	8.0
CHLORIDE:	162 PPM
SULFATE:	35 PPM
RESISTIVITY:	1,063 OHM-CM

GRANULAR MATERIALS - RELATIVE DENSITY	AUTOMATIC SPT HAMMER (BLOWS PER FOOT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTANCY	**AUTOMATIC SPT HAMMER (BLOWS PER FOOT)**
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTE FOR EXCAVATION AND PILE DRIVING:

1) THE CONTRACTOR IS ADVISED THAT CAVING SATURATED SANDY SOILS MAY BE ENCOUNTERED DURING THE EXCAVATION, FOR INSTALLATION OF THE DRIVEN PILES, WHICH MAY REQUIRE THE USE OF TEMPORARY FULL LENGTH CASING PER FDOT STANDARD SPECIFICATIONS.

2) THE CONTRACTOR IS ADVISED THAT DENSE TO VERY DENSE SOIL AND/OR STRONG NATURAL LIMESTONE LAYER MAY BE ENCOUNTERED DURING THE EXCAVATION AND/OR PILE DRIVING WHICH MAY REQUIRE SPECIAL EQUIPMENT TO EXCAVATE OR PENETRATE.

3) THE CONTRACTOR IS ADVISED THAT PERIODIC TOTAL LOSS OF CIRCULATION WAS EXPERIENCED DURING THE PERFORMANCE OF THE BORINGS WHICH MAY POSE FOUNDATION CONSTRUCTION DIFFICULTIES TO THE CONTRACTOR.

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
GEOSOL, INC.
ORACIO RICCOBONO, P.E. - PE LICENSE NO. 49324
5795-A NW 151ST STREET, MIAMI LAKES, FL 33014
PHONE: (305) 828-4367
CERTIFICATE OF AUTHORIZATION 8530

	NAME	DATE		NAME	DATE
DESIGNED BY	A.L.	04-21-17	DRAWN BY	J.G.	04-21-17
CHECKED BY	Z.G.	04-21-17	CHECKED BY	O.R.	04-21-17

SUPERVISED BY: ORACIO RICCOBONO, PE

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

REPORT OF CORE BORINGS (1 OF 2)

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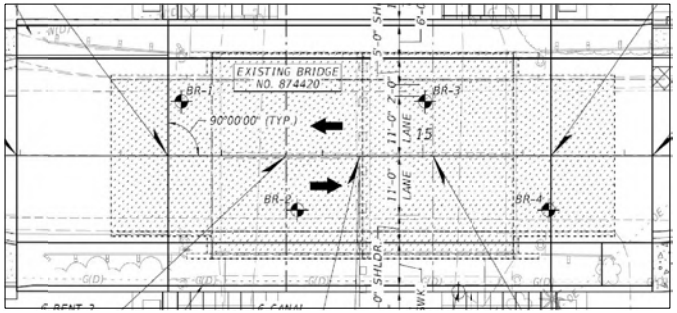
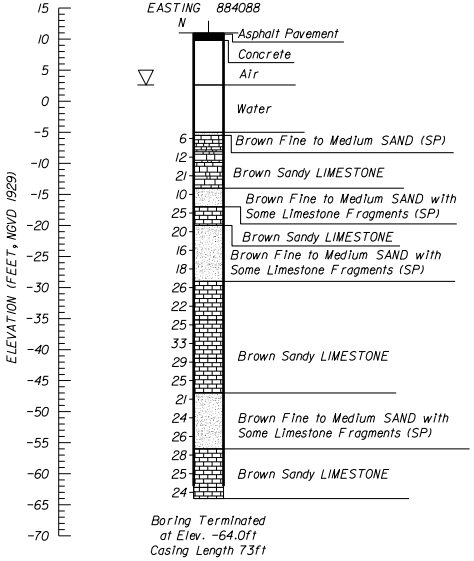
3/27/2023

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 24 OF 43



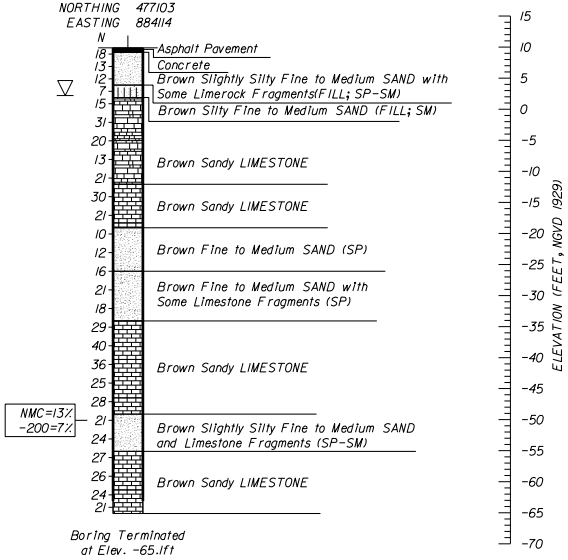
BORING LOCATION PLAN

BOR # BR-3
STA. 15+00 Howard Dr. C/L Const.
OFF. 10'LT
ELEV. +11.0'
DATE 1/6/2017
DRILLER R. Morales - GEOSOL, Inc.
HAMMER Auto
RIG B-53
NORTHING 477122
EASTING 884088



Boring Terminated at Elev. -64.0ft
Casing Length 73ft

BOR # BR-4
STA. 15+25 Howard Dr. C/L Const.
OFF. 10'RT
ELEV. +9.9'
DATE 1/4/2017
DRILLER R. Morales - GEOSOL, Inc.
HAMMER Auto
RIG B-53
NORTHING 477103
EASTING 884114



Boring Terminated at Elev. -65.1ft
Casing Length 73ft

0 4 20
Feet
VERTICAL SCALE
HORIZONTAL SCALE: N.T.S.

LEGEND

- ASPHALT PAVEMENT/CONCRETE
- SAND (FILL; SP-SM)
- SAND (FILL; SM)
- UPPER LIMESTONE FORMATION
- SAND (SP, SP-SM)
- LOWER LIMESTONE FORMATION
- WATER TABLE AT TIME OF DRILLING
- APPROXIMATE SPT BORING LOCATION
- CASING USED
- N — NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION (UNLESS OTHERWISE NOTED).
- NMC — NATURAL MOISTURE CONTENT (%)
- -200 — FINES PASSING THE #200 SIEVE (%)
- → PERIODIC TOTAL LOSS OF DRILLING FLUID CIRCULATION

NOTES:

1) SPT BORINGS PERFORMED PER ASTM D-1586 WITH A HAMMER WEIGHT OF 140 LBS FALLING 30 INCHES.

ENVIRONMENTAL CLASSIFICATION:
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SUBSTRUCTURE: MODERATELY AGGRESSIVE

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CHLORIDE:	162 PPM
SULFATE:	35 PPM
RESISTIVITY:	1,063 OHM-CM

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LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTANCY	**AUTOMATIC SPT HAMMER (BLOWS PER FOOT)**
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

NOTE FOR EXCAVATION AND PILE DRIVING:

1) THE CONTRACTOR IS ADVISED THAT CAVING SATURATED SANDY SOILS MAY BE ENCOUNTERED DURING THE EXCAVATION, FOR INSTALLATION OF THE DRIVEN PILES, WHICH MAY REQUIRE THE USE OF TEMPORARY FULL LENGTH CASING PER FDOT STANDARD SPECIFICATIONS.

2) THE CONTRACTOR IS ADVISED THAT DENSE TO VERY DENSE SOIL AND/OR STRONG NATURAL LIMESTONE LAYER MAY BE ENCOUNTERED DURING THE EXCAVATION AND/OR PILE DRIVING WHICH MAY REQUIRE SPECIAL EQUIPMENT TO EXCAVATE OR PENETRATE.

3) THE CONTRACTOR IS ADVISED THAT PERIODIC TOTAL LOSS OF CIRCULATION WAS EXPERIENCED DURING THE PERFORMANCE OF THE BORINGS WHICH MAY POSE FOUNDATION CONSTRUCTION DIFFICULTIES TO THE CONTRACTOR.

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
GEOSOL, INC.
ORACIO RICCOBONO, P.E. - PE LICENSE NO. 49324
5795-A NW 151ST STREET. MIAMI LAKES, FL 33014
PHONE: (305) 828-4367
CERTIFICATE OF AUTHORIZATION 8530

	NAME	DATE		NAME	DATE
DESIGNED BY	A.L.	04-21-17	DRAWN BY	J.G.	04-21-17
CHECKED BY	Z.G.	04-21-17	CHECKED BY	O.R.	04-21-17

SUPERVISED BY: ORACIO RICCOBONO, PE

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

REPORT OF CORE BORINGS (2 OF 2)

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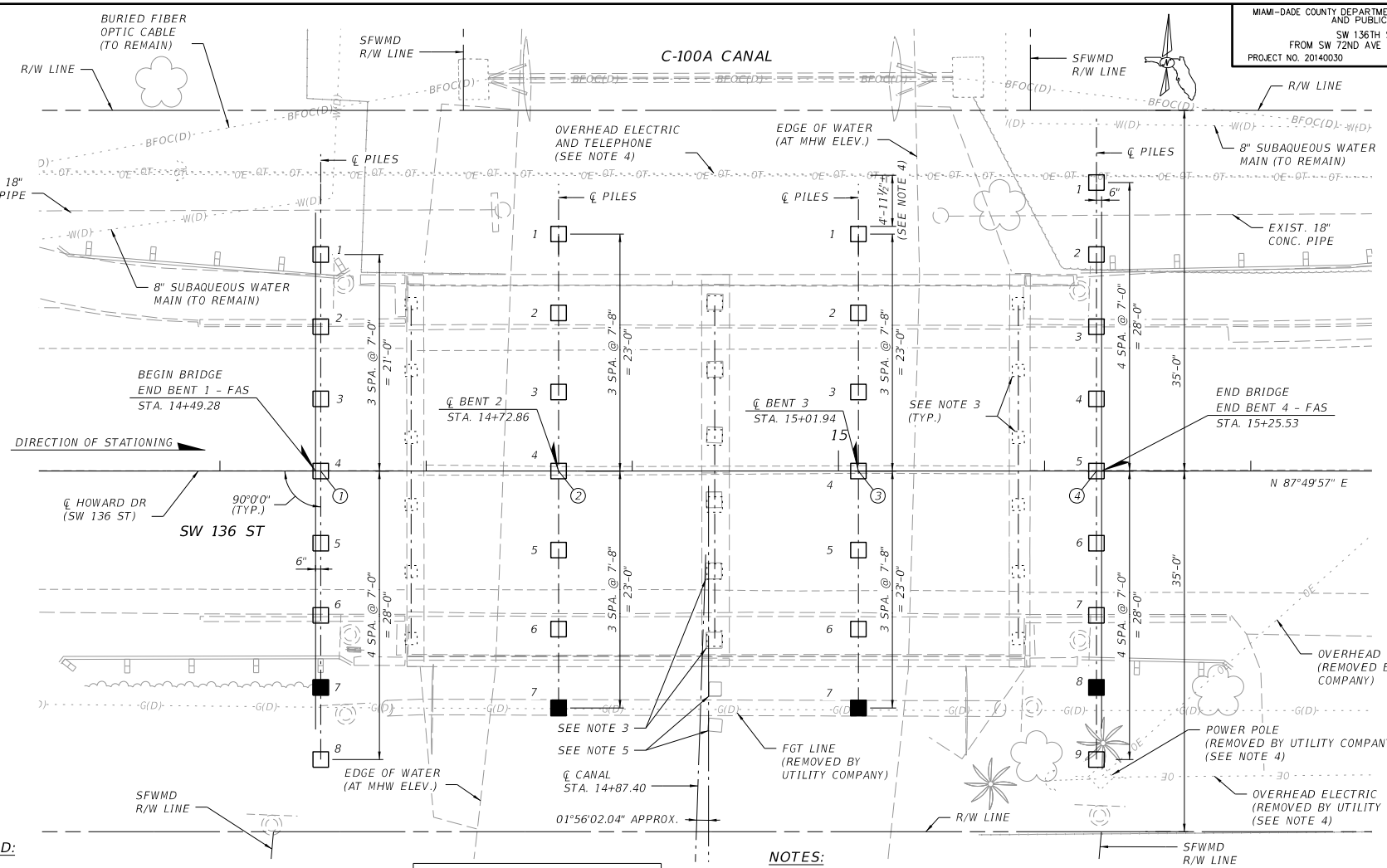
3/27/2023

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 25 OF 43



PLAN

LEGEND:

- PROPOSED 18" SQ. PRESTRESSED CONCRETE PILE
- PROPOSED 18" TEST PILE
- EXISTING 14" PILE
- # PILE NUMBER

FAS = FACE OF APPROACH SLAB
R/W = RIGHT-OF-WAY
MHW = MEAN HIGH WATER

TABLE A

WORK POINTS	COORDINATES X	COORDINATES Y
①	884,037.913	477,107.293
②	884,060.980	477,108.166
③	884,090.043	477,109.266
④	884,113.109	477,110.139

NOTES:

1. FOR PILE DATA TABLE AND CUT-OFF ELEVATIONS, SEE SHEET 26.
2. FOR FOUNDATION NOTES, SEE SHEET 18.
3. EXISTING PILES IN CONFLICT WITH PROPOSED PILES SHALL BE REMOVED. OTHER EXISTING PILES SHALL BE CUT A MINIMUM OF 2 FEET BELOW THE EXISTING CANAL SECTION OR USACE CANAL DESIGN SECTION, WHICHEVER PRODUCES THE LOWER ELEVATION.
4. ELECTRIC LINES HAVE BEEN RELOCATED. CONTRACTOR TO COORDINATE WITH FPL TO DE-ENERGIZE ELECTRIC LINES AS REQUIRED.
5. PILES OF THE PILE-SUPPORTED GAS MAIN SHALL BE CUT A MINIMUM OF 2 FEET BELOW THE EXISTING CANAL SECTION OR USACE CANAL DESIGN SECTION WHICH PRODUCES THE LOWER ELEVATION.

BRIDGE NO. 874495

REVISIONS

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ENGINEER OF RECORD: Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

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SUPERVISED BY: RAY T. STAUFFER, P.E.

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

FOUNDATION LAYOUT

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3/27/2023

PILE DATA TABLE

Table Date 01/01/16

INSTALLATION CRITERIA								DESIGN CRITERIA								PILE CUT-OFF ELEVATIONS								
PIER or BENT NUMBER	PILE SIZE (in.)	NOMINAL BEARING RESISTANCE (tons)	NOMINAL UPLIFT RESISTANCE (tons)	MINIMUM TIP ELEVATION (ft.)	TEST PILE LENGTH (ft.)	REQUIRED JET ELEVATION (ft.)	REQUIRED PREFORM ELEVATION (ft.)	FACTORED DESIGN LOAD (tons)	FACTORED DESIGN UPLIFT LOAD (tons)	DOWN DRAG (tons)	TOTAL SCOUR RESISTANCE (tons)	NET SCOUR RESISTANCE (tons)	100-YEAR SCOUR ELEVATION (ft.)	Ø COMPRESSION	Ø UPLIFT	PILE 1	PILE 2	PILE 3	PILE 4	PILE 5	PILE 6	PILE 7	PILE 8	PILE 9
EB 1	18	113	N/A	-15.00	59	N/A	-5.00	73.4	0	0	N/A	N/A	N/A	0.65	N/A	6.513	6.653	6.793	6.933	6.793	6.653	6.513	6.373	
BT 2	18	139	N/A	-36.00	68	N/A	-19.00	88.0	0	0	2	2	-10	0.65	N/A	6.043	6.196	6.350	6.503	6.350	6.196	6.043		
BT 3	18	139	N/A	-36.00	68	N/A	-19.00	88.0	0	0	2	2	-10	0.65	N/A	5.968	6.121	6.275	6.428	6.275	6.121	5.968		
EB 4	18	113	N/A	-15.00	58	N/A	-5.00	73.4	0	0	N/A	N/A	N/A	0.65	N/A	6.176	6.316	6.456	6.596	6.736	6.596	6.456	6.316	6.176

$$\frac{\text{Factored Design Load} + \text{Net Scour Resistance} + \text{Down Drag}}{\emptyset} \leq \text{Nominal Bearing Resistance}$$

UPLIFT RESISTANCE – The ultimate side friction capacity that must be obtained below the 100 year scour elevation to resist pullout of the pile (Specify only when design requires uplift capacity).

TOTAL SCOUR RESISTANCE – An estimate of the ultimate static side friction resistance provided by the scourable soil.

NET SCOUR RESISTANCE – An estimate of the ultimate static side friction resistance provided by the soil from the required preformed or jetting elevation to the scour elevation.

100-YEAR SCOUR ELEVATION – Estimated elevation of scour due to the 100 year storm event.

PILE INSTALLATION NOTES [Notes Date 7-01-13]:

Contractor to verify location of all utilities prior to any pile installation activities.

Minimum Tip Elevation is required for lateral stability.

When a required jetting elevation is shown, the jet shall be lowered to the elevation and continue to operate at this elevation until the pile driving is completed. If jetting or preforming elevations differ from those shown on the table, the Engineer shall be responsible for determination of the required driving resistance.

No jetting will be allowed without the approval of the Engineer.

The Contractor should not anticipate being allowed to jet piles below the 100-year scour elevation or required jet elevation, whichever is deeper.

At each Bent, pile driving is to commence at the center of the Bent and proceed outward.

NOTES:

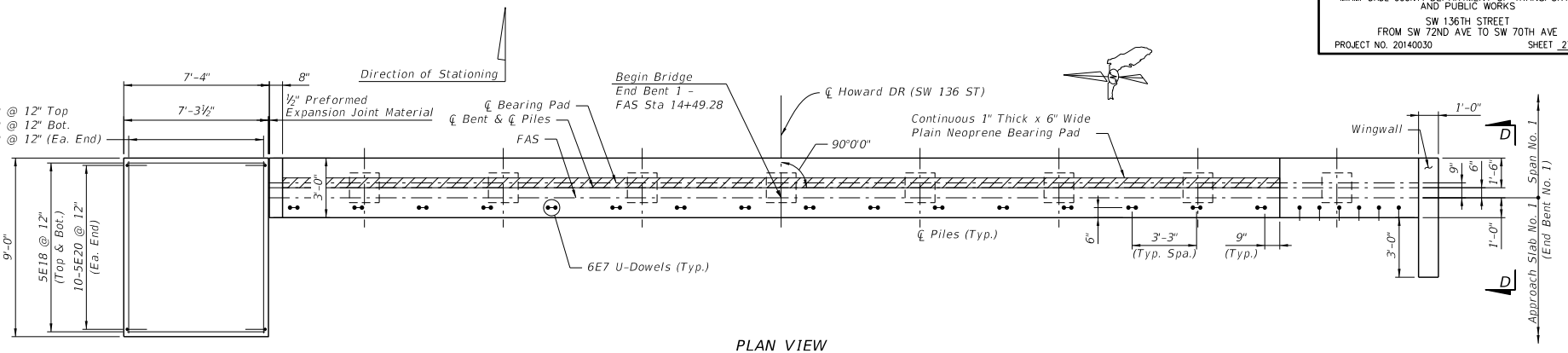
1. 3 Ft. of scour was accounted for in the design of piles.

2. Elevations are based on NAVD88 (NAVD88 = NGVD29-1.54 FT.)

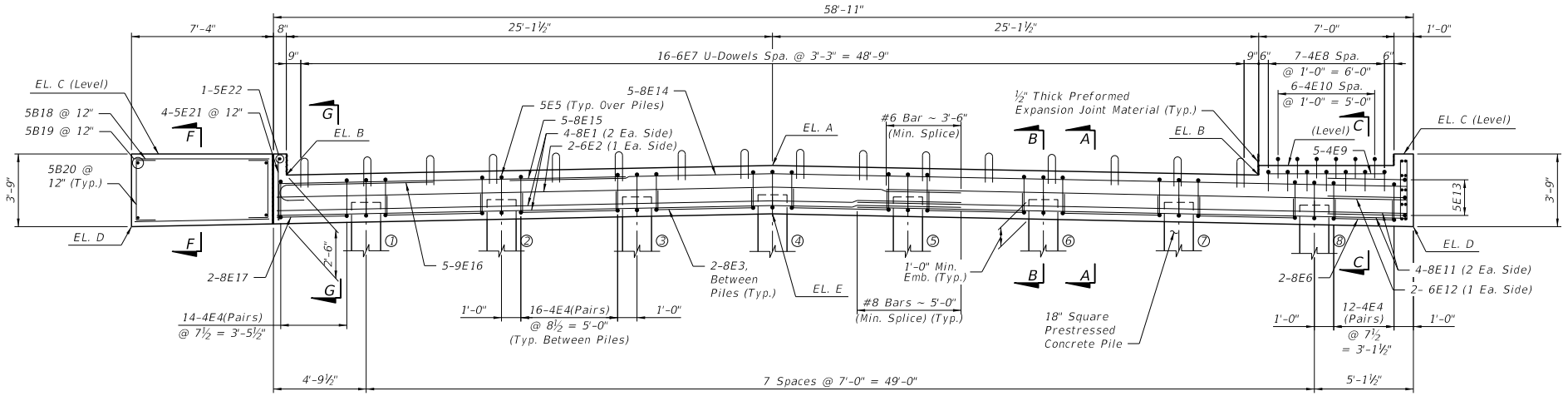
3. The Contractor shall submit a Settlement/Vibration Monitoring Plan, (SVMP), prior to commencing work. SVMP shall describe the equipment to be used for pile driving and list all structures to be monitored, including number and location of monitoring points. As a minimum, the structures located at the following addresses shall be monitored for settlement and vibrations prior to, during, and after construction in accordance with sections 108 and 455-1.1 of the FDOT Standard Specifications for Road and Bridge Construction:
   - 7101 SW 136th Street
   - 7170 SW 136th Street
   - 7150 SW 136th Street
   - 13590 SW 70th Avenue

BRIDGE NO. 874495

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 27 OF 43



PLAN VIEW



ELEVATION
(End Bent 1 - Looking Ahead Station)

Ⓝ = Pile Number at End Bent 1

NOTES:
1. For Sections A-A through D-D, F-F and G-G, See End Bent Detail Sheet No. 28 and 28A.
2. For Pile Cut-off Elevations, See Pile Data Table Sheet No. 26.

ELEVATION TABLE					
BENT NUMBER	A	B	C	D	E
End Bent 1	8.433	7.931	9.021	5.271	5.933

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

END BENT 1

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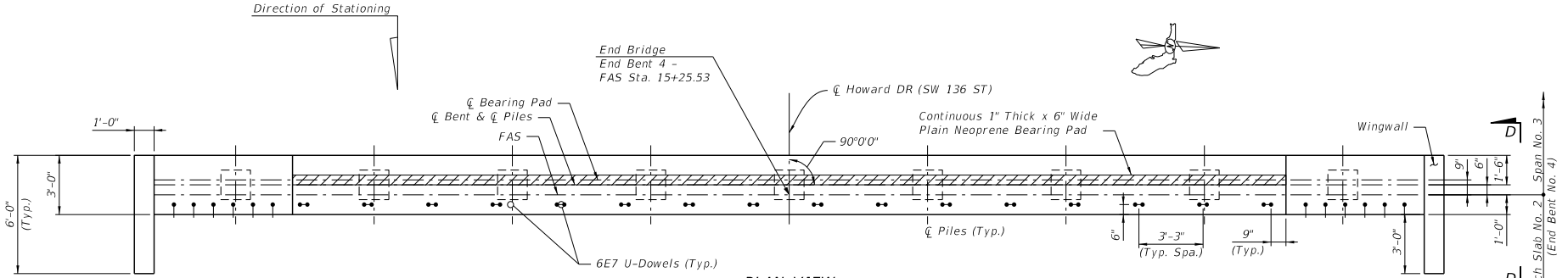
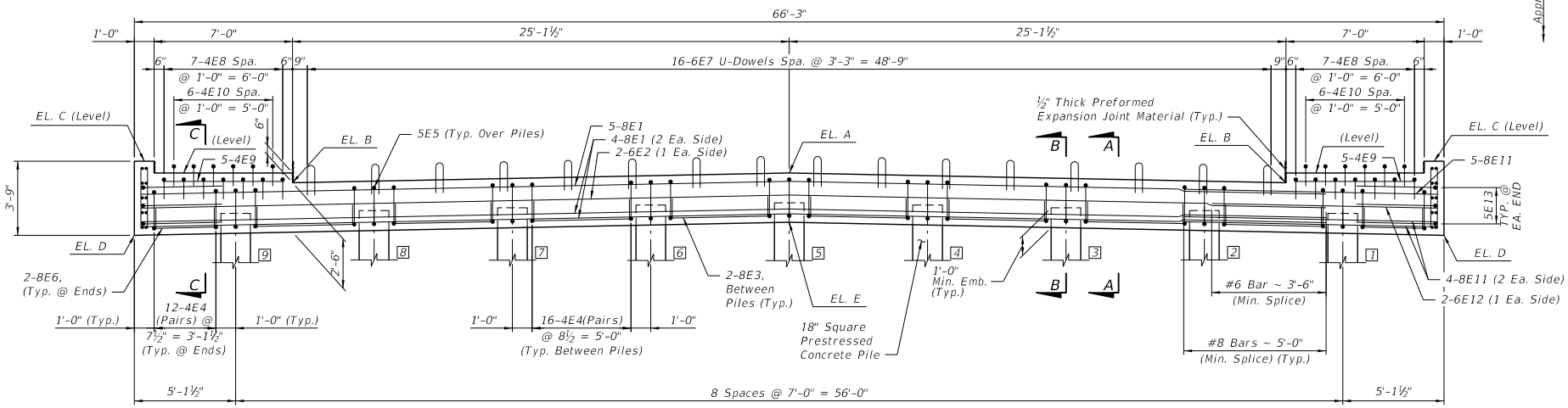
3/27/2023

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 27A OF 43



PLAN VIEW



ELEVATION
(End Bent 4 - Looking Back Station)

= Pile Number at End Bent 4

NOTES:
1. For Sections A-A through D-D, See End Bent Detial Sheet No. 28.
2. For Pile Cut-off Elevations, See Pile Data Table Sheet No. 26.
3. Lapping for bars 8E1/8E11 and 6E2/6E12 shall alternate to each end of the End Bent Cap.

ELEVATION TABLE					
BENT NUMBER	A	B	C	D	E
End Bent 4	8.236	7.734	8.824	5.074	5.736

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

END BENT 4

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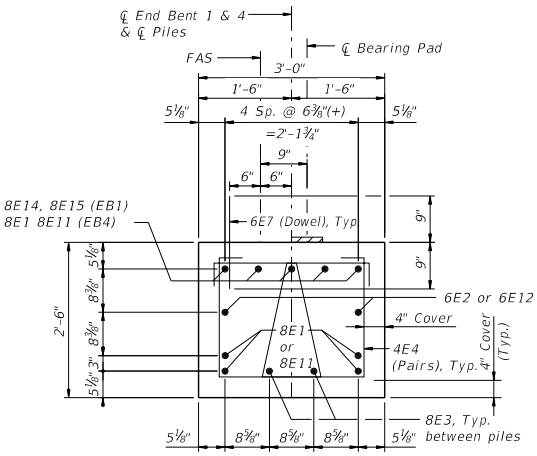
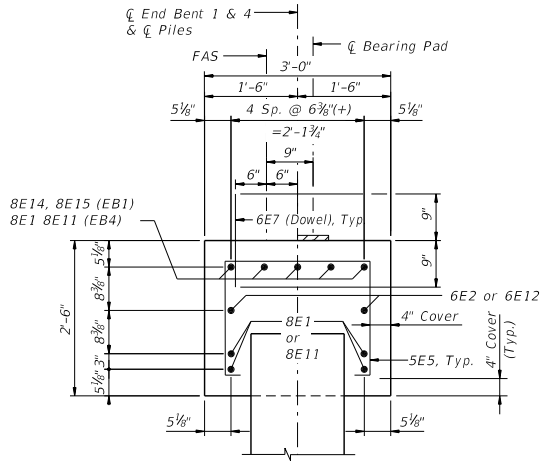
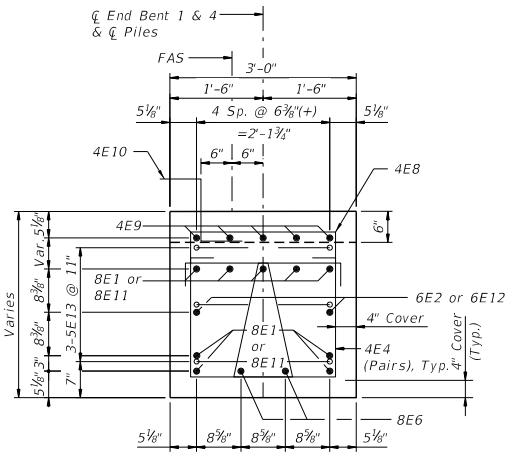
3/27/2023



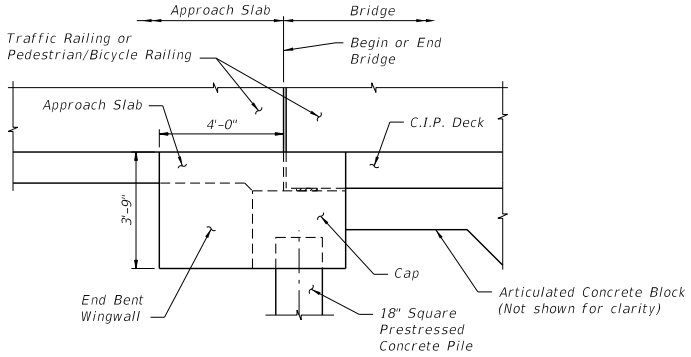
SECTION A-A



SECTION B-B

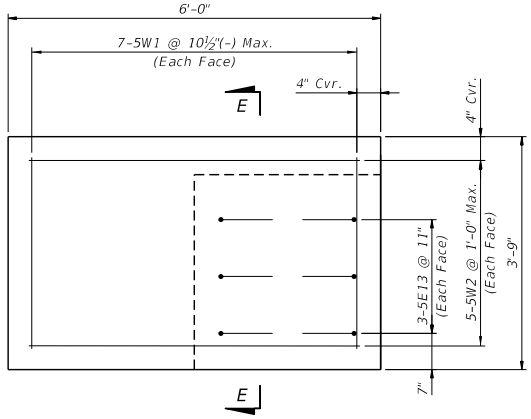


SECTION C-C



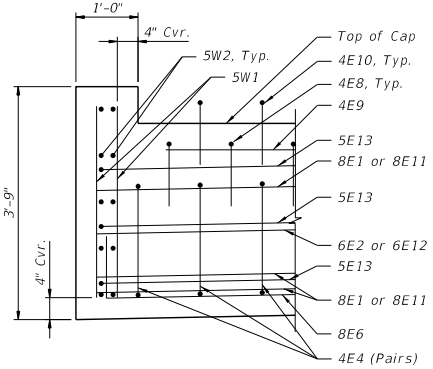
VIEW D-D AT BEGIN OR END BRIDGE

(U.N.O.) = Unless Noted Otherwise



END BENT WINGWALL DETAIL

(Wingwall Elevation)



SECTION E-E

NOTES:

1) For location of Sections "A-A" & "C-C" and View B-B, see End Bents Sheet No. 27 and 27A.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
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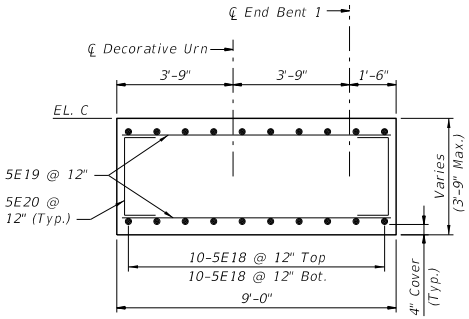
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

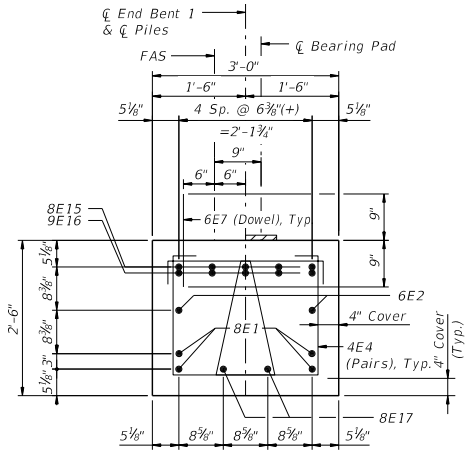
MIAMI-DADE COUNTY

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

END BENT DETAILS 1



SECTION F-F



SECTION G-G

NOTES:

1) For location of Sections "F-F" and "G-G", see End Bent Sheet No. 27.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

END BENT DETAILS 2

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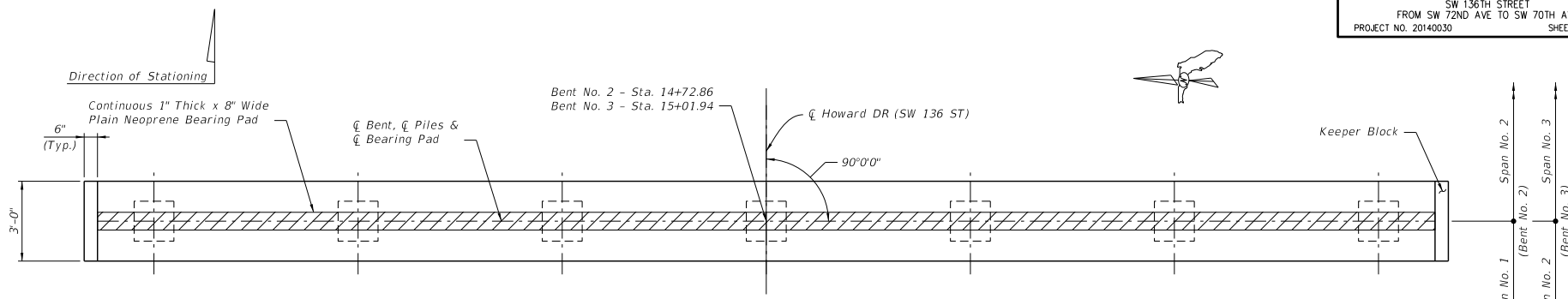
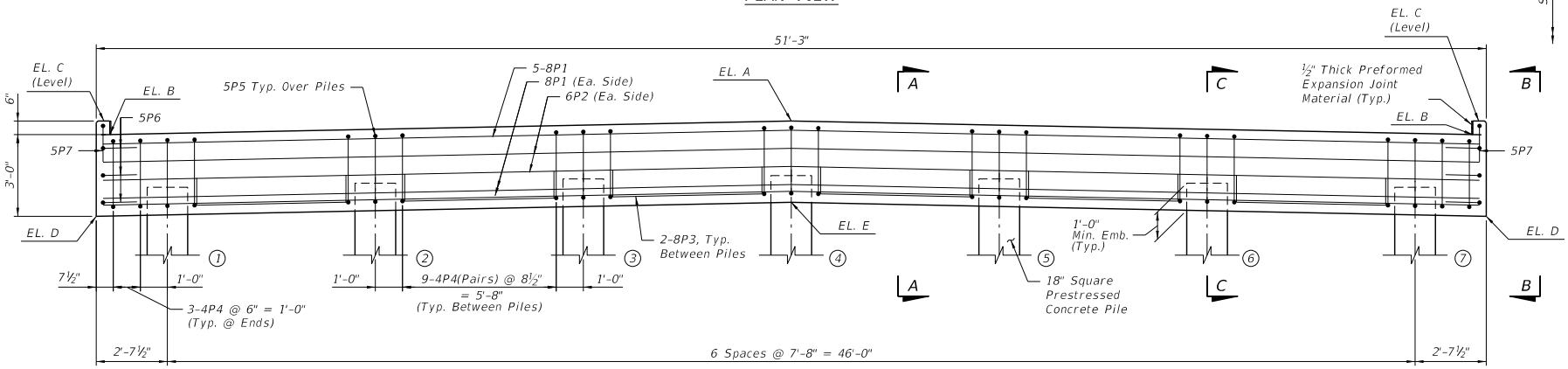
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 29 OF 43



PLAN VIEW



ELEVATION
(Looking Ahead Station)

(#) = Pile Number

ELEVATION TABLE					
BENT NUMBER	A	B	C	D	E
Bent 2	8.503	8.001	8.491	4.991	5.503
Bent 3	8.428	7.926	8.416	4.916	5.428

NOTES:
1. For Sections A-A through C-C, See Bent Detail Sheet No. 30.
2. For Pile Cut-off Elevations, See Pile Data Table Sheet No. 26.

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

BENT 2 & 3

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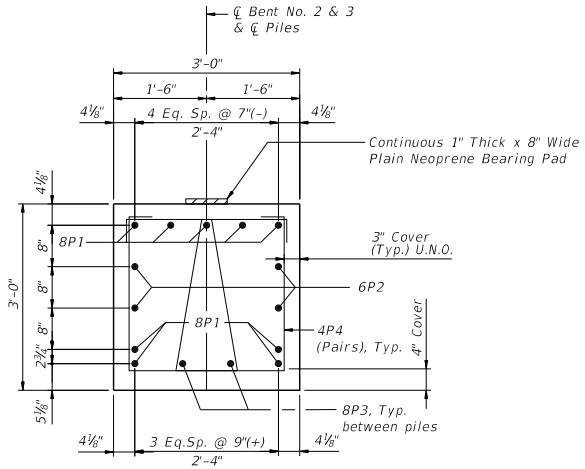
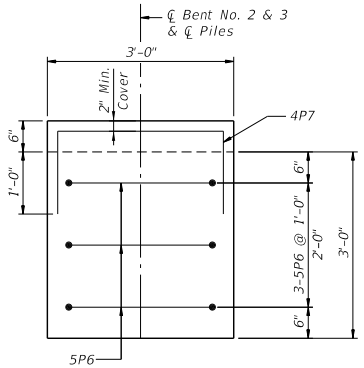
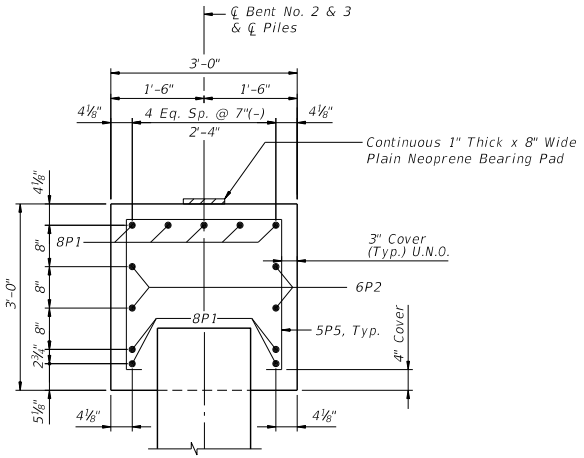


SECTION A-A



VIEW B-B

(Bent Cap reinforcing not shown for clarity.)



SECTION C-C

(U.N.O.) = Unless Noted Otherwise

NOTES:

1) For location of Sections "A-A" & "C-C" and View B-B, see Bent Sheet No. 29.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
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SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

BENT DETAILS

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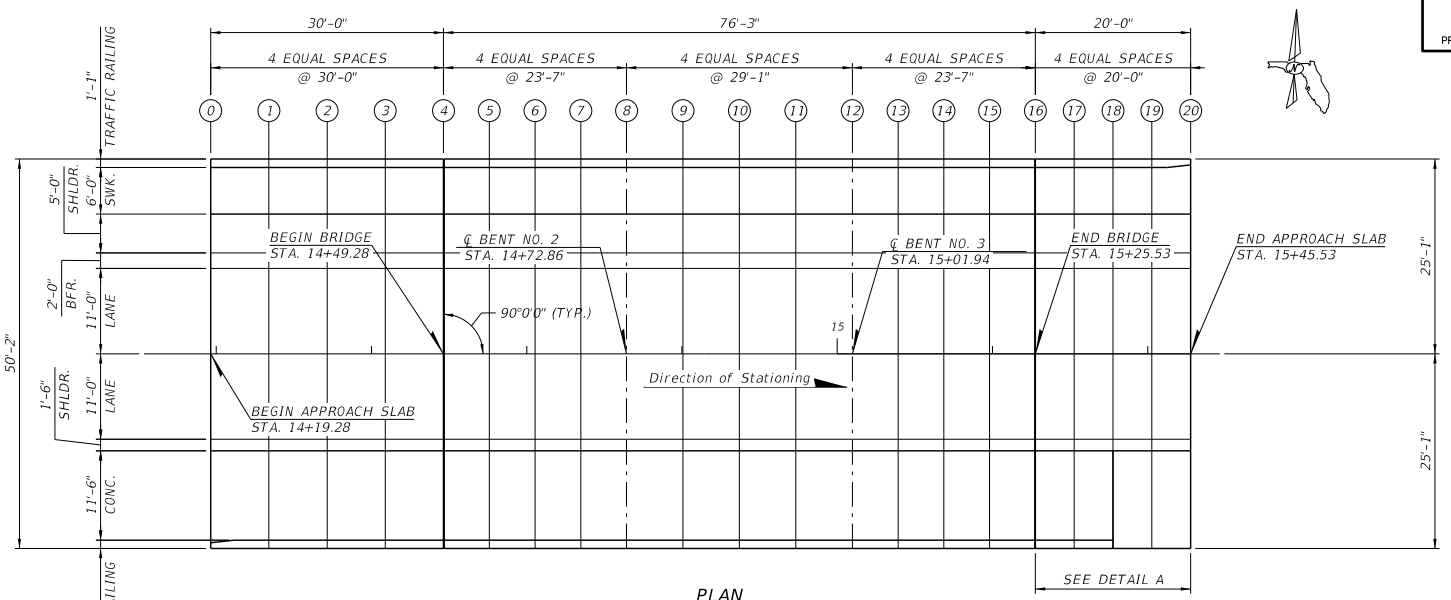
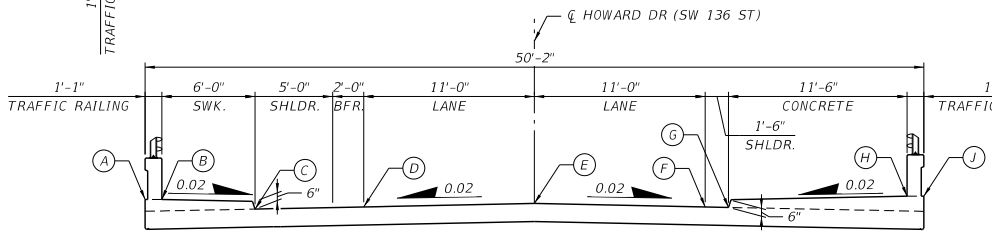
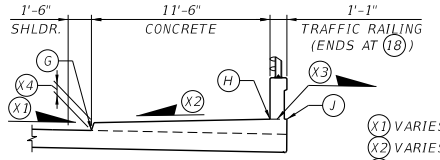
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 31 OF 43



PLAN



TYPICAL SECTION SHOWING FINISH GRADE ELEVATION POINTS



DETAIL A

X1 VARIES FROM 2% AT 16 TO 6% AT 20
X2 VARIES FROM 2% AT 16 TO -2% AT 20
X3 VARIES FROM 0% AT 18 TO 2% AT 20
X4 VARIES FROM 6" AT 18 TO 0" AT 20

APPROACH SLAB 1					
LOCATION	0	1	2	3	4
A	9.681	9.764	9.835	9.893	9.940
B	9.681	9.764	9.835	9.893	9.940
C	9.064	9.147	9.218	9.276	9.323
D	9.204	9.287	9.358	9.416	9.463
E	9.424	9.507	9.578	9.636	9.683
F	9.204	9.287	9.358	9.416	9.463
G	9.174	9.257	9.328	9.386	9.433
H	9.904	9.987	10.058	10.116	10.163
J	9.904	9.987	10.058	10.116	10.163

BRIDGE													
LOCATION	4	5	6	7	8	9	10	11	12	13	14	15	16
A	9.940	9.969	9.990	10.004	10.010	10.008	9.995	9.971	9.935	9.898	9.854	9.802	9.743
B	9.940	9.969	9.990	10.004	10.010	10.008	9.995	9.971	9.935	9.898	9.854	9.802	9.743
C	9.323	9.352	9.373	9.387	9.393	9.391	9.378	9.354	9.318	9.281	9.237	9.185	9.126
D	9.463	9.492	9.513	9.527	9.533	9.531	9.518	9.494	9.458	9.421	9.377	9.325	9.266
E	9.683	9.712	9.733	9.747	9.753	9.751	9.738	9.714	9.678	9.641	9.597	9.545	9.486
F	9.463	9.492	9.513	9.527	9.533	9.531	9.518	9.494	9.458	9.421	9.377	9.325	9.266
G	9.433	9.462	9.483	9.497	9.503	9.501	9.488	9.464	9.428	9.391	9.347	9.295	9.236
H	10.163	10.192	10.213	10.227	10.233	10.231	10.218	10.194	10.158	10.121	10.077	10.025	9.966
J	10.163	10.192	10.213	10.227	10.233	10.231	10.218	10.194	10.158	10.121	10.077	10.025	9.966

APPROACH SLAB 2					
LOCATION	16	17	18	19	20
A	9.743	9.687	9.626	9.560	9.488
B	9.743	9.687	9.626	9.560	9.488
C	9.126	9.070	9.009	8.943	8.871
D	9.266	9.210	9.149	9.083	9.011
E	9.486	9.430	9.369	9.303	9.231
F	9.266	9.210	9.149	9.083	9.011
G	9.166	9.165	9.089	9.008	8.921
H	9.896	9.778	9.589	9.140	8.691
J	9.896	9.778	9.589	9.129	8.669

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

FINISH GRADE ELEVATIONS

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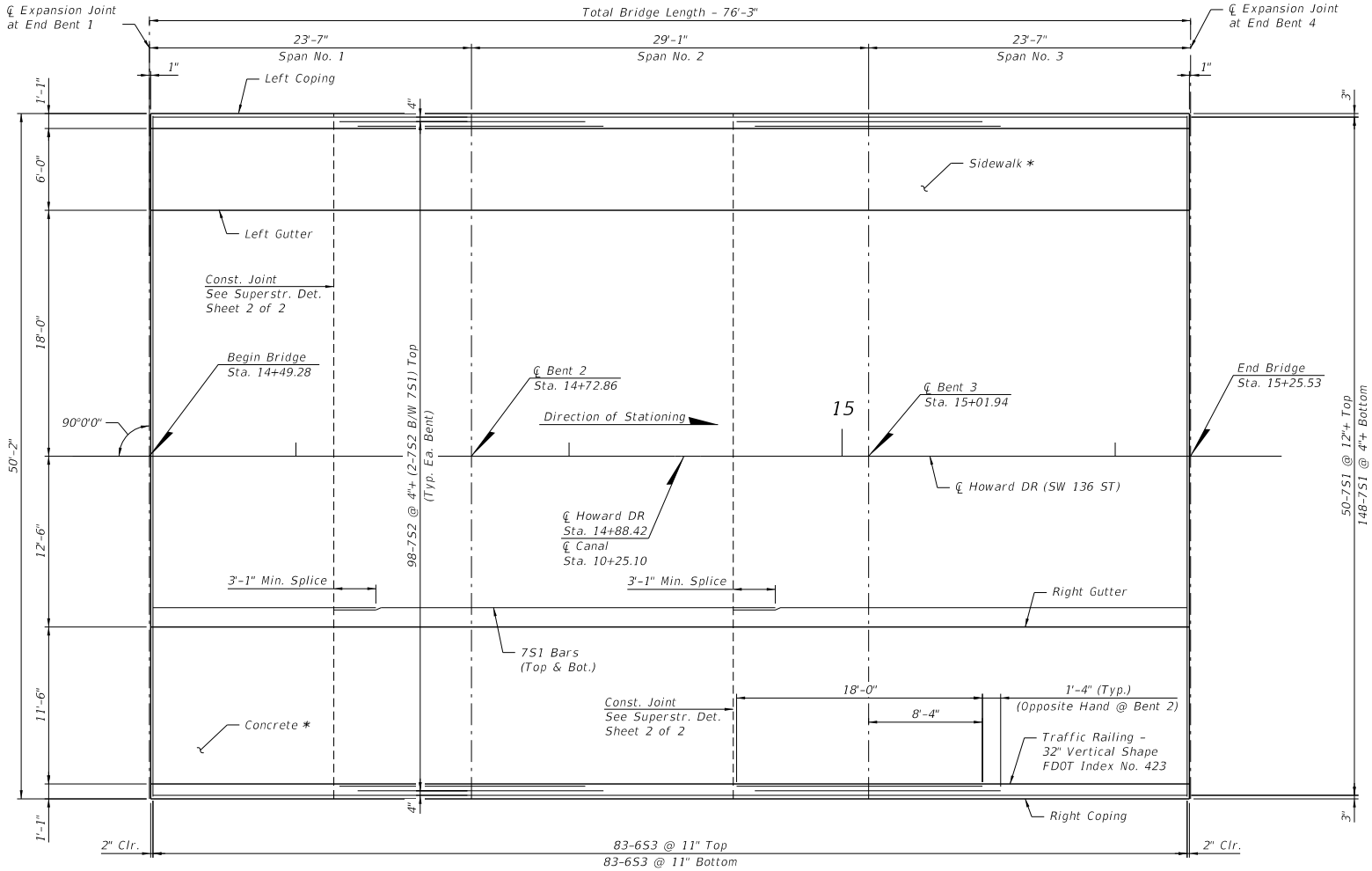

PLAN

* For Bars in Sidewalk/Concrete, See Superstructure Detail, sheet 2 of 2.

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 32 OF 43

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

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SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

SUPERSTRUCTURE PLAN

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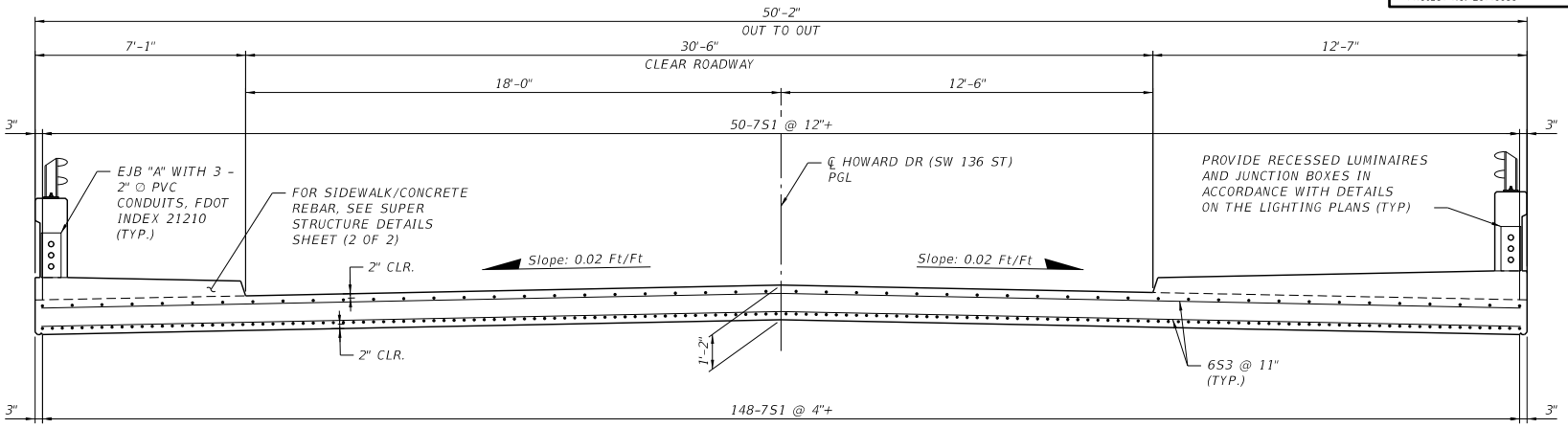
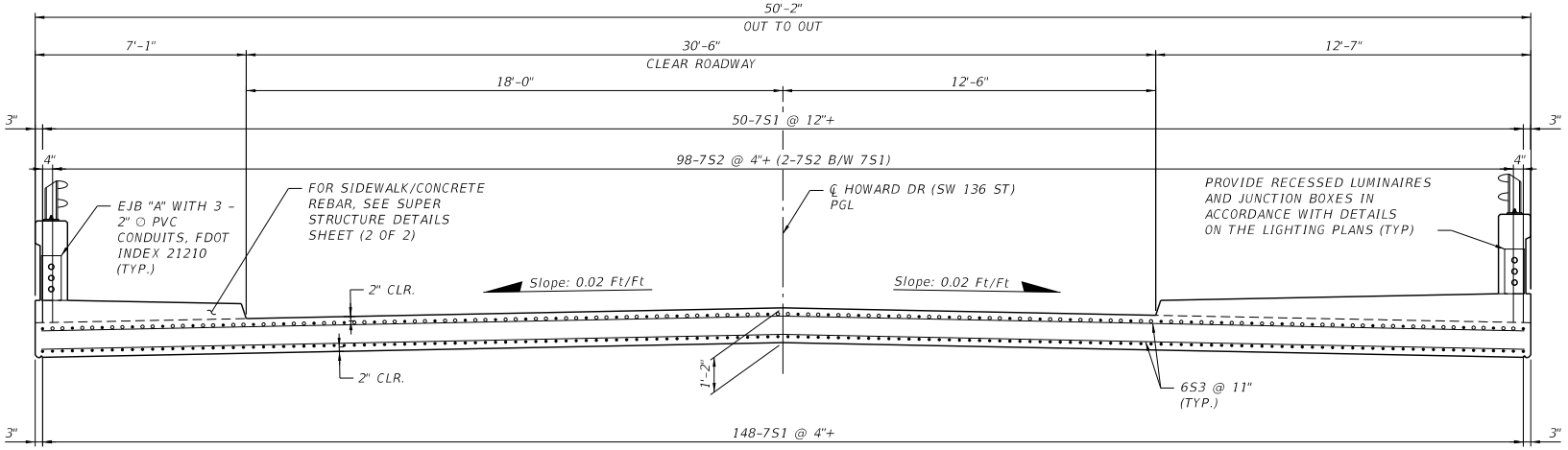
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 33 OF 43



DECK SECTION AT MID SPAN



DECK SECTION AT BENTS

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

SUPERSTRUCTURE DETAILS (1 OF 2)

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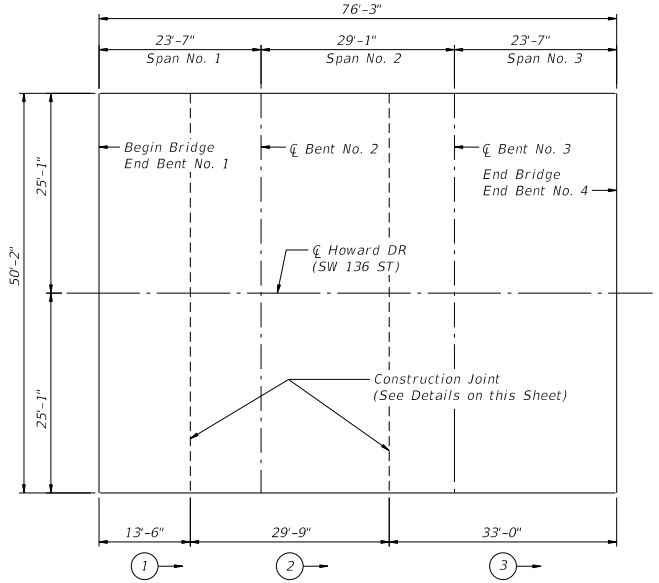
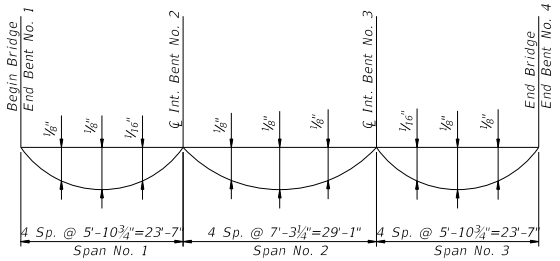
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 34 OF 43



CASTING SEQUENCE

NOTES:

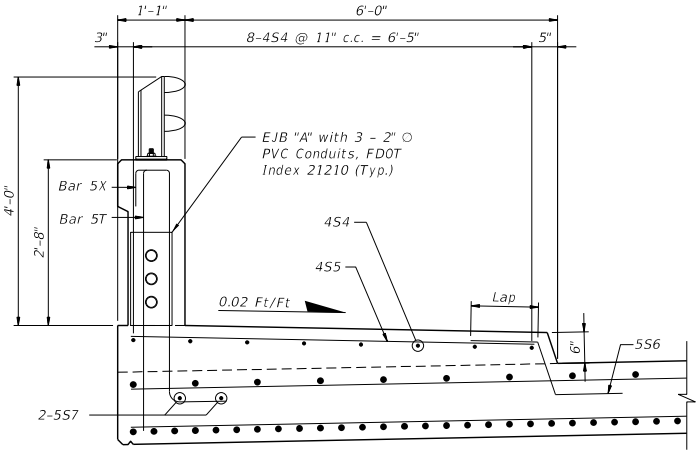
The Slab Casting Sequence may not be changed unless the Contractor's Specialty Engineer performs a new structural analysis and new deflection diagrams and revised slab reinforcing steel layouts and bar list. are developed.



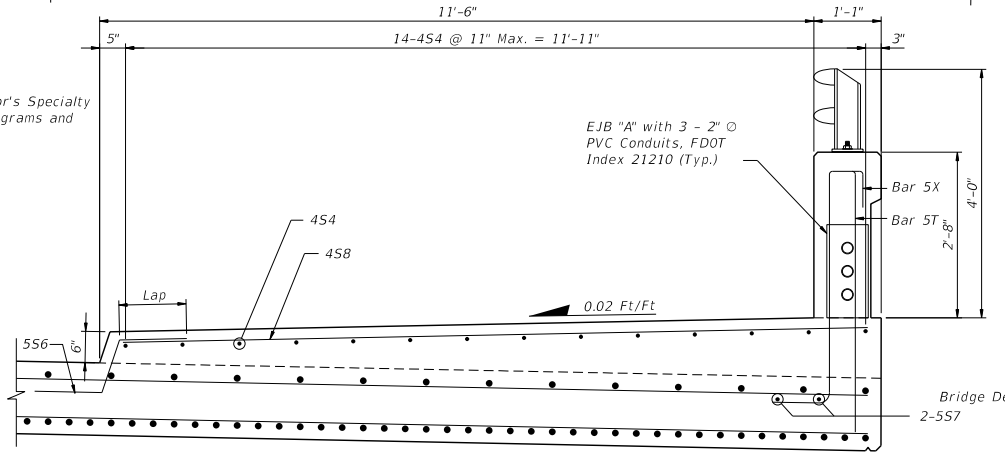
DEAD LOAD DEFLECTION DIAGRAM
3-SPAN CONTINUOUS SUPERSTRUCTURE

NOTES:

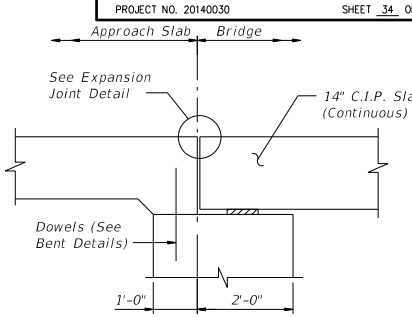
1. The Contractor is responsible for determining the deflection of the formwork due to the weight of the wet slab concrete, screed, and other construction loads in conjunction with the casting sequence shown.
2. The Contractor shall camber the forms to compensate for the combined effect of the deflection of forms and the dead load deflection of the slab.



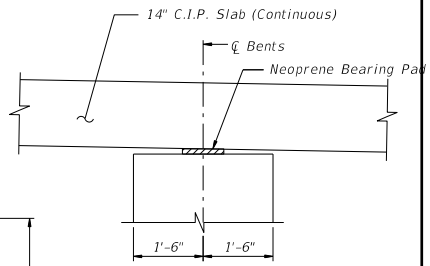
DETAIL "A"
(Left Sidewalk)



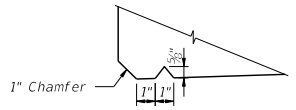
DETAIL "B"
(Right Concrete)



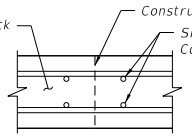
DETAIL AT END BENTS
(Slab reinforcing not shown for clarity)



DETAIL AT BENTS
(Slab reinforcing not shown for clarity)



DRIP GROOVE DETAIL



CONSTRUCTION JOINT DETAIL

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

SUPERSTRUCTURE DETAILS (2 OF 2)

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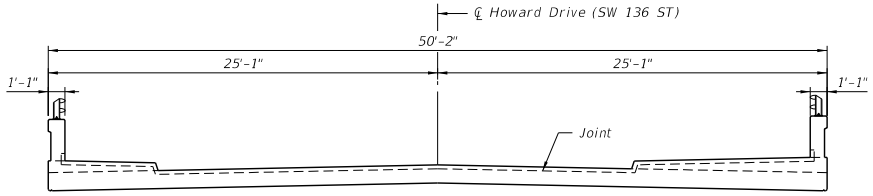
3/27/2023



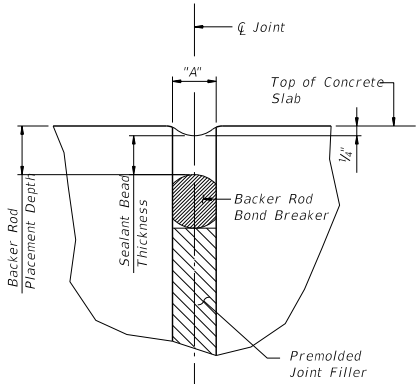
SECTION ALONG ℄ JOINT

NOTE:

1. Use Poured Joint with Backer Rod per FDOT Std. Index 21110

POURED EXPANSION JOINT DATA TABLE INDEX NO. 21110			Table Date 1-01-09
LOCATION	DIM. "A" @ 70°F	TOTAL DESIGN MOVEMENT	DIM. "A" ADJUSTMENT PER 10°F
End Bent 1	2"	1/4"	1/32"
End Bent 4	2"	1/8"	1/64"

NOTE:
Dim. "A" adjustment per 10°F shown is measured perpendicular to ℄ Expansion Joint. Work this table with Design Standards Index No. 21110.



EXPANSION JOINT DETAIL

BRIDGE NO. 874495

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

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MIAMI-DADE COUNTY

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

EXPANSION JOINT DETAILS

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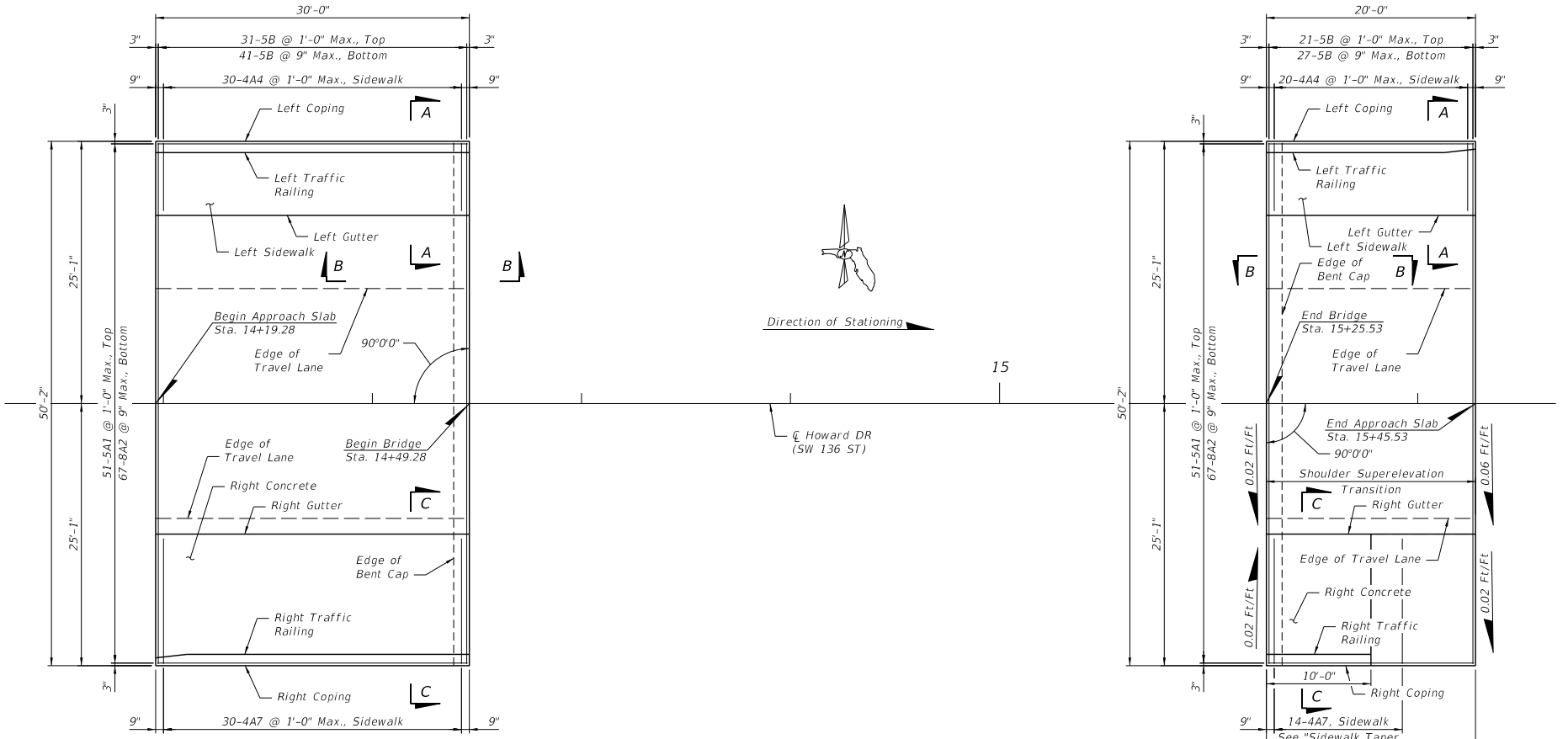
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE

PROJECT NO. 20140030 SHEET 36 OF 43



APPROACH SLAB NO. 1

APPROACH SLAB NO. 2

NOTES:

1. For Approach Slab No. 1, see FDOT Std. 20900.
2. For Approach Slab No. 2, see FDOT Developmental Std. D20920.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

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SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

APPROACH SLAB PLAN

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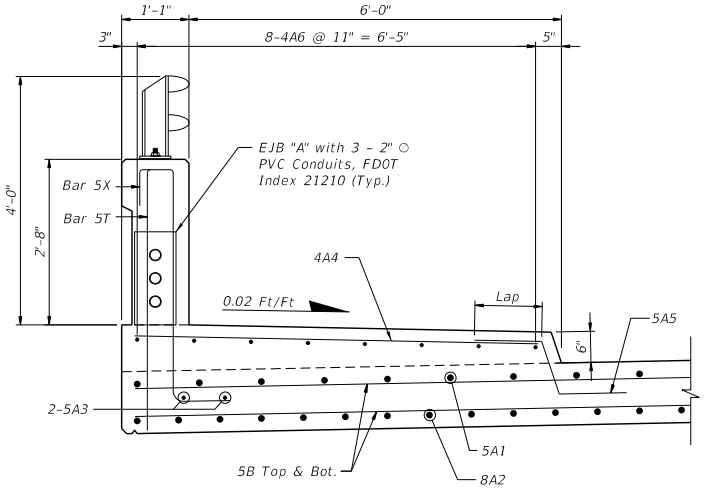
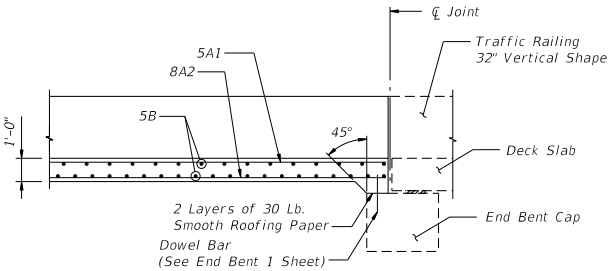
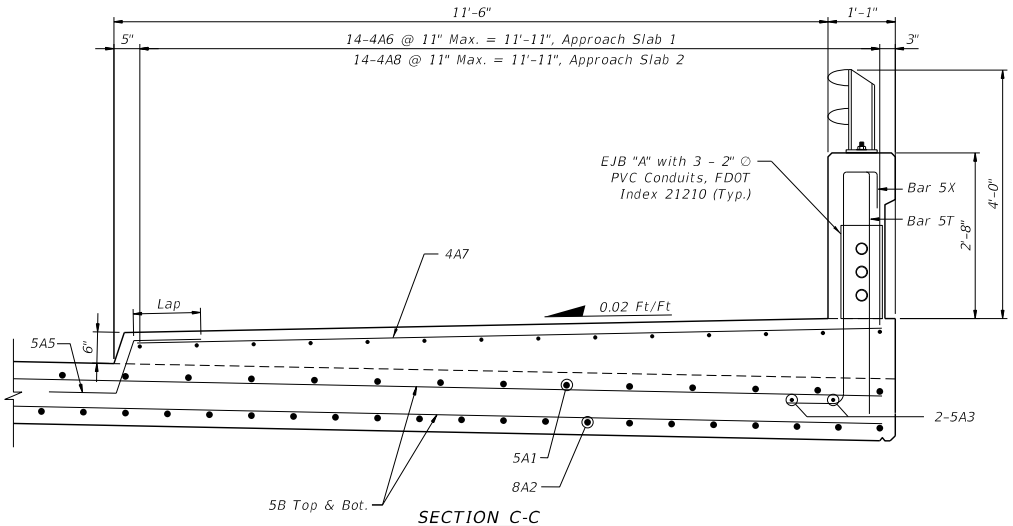
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 37 OF 43



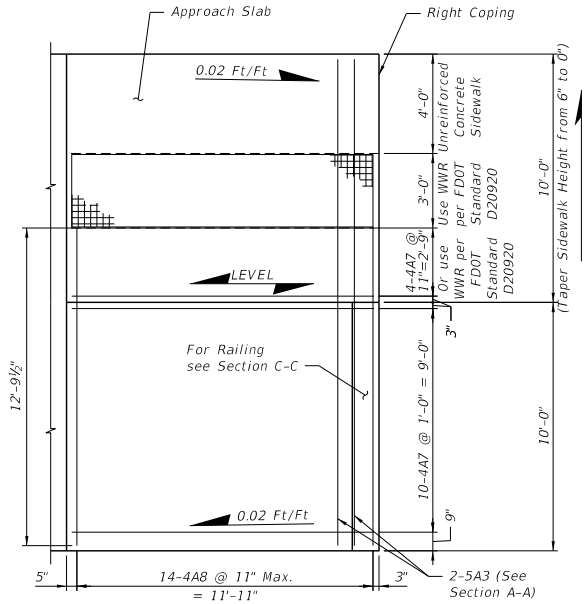
SECTION A-A



SECTION B-B



SECTION C-C



CONCRETE TAPER DETAILS

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD: Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

APPROACH SLAB DETAILS

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MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 38 OF 43

MARK		LENGTH	NO	TYP	STY		B			C			D			E			F			H			J			K			N	Ø
SIZE	DES	FT IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG
LOCATION SUBSTRUCTURE END BENT NO 4																		NO. REQUIRED = 1														
8	E1	60- 0	9	12			32-10			27- 2																						2
6	E2	60- 0	2	12			32-10			27- 2																						2
8	E3	6-10	16	11			4-10			1- 0			1- 0																			
4	E4	7- 4	152	9	4	4	1- 7	3	4	1-10			0- 4	3	4	1- 3																
5	E5	6- 6	9	5			1-10			2- 4			0- 3			0- 3																
8	E6	5- 10	4	11			3-10			1- 0			1- 0																			
6	E7	3- 3	16	23			1- 4			0- 2	4		1- 4																			
4	E8	4- 4	14	11			2- 4			1- 0			1- 0																			
4	E9	6- 0	10	1			6- 0																									
4	E10	1-11	12	32			0- 7			0- 8			0- 8																			
8	E11	10-10	9	1			10-10																									
6	E12	9- 5	2	1			9- 5																									
5	E13	4-10	12	10			4- 0			0-10																						
LOCATION SUBSTRUCTURE BENTS NO 2 & 3																			NO. REQUIRED = 2													
8	P1	50- 9	9	12			25- 4	1	2	25- 4	1	2																				2
6	P2	50- 9	4	12			25- 4	1	2	25- 4	1	2																				2
8	P3	7- 6	12	11			5- 6			1- 0			1- 0																			
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5	P6	4- 6	6	11			2- 6			1- 0			1- 0																			
5	P7	5- 6	2	11			2- 6			1- 6			1- 6																			
LOCATION SUPERSTRUCTURE DECK																			NO. REQUIRED = 1													
7	S1	81-11	198	41			16- 4			32- 4															3- 1			33- 3			2	
7	S2	18- 0	196	1			18- 0																									
6	S3	49-10	166	12			24-11			24-11																						2
4	S4	79-11	22	2			4- 2			75- 9																					1	
4	S5	6- 5	83	1			6- 5																									
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5	S7	79-11	4	2			4- 2			75- 9																					1	
4	S8	11-11	83	1			11-11																									
LOCATION APPROACH SLAB NO 1																			NO. REQUIRED = 1													
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4	A4	6- 5	30	1			6- 5																									
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4	A6	29- 8	22	1			29- 8																									
4	A7	11-11	30	1			11-11																									
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LOCATION APPROACH SLAB NO 2																			NO. REQUIRED = 1													
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LOCATION WINGWALL																			NO. REQUIRED = 3													
5	W1	3- 1	14	1			3- 1																									
5	W2	5- 4	10	1			5- 4																									
END OF LIST																																

NOTE:
1. Work this sheet with FDOT Standard Index No. 21300.
2. Field bend B bars to accomodate Superelevation transition on right shoulder and right sidewalk.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	G.P.D.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	M.A.V.	2-20-20	CHECKED BY	G.P.D.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

REINFORCING BAR LIST 1

3/27/2023 10:28:37 AM c:\pwworking\gfpw03\dms38228\Rebar1List01.DGN

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 38A OF 43

MARK		LENGTH		NO	TYP	STY			B			C			D			E			F			H			J			K			N	Ø
SIZE	DES	FT	IN	BARS	BAR	A	G		FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG
LOCATION SUBSTRUCTURE END BENT NO 1 NO. REQUIRED = 1																																		
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6	E2	34- 8		2	12				25- 6			9- 9																						2
8	E3	6-10		14	11				4-10			1- 0			1- 0																			
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8	E6	5- 10		2	11				3-10			1- 0			1- 0																			
6	E7	3- 3		16	23				1- 4			0- 2	1/4		1- 4																			
4	E8	4- 4		7	11				2- 4			1- 0			1- 0																			
4	E9	6- 0		5	1				6- 0																									
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6	E12	26-11		2	1				26-11																									
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9	E16	9- 2		5	17	1			7-11																									
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5	E22	2- 4		1	1				2- 4																									

END OF LIST

NOTE:
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2. Field bend B bars to accomodate Superelevation transition on right shoulder and right sidewalk.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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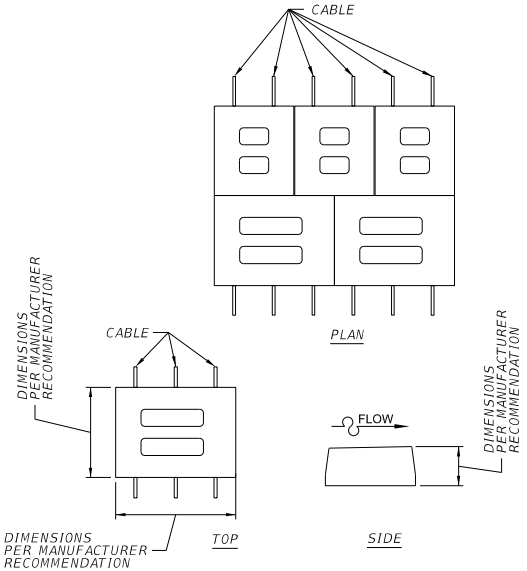
MIAMI-DADE COUNTY

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

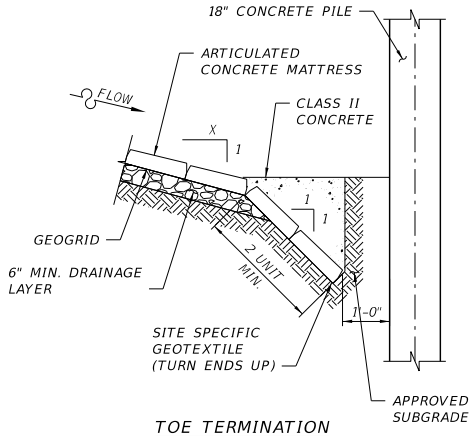
REINFORCING BAR LIST 2

3/27/2023 10:28:37 AM c:\pwworking\gfaw03\dms38228\Rebar1List01.DGN



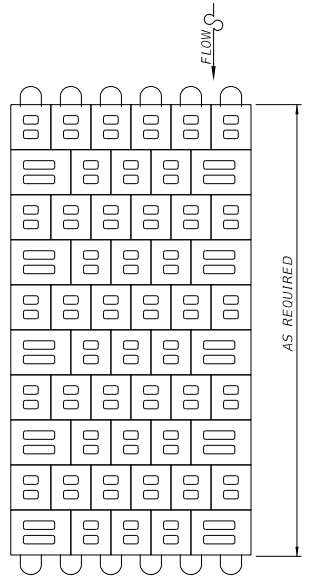
ARTICULATED CONCRETE BLOCK DETAILS

N.T.S.



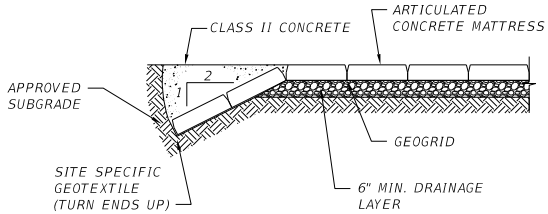
TOE TERMINATION

N.T.S.



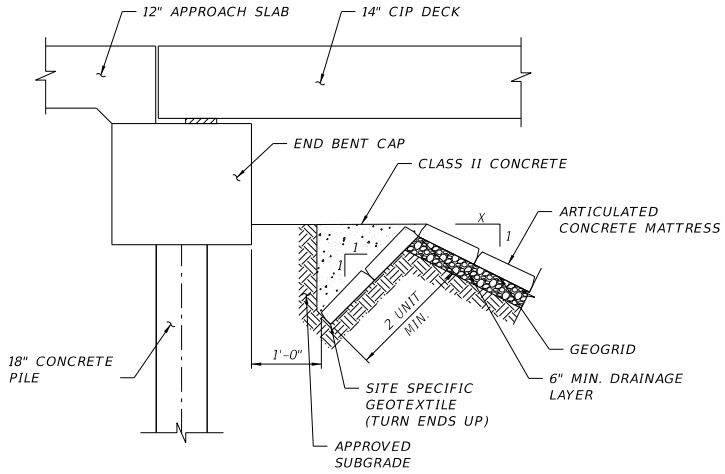
TYPICAL ARTICULATED BLOCK MAT

N.T.S.



FLANK TERMINATION

N.T.S.



TOP TERMINATION

N.T.S.

NOTES

1. THE CONTRACTOR SHALL INSTALL THE ARTICULATED CONCRETE BLOCK MATTRESS SYSTEM TO MEET DISTRICT'S STANDARDS AND REQUIREMENTS UNDER SECTION 02277, AND THAT IS SUITABLE FOR A FLOW VELOCITY OF 3.3 FT/S.
2. SUBMIT SHOP DRAWINGS INCLUDING MANUFACTURER'S PRODUCT SPECIFICATIONS, GEOMETRIC LAYOUT AND SPECIAL DETAILS AROUND PIPES OR UTILITIES WHEN IN CONFLICT.
3. CLASS II CONCRETE IS REQUIRED TO FILL THE GAP BETWEEN CONFLICT ELEMENTS AND ARTICULATED BLOCK.

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

SLOPE PROTECTION DETAILS

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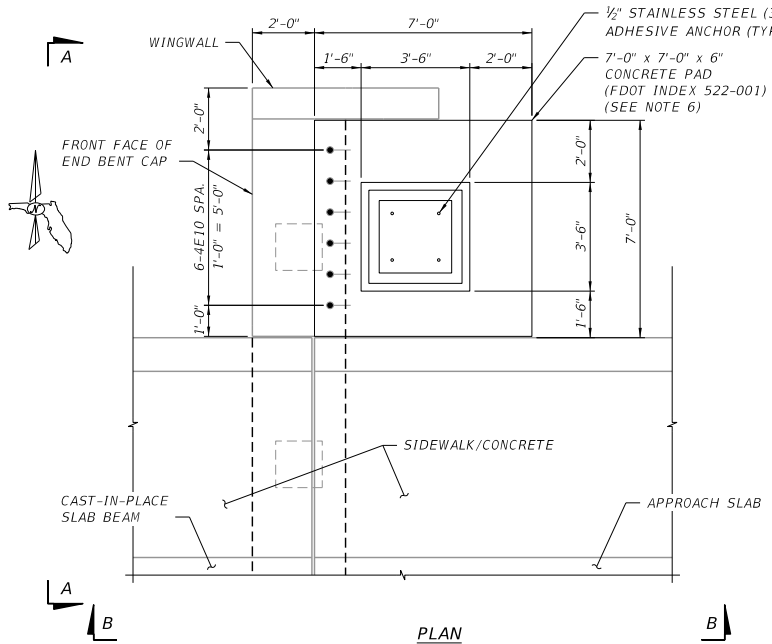
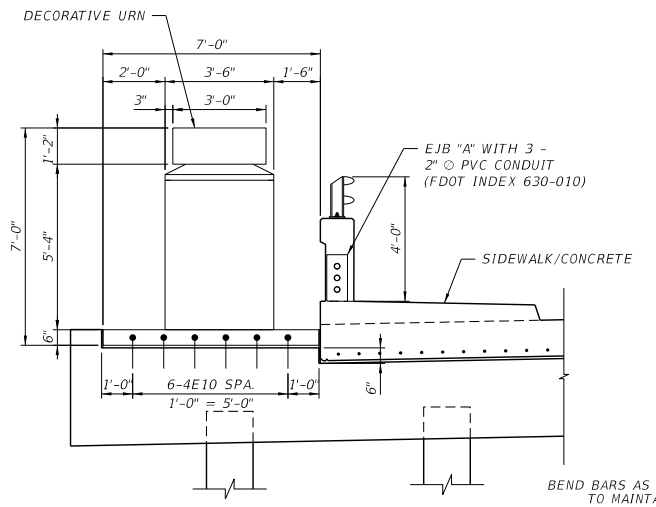
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 40 OF 43

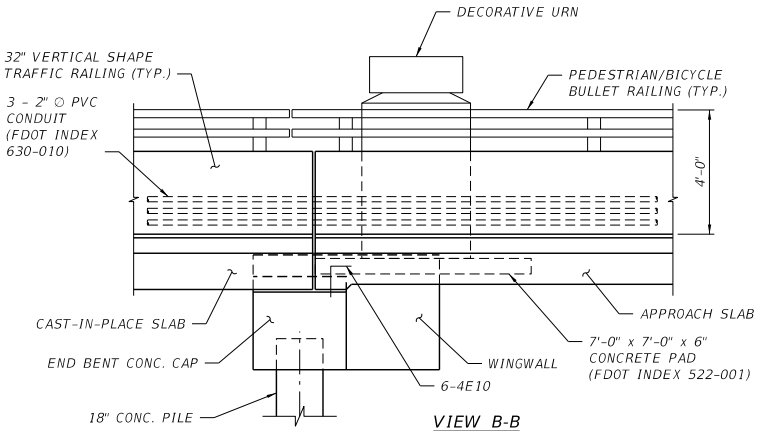


PLAN
URN SUPPORT DETAIL

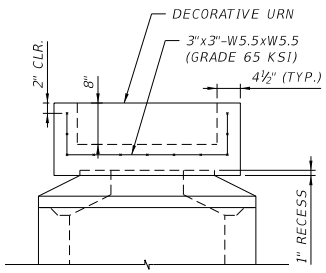


VIEW A-A
URN SUPPORT DETAIL

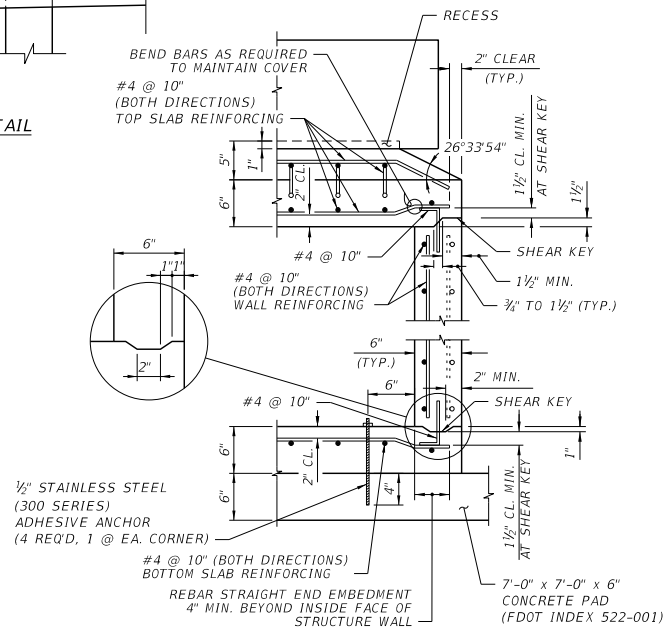
NOTES:
1. USE MATERIAL SPECIFICATIONS FROM FDOT STANDARD PLANS 425-010 ONLY FOR BOTTOM PART OF URN FEATURE. USE PAY ITEM 425-1-511, FOR THE ENTIRE COST OF THE URN FEATURE.
2. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL FOR THE PRECAST CONCRETE URN AND BASE, INCLUDING ALL REINFORCEMENT DETAILS AND REINFORCEMENT SCHEDULE.
3. LOCATE REBAR IN SLAB USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING FOR ADHESIVE ANCHORS.
4. THE ADHESIVE ANCHORS ARE INCIDENTAL TO PAY ITEM 425-1-511.
5. DETAILS ON THIS SHEET ARE APPLICABLE AT END BENT 4 AND AT THE SOUTH CORNER OF END BENT 1.
6. PROVIDE FLOODLIGHT ARRAY ON DECORATIVE URN CONCRETE PAD IN ACCORDANCE WITH DETAILS ON THE LIGHTING PLANS



VIEW B-B
URN SUPPORT DETAIL



URN DETAIL



URN BASE DETAIL

BRIDGE NO. 874495

REVISIONS						
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

MISCELLANEOUS DETAILS 1

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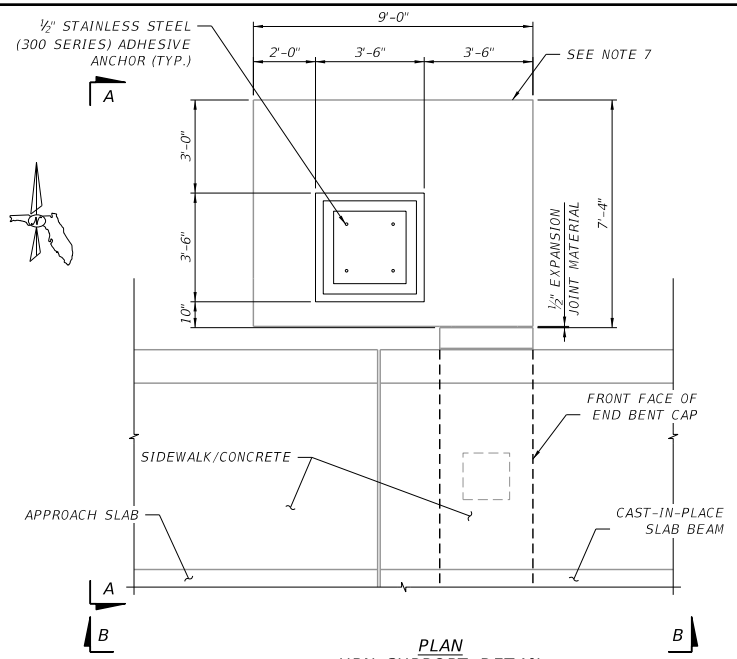
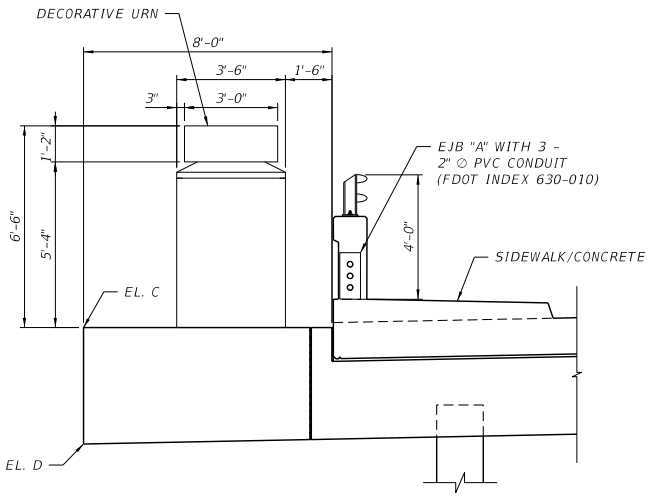
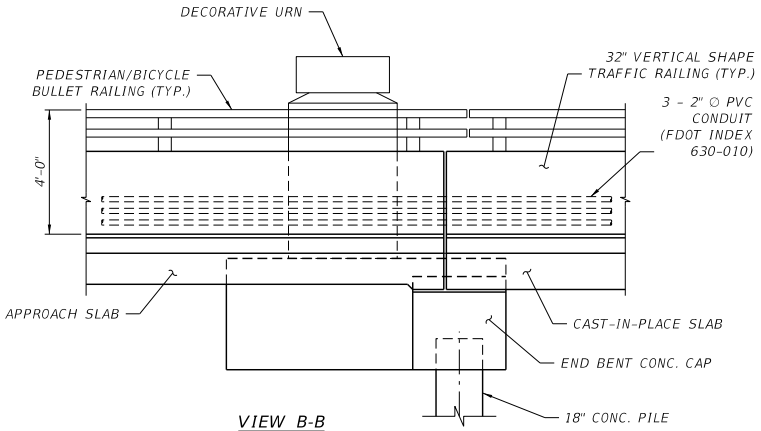


PLAN
URN SUPPORT DETAIL



VIEW A-A
URN SUPPORT DETAIL



VIEW B-B
URN SUPPORT DETAIL

NOTES:

1. USE MATERIAL SPECIFICATIONS FROM FDOT STANDARD PLANS 425-010 ONLY FOR BOTTOM PART OF URN FEATURE. USE PAY ITEM 425-1-511, FOR THE ENTIRE COST OF THE URN FEATURE.
2. SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL FOR THE PRECAST CONCRETE URN AND BASE, INCLUDING ALL REINFORCEMENT DETAILS AND REINFORCEMENT SCHEDULE.
3. LOCATE REBAR IN SLAB USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING FOR ADHESIVE ANCHORS.
4. THE ADHESIVE ANCHORS ARE INCIDENTAL TO PAY ITEM 425-1-511.
5. FOR ELEVATIONS C & D, SEE END BENT 1 SHEET.
6. DETAILS ON THIS SHEET ARE APPLICABLE AT THE NORTH CORNER OF END BENT 1. FOR DETAILS NOT SHOWN ON THIS SHEET, SEE MISCELLANEOUS DETAILS 1 SHEET.
7. PROVIDE FLOODLIGHT ARRAY ON DECORATIVE URN CONCRETE PAD IN ACCORDANCE WITH DETAILS ON THE LIGHTING PLANS

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

MISCELLANEOUS DETAILS 2

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Load Rating Summary Details for Reinforced Concrete Bridges

Table Date 01-01-11

Table 2 - LRFR

Level	Limit State	Vehicle	Weight (tons)	Load Factors			Moment (Strength)					Shear (Strength)					Comments:
				LL	DC	DW	Distribution Factor (DF) (Per Lane)	Rating Factor	Tons	Location "A"	Dimension "X"	Distribution Factor (DF) (Per Lane)	Rating Factor	Tons	Location	Dimension	Interior/exterior beam DF method if other than LRFD. Other appropriate comments
Design Load Rating	Strength I (Inv)	HL-93	36	1.75	1.25	1.50	0.09	1.51	54.4	9.43	9.43	N/A	N/A	N/A	N/A	N/A	HL-93 TANDEM CONTROLS 1.51 x 36 Tons = 54.4 Tons
Design Load Rating	Strength I (Op)	HL-93	36	1.35	1.25	1.50	0.09	1.96	70.6	9.43	9.43	N/A	N/A	N/A	N/A	N/A	HL-93 TANDEM CONTROLS 1.96 x 36 Tons = 70.6 Tons
Permit Load Rating	Strength II	FL120	60.0	1.35	1.25	1.50	0.09	1.71	102.6	9.43	9.43	N/A	N/A	N/A	N/A	N/A	

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 41 OF 43

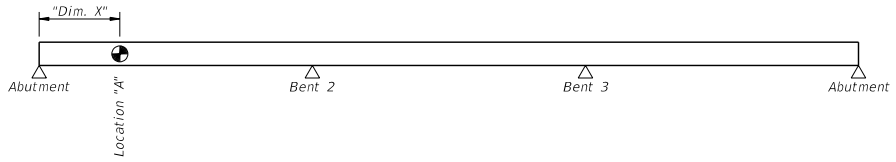
General Notes:
1. This table is based on the requirements established in the January 2017 "Structures Manual".

Table 2 Notes:
1. Permit capacity is determined by using the permit vehicle in all lanes.
2. Has the AASHTO LRFD Specifications Article 5.8.3.5 longitudinal reinforcement been satisfied? ■ Yes ☐ No

Abbreviations:

Inv - Inventory

Op - Operating



RATING LOCATIONS

BRIDGE NO. 874495

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD: Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	R.M.G.	2-20-20	DRAWN BY	R.J.L.	2-20-20
CHECKED BY	R.A.Z.	2-20-20	CHECKED BY	R.M.G.	2-20-20

SUPERVISED BY: RAY T. STAUFFER, P.E.

MIAMI-DADE COUNTY

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

LOAD RATING SUMMARY SHEET

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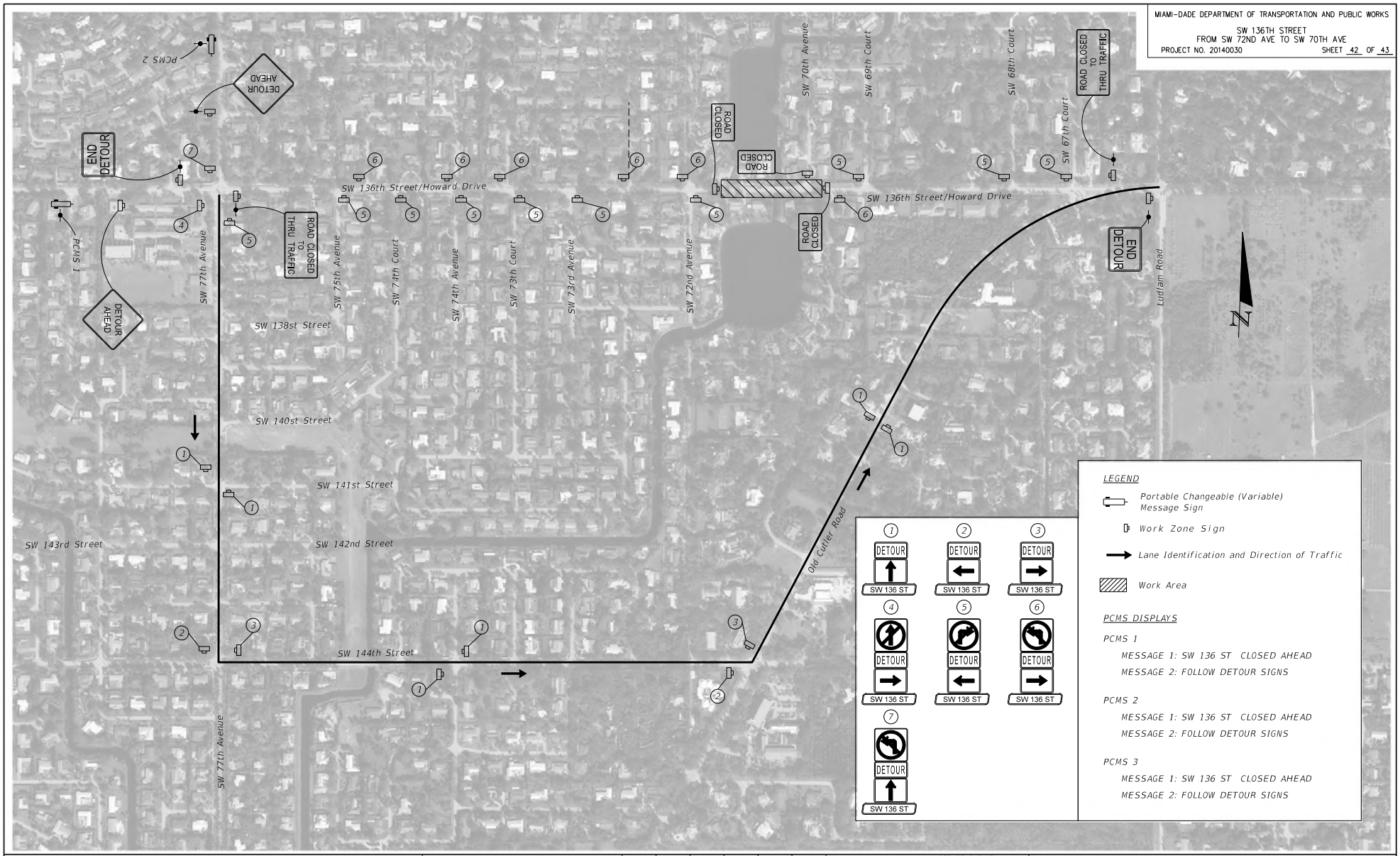
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE

PROJECT NO. 20140030 SHEET 42 OF 43



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	AS		DRAWN BY	AS	
CHECKED BY	AU		CHECKED BY	AU	

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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

TEMPORARY TRAFFIC CONTROL PLAN

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MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 42A OF 43

LEGEND

- Portable Changeable (Variable) Message Sign
- Work Zone Sign
- Lane Identification and Direction of Traffic
- Work Area

PCMS DISPLAYS

PCMS 1
- MESSAGE 1: SW 136 ST CLOSED AHEAD
- MESSAGE 2: FOLLOW DETOUR SIGNS

PCMS 2
- MESSAGE 1: SW 136 ST CLOSED AHEAD
- MESSAGE 2: FOLLOW DETOUR SIGNS

PCMS 3
- MESSAGE 1: SW 136 ST CLOSED AHEAD
- MESSAGE 2: FOLLOW DETOUR SIGNS

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	AS		DRAWN BY	AS	
CHECKED BY	AU		CHECKED BY	AU	

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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

TEMPORARY TRAFFIC CONTROL PLAN

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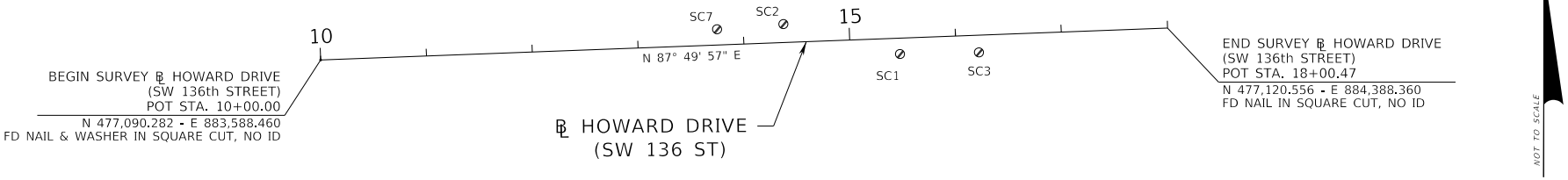
MIAMI-DADE DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

SW 136TH STREET
FROM SW 72ND AVE TO SW 70TH AVE
PROJECT NO. 20140030 SHEET 43 OF 43

SPECIFIC PURPOSE SURVEY

℄ HOWARD DRIVE / SW 136th STREET FROM STA. 10+00.00 TO STA. 18+00.47

NAVD88



PRIMARY NETWORK CONTROL									
POINT NAME	(Y) NORTHING	(X) EASTING	SCALE FACTOR	LATITUDE	LONGITUDE	BASELINE STATION	OFFSET	(Z) ELEVATION	DESCRIPTION
SC1	477,095.924	884,135.604	1.00000077	25°38'40.34707"	80°18'28.81908"	15+46.97	15.05' RT.	8.82'	SET NAIL & WASHER IN ASPHALT, NO ID
SC2	477,124.226	884,025.488	1.00000072	25°38'40.63309"	80°18'30.02072"	14+38.00	17.39' LT.	9.81'	SET NAIL & WASHER IN CONCRETE, NO ID
SC3	477,097.488	884,210.198	1.00000081	25°38'40.35870"	80°18'28.00390"	16+21.55	16.31' RT.	6.81'	SET NAIL & WASHER IN ASPHALT, NO ID
SC7	477,119.336	883,962.857	1.00000068	25°38'40.58790"	80°18'30.70537"	13+75.23	14.87' LT.	7.90'	SET NAIL & WASHER IN ASPHALT, NO ID

SURVEYORS NOTES:

1. BEARINGS AND COORDINATES ARE RELATIVE TO THE STATE PLANE COORDINATES, FLORIDA EAST ZONE, NORTH AMERICAN DATUM (NAD) OF 1983 (ADJUSTMENT OF 1990)
   A BEARING OF N 85°32'15" E HAS BEEN ESTABLISHED BETWEEN MONUMENTS SC7 & SC2
2. VERTICAL DATUM : NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88)
3. PROJECT UNITS : US FEET
4. FIELD BOOK REFERENCES : MGV 896
5. ELECTRONIC DATABASE : CAICE: "15593.ZIP"

LEGEND

℄	:	BASELINE
N	:	NORTH
E	:	EAST
POT	:	POINT ON TANGENT
RT.	:	RIGHT
LT.	:	LEFT
OFF.	:	OFFSET
STA.	:	STATION
⊖	:	PNC POINT
FD	:	FOUND
ID	:	IDENTIFICATION

LIMITS FROM: 300' WEST OF SW 70th AVENUE TO 50' EAST OF SW 70th AVENUE

SURVEYOR'S CERTIFICATION
I HEREBY CERTIFY THIS SPECIFIC PURPOSE SURVEY WAS MADE FOR THE PURPOSE OF SURVEYING, REFERENCING, DESCRIBING AND MAPPING THE PRIMARY NETWORK CONTROL OR BASELINE FOR THE PROJECT DEPICTED HEREON AND THAT SAID SURVEY WAS DONE UNDER MY RESPONSIBLE CHARGE AND MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5 J 17 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS MAP CONSISTING OF SHEET CTL-1 IS A TRUE, ACCURATE AND COMPLETE DEPICTION OF THE RESULTS OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON 11-02-2015

SURVEYOR : MANUEL G. VERA, JR. PLS NUMBER : 5291

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD :
Gannett Fleming
800 NW 62ND AVENUE, SUITE 490
MIAMI, FLORIDA 33126
(786) 845-9540 FAX (786) 845-6802

	NAME	DATE		NAME	DATE
DESIGNED BY	AS		DRAWN BY	AS	
CHECKED BY	AU		CHECKED BY	AU	

SUPERVISED BY: NALDO GONZALEZ, PE

MIAMI-DADE COUNTY

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

PROJECT NETWORK CONTROL

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PLANS FOR PROPOSED

HOWARD DRIVE

BRIDGE OVER CANAL C-100A

PROJECT NO. 4509

INDEX OF SHEETS

CONVENTIONAL SIGNS

LENGTH OF JOB		
	LIN. FT.	MILES
Roadway	453	.86
Bridge	60	.011
Net Length of Jab	513	.97
Exceptions	000	.000
Gross Length of Job	513	.97

PREPARED FOR
DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
BY
HERBERT S. SAFFIR
CONSULTING ENGINEER — CORAL GABLES, FLORIDA
IN COOPERATION WITH
CENTRAL AND SOUTHERN FLORIDA FLOOD CONTROL DISTRICT

SUMMARY OF QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY		
			ROADWAY	BRIDGE	TOTAL
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Grading (Including [illegible])	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	S.Y.	[illegible]		[illegible]
[illegible]	[illegible]	S.Y.	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	Bituminous Surface Treatment Type [illegible]	S.Y.	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	Class [illegible] Concrete	[illegible]		[illegible]	[illegible]
[illegible]	Reinforcing Steel	[illegible]		[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	Prestressed Slab Units	[illegible]		[illegible]	[illegible]
[illegible]	Precast Concrete Piling Furnished [illegible]	L.F.		[illegible]	[illegible]
[illegible]	Precast Concrete Piling Driven [illegible]	L.F.		[illegible]	[illegible]
[illegible]	[illegible] Test Piling [illegible]	L.F.		[illegible]	[illegible]
[illegible]	Precast Concrete Piling Furnished [illegible]	L.F.		[illegible]	[illegible]
[illegible]	Precast Concrete Piling Driven [illegible]	L.F.		[illegible]	[illegible]
[illegible]	[illegible] Test Piling [illegible]	L.F.		[illegible]	[illegible]
[illegible]	Test Loads	Each		[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
[illegible]	Concrete Pipe [illegible]	[illegible]	[illegible]		[illegible]
[illegible]	Concrete Pipe [illegible]	[illegible]	[illegible]		[illegible]
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

SUMMARY OF QUANTITIES

No.	Item	Unit	Quantity
197.1	Topsoiling (3")	S.Y.	3143
198.1	Sodding (Class 1)	S.Y.	3143
248.1	Concrete Apron (Type 1)	No.	2
307.6	Bituminous Surface Treatment (Type 1)	S.Y.	3143
601.3	5.0m Asphaltic Concrete Surface Course	Ton	153
602.1	Reinforcement	Kg.	2870
604.1	Guiderail, End Sections	No.	8
610.6	Concrete Concrete, 40 Granite	S.Y.	1760
620.1	Sidewalk (Concrete)	S.Y.	1166
624.1	Topsoil	Kg.	6
801.3	0.15 Concrete Pipe	L.F.	131
801.6	0.38 Concrete Pipe	L.F.	344
810.1	Shielding	S.Y.	400
850.1	Concrete Curb & Gutter	L.F.	1765

Notes:

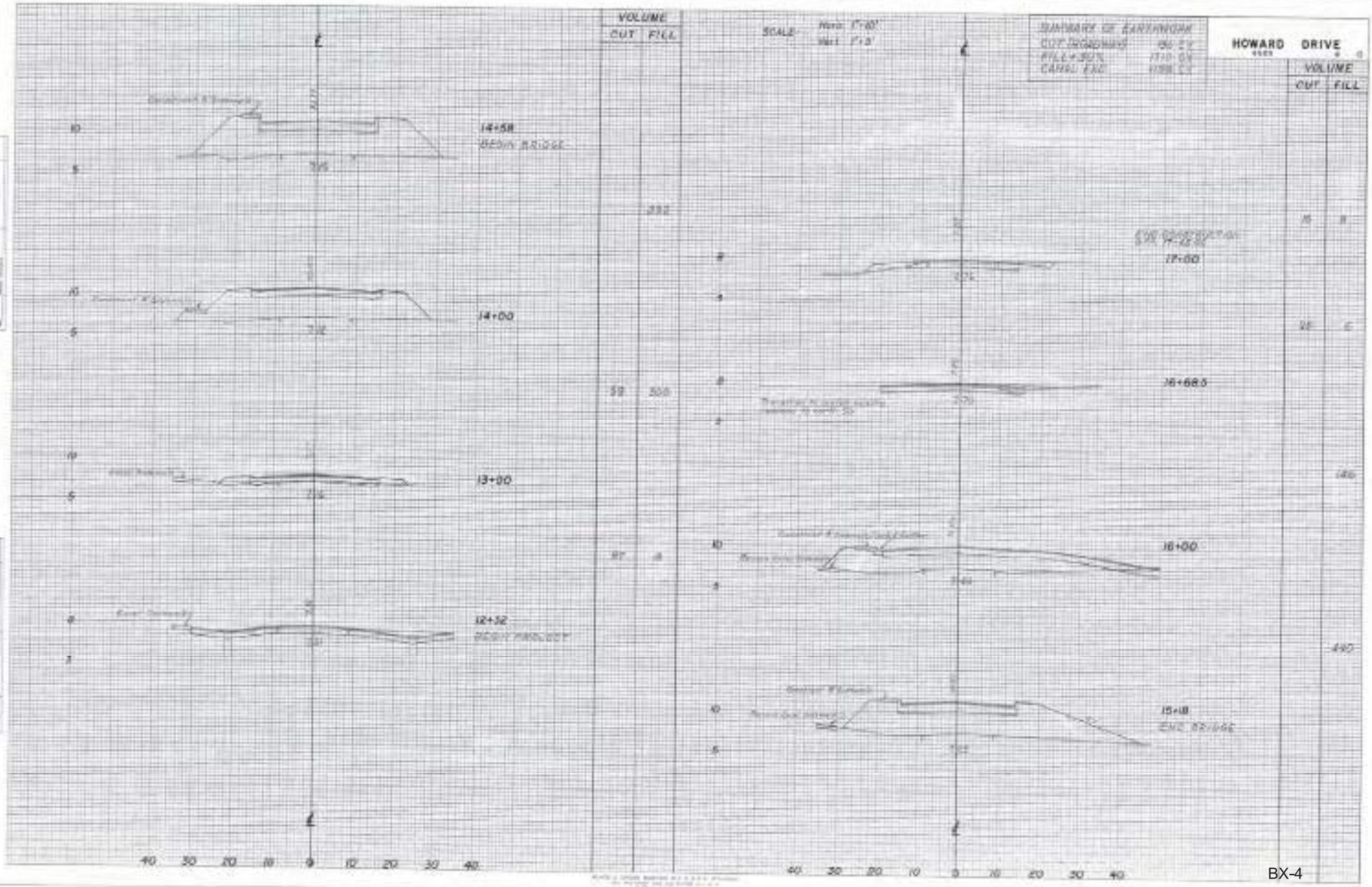
1. For General Notes see Plan and Elevation Sheet No. 2.
2. For Additional Const. Information see Sheet No. 2.1
3. For Details of Approach Slabs see Sheet No. 8
4. Surfacing shall consist of Type 2 Asphaltic Concrete Surface Course applied at the rate of 150 K/sq. m. for the Bridge and 10K for the Approaches.
5. For details of Guiderails and Public Service Utilities, see Sheet No. 8
6. From Sta. 0+ 0.0 - Includes 0.5 S.Y. for Additional Paving.
7. From Sta. 0+ - Includes 0.5 S.Y. for Additional Paving.
8. From Sta. 0+ - Includes 0.5 S.Y. for Additional Paving.
9. From Sta. 0+ - Includes 0.5 S.Y. for Additional Paving.

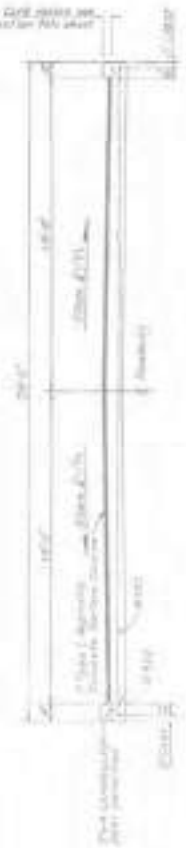
HOWARD DRIVE

TYPICAL SECTION

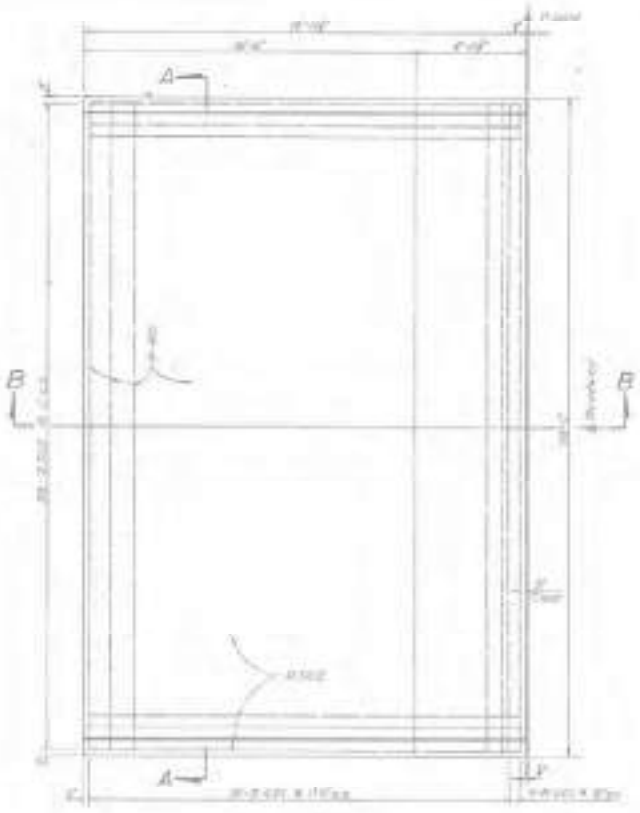
HOWARD DRIVE

BX-3


HOWARD DRIVE
SCALE
VOLUME
CUT
FILL
14+58
14+00
13+00
12+32
17+00
16+68.5
16+00
15+18
40 30 20 10 0 10 20 30 40



SECTION A-A



PLAN

END VIEW ADJOINING BRIDGE

SECTION B-B

BENDING DIAGRAM

BILL OF REINFORCING STEEL
FOR ONE APPROACH SLAB

Mark	No. Req'd	Length	Mark	No. Req'd	Length
#5(S)	32	6'-6"	#5 (L)	64	28'-2"

ESTIMATED QUANTITIES
FOR ONE APPROACH SLAB

No.	Item	Unit	Quantity
400-1	Class A Concrete	C.Y.	18.1
520-1	Reinforcing Steel	Lb.	2407

NOTES: (unless otherwise noted)

1. For General Notes see Plan and Elevation Sheet.
2. Tool all exposed edges of concrete to ¾" radius.
3. Concrete shall be Class A.
4. Seal the Approach Slabs in 2 layers of 55 lb. roofing felt or equal.
5. For Joint details between Approach Slab and Bridge see Superstructure Sheet.

BX-5

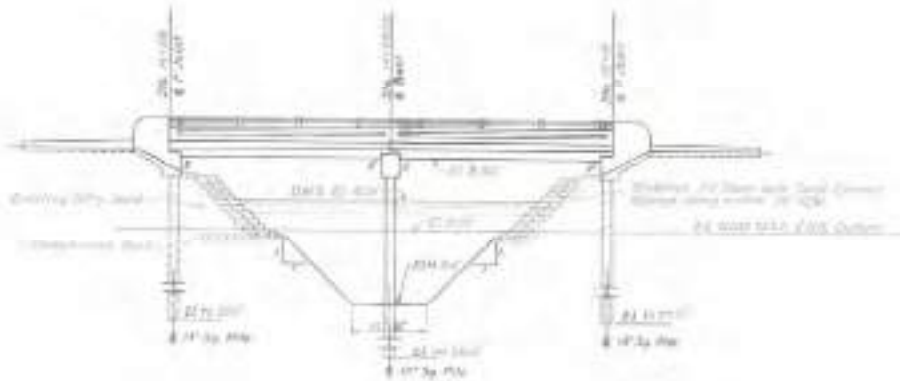
DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

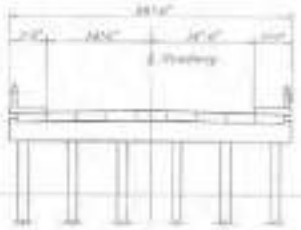
APPROACH SLAB

HOWARD DRIVE BRIDGE OVER CANAL C-100A

Date: June 20-5 Ref. 4500 Sheet 5 of 13

BX-5





ESTIMATED QUANTITIES

No.	Item	Unit	Quantity
0101	Canal Excavation	C.Y.	2,000
5004	Class IV Concrete	C.Y.	4,740
5101	Reinforcing Steel	Lb.	1,218,000
5501	Prestressed Slab Units	S.F.	111,000
4901-B	Precast Concrete Piling Including Shoes	L.F.	4,000
4904	Precast Concrete Piling Splices (18")	E.A.	200
4906	Untreated Test Piles (18")	L.F.	300
4901-B	Precast Concrete Piling Horizontal (24")	L.F.	2,000
4904	Precast Concrete Piling Splices (24")	E.A.	100
4906	Untreated Test Piles (24")	L.F.	300
4901-B	Test Loads	E.A.	2
4904	Pile Caps	E.A.	20
5001	Elastomeric Neoprene	L.F.	1,200

GENERAL NOTES (Unless otherwise noted)

1. The design specifications are as follows: A.A.S.H.T.O. 1961
2. The bridge design loading is H20-S16-44
3. All elevations are referred to U.S.C. & G.S. Datum
4. Elevations shown at piles are minimum tip.
5. All quantities shown are estimated and subject to verification by the contractor.
6. In all bills of Reinforcement, the first number of the bar designation indicates the size of the bar. Bars Each Way is No. 6 Bar.
7. All reinforcing steel shall be non-deformed bars in accordance with A.S.T.M. A305 except as otherwise indicated. Grade 60 Steel in accordance with A.S.T.M. A15 or A432 Steel in accordance with A.S.T.M. A431.
8. Concrete used in prestressed members shall be Class "AA" All other structural concrete shall be Class "A"
9. In Bending Diagrams all dimensions are Out to Out.
10. Ends of reinforcing shall be given a standard hook. All other exposed surfaces, as noted in Plan and Elevation shall be given a Class 1 Surface Treatment.
11. For curing data refer to Field Manual Section 1.10.03
12. Reinforcing steel placement shall comply with Recommended Practice for Placing Reinforcing Bars (CRSI) Metal chairs shall not be used.
13. All exposed edges and corners shall be chamfered one inch.
14. Minimum cover to reinforcing steel shall be 2" except the roadway, which shall be 3" before the 1½ inch wearing surface.
15. Three feet average ground water conditions for the life and as noted. Abutment Elev. +5.0, Abutment High Elev. +5.5, Abutment Low Elev. +5.0

APPROVED June 22, 1965
Glenn E. Brooks
ACTING DIRECTOR, ENGINEER

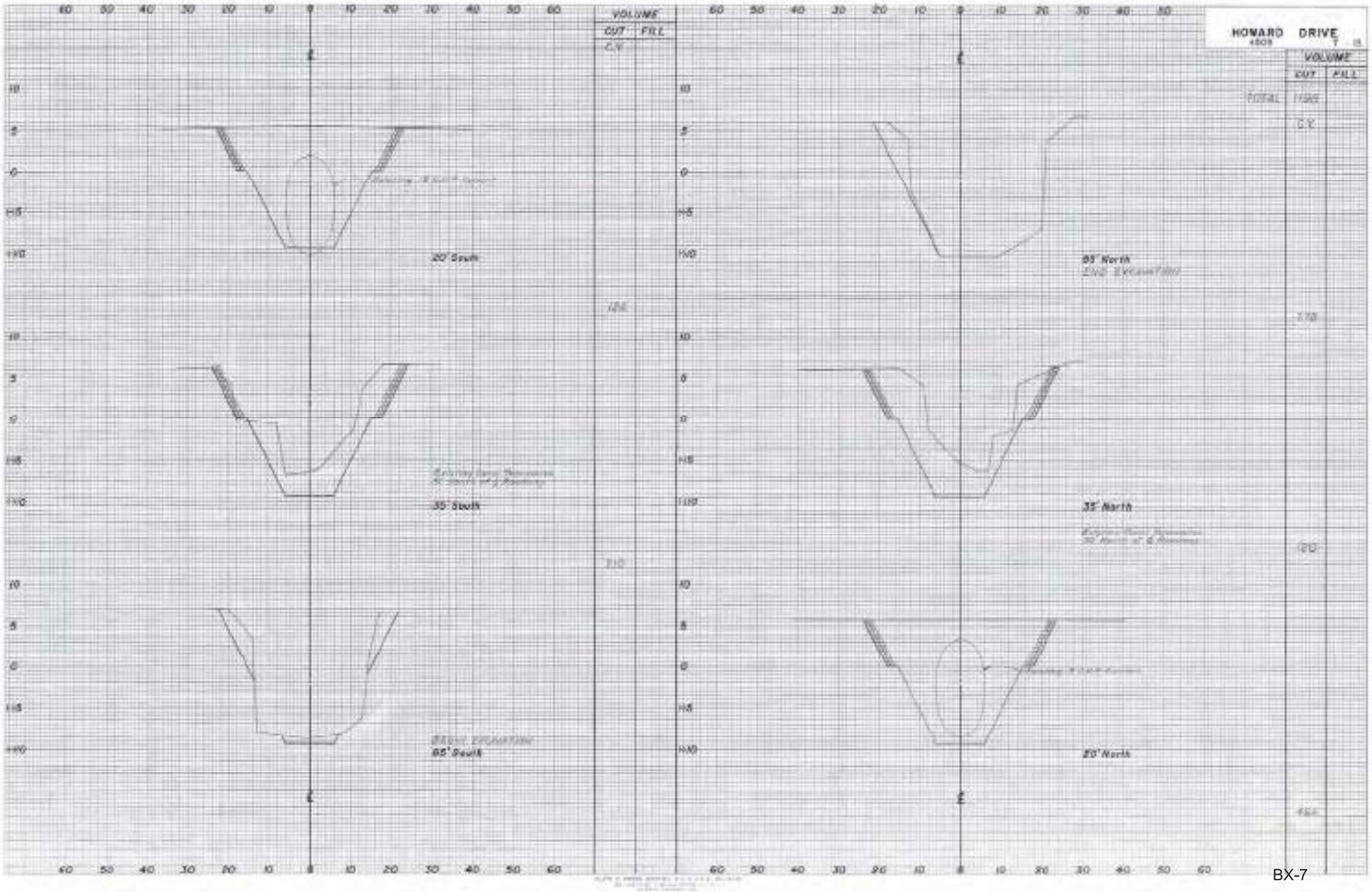
DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

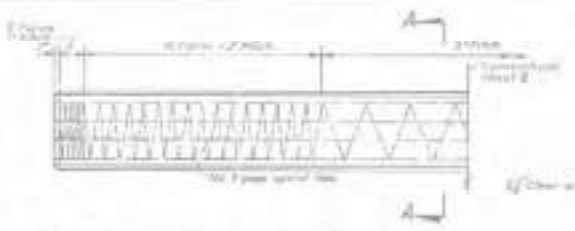
PLAN & ELEVATION

HOWARD DRIVE BRIDGE
OVER
CANAL C-100A

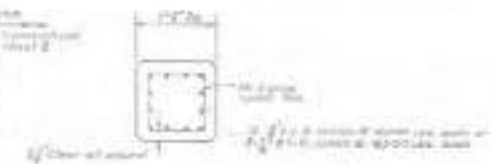
DESIGNED	DATE	REVISIONS	BY
DRAWN			
CHECKED			

DATE June 1965 | No. 4500 | SHEET No. 2 of 13

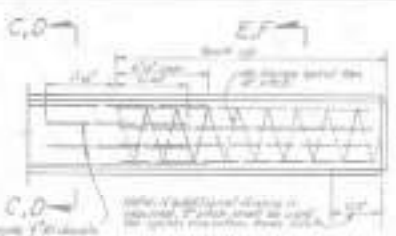

HOWARD DRIVE
VOLUME
CUT FILL
C.Y.
20' South
35' South
65' South
65' North
35' North
20' North



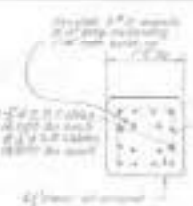
PRESTRESSED PILES 14" SQ



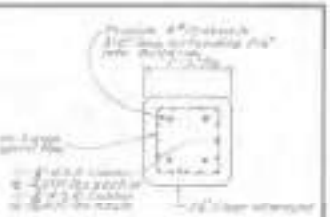
SECTION A-A



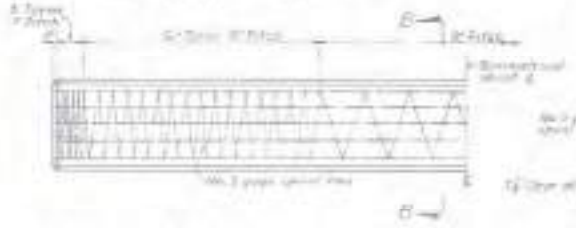
TYPICAL BUILD-UP



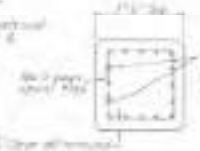
SECTION C-C



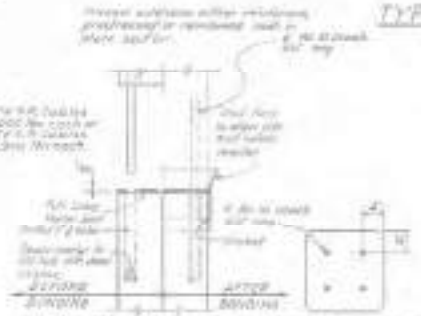
SECTION D-D



PRESTRESSED PILES 18" SQ

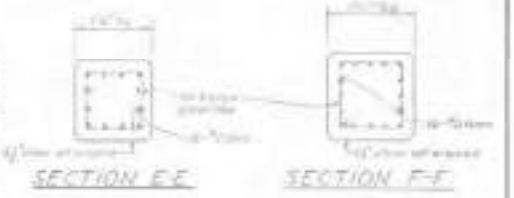


SECTION B-B



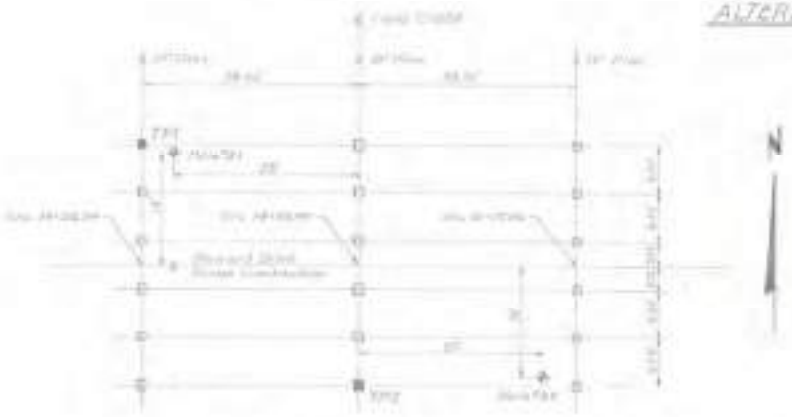
BONDING DETAIL 16" OR 14" PILE
ALTERNATE EPOXY BOND SPLICE

PICK-UP POINTS



SECTION E-E

SECTION F-F



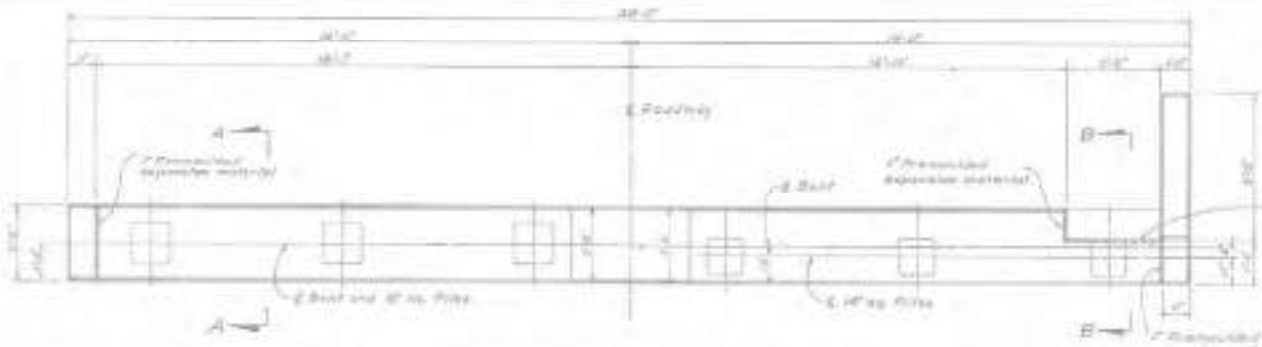
PILE LOCATION PLAN

DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

PILING PLAN & DETAILS

HOWARD DRIVE BRIDGE
OVER
CANAL C-100A

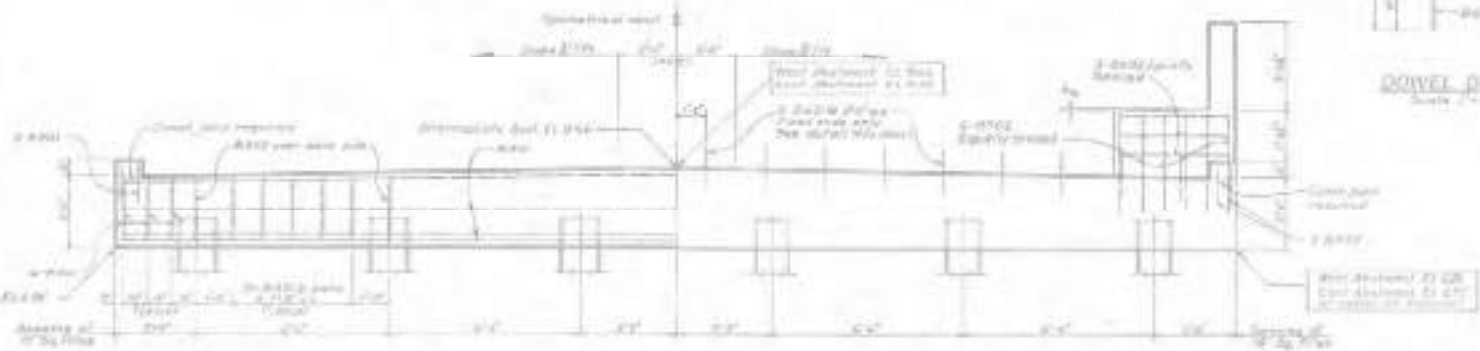
BX-8



HALF PLAN
INTERMEDIATE BENT
No Scale

HALF PLAN
END BENT
No Scale

DOWEL DETAIL
Scale



HALF ELEVATION
INTERMEDIATE BENT
No Scale

HALF ELEVATION
END BENT
No Scale

LETTER DETAIL
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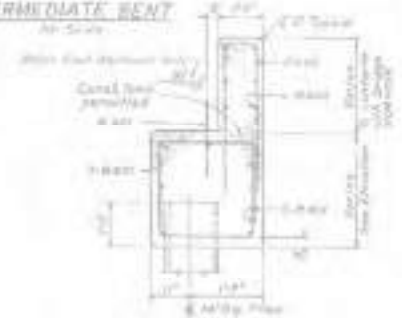
END WALL LETTER DETAIL
No Scale

WING WALL DETAIL
No Scale

SECTION A-A
No Scale



SECTION B-B
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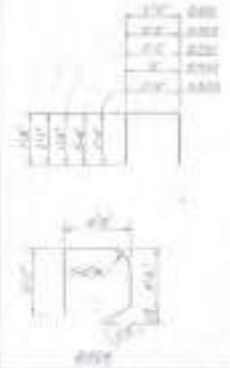
BENDING DIAGRAM



BILL OF REINFORCING STEEL FOR ONE END BENT

Mark	No. Reqd	Length	Mark	No. Req'd	Length

FOR ONE INTERMEDIATE BENT

ESTIMATED QUANTITIES FOR ONE END BENT

No.	Item	Unit	Quantity
	Class A Concrete		
	Pile Handling (Steel)		

FOR ONE INTERMEDIATE BENT

Class A Concrete		
Pile Handling (Steel)		

Special Construction Details

1. The Contractor shall use Class A Concrete throughout.
2. Bar Mark & Bar Numbers at joint and construction joints.
3. Bridge seats to be brought to final elevations by rubbing with carborundum stone.
4. Workers regarding the work shall be allowed at the approach and at the end decks of sidewalk (only). The workers shall be allowed to work only at the bridge as directed by the Engineer. Workers will be furnished by Dade County and shall be instructed by the contractor. Instruction work shall be included in the Contract Unit price for Class A Concrete.

DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

INTERMEDIATE & END BENTS

HOWARD DRIVE BRIDGE
OVER
CANAL C-100A

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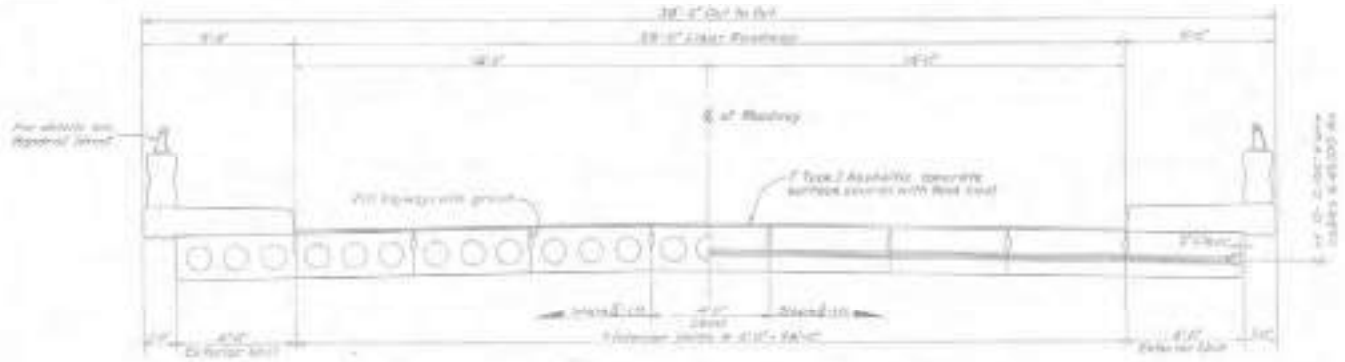
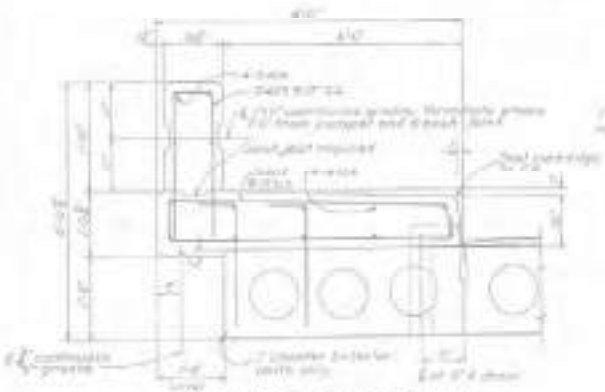
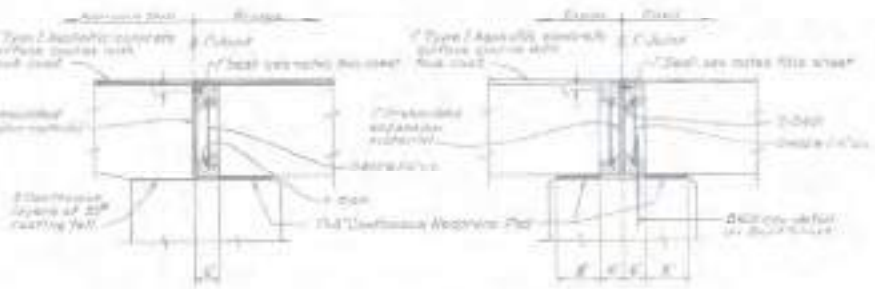


TYPICAL HALF SECTION

HALF SECTION THRU DIAPHRAGMS



SECTION THRU SIDEWALK



SECTION THRU JOINT AT END BENT

SECTION THRU JOINT AT INTERMEDIATE BENT

PLAN DRAIN DETAIL

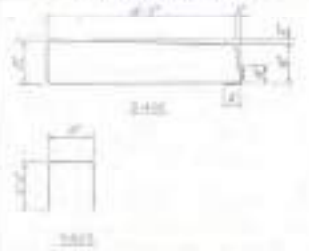
SECTION A-A

SECTION B-B

CONSTRUCTION SEQUENCE

1. After the cure time has been properly noted, the prestressed slab units shall be set in place on an approved bearing pad.
2. Lateral post-tensioning cables or bars shall be initially tensioned to one kip (4 kips if required) per foot of slab (unless otherwise noted on the plans).
3. Keyways shall be grouted.
4. Final tension of 40,000 psi shall be applied to lateral post-tensioning cables 48 hours after grouting keyways. Shaft must monitoring holes and centerline recess after final stressing.
5. Diaphragms at ends of precast slab units shall be poured.
6. Shear blocks at end of slab shall be poured.
7. Sidewalks and parapets shall be poured.
8. 1" Type I Asphaltic concrete surface course shall be applied with MAR coat.

BENDING DIAGRAM



BILL OF REINFORCING STEEL FOR ONE SPAN

Mark	No. Req'd	Length	Bent	No. Req'd	Length
S-401	11	39'-6"	S-401	8	43'-6"
S-402	11	5'-0"	S-402	88	7'-0"
S-403	176	39'-6"			
			B-601	12	4'-6"

ESTIMATED QUANTITIES FOR ONE SPAN

No.	Item	Unit	Quantity
400-1	Class A" Concrete	C.Y.	19.00
415-1	Reinforcing Steel	Lbs.	7,478
441-6	Handrail, Type Metal	L.F.	22.00

Notes: Unless otherwise noted:

1. For General Notes see Title and Location Sheet
2. All horizontal and vertical joints shall be sealed with 2 Band (2ft.) 2 Non-Sag Semi-SIKAFLEX Self Levelling Rubber Sealant or approved equal.

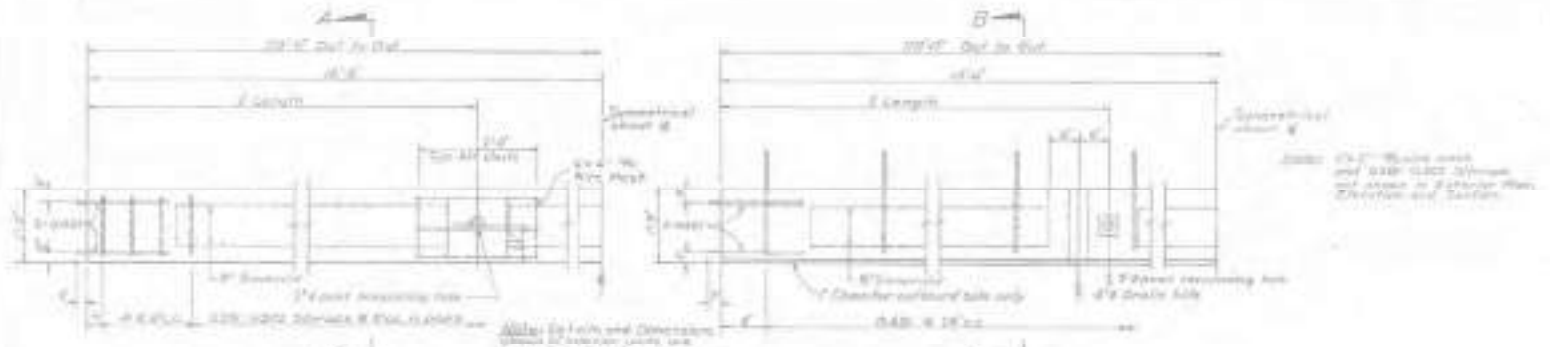
DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUPERSTRUCTURE

HOWARD DRIVE BRIDGE over CANAL C-100A

4509

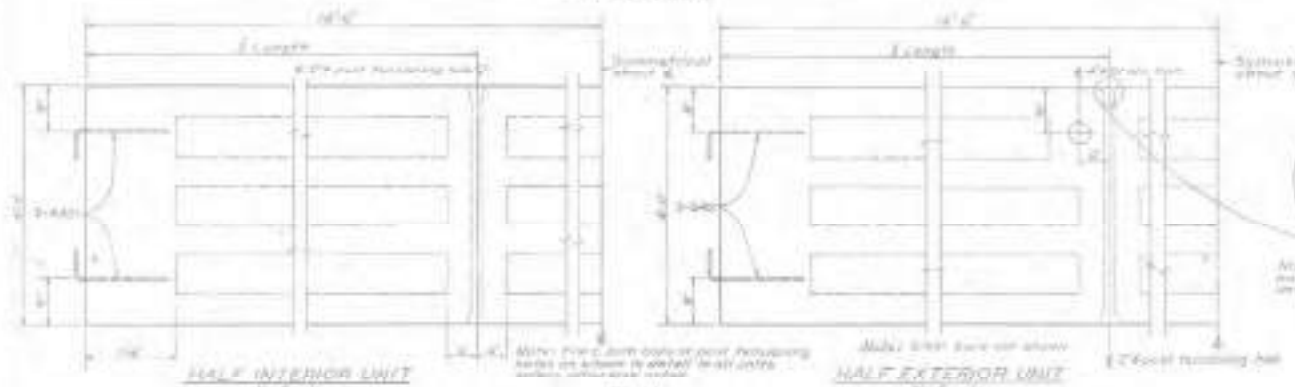
BX-10



HALF INTERIOR UNIT
No Scale

ELEVATION

HALF EXTERIOR UNIT
No Scale

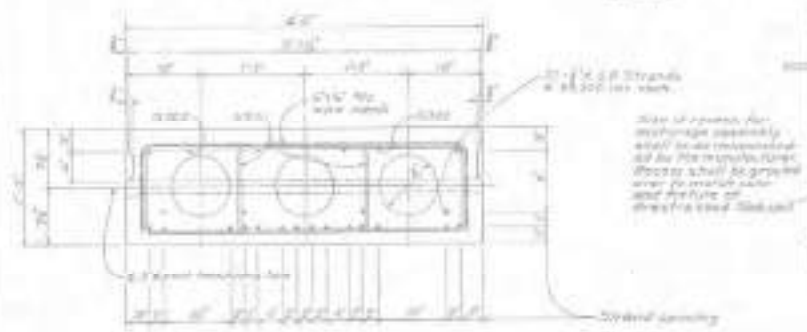


HALF INTERIOR UNIT
No Scale

PLAN

HALF EXTERIOR UNIT
No Scale

PLAN



SECTION A-A
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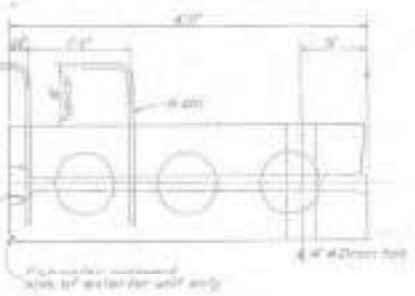


SECTION B-B
No Scale

BENDING DIAGRAM

BILL OF REINFORCING STEEL
FOR ONE PRESTRESSED SLAB UNIT

Mark	Length	No. required	
		Interior	Exterior
S-1001	7'-3"	20	20
S-1002	4'-11"	20	20
S-1003	8'-0"	0	20

NOTES: (Unless otherwise noted)

1. For General Notes, see Plan and Elevation Sheet.
2. Top of prestressed units are to be rough finished by approximately the time of initial set. The entire top of prestressed units shall be scrubbed transversely with a coarse wire brush to remove all laitance and to produce a rough surface.
3. Prestressed concrete shall be Class P, fc=4000psi.
4. In placing prestressed units they must be maintained in an upright position at all times and must be picked up at ends to prevent damage. The contractor shall be responsible for damage due to improper handling.
5. At transfer of the prestressing load, the cylinder strength of concrete shall be 3000psi and the concrete shall be at least 10 days old.
6. Concrete over non-prestressing steel shall be 3/4" minimum.
7. The use of steel forms is optional. Bondex casting bed is prohibited.
8. All reinforcement shall be new. Bars shall be deformed in accordance with ASTM A-305, and shall be either intermediate grade billet steel in accordance with ASTM A-15, or rail steel in accordance with ASTM A-16.
9. All strands shall extend 12" beyond ends of slab units.
10. Exterior faces of exterior units shall be given a Class 1 surface finish in the casting yard.
11. Bar spacing shown shall be modified where necessary to avoid conflict with pre-tensioning steel.
12. The Contractor shall submit shop drawings for approval.

DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

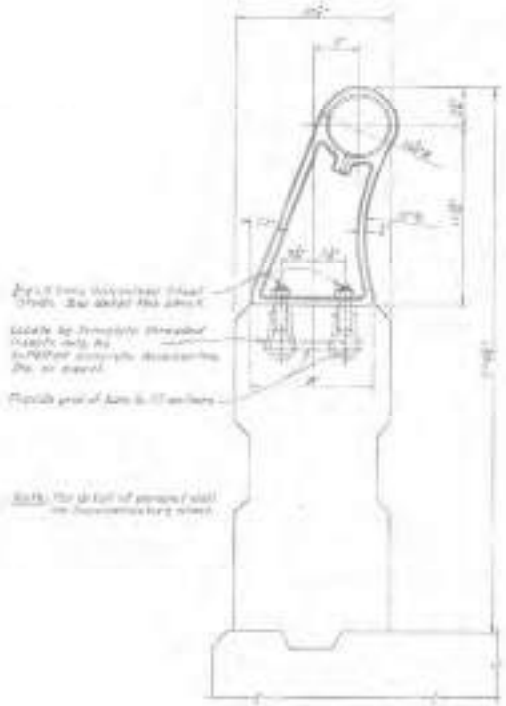
PRESTRESSED SLAB UNITS

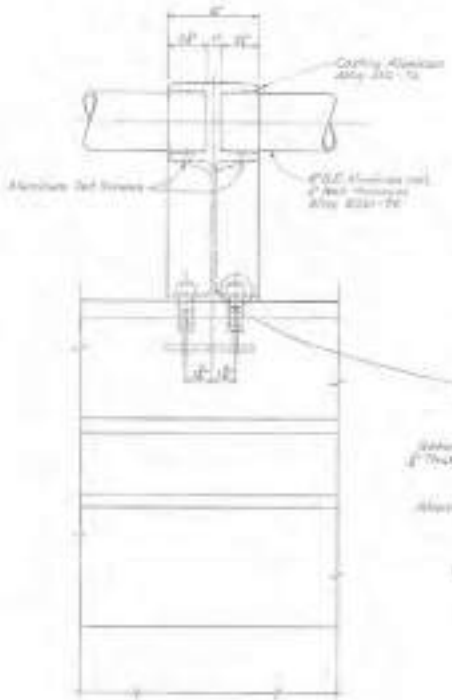
HOWARD DRIVE BRIDGE
OVER
CANAL C-100A

Jan 1965 | SC 45.09 | Sheet 11 of 13

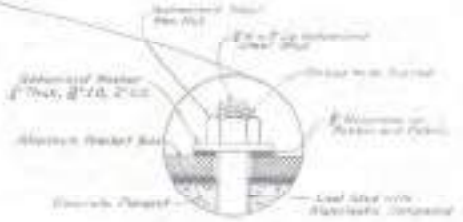
BX-11

ELEVATION





END CAP DETAIL



HANDRAIL DETAIL

Notes (Unless otherwise noted):

1. Steel used to be ASTM A501 Alloy 304 TB or other alloy or material not to be approved by the engineer.
2. Weld to be continuous where noted. The welds to comply with minimum weld thickness of ¼".
3. Use of stainless steel screws connecting back plate and ¼" neoprene to rubber and fabric shall be included in the Contract Unit Price for Aluminum Handrail.
4. Omit ¼" drain holes in bottom of pipe handrails approximately midway between panels.
5. All aluminum handrail posts shall be welded on ¼" x 12" x 12" neoprene pads all rubber and fabric.
6. Bolts, posts and all parts of handrail assembly from Type 6061 grade and Temper material and to be thoroughly cleaned before final inspection.
7. Rail and caps to be flush fitted.
8. Handrail shall be gaps for gas vapor that threatened as necessary design of material for expansion joints.
9. When drawings showing complete details of the proposed material shall be submitted to the contractor for the approval of the engineer. Construction of the railing shall be in accordance with the approved drawings.
10. Steel, nuts and washers shall be hot dip galvanized in accordance with ASTM Specifications Designations A-153.

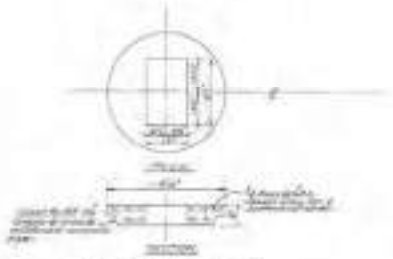
DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

HANDRAIL DETAILS

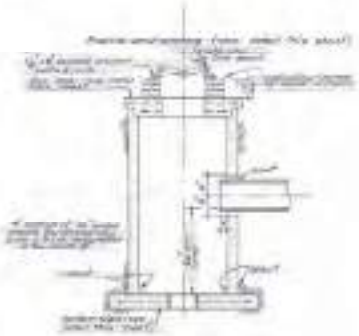
HOWARD DRIVE BRIDGE OVER CANAL C-100A

DESIGN	DATE	REVISIONS	BY	DRAWING 1065	NO. 4509

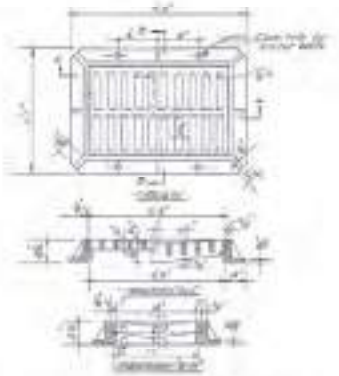
SHEET 12 of 13



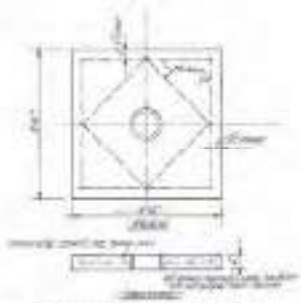
TOP SLAB DETAIL



SECTION THROUGH
STANDARD CATCH BASIN



TYPE 'D' FRAME & GRATING



BOTTOM SLAB DETAIL

DADE COUNTY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

CATCH BASIN DETAILS

HOWARD DRIVE BRIDGE
OVER
CANAL C-100A