CONTRACT PLANS COMPONENTS

BRIDGE REPAIR PLANS

INDEX OF BRIDGE REPAIR PLANS

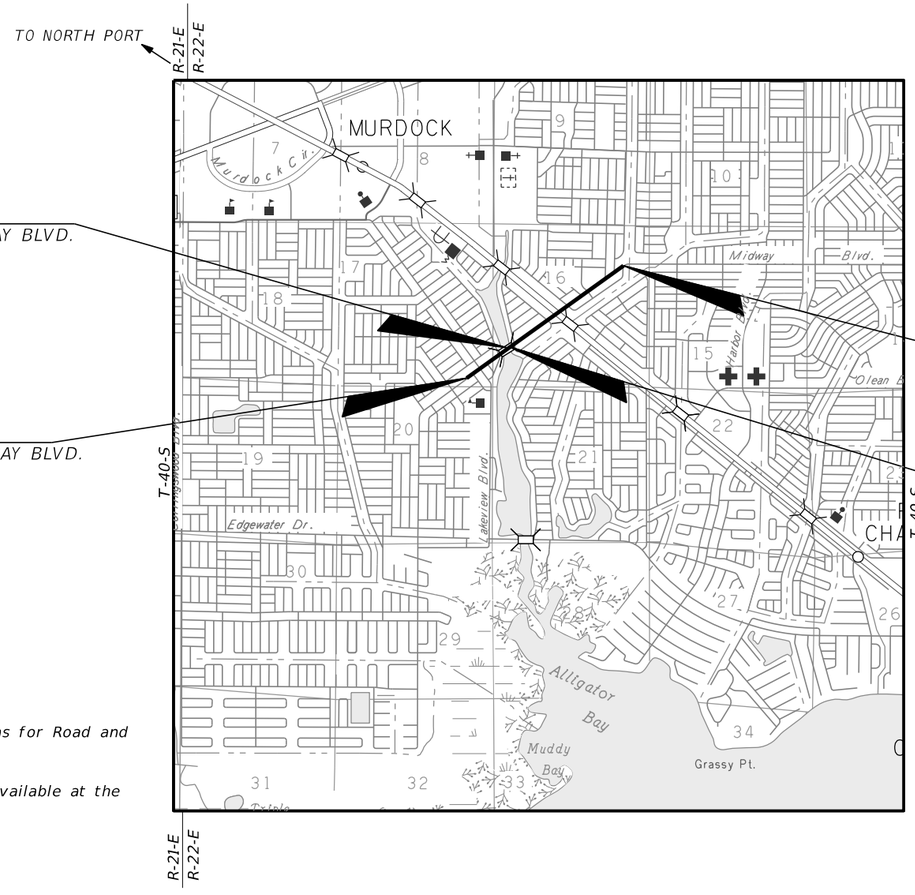
SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3	QUANTITIES
4	GENERAL NOTES
5	PLAN AND ELEVATION
6 - 7	TYPICAL SECTIONS
8	ROADWAY PLAN
9 - 21	TEMP. TRAFFIC CONTROL PLAN
22 - 23	CONCRETE RESTORATION DETAILS
24	PILE JACKET DETAILS
25	MISCELLANEOUS REPAIR DETAILS
26 - 27	ABUTMENT ARMORING DETAILS
28	DRAINAGE DETAILS
29	EROSION TURBIDITY CONTROL PLAN
W1 - W3	WETLAND/OTHER SURFACE WATER IMPACTS
BX1-1 - BX1-19	EXISTING BRIDGE PLANS

CHARLOTTE COUNTY GOVERNMENT

CONTRACT PLANS

MIDWAY BOULEVARD BRIDGE
BRIDGE NO. 014073

CHARLOTTE COUNTY
CONTRACT NUMBER 2021000407
MIDWAY BOULEVARD
AT NORTH SPRING LAKE BRIDGE

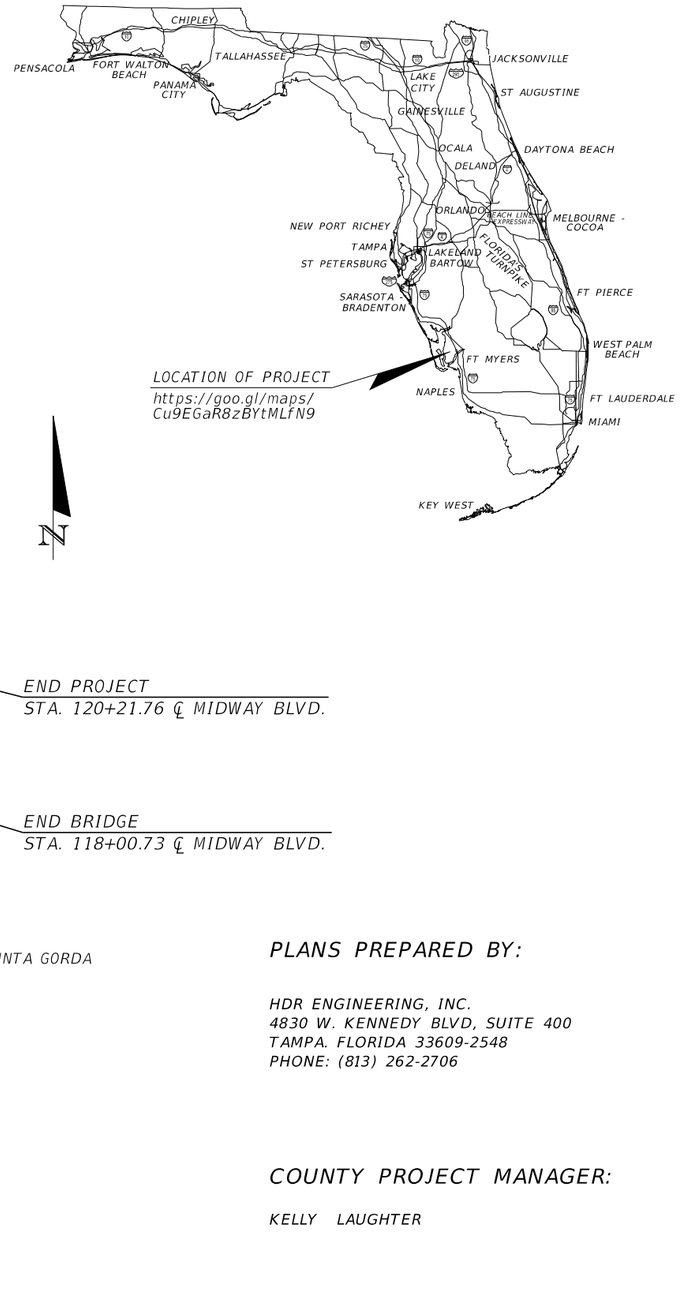


BEGIN BRIDGE
STA. 116+95.85 ℄ MIDWAY BLVD.

BEGIN PROJECT
STA. 114+09.00 ℄ MIDWAY BLVD.

END PROJECT
STA. 120+21.76 ℄ MIDWAY BLVD.

END BRIDGE
STA. 118+00.73 ℄ MIDWAY BLVD.



GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2024-25 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

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

APPLICABLE IRs: N/A

GOVERNING STANDARD SPECIFICATIONS:

Charlotte County Public Works Standard Specifications for Construction, FY 2024-25 FDOT Standard Specifications for Roadway and Bridge Construction, Divisions II & III as directed under the Charlotte County Public Works Standard Specifications for Construction. Charlotte County Standard and Technical Specifications.

PLANS PREPARED BY:

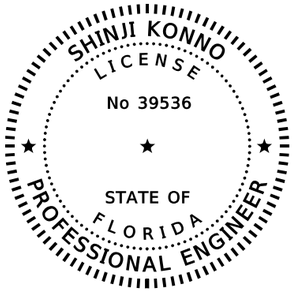
HDR ENGINEERING, INC.
4830 W. KENNEDY BLVD, SUITE 400
TAMPA, FLORIDA 33609-2548
PHONE: (813) 262-2706

COUNTY PROJECT MANAGER:

KELLY LAUGHTER

FISCAL YEAR	SHEET NO.
24	1

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



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Shinji Konno Digitally signed by Shinji Konno Date: 2024.11.21 16:33:41 -05'00'

ON THE DATE ADJACENT TO THE SEAL

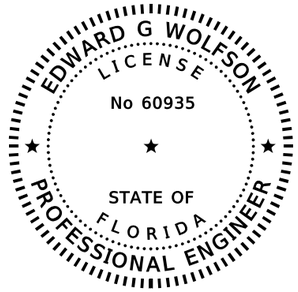
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

SHINJI KONNO, PE
PE LICENSE NUMBER 39536
HDR ENGINEERING, INC.
4830 W. KENNEDY BLVD., SUITE 400
TAMPA, FL 33609-2548

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

STRUCTURE PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3	QUANTITIES
4	GENERAL NOTES
5	PLAN AND ELEVATION
22 - 23	CONCRETE RESTORATION DETAILS
24	PILE JACKET DETAILS
25	MISCELLANEOUS REPAIR DETAILS



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Edward G Wolfson 2024.11.21 10:36:50-05'00'

ON THE DATE ADJACENT TO THE SEAL

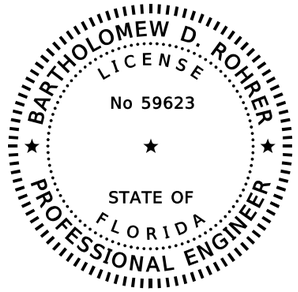
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

EDWARD G WOLFSON, PE
PE LICENSE NUMBER 60935
HDR ENGINEERING, INC.
315 E. ROBINSON STREET
ORLANDO, FL 32801-1912

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

STRUCTURE PLANS

SHEET NO.	SHEET DESCRIPTION
2	SIGNATURE SHEET
6 - 7	TYPICAL SECTIONS
8	ROADWAY PLAN
9 - 21	TEMP. TRAFFIC CONTROL PLAN



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Bartholomew D Rohrer 2024.11.21 13:02:06 -05'00'

ON THE DATE ADJACENT TO THE SEAL

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BARTHOLOMEW D. ROHRER, PE
PE LICENSE NUMBER 59623
HDR ENGINEERING, INC.
4830 W. KENNEDY BLVD., SUITE 400
TAMPA, FL 33609-2548

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

STRUCTURE PLANS

SHEET NO.	SHEET DESCRIPTION
2	SIGNATURE SHEET
26 - 27	ABUTMENT ARMORING DETAILS
28	DRAINAGE DETAILS
29	EROSION TURBIDITY CONTROL PLAN
W1 - W3	WETLAND / SURFACE WATER IMPACTS

REVISIONS

Date	By	Description	Date	By	Description

HDR Engineering, Inc.
4830 W. Kennedy Blvd., Suite 400
TAMPA, FL 33609-2548

Drawn By: NTR
Checked by: RT
Designed by: CMH
Checked by: SK

CHARLOTTE COUNTY FLORIDA

SHEET TITLE: SIGNATURE SHEET

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 2

NROSALES 11/14/2024 10:45:10 AM c:\pwworking\east01\d2386703\B0KeySheet02.dgn

PAY ITEM NUMBER	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT
TS-25	AS-BUILT DRAWINGS	1	LS
101-1	MOBILIZATION	1	LS
102-1	MAINTENANCE OF TRAFFIC	1	LS
104-10-3	SEDIMENT BARRIER	322	LF
104-11	FLOATING TURBIDITY BARRIER	455	LF
110-1-1	CLEARING & GRUBBING	1	LS
110-4-10	REMOVAL OF EXISTING CONCRETE	66	SY
120-6	EMBANKMENT	1	LS
327-70-1	MILLING EXISTING ASPHALT PAVEMENT, VARIABLE DEPTH	1234	SY
331-2A	ASPHALTIC CONCRETE TYPE S-I	135.0	TN
331-2B	ASPHALTIC CONCRETE TYPE S-III	101.8	TN
339-1	MISCELLANEOUS ASPHALT PAVEMENT	14.6	TN
400-153	NON SHRINK GROUT, F&I, MISCELLANEOUS- STRUCTURES REHAB	563.0	CF
403-100	MICROSILICA FUME MORTAR SIDEWALK RESURFACING	32.9	CF
411-1	EPOXY MATERIAL FOR CRACK INJECTION - STRUCTURES REHAB	1	GA
411-2	CRACKS INJECT & SEAL - STRUCTURES REHAB	4	LF
457-1-22	STANDARD INTEGRAL PILE JACKET, STRUCTURAL, 16.1 to 30.0"	21	LF
458-1-21	BRIDGE DECK EXPANSION JOINT, REHABILITATION, POURED JOINT WITH BACKER ROD	150	LF
522-1	CONCRETE SIDEWALK, 4" THICK	49	SY
524-1-29	CONCRETE DITCH PAVEMENT, 4", REINFORCED	26	SY
527-2	DETECTABLE WARNINGS	38	SF
530-3-4	RIPRAP, RUBBLE, F&I, DITCH LINING	16.2	TN
530-4-6	ARTICULATING CONCRETE BLOCK REVETMENT SYSTEM, THICKNESS 6"	634	SY
530-74	BEDDING STONE	167.2	TN
536-1-1	GUARDRAIL- ROADWAY, GENERAL TL-3	407	LF
536-8-122	GUARDRAIL TRANSITION CONNECTION TO RIGID BARRIER, F&I- INDEX 536-002, APPROACH TL-3	2	EA
536-8-123	GUARDRAIL TRANSITION CONNECTION TO RIGID BARRIER, F&I- INDEX 536-002, TRAILING	2	EA
536-73	GUARDRAIL REMOVAL	355	LF
536-85-20	GUARDRAIL END TREATMENT- TRAILING ANCHORAGE	2	EA
536-85-24	GUARDRAIL END TREATMENT- PARALLEL APPROACH TERMINAL	2	EA
570-1-2	PERFORMANCE TURF, SOD	700	SY
571-1-12	PLASTIC EROSION MAT, TRM, TYPE 2	82	SY
999-1	PAVING MEMBRANE	51	SY
999-2	POLYMER NOSING SYSTEM	65.8	CF
999-3	PAINTING OF GRAFFITI	3687	SF

EXPANSION JOINT REPAIR TABLE (POURED JOINT)
BRIDGE NO. 014073

LOCATION		DESCRIPTION	LENGTH
JOINT	ZONE		(FT)
END BENT 1	FULL WIDTH	N/A	75
END BENT 5	FULL WIDTH	N/A	75
TOTAL POURABLE JOINT SEAL (LF)			150

NON-SHRINK GROUT
BRIDGE NO. 014073

LOCATION	DESCRIPTION	DIMENSIONS			VOLUME
		LENGTH	WIDTH	DEPTH	
		(FT)	(FT)	(FT)	(CF)
APP. SLAB 1	UNDERMINED	5.0	56.30	1.00	281.5
APP. SLAB 2	UNDERMINED	5.0	56.30	1.00	281.5
NON-SHRINK GROUT TOTAL (CF)					563.0

DIMENSIONS ARE ESTIMATED FOR QUANTITY PURPOSES.

JOINT HEADER POLYMER NOSING
BRIDGE NO. 014073

LOCATION	DESCRIPTION	DIMENSIONS			VOLUME
		LENGTH	WIDTH	DEPTH	
		(IN)	(IN)	(IN)	(CF)
END APP. SLAB 1	JOINT HEADER	800.0	5.0	6.7	15.5
SPAN 1; END BENT 1	JOINT HEADER	800.0	5.0	6.7	15.5
SPAN 4; END BENT 5	JOINT HEADER	800.0	5.0	7.5	17.4
BEGIN APP. SLAB 2	JOINT HEADER	800.0	5.0	7.5	17.4
POLYMER NOSING TOTAL (CF)					65.8

DIMENSIONS ARE ESTIMATED FOR QUANTITY PURPOSES.

PAINTING OF GRAFFITI
BRIDGE NO. 014073

LOCATION	DIMENSIONS		VOLUME
	LENGTH	WIDTH	
	(FT)	(FT)	(SF)
END BENT 1, FRONT FACE	81.0	2.7	218.3
INT. BENT 2, SIDE FACE	81.0	2.9	233.3
INT. BENT 2, PILE FACE	5.0	13.5	67.5
INT. BENT 4, SIDE FACE	81.0	2.8	228.0
INT. BENT 4, PILE FACE	5.0	13.5	67.5
END BENT 5, FRONT FACE	81.0	2.6	211.8
SPAN 1, UNDERSIDE OF SUPERSTRUCTURE	70.0	19.0	1330.0
SPAN 4, UNDERSIDE OF SUPERSTRUCTURE	70.0	19.0	1330.0
TOTAL PAINT (SF)			3687

DIMENSIONS ARE ESTIMATED FOR QUANTITY PURPOSES.

BRIDGE NO. 014073

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REVISIONS

Date	By	Description	Date	By	Description

Shinji Konno, P.E.
P.E. LICENSE NUMBER 39536
HDR Engineering, Inc.
4830 W. Kennedy Blvd., Suite 400
TAMPA, FL 33609-2548

Drawn By: NTR
Checked by: RT
Designed by: CMH
Checked by: SK

CHARLOTTE COUNTY FLORIDA

SHEET TITLE: QUANTITIES

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 3

GENERAL NOTES

DESIGN SPECIFICATIONS:

1. FDOT STRUCTURES MANUAL DATED JANUARY 2022 AND SUBSEQUENT STRUCTURES DESIGN BULLETINS.
2. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.
3. FDOT DESIGN MANUAL DATED JANUARY, 2022 AND SUBSEQUENT ROADWAY DESIGN BULLETINS.

VERTICAL DATUM:

BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

DRAWINGS AND DIMENSIONS:

1. DO NOT SCALE DRAWINGS FOR DIMENSIONS NOT GIVEN.
2. ALL DIMENSIONS ARE IN FEET AND INCHES. ALL DIMENSIONS ARE MEASURED HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.
3. DIMENSIONS, ELEVATIONS AND INTERSECTING ANGLES SHOWN ARE BASED ON INFORMATION AS DETAILED WITHIN THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGE AND UNSIGNED AND UNSEALED SURVEY DATA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THIS DATA BEFORE BEGINNING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

NOTES TO CONTRACTOR:

1. OBTAIN WRITTEN APPROVAL FROM THE COUNTY PRIOR TO COMMENCING THE WORK FOR ANY SUBSTANTIAL DEVIATIONS TO PROPOSED REQUIREMENTS AS OUTLINED IN THE PLANS AND PERMIT DOCUMENTS.
2. MANGROVE LOCATIONS ARE NOTED ON PLAN SHEETS. DO NOT CUT OR TRIM MANGROVES OUTSIDE LIMITS OF CONSTRUCTION.
3. THE CONTRACTOR SHALL COMPLY WITH THE PERMIT CONDITIONS AS APPROVED BY THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD) AND THE US ARMY CORP OF ENGINEERS (USACE).
4. WETLAND AND/OR SURFACE WATER IMPACTS ARE LIMITED TO THE AREAS DESCRIBED IN THE WETLAND AND SURFACE WATER IMPACTS SHEET.

UTILITIES:

1. CONTACT SUNSHINE ONE CALL OF FLORIDA, INC. AS REQUIRED BY CHAPTER 556 OF THE FLORIDA STATUES.
2. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. LOCATE ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION OPERATIONS. IF ANY EXISTING UTILITIES CONFLICT WITH PROPOSED CONSTRUCTION METHODS, MATERIALS OR EQUIPMENT, NOTIFY THE ENGINEER. AVOID ANY DAMAGE TO EXISTING UTILITIES.
3. UTILITY/AGENCY OWNERS

COMPANY	CONTACT	TELEPHONE NUMBERS
CENTURYLINK (LUMEN)	KEN LUTZ	(863) 452-3185
CHARLOTTE COUNTY UTILITIES	BRUCE BULLERT	(941) 764-4509
CHARLOTTE COUNTY BOCC/LIGHTING	ANDY AMENDOLA	(941) 575-3648
FPL-DISTRIBUTION	JULIAN MONTENEGRO	(941) 423-4833

SPECIAL EVENT DAYS FOR THIS PROJECT INCLUDE:

NO SPECIAL EVENTS.

MARINE PROTECTED SPECIES:

1. FOLLOW THE U.S. FISH AND WILDLIFE SERVICE STANDARD MANATEE CONDITIONS FOR IN-WATER WORK (2011).
2. FOLLOW THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL MARINE FISHERIES SERVICE (NMFS) SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS (MARCH 23, 2006).
3. FOLLOW THE NOAA SOUTHEAST REGIONAL OFFICE PROTECTED SPECIES CONSTRUCTION CONDITIONS (MAY 2021).

PAY ITEM NOTE:

THE COST OF LABOR AND REMOVAL ASSOCIATED WITH THE EXPANSION JOINT HEADERS IS CONSIDERED INCIDENTAL TO THE POLYMER NOSING SYSTEM. PAY ITEM 999-2.

BRIDGE NO. 014073

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REVISIONS

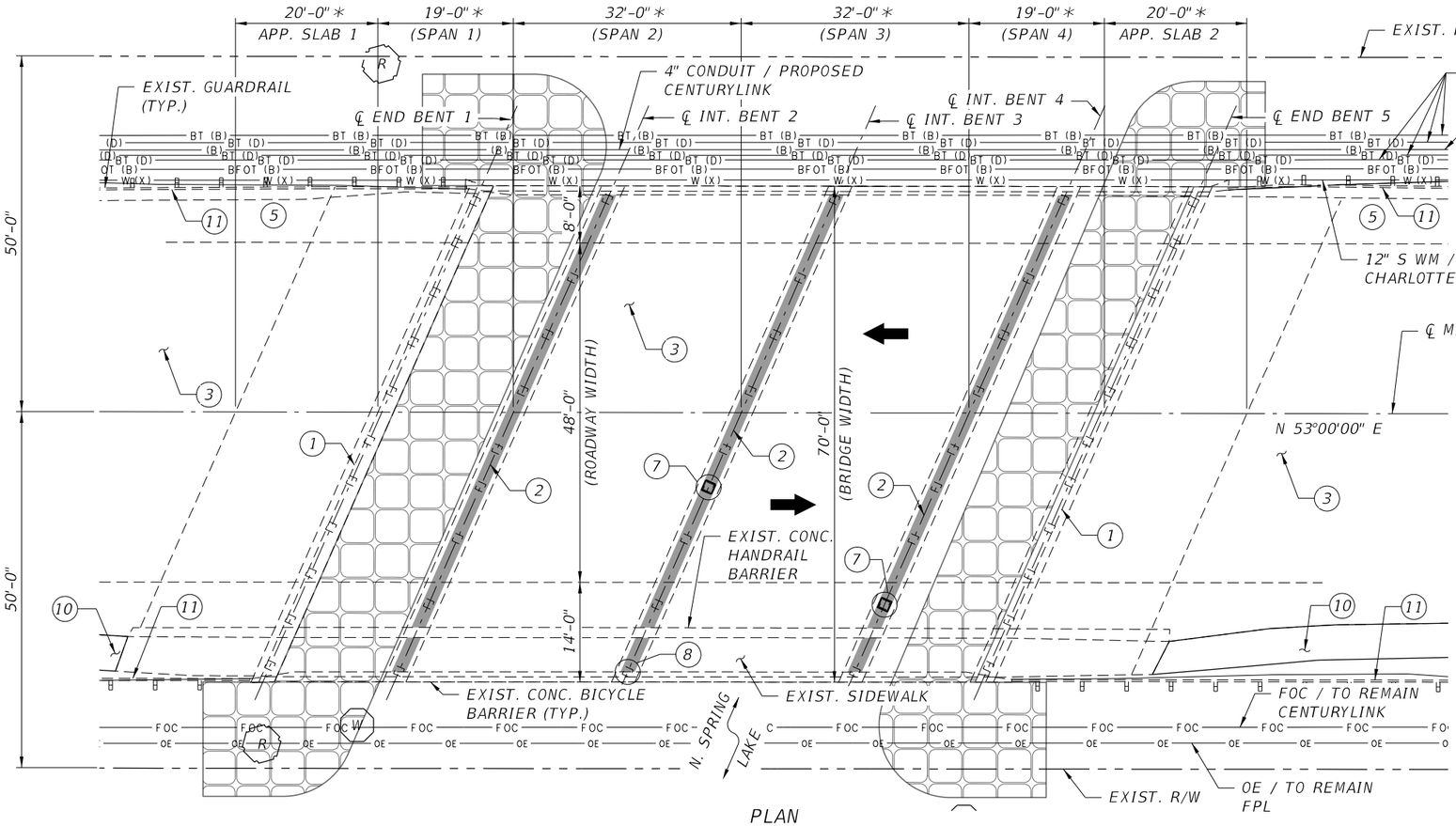
Date	By	Description	Date	By	Description

Shinji Konno, P.E.
P.E. LICENSE NUMBER 39536
HDR Engineering, Inc.
4830 W. Kennedy Blvd., Suite 400
TAMPA, FL 33609-2548

Drawn By: NTR
Checked by: RT
Designed by: CMH
Checked by: SK

CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: GENERAL NOTES
REF. DWG. NO.:
PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE
SHEET NO.: 4



∗BRIDGE SPANS AND APPROACH SLAB LENGTH SHOWN, ARE FROM THE EXISTING BRIDGE PLANS AND PROVIDED FOR INFORMATION ONLY.

DEFECT REPAIR NOTES:

1. REPLACE END BENT EXPANSION JOINTS WITH BACKER ROD SYSTEM AND JOINT HEADERS, SEE MISCELLANEOUS REPAIR DETAILS SHEET (SHEET NO. 25) (PAY ITEM 458-1-21).
2. REPAIR CRACKS AT INTERMEDIATE BENTS WITH JOINT MEMBRANE, SEE MISCELLANEOUS REPAIR DETAILS SHEET (SHEET NO. 25) (PAY ITEM 999-1).
3. MILL AND RESURFACE ASPHALT APPROACHES AND BRIDGE DECK TOPPING, SEE TYPICAL SECTIONS SHEETS, ROADWAY PLAN SHEET AND TEMPORARY TRAFFIC CONTROL PLAN SHEETS (SHEET NOS. 6 THRU 21) (PAY ITEMS 327-70-1, 331-2A & 331-2B).
4. REPAIR UNDERMINED APPROACH SLABS WITH CEMENT GROUT, SEE MISCELLANEOUS REPAIR DETAILS (SHEET NO. 25) (PAY ITEM 400-153).
5. CONSTRUCT CONCRETE FLUMES, SEE DRAINAGE DETAILS SHEET (SHEET NO. 29) (PAY ITEMS 524-1-29, 530-3-4 & 530-74).
6. REMOVE CONCRETE APRON AND FABRIFORM SLOPE PROTECTION AT END BENTS AND INSTALL ARTICULATING CONCRETE BLOCK REVETMENT SCOUR AND EROSION COUNTERMEASURES, SEE ABUTMENT ARMORING DETAILS SHEETS (SHEET NOS. 26 THRU 27) (PAY ITEMS 110-4-10 & 530-4-6).
7. REPAIR/CONSTRUCT INTEGRAL STRUCTURAL PILE JACKETS, SEE PILE JACKET DETAILS SHEET (SHEET NO. 24) (PAY ITEM 457-1-22).
8. REPAIR CRACKS IN CONCRETE PILES WITH EPOXY INJECTION, SEE CONCRETE RESTORATION DETAILS SHEETS (SHEET NOS. 22 THRU 23) (PAY ITEMS 411-1 & 411-2).
9. CLEAN CONCRETE SURFACE AND APPLY TWO COATS OF PAINT OVER GRAFFITI THROUGHOUT UNDERSIDE OF DECK, BENT CAPS AND PILES WITH FEDERAL COLOR STANDARD NO. 36622 (STANDARD CONCRETE GRAY). METHOD OF CLEANING TO BE APPROVED BY THE ENGINEER. (PAY ITEM 999-3)
10. REMOVE AND REPLACE CRACKED SIDEWALK PANELS, SEE ROADWAY PLAN SHEET AND TEMPORARY TRAFFIC CONTROL PLAN SHEETS (SHEET NOS. 8 THRU 21) (PAY ITEMS 110-4-10 & 522-1).
11. REMOVE AND REPLACE GUARDRAILS, SEE ROADWAY PLAN SHEET AND TEMPORARY TRAFFIC CONTROL PLAN SHEETS (SHEET NOS. 8 THRU 21) (PAY ITEMS 339-1, 536-1-1, 536-8-122, 536-8-123, 536-73, 536-85-20 & 536-85-24).

BRIDGE NO. 014073

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

REVISIONS					
Date	By	Description	Date	By	Description

Shinji Konno, P.E.
P.E. LICENSE NUMBER 39536
HDR Engineering, Inc.
4830 W. Kennedy Blvd., Suite 400
TAMPA, FL 33609-2548

Drawn By: NTR
Checked by: RT
Designed by: CMH
Checked by: SK

CHARLOTTE COUNTY FLORIDA

SHEET TITLE: PLAN AND ELEVATION

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 5

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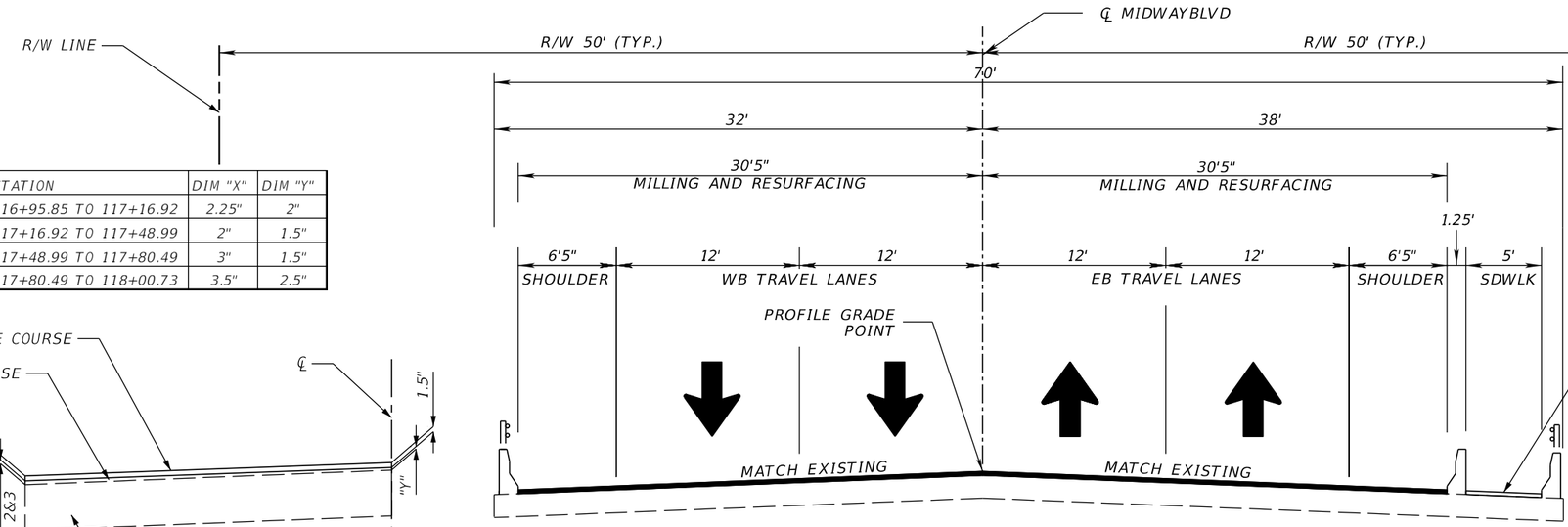


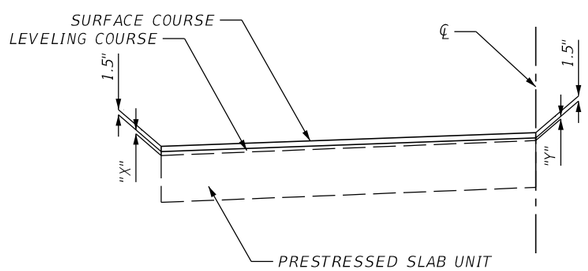
TYPICAL SECTION
MIDWAY APPROACH SLAB/BRIDGE
MIDWAY BOULEVARD
STA. 116+63.54 TO STA. 118+33.04

SPAN	STATION	DIM "X"	DIM "Y"
1	116+95.85 TO 117+16.92	2.25"	2"
2	117+16.92 TO 117+48.99	2"	1.5"
3	117+48.99 TO 117+80.49	3"	1.5"
4	117+80.49 TO 118+00.73	3.5"	2.5"

BRIDGE DECK LEVELING COURSE

NTS

SLAB	STATION	DIM "X"	DIM "Y"
1	116+76.86 TO 116+95.85	2.5"	9/16"
2	118+00.73 TO 118+19.72	3.5"	9/16""



APPROACH SLAB LEVELING COURSE

NTS

TRAFFIC DATA

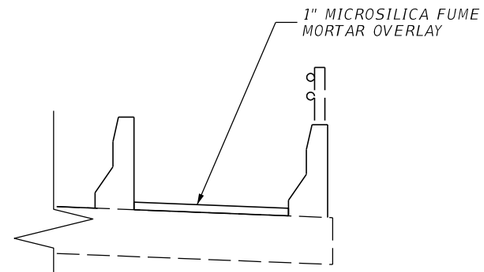
CURRENT YEAR = 2022 AADT = 4,300
DESIGN SPEED = 35 MPH

VARIABLE MILLING

MILL EXISTING ASPHALT
PAVEMENT FOR DEPTH (1 ½") TO (4 ½")

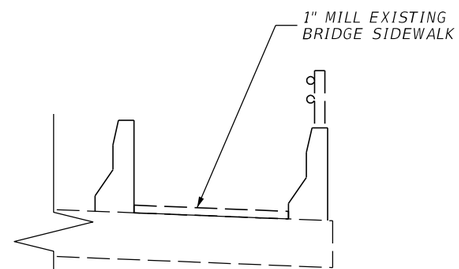
RESURFACING

ASPHALT CONCRETE TYPE S (1 ½") TO (4 ½")



BRIDGE SIDEWALK FINISHING DETAIL

NTS



BRIDGE SIDEWALK MILLING DETAIL

NTS

NOTE: DUE TO THE SKEW OF THE APPROACH SLAB A PORTION OF ROADWAY PAVEMENT WILL BE MILLED AND RESURAFCED

BRIDGE NO. 014073

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REVISIONS					
Date	By	Description	Date	By	Description

EDWARD G WOLFSON, P.E.
P.E. LICENSE NUMBER 60935
HDR ENGINEERING, INC.
315 E.ROBINSON ST., SUITE 400
ORLANDO, FL 32801

Drawn By: JMD
Checked by: BLM
Designed by: JMD
Checked by: EGW

CHARLOTTE COUNTY FLORIDA

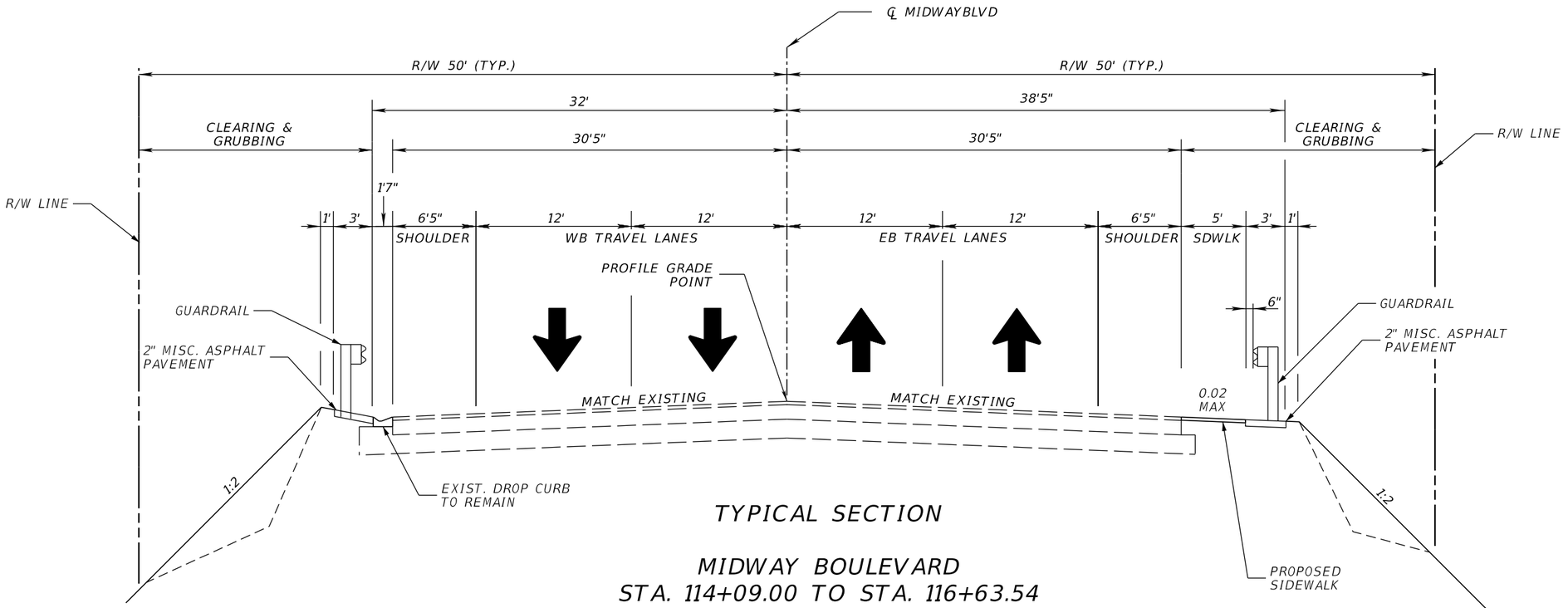
SHEET TITLE: TYPICAL SECTIONS

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

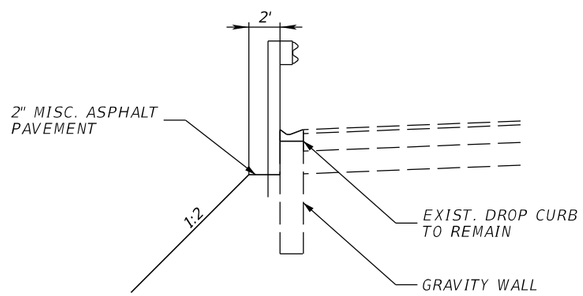
SHEET NO. 6

NROSALES 11/13/2024 3:55:49 PM PW:\



TYPICAL SECTION

MIDWAY BOULEVARD
STA. 114+09.00 TO STA. 116+63.54
STA. 118+33.04 TO STA. 120+21.76



GUARDRAIL POST BEHIND WALL

NTS

TRAFFIC DATA

CURRENT YEAR = 2022 AADT = 4,300
DESIGN SPEED = 35 MPH

BRIDGE NO. 014073

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

REVISIONS					
Date	By	Description	Date	By	Description

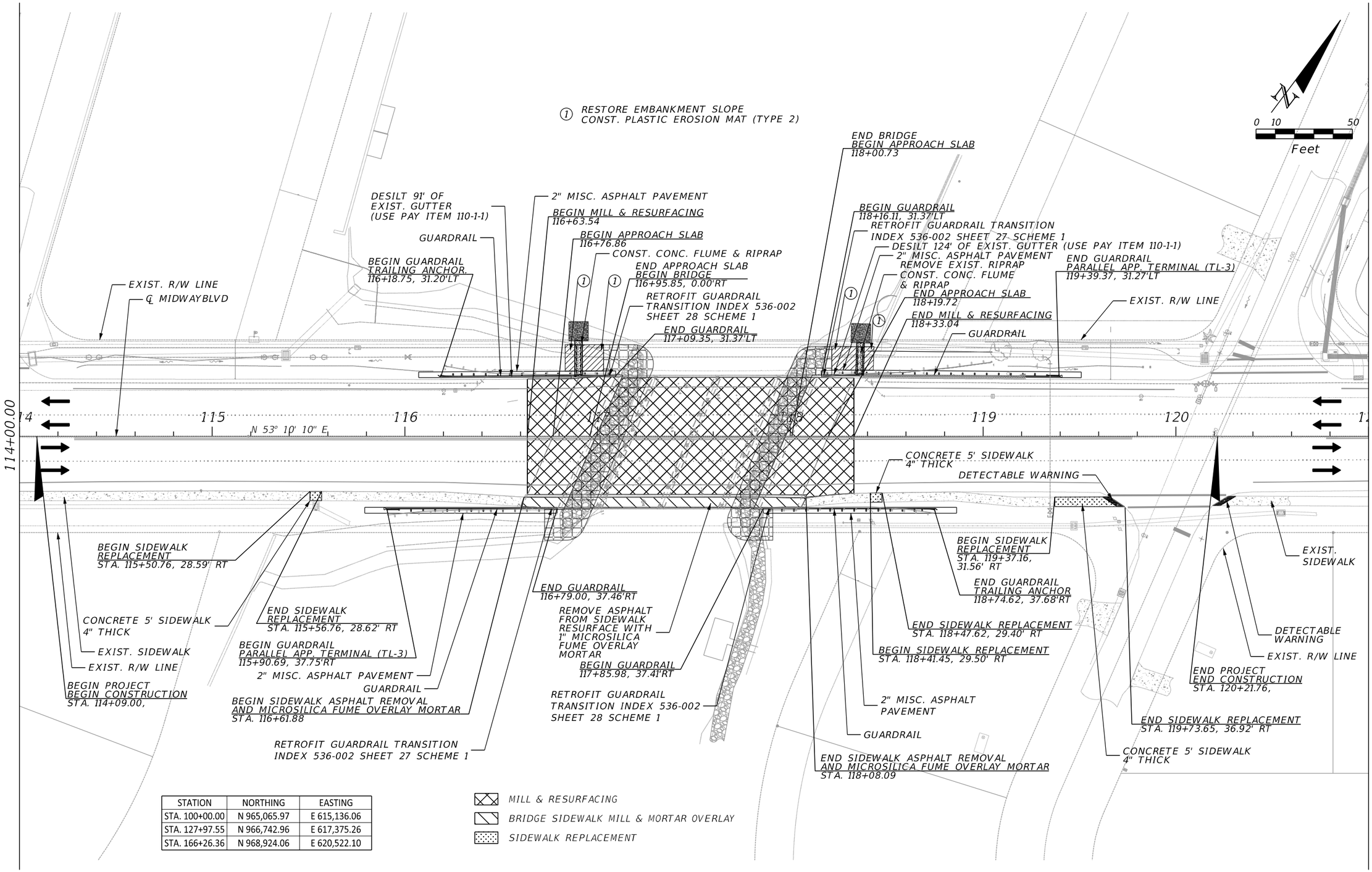
EDWARD G WOLFSON, P.E.
P.E. LICENSE NUMBER 60935
HDR ENGINEERING, INC.
315 E.ROBINSON ST., SUITE 400
ORLANDO, FL 32801

Drawn By:	JMD
Checked by:	BLM
Designed by:	JMD
Checked by:	EGW

CHARLOTTE COUNTY FLORIDA

SHEET TITLE: TYPICAL SECTIONS
REF. DWG. NO.:
PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE
SHEET NO.: 7

NROSALES 11/13/2024 3:55:49 PM PW:\



STATION	NORTHING	EASTING
STA. 100+00.00	N 965,065.97	E 615,136.06
STA. 127+97.55	N 966,742.96	E 617,375.26
STA. 166+26.36	N 968,924.06	E 620,522.10

BRIDGE NO. 014073

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315 E.ROBINSON ST., SUITE 400
ORLANDO, FL 32801

Drawn By: JMD
Checked by: BLM
Designed by: JMD
Checked by: EGW

CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: ROADWAY PLAN

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 8

NROSALES 11/13/2024 3:56:05 PM PW:\

THE FOLLOWING GENERAL NOTES APPLY TO THE TEMPORARY TRAFFIC CONTROL PLANS

1. THE REGULATORY SPEED DURING ALL MAINTENANCE OF TRAFFIC PHASES SHALL BE AS FOLLOWS FOR THE FOLLOWING ROADWAY UNLESS OTHERWISE NOTED IN THE TRAFFIC CONTROL PLANS:

   MIDWAY BLVD. – STA 100+00.00 TO 166+26.36 35 MPH

   EXISTING REGULATORY SIGNS WITHIN THE LIMITS OF THE PROJECT SHALL REMAIN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

2. LOCATIONS FOR ADVANCED WARNING AND END CONSTRUCTION SIGNS, AS DEPICTED ON THE TRAFFIC CONTROL PLANS ARE APPROXIMATE. POSITION SIGNS APPROPRIATELY CONSIDERING THE EXISTING FIELD CONDITIONS.

3. FOR TEMPORARY CONSTRUCTION SIGNS LOCATED IN PAVED AREAS, PROVIDE TEMPORARY SIGN SUPPORT THAT DO NOT PENETRATE THE PAVEMENT.

4. ALL DRAINAGE SLOTS IN TEMPORARY BARRIER WALLS, PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICES, AND CURBS SHALL BE KEPT CLEAR OF SEDIMENT AND DEBRIS FOR DRAINAGE CONTROL PURPOSES.

5. ALL LANES USED FOR MAINTENANCE OF TRAFFIC SHALL HAVE A PAVED SURFACE.

6. UNLESS OTHERWISE SHOWN IN THE TRAFFIC CONTROL PLANS, THE LOCATION OF PCMS SHALL BE DETERMINED BY THE ENGINEER.

7. PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICES (PLCD) SHALL BE USED AT ANY WORK ZONE NEAR A HIGHLY TRAVELED PEDESTRIAN MOVEMENT IN ORDER TO RESTRICT PEDESTRIANS FROM ENTERING THE WORK ZONE.

8. MAINTAIN AND KEEP STREET NAME IDENTIFICATION VISIBLE DURING CONSTRUCTION OPERATIONS, IN ORDER TO FACILITATE EMERGENCY VEHICLE TRAFFIC AND LOCAL MOTORISTS.

9. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PLACED AT LOCATIONS NOT TO OBSTRUCT VISIBILITY OF STREET NAME SIGNS.

10. STATION AND OFFSET CALLOUTS ARE BASED ON THE CENTER LINE OF CONSTRUCTION.

11. LANE CLOSURES WILL BE ALLOWED AS SHOWN BELOW. LANE CLOSURES OUSIDE OF THE TIME PERIODS SHOWN BELOW WILL REQUIRE THE APPROVAL OF THE CHARLOTTE COUNTY ENGINEER.

	SINGLE LANE CLOSURE (ONE LANE OPEN, ONE CLOSED)
MIDWAY BLVD. OPEN ROAD	7:00 AM – 8:00 PM

12. LANE CLOSURES FOR WORK ALONG MIDWAY BOULEVARD SHALL BE IN ACCORDANCE WITH STANDARD INDEX 102-613, AND 102-615. STD. INDEX NO. 102-607 SHALL BE USED FOR MOBILE OPERATIONS.

13. AT THE DISCRETION OF THE ENGINEER, OPEN ANY TEMPORARY LANE CLOSURE CAUSING EXTENDED TRAFFIC CONGESTION (5 MINUTE DELAY) MAY BE SUSPENDED UNTIL TRAFFIC HAS RETURNED TO AN ACCEPTABLE FLOW AS DETERMINED BY THE ENGINEER.

14. TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT OR REMOVE LANE CLOSURE OR CHANNELIZATIONS SHOWN IN THE PLANS. MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. RESPOND TO ANY REQUESTS MADE BY THE ENGINEER FOR CORRECTION, IMPROVEMENT OR MODIFICATION OF ALL TEMPORARY TRAFFIC CONTROL DEVICES WITHIN 30 MINUTES FROM THE TIME OF NOTIFICATION.

15. NOTIFY CHARLOTTE COUNTY PUBLIC WORKS, EMERGENCY SERVICES, SCHOOL BOARD AND MEDIA AS LISTED BELOW 24 HOURS PRIOR TO EACH LANE CLOSURE. IF THE CLOSURE IS TO EXTEND FOR MORE THAN ONE (1) DAY, NOTIFICATION SHALL BE MADE EACH DAY PRIOR TO THE FOLLOWING DAY'S CLOSURE.

   CHARLOTTE COUNTY PUBLIC WORKS: TRACY DOHERTY (PUBLIC RELATIONS MANAGER) – (941) 575-3643, TRACY.DOHERTY@CHARLOTTECOUNTYFL.GOV
   CHARLOTTE COUNTY SHERIFF: (941) 639-2101
   CHARLOTTE COUNTY FIRE/EMS: (941) 833-5600
   CHARLOTTE COUNTY FIRE HEADQUARTERS: (941) 833-5600
   CHARLOTTE COUNTY SCHOOL BOARD TRANSPORTATION DIVISION: (941) 575-5432
   MEDIA (NOTIFY APPLICABLE ONE(S)):
   CHARLOTTE SUN HERALD – (941) 206-1000
   CHARLOTTE HERALD TRIBUNE NEWSPAPER – (941) 475-5475
   ENGLEWOOD SUN HERALD TRIBUNE NEWSPAPER – (941) 681-3000
   SARASOTA HERAL TRIBUNE NEWSPAPER – (941) 953-7755
   VENICE GONDOLIER NEWSPAPER – (941) 207-1000
   I HEART MEDIA PORT CHARLOTTE, PUNTA GORDA, SARASOTA – (941) 206-1188
   KIX COUNTRY 92.9 WIKX RADIO STATION-PUNTA GORDA – (941) 206-1188
   98.9 MY FM-PORT CHARLOTTE, PUNTA GORDA – (941) 206-1188
   SEAVIEW 104.9 RADIO STATION-PUNTA GORDA – (941) 206-1188

16. TEMPORARY RETROREFLECTIVE RAISED PAVEMENT MARKERS SHALL BE INSTALLED THROUGHOUT ALL TRAFFIC CONTROL PHASES AND SPACED AS SPECIFIED IN STANDARD INDEX NO. 102-600. DO NOT USE LOW PROFILE REFLECTIVE PAVEMENT MARKERS.

17. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED THROUGHOUT THE PROJECT LIMITS IN ACCORDANCE WITH INDEX 102-660.

18. ENSURE PEDESTRIAN AND VEHICULAR TRAFFIC SURFACES ARE FREE OF LOOSE DEBRIS PRIOR TO EACH PHASE.

19. CONTROL TRAFFIC IN ACCORDANCE WITH THE PROJECT PLANS, THE CURRENT EDITION OF THE FDOT DESIGN STANDARDS (INDEX 102-600 SERIES) (2021-22), THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2021-22), THE PROJECT SPECIAL PROVISIONS AND TECHNICAL SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009, 2012 REV.).

20. PLACE PCMS AT EACH APPROACH END OF PROJECT AS FOLLOWS:

   MINIMUM 14 DAYS PRIOR TO WORK START:

MESSAGE 1:	MESSAGE 2:
ROAD	MONTH
WORK	DAY
BEGINS	YEAR

   DURING MILLING AND RESURFACING/STRIPING OPERATIONS:

NIGHTLY	MM/DD/YY
LANE	TO
CLOSURES	MM/DD/YY

   DURING LONG TERM LANE CLOSURE:

LEFT	MERGE
LANE	RIGHT
CLOSED	

21. ROLLERS ARE TO BE USED IN STATIC MODE ONLY DURING PAVING OPERATIONS TO AVOID DISTURBANCE OF RESIDENTIAL PROPERTIES.

SIGNING AND PAVEMENT MARKINGS

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

DROP-OFFS

1. FOR DROP OFFS, ATTENTION IS DIRECTED TO DESIGN STANDARD INDEX 102 SERIES. USE SHOULDER TREATMENT DETAIL WHEN NO BARRIERS ARE REQUIRED IN THE PLANS.

2. ESTABLISH A WORK SCHEDULE TO ENSURE ALL DROP-OFF CONDITIONS AT THE END OF THE WORK PERIOD ARE SHIELDED OR ARE IN CONFORMANCE WITH THE DESIGN STANDARD INDEX 102-600 SERIES AT ALL TIMES.

PEDESTRIANS, BICYCLES, WHEELCHAIRS, BUS STOP ACCESS

1. AT THE END OF EACH WORK PERIOD OR WHENEVER THE WORK ZONE BECOMES INACTIVE, BACKFILL FLUSH OR PROTECT ANY DROP OFF GREATER THAN 3-INCHES ADJACENT TO THE PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAVEL PATHS WITH TEMPORARY FENCE, CONCRETE BARRIER WALL OR APPROVED HANDRAIL.

2. EXISTING PEDESTRIAN AND BICYCLE ACCESS WITHIN THE PROJECT MUST BE MAINTAINED, AT THE MINIMUM, ON ONE SIDE OF THE STREET DURING CONSTRUCTION UNLESS APPROVED BY THE ENGINEER.

3. PROVIDE CONNECTIVITY BETWEEN CONSTRUCTED AND EXISTING PEDESTRIAN FACILITIES.

TTCP GENERAL NOTES

BRIDGE NO. 014073

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REVISIONS

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EDWARD G WOLFSON, P.E.
P.E. LICENSE NUMBER 60935
HDR ENGINEERING, INC.
315 E.ROBINSON ST., SUITE 400
ORLANDO, FL 32801

Drawn By: JMD
Checked by: BLM
Designed by: JMD
Checked by: EGW

CHARLOTTE COUNTY FLORIDA

SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 9

NROSALES 11/13/2024 3:56:11 PM PW:\

PHASE 1:
THE PURPOSE OF THIS PHASE IS TO MILL APPROACH SLAB AND BRIDGE DECK AND CONSTRUCT THE TEMPORARY SIDEWALK.

PHASE 1 STEP 1:

1. PLACE ADVANCED WARNING SIGNAGE AND PCMS AND DEVICES ACCORDING TO STANDARD INDEX 102-613 AND TRAFFIC CONTROL PLANS
2. CONSTRUCT THE TEMPORARY SIDEWALK UTILIZING STANDARD PLANS INDEX 102-660 IN CONJUNCTION WITH THE TRAFFIC CONTROL PLANS.
3. INSTALL TEMPORARY STRIPING, DEVICES AND TEMPORARY BARRIER WALL. OBLITERATE EXISTING STRIPING UTILIZING METHODS APPROVED BY THE COUNTY.
4. CONSTRUCT PROPOSED GUARDRAIL ON WESTBOUND ROADWAY PER ROADWAY PLANS.

PHASE 1 STEP 2:

1. SHIFT PED TRAFFIC TO PED DETOUR UTILIZING STANDARD PLANS INDEX 102-660 IN CONJUNCTION WITH THE TRAFFIC CONTROL PLANS.
2. CONSTRUCT THE PROPOSED SOUTHSIDE SIDEWALK IMPROVEMENTS PER ROADWAY PLANS.
3. CONSTRUCT PROPOSED GUARDRAIL ON EASTBOUND ROADWAY PER ROADWAY PLANS.

PHASE 1 STEP 3:

1. REMOVE PEDESTRIAN DETOUR SIGNAGE AND TEMPORARY BARRIER WALL.
2. REMOVE TEMPORARY SIDEWALK AND REPLACE.

PHASE 2:

THE PURPOSE OF THIS PHASE IS TO MILL THE WESTBOUND TRAVEL LANES AND SHOULDER, COMPLETE JOINT REPAIRS AND RESURFACE USING LONG TERM LANE CLOSURES.

1. PLACE TEMP STRIPING, DEVICES AND SIGNAGE IN ACCORDANCE WITH INDEX 102-620 TO REDUCE TO ONE LANE IN EACH DIRECTION ON THE EASTBOUND TRAVEL LANES AS SHOWN IN THE TYPICAL SECTION. OBLITERATE CONFLICTING PAVEMENT MARKINGS UTILIZING METHODS APPROVED BY THE COUNTY. ENSURE ACCESS PROVIDED TO SIDE STREETS AND DRIVEWAYS AT ALL TIMES.
2. MILL TO EXPOSE THE EXISTING BRIDGE DECK AND CONCRETE APPROACH SLAB. EXERCISE CAUTION NOT TO OVER MILL INTO THE EXPOSED CONCRETE SURFACE.
3. CONSTRUCT THE JOINT REPAIRS AS SHOWN IN THE PLANS.
4. RESURFACE THE MILLED AREA THROUGH FINAL SURFACE.

PHASE 3

THE PURPOSE OF THIS PHASE IS TO MILL THE EASTBOUND LANES AND SHOULDER, COMPLETE JOINT REPAIRS AND RESURFACE USING LONG TERM LANE CLOSURES AND PLACE FINAL STRIPING.

1. PLACE TEMP STRIPING, DEVICES AND SIGNAGE IN ACCORDANCE WITH INDEX 102-620 TO REDUCE TO ONE LANE EACH DIRECTION ON THE WESTBOUND TRAVEL LANES AS SHOWN IN THE TYPICAL SECTION. OBLITERATE CONFLICTING PAVEMENT MARKINGS UTILIZING METHODS APPROVED BY THE COUNTY. ENSURE ACCESS PROVIDED TO SIDE STREETS AND DRIVEWAYS AT ALL TIMES
2. MILL TO EXPOSE THE EXISTING BRIDGE DECK AND CONCRETE APPROACH SLAB. EXERCISE CAUTION NOT TO OVER MILL INTO THE EXPOSED CONCRETE SURFACE.
3. CONSTRUCT JOINT REPAIRS AS SHOWN IN THE PLANS.
4. RESURFACE THE MILLED AREA THROUGH FINAL SURFACE.
5. PLACE FINAL STRIPING ON WESTBOUND LANES.
6. SHIFT WESTBOUND TRAFFIC TO FINAL WESTBOUND LANES.
7. UTILIZE INDEX 102-620 TO PLACE FINAL STRIPING ON EASTBOUND LANES. OBLITERATE TEMP PAVEMENT MARKINGS UTILIZING METHODS APPROVED BY THE COUNTY.

LEGEND FOR TRAFFIC CONTROL PLANS

- PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICE
- CHANNELIZING DEVICE (CONE OR DRUM)
- WORK ZONE
- TRAFFIC DIRECTION
- TYPE III BARRICADE
- PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGN
- PEDESTRIAN PATH
- CRASH CUSHION (CC)
- WORK ZONE SIGN
- TEMP. BARRIER WALL
- PREVIOUSLY CONSTRUCTED
- TEMP. SIDEWALK
- TEMP SIDEWALK PREVIOUSLY CONSTRUCTED
- ADVANCED WARNING PANEL ARROW

LEGEND FOR TRAFFIC CONTROL TYPICAL SECTIONS

- CHANNELIZING DEVICE (CONE OR DRUM)
- TEMPORARY TYPE K BARRIER WALL
- TEMPORARY LANE SEPARATOR

TTCP PHASING NOTES

BRIDGE NO. 014073

REVISIONS

Date	By	Description	Date	By	Description

EDWARD G WOLFSON, P.E.
P.E. LICENSE NUMBER 60935
HDR ENGINEERING, INC.
315 E.ROBINSON ST., SUITE 400
ORLANDO, FL 32801

Drawn By: JMD
Checked by: BLM
Designed by: JMD
Checked by: EGW

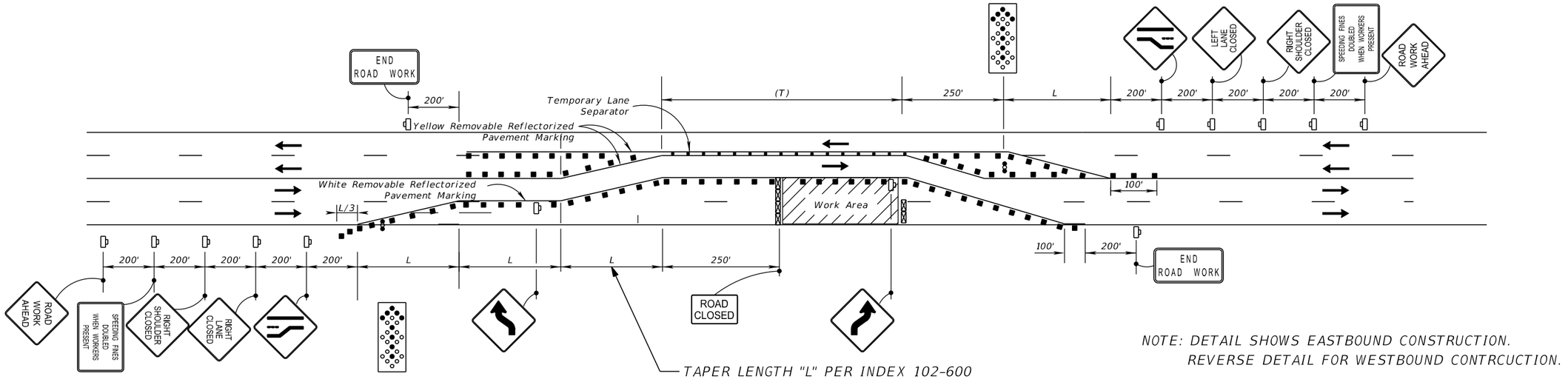
CHARLOTTE COUNTY FLORIDA

SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

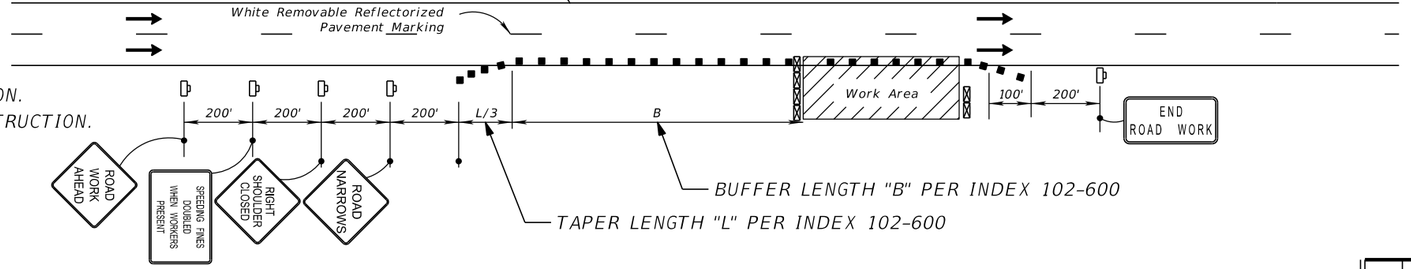
SHEET NO.: 10



NOTE: DETAIL SHOWS EASTBOUND CONSTRUCTION.
REVERSE DETAIL FOR WESTBOUND CONTRCUCTION.

ADVANCE SIGNING DETAIL LANE/SHOULDER CLOSURE

NTS

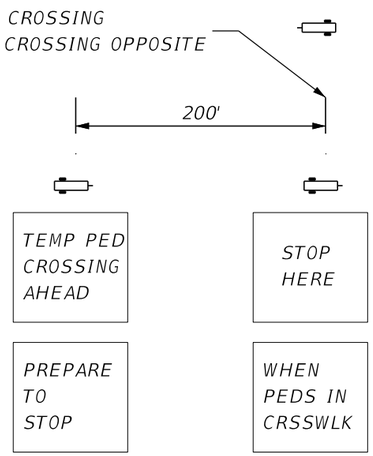


NOTE: DETAIL SHOWS EASTBOUND CONSTRUCTION.
REVERSE DETAIL FOR WESTBOUND CONSTRUCTION.

ADVANCE SIGNING DETAIL SHOULDER CLOSURE/LANE WIDTH REDUCTION

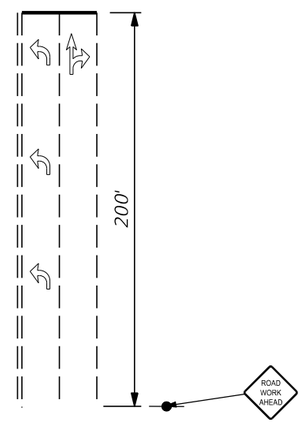
NTS

WEST END OF PROJECT PED CROSSING
EAST END OF PROJECT PED CROSSING OPPOSITE



ADVANCE PCMS PEDESTRIAN CROSSING

NTS



SIDE STREET SIGNING DETAIL

NTS

TTCP ADVANCE SIGNING

BRIDGE NO. 014073

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CHARLOTTE COUNTY FLORIDA

NROSALES

SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 11

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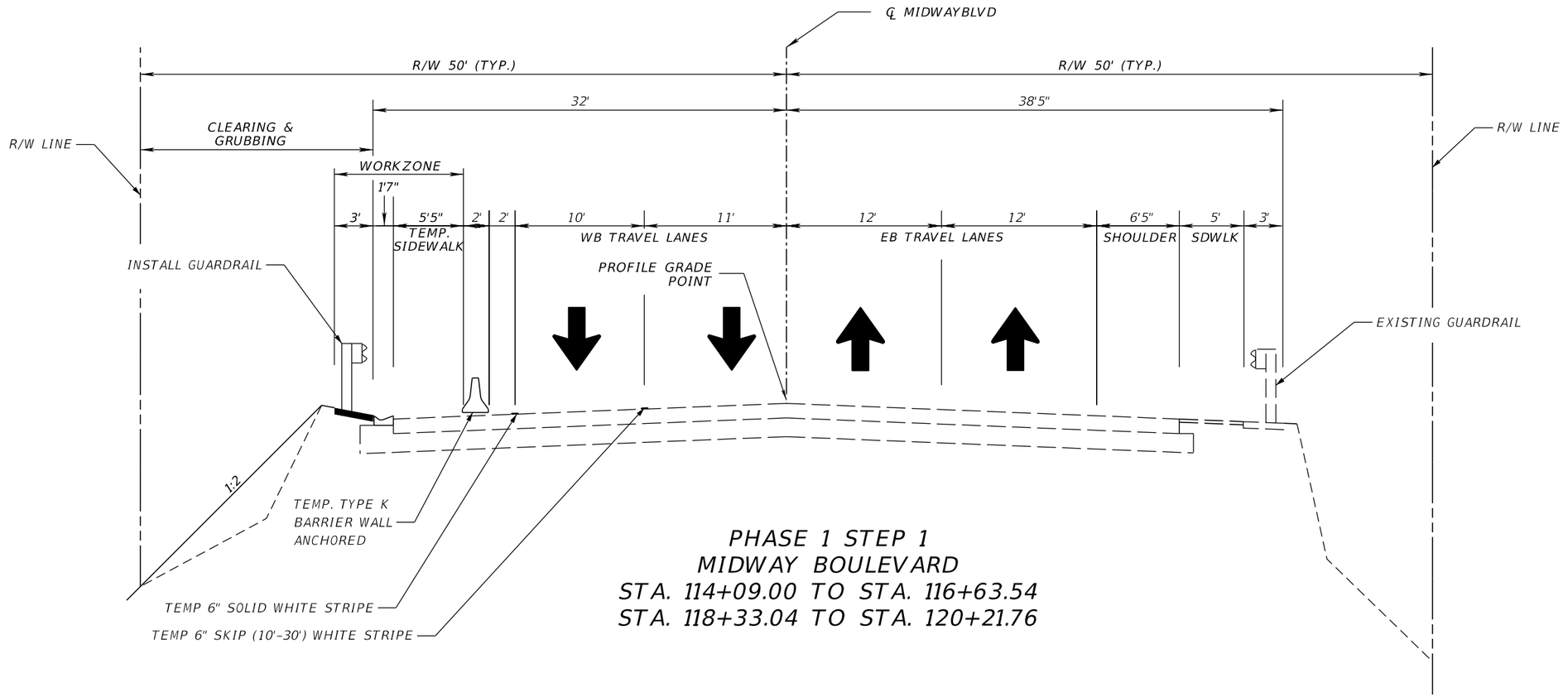

PHASE 1 STEP 1
MIDWAY BOULEVARD
STA. 114+09.00 TO STA. 116+63.54
STA. 118+33.04 TO STA. 120+21.76

BRIDGE NO. 014073

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ORLANDO, FL 32801

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CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 12

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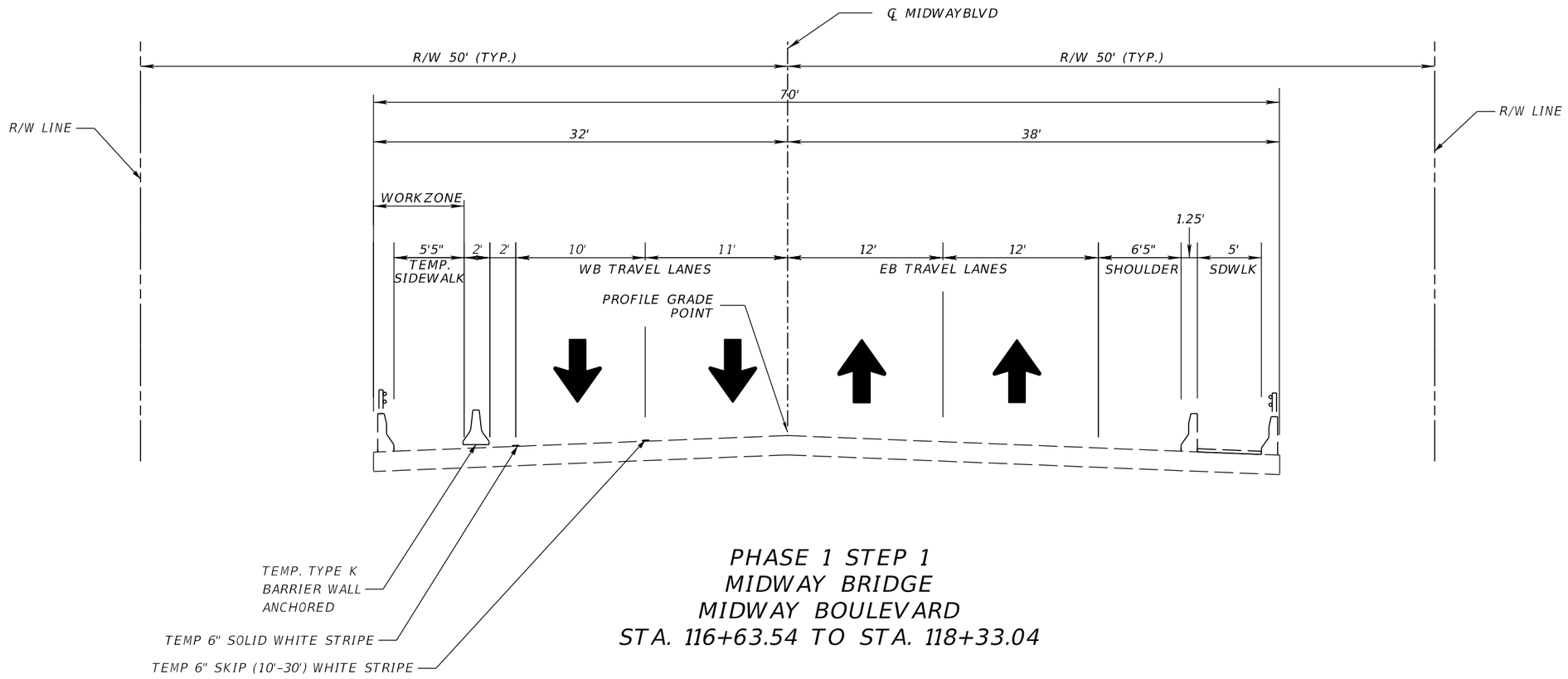

PHASE 1 STEP 1
MIDWAY BRIDGE
MIDWAY BOULEVARD
STA. 116+63.54 TO STA. 118+33.04

BRIDGE NO. 014073

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CHARLOTTE COUNTY FLORIDA

SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 13

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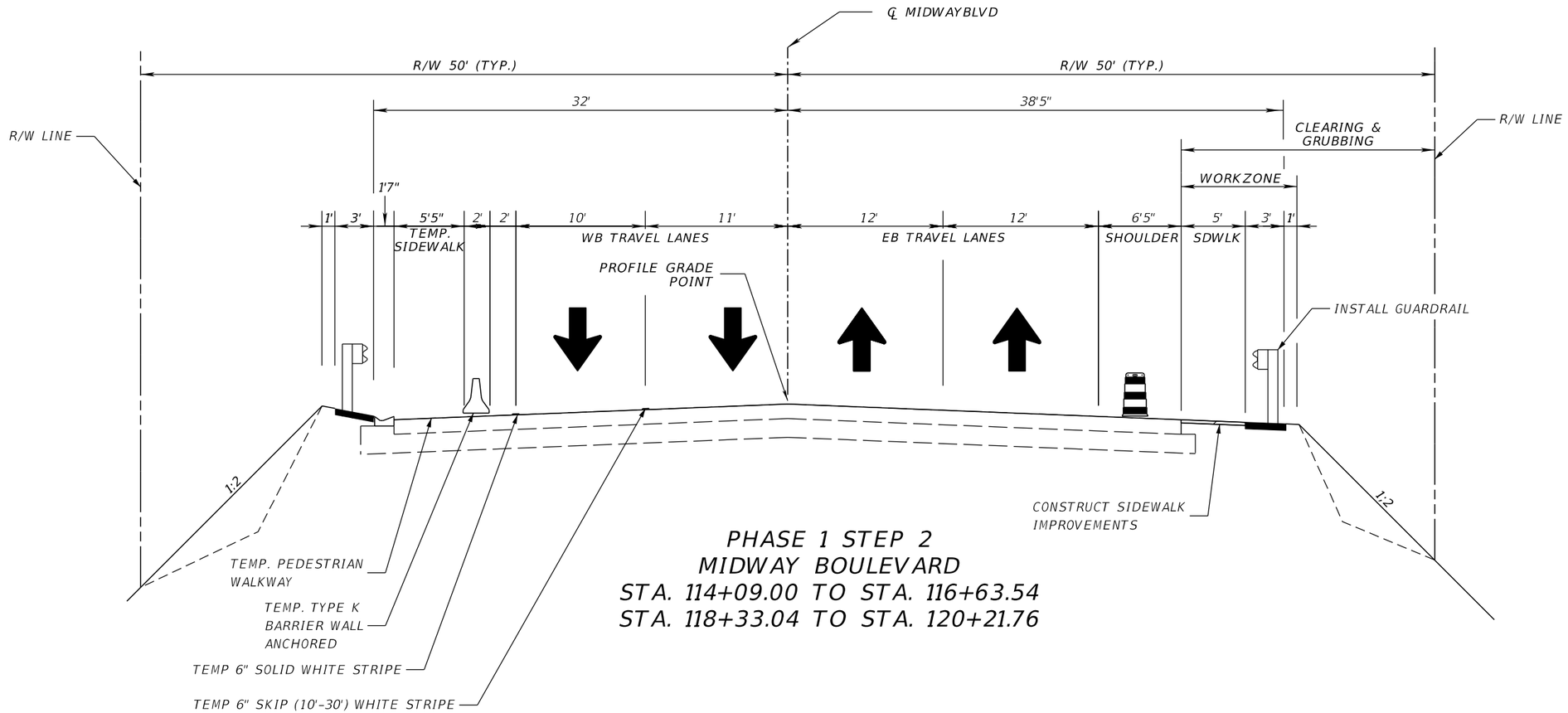

PHASE 1 STEP 2
MIDWAY BOULEVARD
STA. 114+09.00 TO STA. 116+63.54
STA. 118+33.04 TO STA. 120+21.76

BRIDGE NO. 014073

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CHARLOTTE COUNTY FLORIDA

SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 14

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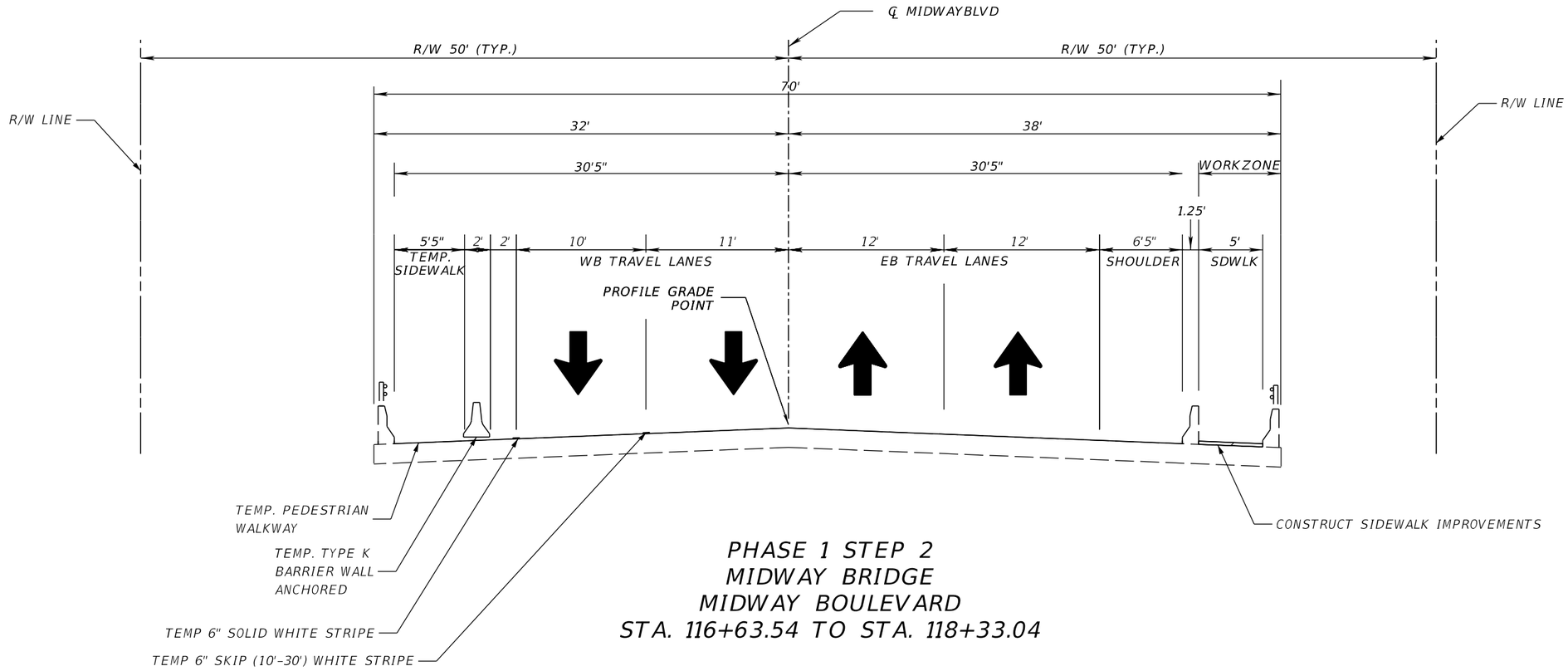

PHASE 1 STEP 2
MIDWAY BRIDGE
MIDWAY BOULEVARD
STA. 116+63.54 TO STA. 118+33.04

BRIDGE NO. 014073

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CHARLOTTE COUNTY
FLORIDA

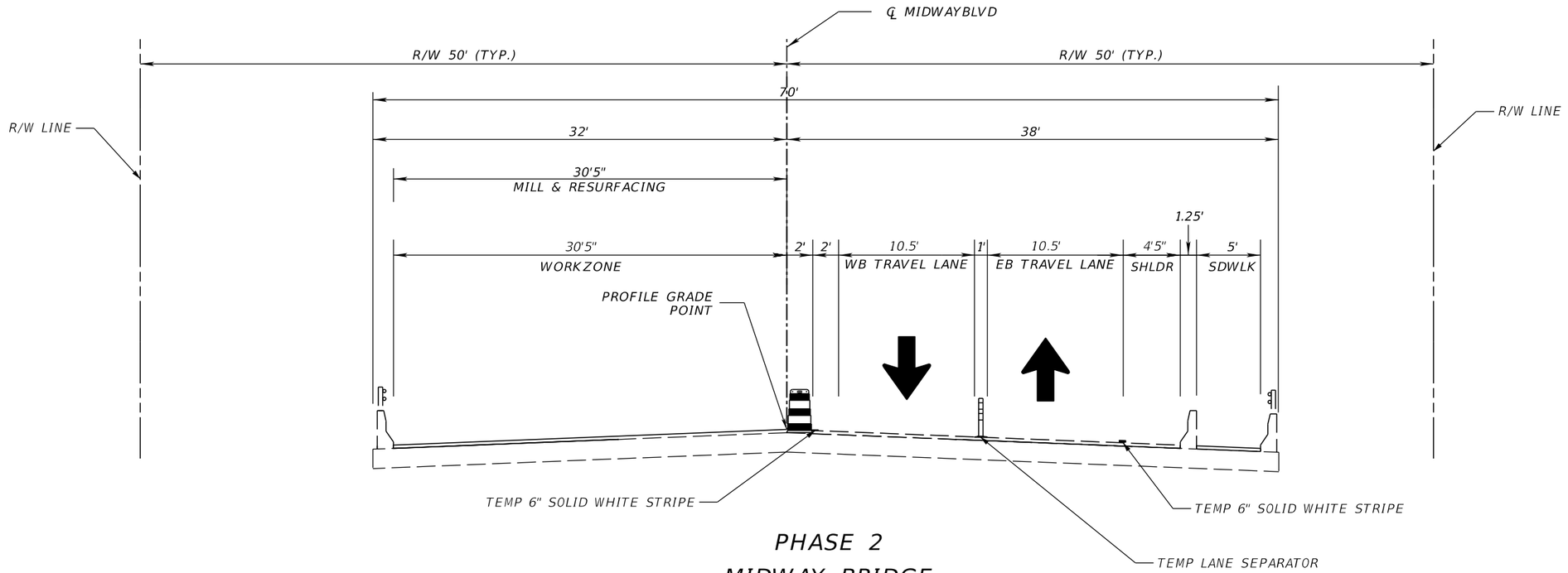
SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 15

NROSALES 11/13/2024 3:56:22 PM PW:\



PHASE 2
MIDWAY BRIDGE
MIDWAY BOULEVARD
STA. 116+63.54 TO STA. 118+33.04

BRIDGE NO. 014073

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CHARLOTTE COUNTY
FLORIDA

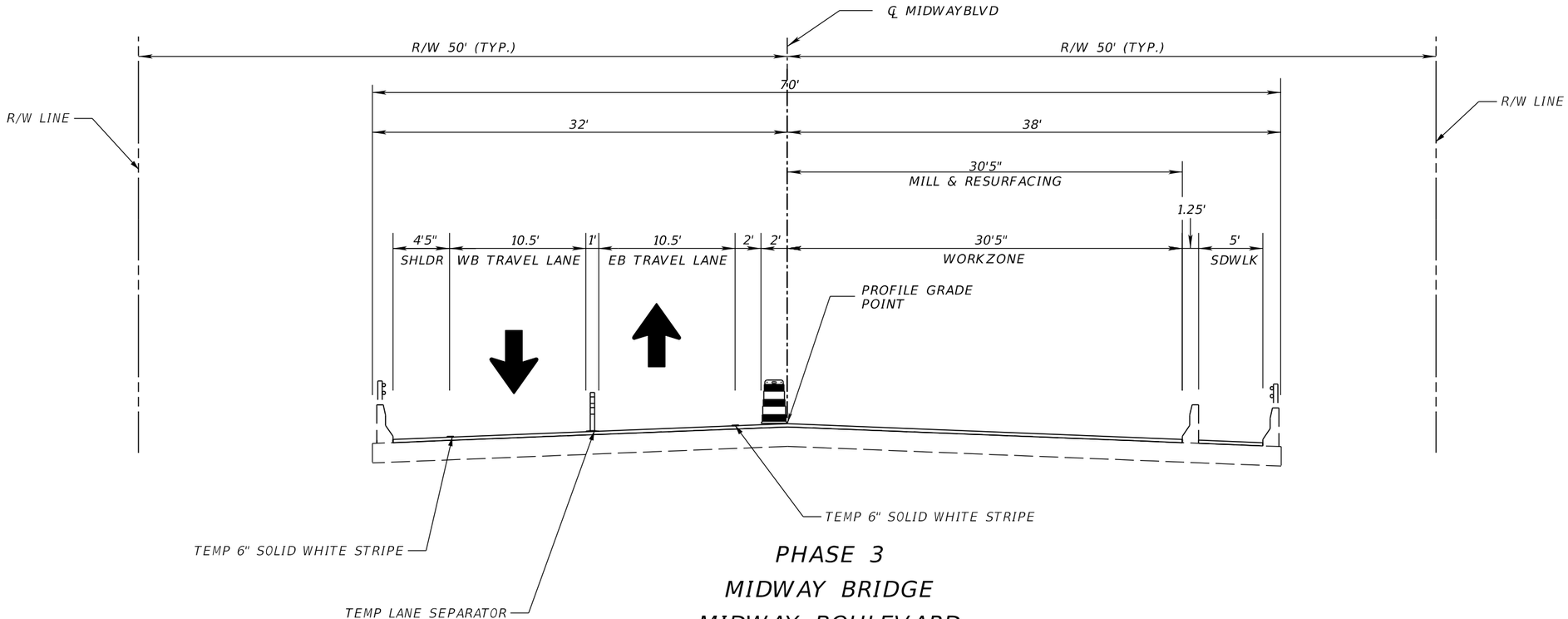
SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 16

NROSALES 11/13/2024 3:56:22 PM PW:\



PHASE 3
MIDWAY BRIDGE
MIDWAY BOULEVARD
STA. 116+63.54 TO STA. 118+33.04

BRIDGE NO. 014073

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REVISIONS					
Date	By	Description	Date	By	Description

EDWARD G WOLFSON, P.E.
P.E. LICENSE NUMBER 60935
HDR ENGINEERING, INC.
315 E.ROBINSON ST., SUITE 400
ORLANDO, FL 32801

Drawn By: JMD
Checked by: BLM
Designed by: JMD
Checked by: EGW

CHARLOTTE COUNTY FLORIDA

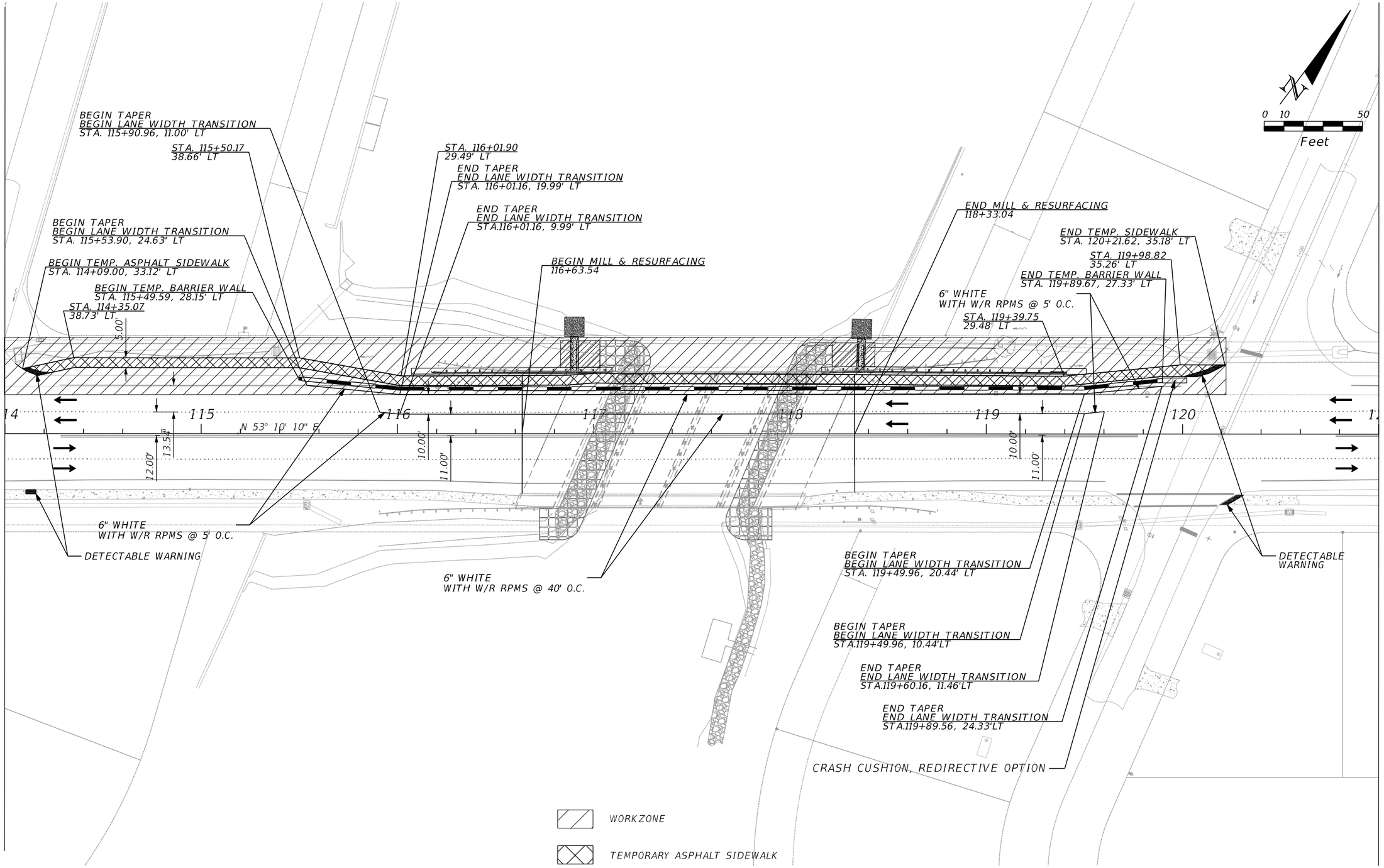
SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 17

NROSALES 11/13/2024 3:56:23 PM PW:\



PHASE 1 STEP 1 BRIDGE NO. 014073

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CHARLOTTE COUNTY
FLORIDA

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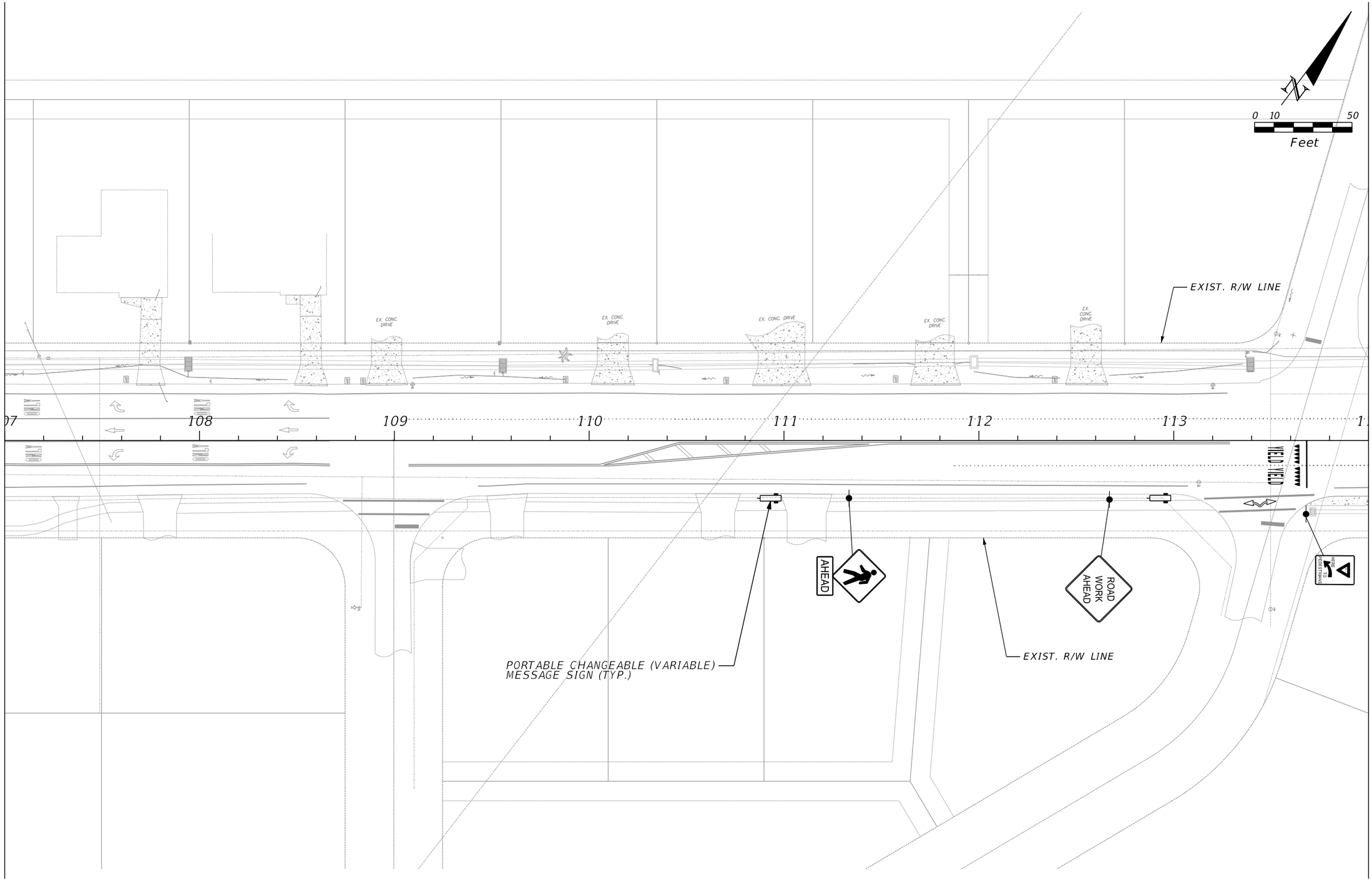
SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 18



PHASE 1 STEP 2 BRIDGE NO. 014073

REVISIONS					
Date	By	Description	Date	By	Description

EDWARD G WOLFSON, P.E.
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CHARLOTTE COUNTY FLORIDA

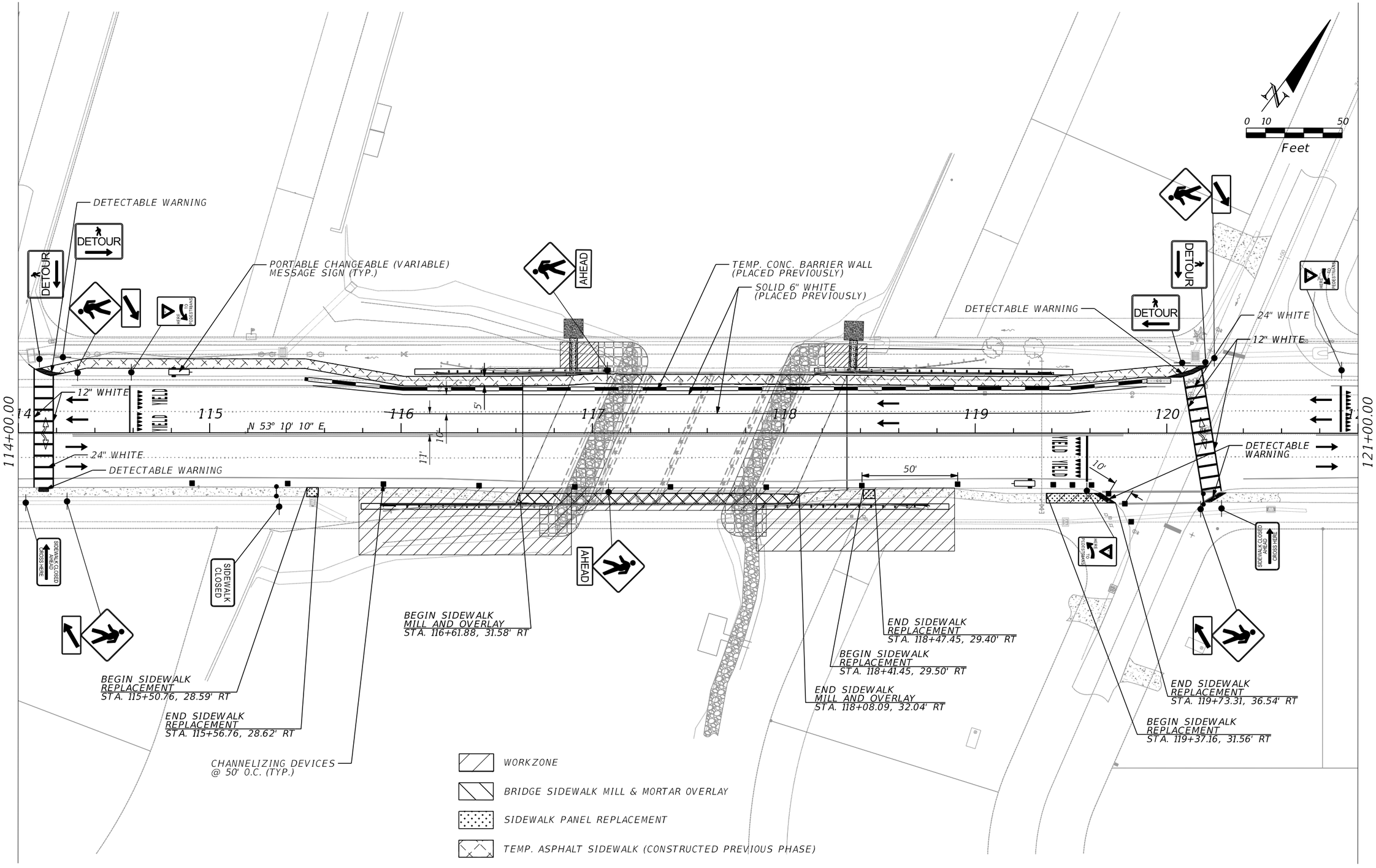
SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 19

NROSALES 11/13/2024 3:56:39 PM PW:\



PHASE 1 STEP 2 BRIDGE NO. 014073

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REVISIONS					
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EDWARD G WOLFSON, P.E.
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CHARLOTTE COUNTY FLORIDA

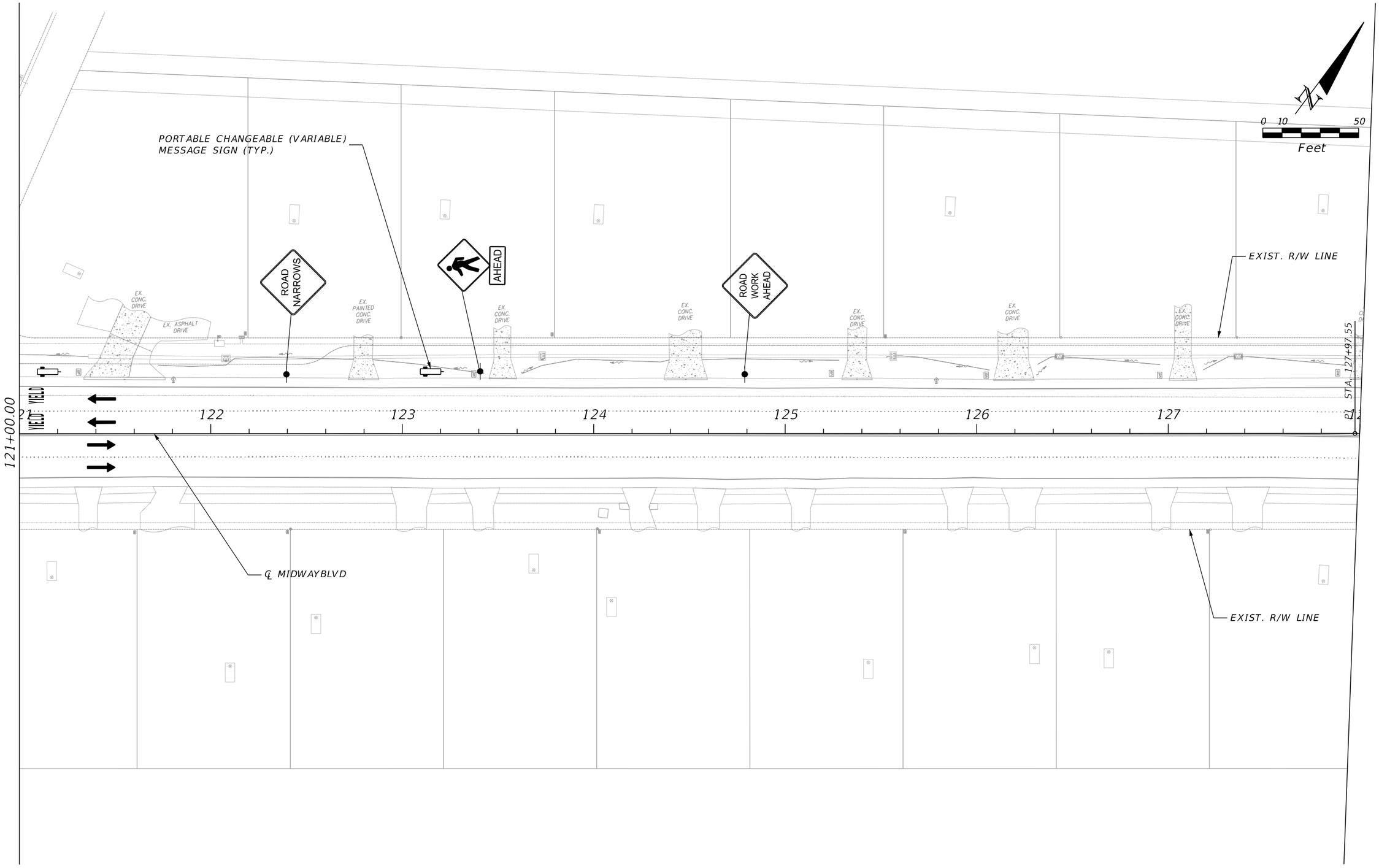
SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

REF. DWG. NO.

SHEET NO. 20

NROSALES 11/13/2024 3:56:45 PM PW:\



PHASE 1 STEP 2 BRIDGE NO. 014073

REVISIONS					
Date	By	Description	Date	By	Description

EDWARD G WOLFSON, P.E.
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HDR ENGINEERING, INC.
315 E.ROBINSON ST., SUITE 400
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Checked by:	BLM
Designed by:	JMD
Checked by:	EGW

CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: TEMPORARY TRAFFIC CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 21

NROSALES 11/13/2024 3:56:54 PM PW:\

CONCRETE SPALL/DELAMINATION; MATERIAL REMOVAL AND SURFACE PREPARATION:

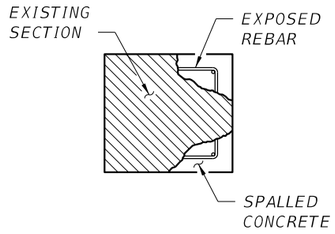
1. SOUND ALL CONCRETE SURFACES AT CONCRETE REPAIR LOCATIONS TO DETERMINE THE LIMITS OF UNSOUND CONCRETE TO BE REMOVED AND REPAIRED. MARK LIMITS ON THE SURFACES FOR REVIEW AND APPROVAL BY THE ENGINEER BEFORE CONCRETE REMOVAL. THE DEPTH OF REMOVAL PER THE NOTES AND DETAILS PROVIDED WITHIN THESE PLANS AND AS APPROVED BY THE ENGINEER.
2. DELINEATE ALL REPAIR AREAS WITH SQUARE EDGES AROUND THE PERIMETER OF THE REPAIR AREA DEFINED BY 1" DEEP SAW CUT LINES. REMOVE ALL UNSOUND CONCRETE WITHIN THE SAWCUT LIMITS BY MECHANICAL MEANS OR HYDRODEMOLITION, BUT DO NOT USE EXCESSIVE FORCE, WHICH MAY CAUSE MICRO-FRACTURING OF THE SOUND CONCRETE. REMOVE CONCRETE A MINIMUM OF 1" DEEP WITHIN SAWCUT LIMITS. EXTEND THE PERIMETER OF THE REPAIR AREA AS REQUIRED TO EXPOSE REINFORCING STEEL A MINIMUM OF 4" FROM THE CORRODED PORTION. ALL REPAIR EDGES SHALL BE SQUARED. FEATHERED EDGES WILL NOT BE ACCEPTABLE.
3. WHERE THE BOND BETWEEN EXISTING CONCRETE AND REINFORCEMENT HAS BEEN DESTROYED OR WHERE MORE THAN HALF THE BAR CIRCUMFERENCE IS EXPOSED, REMOVE THE CONCRETE ADJACENT TO THE BAR TO A DEPTH THAT WILL PERMIT THE REPAIR MATERIAL TO BOND TO THE ENTIRE PERIPHERY OF THE BAR. PROVIDE A 1" DEPTH BEHIND THE REINFORCEMENT FOR THIS PURPOSE.
4. TAKE CARE TO AVOID DAMAGING THE EXISTING REINFORCEMENT AND EXISTING SOUND CONCRETE ELEMENTS. IF ANY REINFORCING STEEL IS DAMAGED, NOTIFY THE ENGINEER FOR ADDITIONAL INSTRUCTIONS ON THE APPLICABLE REPAIR. ANY REINFORCING STEEL THAT IS DAMAGED BY THE CONTRACTOR IS TO BE REPAIRED AT NO COST TO THE COUNTY.
5. SECURE IN PLACE ANY LOOSE REINFORCEMENT BY TYING TO OTHER SECURED BARS OR BY OTHER APPROVED METHODS. INSTALL LAP SPLICES IN ACCORDANCE WITH THE LAP SPLICE TABLE.
6. CLEAN AND RESTORE EXPOSED REBARS AS GUIDED BY THE EXPOSED REINFORCING STEEL NOTES.
7. ALL SURFACES TO BE REPAIRED MUST BE CLEAN, SOUND AND FREE OF CHLORIDE CONTAMINATED MOISTURE, OIL AND GREASE. REMOVE DUST, RESIDUE, MARINE GROWTH, LAITANCE, CURING COMPOUNDS, WAXES, IMPREGNATION, FOREIGN PARTICLES AND OTHER BOND INHIBITING MATERIALS FROM THE SURFACE BY MEDIA BLASTING. CHIP OFF AREAS THAT HAVE BEEN SATURATED WITH OIL OR GREASE TO SOUND NON-CONTAMINATED CONCRETE. AREAS THAT MAY TRAP AIR ARE TO BE TRIMMED OR VENTED. IF AREAS BECOME CONTAMINATED AFTER INITIAL CLEANING, THEY MUST BE RE-CLEANED PRIOR TO APPLYING THE REPAIR MATERIAL.
8. PROVIDE AN AGGREGATE-FRACTURED SURFACE WITH AN APPROXIMATE SURFACE PROFILE AMPLITUDE OF $\frac{1}{8}$" BY USE OF SCRABBLER, OR OTHER APPROPRIATE MEANS AS NECESSARY, TO PROVIDE MECHANICAL LOCK FOR THE REPAIR MATERIAL.
9. PRIOR TO APPLYING REPAIR MATERIAL, WET EXPOSED CONCRETE SURFACES WITH CLEAN, POTABLE WATER. PROVIDE WET SATURATED, SURFACE DRY SUBSTRATE.
10. APPLY A TYPE AB EPOXY COMPOUND, IN ACCORDANCE WITH SPECIFICATIONS SECTION 926, TO THE EXISTING CONCRETE SURFACES PRIOR TO PLACING THE FRESH REPAIR MATERIAL. REMOVE AND RE-CLEAN THE CONCRETE SURFACE IF THE REPAIR MATERIAL IS NOT APPLIED WITHIN THE BONDING COMPOUND MANUFACTURER APPLICATION TIME WINDOW.
11. PLACE FORMWORK, IF NECESSARY. SUPPORT FORMWORK BY STAINLESS STEEL INSERTS WHERE REQUIRED. LOCATE STAINLESS STEEL INSERTS IN SOUND CONCRETE. IF USED, STAINLESS STEEL INSERTS ARE TO REMAIN IN PLACE. RECESS AND PATCH OVER STAINLESS STEEL INSERTS LEFT IN PLACE.
12. COMPLETE THE PLACEMENT OF FORMS AND POURING AS SOON AS PRACTICAL AFTER MEDIA BLASTING AND BEFORE ANY OTHER CONTAMINATING SITUATION OCCURS (72 HRS. MAX.).

EXPOSED REINFORCING STEEL NOTES:

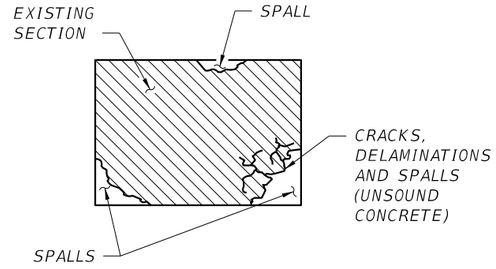
1. CLEAN ALL REINFORCING BARS EXPOSED AFTER CONCRETE REMOVAL IN ACCORDANCE WITH SSPC-SP10, NEAR WHITE, PER THE SOCIETY OF PROTECTIVE COATINGS.
2. WHERE EXISTING REINFORCING STEEL HAS GREATER THAN 25% LOSS IN CROSS-SECTIONAL AREA DUE TO CORROSIVE DETERIORATION OR DAMAGE, SUPPLEMENT WITH ADDITIONAL REINFORCING OF EQUIVALENT AREA. WHEN USING NEW BARS IN PLACE, MAINTAIN THE ORIGINAL COVER, SPLICE THE BAR AS DETAILED, AND, IF NECESSARY, PROVIDE ADDITIONAL CHIPPING. DUAL BARS OF EQUIVALENT OR GREATER SECTION MAY BE USED. DETERMINE THE SPLICE LENGTH USING THE SMALLER BAR SIZE BETWEEN THE EXISTING DAMAGED REINFORCEMENT AND THE SUPPLEMENTAL REINFORCEMENT.

CONCRETE REPAIR NOTES:

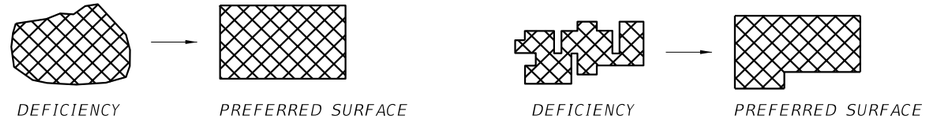
1. RESTORE CONCRETE SURFACES USING APPROVED MATERIALS IN ACCORDANCE WITH SPECIFICATIONS, SECTION 930.
2. MIX, PLACE AND CURE REPAIR MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. FINISH REPAIR MATERIALS FLUSH WITH THE ORIGINAL CONCRETE SURFACE UNLESS OTHERWISE NOTED. MEET THE SURFACE FINISH REQUIREMENTS FOR A GENERAL SURFACE FINISH PER SPECIFICATIONS, SECTION 400.
4. CURE REPAIR MATERIALS AS NECESSARY TO PREVENT SHRINKAGE & TEMPERATURE CRACKS. CRACKED REPAIRS ARE NOT CONSIDERED SATISFACTORY. REMOVE AND REPLACE CRACKED REPAIRS AT NO EXPENSE TO THE COUNTY.



TYPICAL SPALL WITH EXPOSED REBAR



TYPICAL DELAMINATIONS AND SPALLS



TYPICAL DEFICIENCY

BRIDGE NO. 014073

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REVISIONS					
Date	By	Description	Date	By	Description

Shinji Konno, P.E.
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4830 W. Kennedy Blvd., Suite 400
TAMPA, FL 33609-2548

Drawn By: NTR
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Designed by: CMH
Checked by: SK

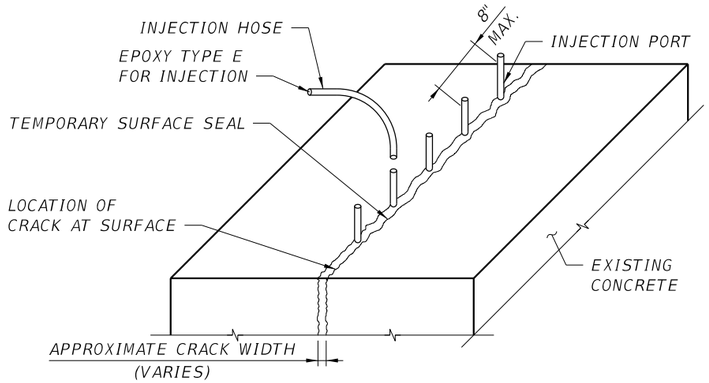
CHARLOTTE COUNTY FLORIDA

SHEET TITLE: CONCRETE RESTORATION DETAILS (1 OF 2)

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 22



EPOXY INJECT AND SEAL CRACK REPAIR

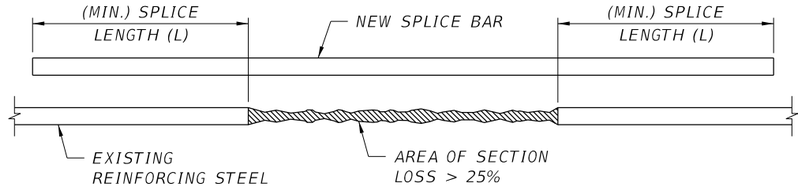
CONCRETE CRACK REPAIR PROCEDURE:

1. IDENTIFY AND MARK THE LOCATIONS AND LIMITS OF CRACKING, CRACK ROUTING AND SEALING FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO THE START OF WORK.
2. REMOVE UNSOUND CONCRETE FROM CRACK AREA IN ACCORDANCE WITH SECTION 411 OF THE SPECIFICATIONS. IF CONCRETE AROUND CRACK IS DELAMINATED, REPAIR AS A DELAMINATION.
3. OBTAIN ENGINEER'S APPROVAL TO CARRY OUT CRACK REPAIR (IN LIEU OF SPALL REPAIR) FOR CASES WHERE ADJACENT CONCRETE IS OTHERWISE SOUND AND CRACKING IS NOT A RESULT OF CORRODING REINFORCEMENT.
4. PREPARE CRACK SURFACE IN ACCORDANCE WITH SECTION 411 OF THE SPECIFICATIONS AND MANUFACTURER'S INSTRUCTIONS. SEALING OF CRACKS SHALL NOT BE PERFORMED WHILE THE CRACKS ARE DAMP.
5. APPLY CLASS 2 SURFACE FINISH AT CRACK REPAIR TO REMOVE FINS OR KNOBS.
6. USE CRACK AND CAP SEAL MATERIALS IN ACCORDANCE WITH SPECIFICATIONS SECTION 926 AND APPROVED BY THE ENGINEER PRIOR TO BEGINNING OF CONSTRUCTION.
7. DELIVER REPAIR MATERIALS TO THE SITE IN THE MANUFACTURER'S ORIGINAL SEALED CONTAINERS. MARK EACH CONTAINER LEGIBLY WITH THE NAME OF THE MANUFACTURER AND THE TRADE NAME OF THE SEALER.
8. GRIND OFF EXCESS EPOXY AND PORTS TO THE EXISTING PROFILE AFTER EPOXY INJECTION IS COMPLETED AND EPOXY HAS SET.

CONCRETE CRACK REPAIR TABLE
BRIDGE NO. 014073

LOCATION	DESCRIPTION	DIMENSIONS PER INSPECTION			VOLUME
		LENGTH	WIDTH	DEPTH	
		(IN)	(IN)	(IN)	(GA)
PILE 3-9, SOUTH FACE, TOP OF PILE	VERTICAL CRACK	48.0	0.13	4.00	0.42
EPOXY INJECTION TOTAL		4 FT			1 GA

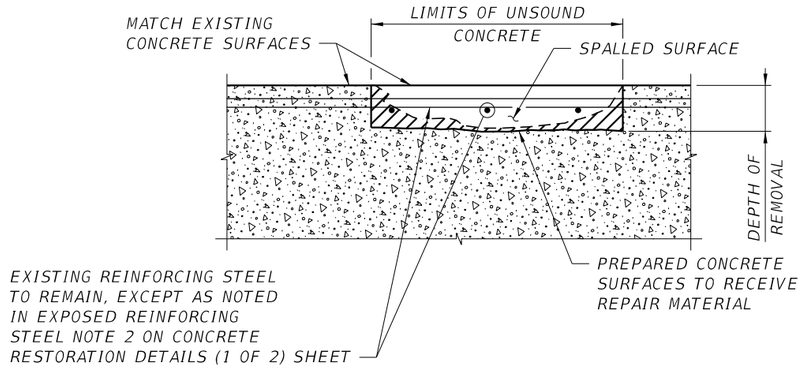
CRACK DEPTH ESTIMATED FOR QUANTITY PURPOSES.



SPLICE BAR PLACEMENT DETAIL
(NOT TO SCALE)

LAP SPLICE TABLE

REBAR SIZE	LAP SPLICE LENGTH (L)	
#	FT	IN
4	1	9
5	2	2
6	2	7
7	3	3



EXPOSING AND UNDERCUTTING REINFORCING STEEL
(APPLICABLE TO HORIZONTAL, VERTICAL, AND OVERHEAD LOCATIONS)

BRIDGE NO. 014073

REVISIONS

Date	By	Description	Date	By	Description

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Checked by: SK

CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: CONCRETE RESTORATION DETAILS (2 OF 2)
REF. DWG. NO.:
PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE
SHEET NO. 23

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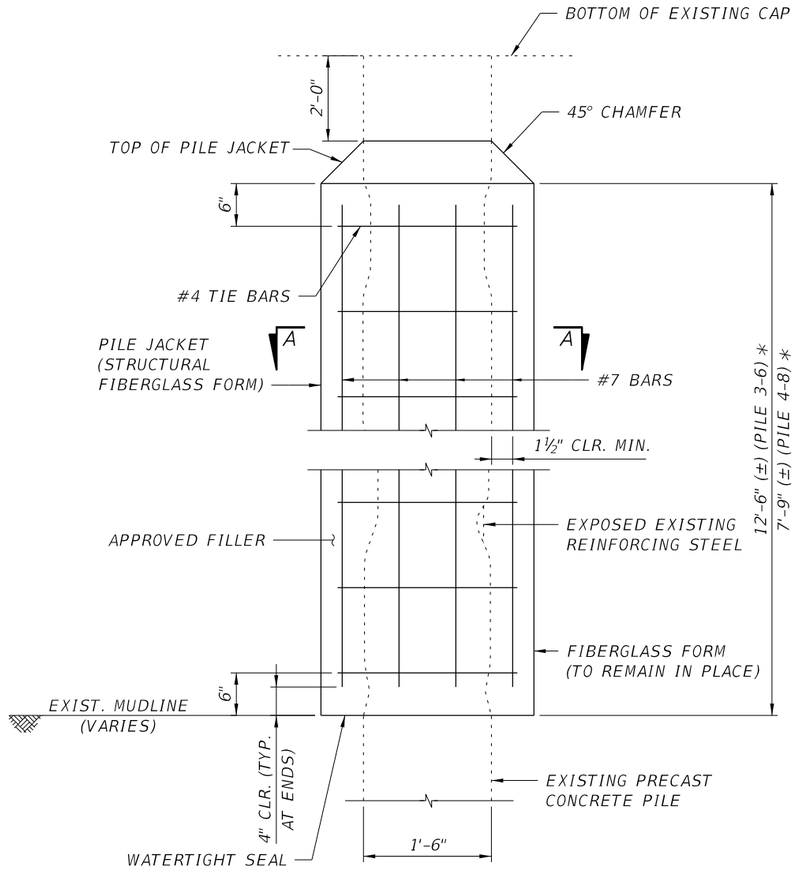
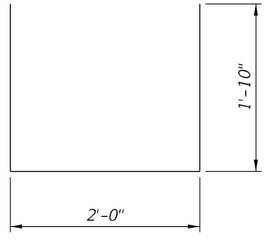
PILE JACKET NOTES:

1. CONFIRM ELEVATIONS WITH THE ENGINEER PRIOR TO ORDERING MATERIAL. ADJUSTMENTS MAY BECOME NECESSARY DUE TO CONSTRUCTION CONDITIONS. FIELD VERIFY ALL EXISTING PILE DIMENSIONS AND ACQUIRE ACCEPTANCE BY THE ENGINEER PRIOR TO BEGINNING ANY WORK.
2. CLEAN MARINE GROWTH AND PERFORM AN UNDERWATER INSPECTION OF ALL PILES PRIOR TO BEGINNING PILE JACKET WORK. NOTIFY THE ENGINEER IF ADDITIONAL JACKET LENGTHS TO INCLUDE NEW DEFICIENCIES ON ALREADY IDENTIFIED PILES ARE NECESSARY. INCLUDE ALL DETERIORATED CONCRETE WITHIN JACKET LENGTHS.
3. PROVIDE JACKET CHAMFERS WITH NEAT LINES, FREE OF CRACKS. IF CRACKING OCCURS, REMOVE AND REPLACE CHAMFER MATERIAL AT THE DISCRETION OF THE ENGINEER. CURE CHAMFERS PER MANUFACTURER'S RECOMMENDATIONS TO PREVENT CRACKING.
4. CLEAN PILES IN ACCORDANCE WITH SPECIFICATION SPECIAL PROVISION SECTION 457.
5. PROVIDE STAY-IN-PLACE FORMS IN ACCORDANCE WITH SPECIFICATION SPECIAL PROVISION SECTION 457.
6. PROVIDE HOLES IN THE WOOD STIFFBACKS TO RELIEVE PRESSURE ON THE STANDOFF HEADS SO THE FORM WILL NOT BE DEFORMED OR MISALIGNED. WOOD STIFFBACKS TO BE REMOVED AFTER CURING.
7. PROVIDE A PUMPING PORT WITHIN 4" OF THE PILE JACKET BOTTOM OR GROUNDLINE TO APPLY FILLER. IF ADDITIONAL PUMPING PORTS ARE REQUIRED TO ENSURE PROPER FILLING, LOCATE THEM ABOVE THE BOTTOM PORT HOLE, STAGGERED AND ON OPPOSITE SIDES WITH A 3 FOOT MAXIMUM SPACING.
8. PROVIDE JACKET FILLER IN ACCORDANCE WITH SPECIFICATIONS SPECIAL PROVISION SECTION 457.
9. REPAIR SPALLS OUTSIDE THE LIMITS OF THE APPROVED JACKET LENGTHS.
10. SEE SPECIFICATIONS SPECIAL PROVISION SECTION 457, BASIS OF PAYMENT FOR PAY ITEM INFORMATION.

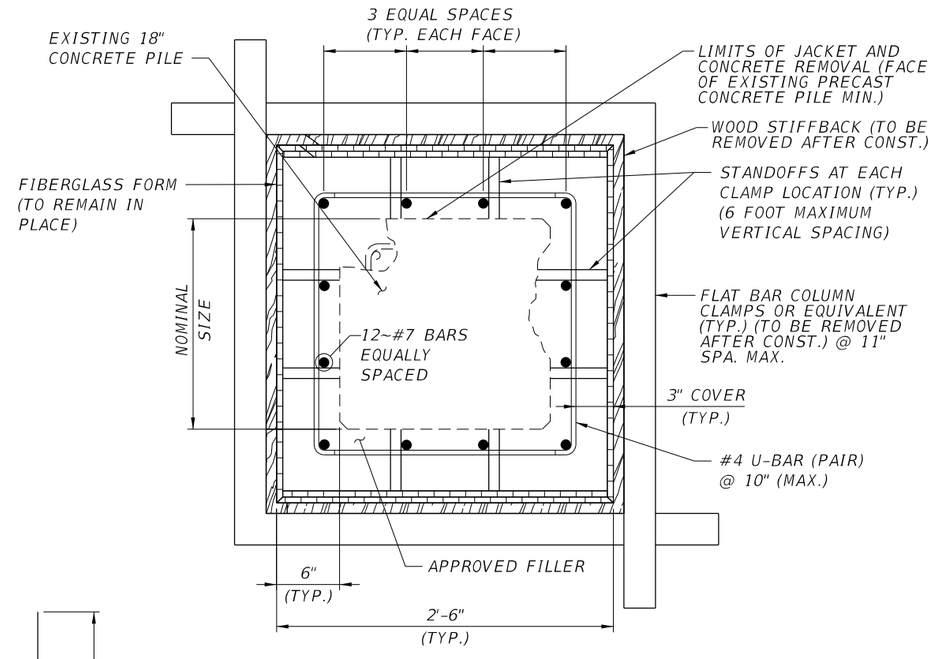


STRUCTURAL PILE JACKET DETAIL

* VERIFY ACTUAL JACKET LENGTHS BEFORE ORDERING JACKETS.



#4 U-BAR



SECTION A-A

NOTE:

FOR WETLAND AND SURFACE WATER IMPACTS, SEE WETLAND/OTHER SURFACE WATER IMPACTS SHEETS.

BRIDGE NO. 014073

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Checked by:	SK

CHARLOTTE COUNTY FLORIDA

NROSALES

SHEET TITLE: PILE JACKET DETAILS

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 24

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EXPANSION JOINT REPAIR/REPLACEMENT PROCEDURE:

1. REPLACE EXISTING BRIDGE EXPANSION JOINT(S) AT LOCATIONS LISTED IN EXPANSION JOINT REPAIR TABLE WITH POURED JOINT WITH BACKER ROD.
2. FABRICATE AND INSTALL BRIDGE EXPANSION JOINT(S) (INCLUDING SIDEWALK COVER PLATES) IN ACCORDANCE WITH SPECIFICATIONS SECTION 458 AND STANDARD PLANS INDEX 458-110.
3. INSTALL A NEW FULL WIDTH JOINT FROM BRIDGE COPING TO BRIDGE COPING.
4. PREPARE SURFACES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. VERIFY EXISTING JOINT OPENINGS BEFORE ORDERING JOINT MATERIAL. FOR MINIMUM JOINT WIDTH REQUIREMENTS, FOLLOW MANUFACTURER'S RECOMMENDATIONS. NOTIFY THE ENGINEER IF A JOINT WIDTH LESS THAN 1/2", OR MORE THAN 3", IS ENCOUNTERED. INSTALL BACKER ROD TO ACCOMMODATE ANY CHANGES IN JOINT WIDTH ALONG THE LENGTH OF THE JOINT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. NOTIFY THE ENGINEER IF THE JOINT WIDTH ALONG THE LENGTH OF THE JOINT VARIES BY MORE THAN 1/8".

POURED EXPANSION JOINT DATA TABLE INDEX 458-110			Table Date 1-01-09
LOCATION	DIM. "A" @ 70°F	TOTAL DESIGN MOVEMENT	DIM. "A" ADJUSTMENT PER 10°F
END BENT 1	1"	0	0
END BENT 5	1"	0	0

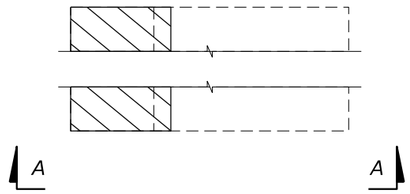
NOTE:
Dim. "A" adjustment per 10°F shown is measured perpendicular to ℄ Expansion Joint. Work this table with Standard Plans Index 458-110.

INTERMEDIATE BENT JOINT MEMBRANE:

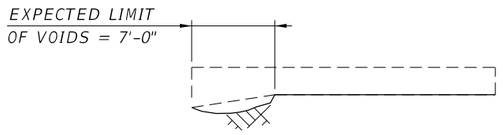
FOLLOWING ASPHALT MILLING AND PRIOR TO BRIDGE DECK AND SIDEWALK RESURFACING, APPLY A PAVING MEMBRANE (PETROTAC OR APPROVED EQUAL). EXTEND MEMBRANE FROM GUTTER TO GUTTER ALONG ROADWAY AND FULL WIDTH OF SIDEWALK. PREPARE SURFACES AND INSTALL MEMBRANE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS. PROVIDE A MINIMUM ROLL WIDTH OF 2 FT, CENTERED ABOUT INTERMEDIATE BENT JOINT CENTERLINE.

UNDERMINED APPROACH SLAB REPAIR PROCEDURE:

USE CEMENTITIOUS GROUT, IN ACCORDANCE WITH SPECIFICATION SECTION 934, TO FILL VOIDS UNDER BOTH APPROACH SLABS (INCLUDING BENEATH SIDEWALK). THE CONTRACTOR IS ALLOWED TO DRILL HOLES TO INJECT GROUT INTO VOIDS. SUBMIT SHOP DRAWINGS TO THE PROJECT ENGINEER DESCRIBING THE GROUTING PROCEDURE INCLUDING A NUMBER OF INJECTION PORTS AND A METHOD TO CONTAIN GROUT AT EACH EDGE OF APPROACH SLAB WHERE A VOID IS VISIBLE.



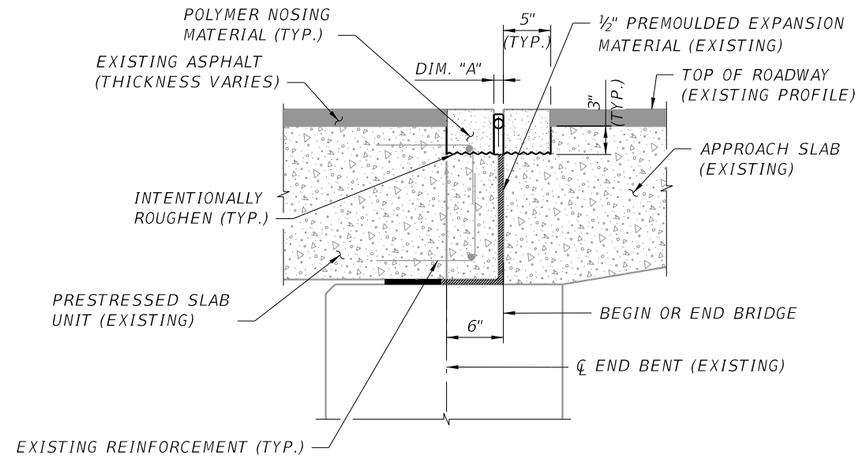
APPROACH SLAB PLAN



VIEW A-A

EXPANSION JOINT HEADER REPAIR NOTES:

1. EXPANSION JOINT HEADERS ARE TO BE CONSTRUCTED FROM GUTTER TO GUTTER ALONG THE ROADWAY. WHILE CONSTRUCTING THE SIDEWALK OVERLAY, FORM A JOINT WIDTH CONSISTENT WITH THE POURED EXPANSION JOINT DATA TABLE.
2. REMOVE THE PREMOULDED EXPANSION MATERIAL FROM THE EXISTING EXPANSION JOINTS FROM THE TOP OF THE BRIDGE SLAB TO THE BOTTOM OF THE DETAILED JOINT HEADER.
3. DELINEATE THE JOINT HEADER AT EDGE OF BRIDGE SLAB AND APPROACH SLAB APPROXIMATELY 5½" FROM THE CENTERLINE OF THE JOINT WITH 1" DEEP SAW CUT LINES. REMOVE CONCRETE AND REMNANTS OF THE ORIGINAL EXPANSION JOINT COMPONENT WITHIN THE SAW CUT LIMITS BY MECHANICAL MEANS OR HYDRODEMOLITION, BUT DO NOT USE EXCESSIVE FORCE, WHICH MAY CAUSE MICRO-FRACTURING OF THE SOUND CONCRETE, TO A DEPTH OF 3" INTO THE EXISTING CONCRETE APPROACH SLAB AND BEAM.
4. TAKE CARE TO AVOID DAMAGING THE EXISTING REINFORCEMENT. IF ANY REINFORCING STEEL IS DAMAGED, NOTIFY THE ENGINEER FOR ADDITIONAL INSTRUCTIONS ON THE APPLICABLE REPAIR. ANY REINFORCING STEEL THAT IS DAMAGED BY THE CONTRACTOR IS TO BE REPAIRED AT NO COST TO THE COUNTY.
5. PROVIDE AND INSTALL NEW JOINT HEADERS AS SHOWN IN THE DETAILS USING A POLYMER NOSING SYSTEM (SSI SILSPEC 900 OR APPROVED EQUAL) COMPATIBLE WITH THE JOINT SEALANT AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. FINISH FLUSH WITH THE DECK SURFACE.
6. REMOVE THE FORMS AND INSTALL A NEW POURED EXPANSION JOINT SYSTEM IN ACCORDANCE WITH THE EXPANSION JOINT REPAIR/REPLACEMENT PROCEDURE.



JOINT HEADER SECTION

NOTE:

FOR EXPANSION JOINT REPAIR (POURED JOINT), NON-SHRINK GROUT AND JOINT HEADER POLYMER NOSING QUANTITY TABLES, SEE QUANTITIES SHEET.

BRIDGE NO. 014073

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

REVISIONS					
Date	By	Description	Date	By	Description

Shinji Konno, P.E.
P.E. LICENSE NUMBER 39536
HDR Engineering, Inc.
4830 W. Kennedy Blvd., Suite 400
TAMPA, FL 33609-2548

Drawn By:	Checked by:	Designed by:	Checked by:
NTR	RT	CMH	SK

CHARLOTTE COUNTY FLORIDA

NROSALES

SHEET TITLE: MISCELLANEOUS REPAIR DETAILS

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. 25

11/13/2024 4:10:03 PM c:\pwworking\east01\d2386703\BIMIscDet01.dgn

END APPROACH SLAB
BEGIN BRIDGE
STA. 116+95.85

CONST. CONC. FLUME
CONST. RUBBLE RIPRAP (DITCH LINING)
RESTORE EMBANKMENT SLOPE CONST. PLASTIC EROSION MAT (TYPE 2) (SEE DRAINAGE DETAILS SECTION C-C)
EXIST. R/W LINE
5'
10'
C
C
B
B
A
BEGIN APPROACH SLAB
STA. 116+76.86
℄ MIDWAY BLVD
117
MIDWAY BLVD
REMOVE EXIST. FABRIFORM, RESTORE ABUTMENT SLOPE (MATCH EXIST. SLOPE) & CONST. ARTICULATED CONCRETE BLOCK MAT SYSTEM
VARIES
10'
R
W
R
R
REMOVE EXIST. CONCRETE
EXIST. R/W LINE
APPROX. MLW LINE
APPROX. MHW LINE
W. Spring Lake

N. Spring Lake

END BRIDGE
BEGIN APPROACH SLAB
STA. 118+00.73

CONST. RUBBLE RIPRAP (DITCH LINING)
CONST. CONC. FLUME
EXIST. SEAWALL
EXIST. 19"x30" PIPE & MES (TO REMAIN)
EXIST. R/W LINE
5'
10'
END APPROACH SLAB
STA. 118+19.72
A
118
119
RESTORE EMBANKMENT SLOPE CONST. PLASTIC EROSION MAT (TYPE 2) (SEE DRAINAGE DETAILS SECTION C-C)
REMOVE EXIST. FABRIFORM, RESTORE ABUTMENT SLOPE (MATCH EXIST. SLOPE) & CONST. ARTICULATED CONCRETE BLOCK MAT SYSTEM
VARIES
EXIST. 24" PIPE (TO REMAIN)
10'
10'
W
PROTECT AND RESTRAIN EXIST. 24" PIPE INCLUDING PIPE JOINTS WITH THE REMOVAL OF EXISTING RIPRAP AND INSTALLATION OF THE ARTICULATED BLOCK MAT SYSTEM
APPROX. MLW LINE
APPROX. MHW LINE
EXIST. R/W LINE

0 5 20
Feet

LEGEND

Surface Water Impacts

- APPROX. MHW LINE
- FILL AREA 0.019 ACRES
- R — RED INDIVIDUAL MANGROVE
- W — WHITE INDIVIDUAL MANGROVE
- CONCRETE FLUME
- RUBBLE RIPRAP (DITCH LINING)

BRIDGE NO. 014073

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

REVISIONS

Date	By	Description	Date	By	Description

Bartholomew D. Rohrer, P.E.
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4830 W. Kennedy Blvd., Suite 400
TAMPA, FL 33609-2548

Drawn By: AS
Checked by: JCL
Designed by: BND
Checked by: JCL

CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: ABUTMENT ARMORING DETAILS (1 OF 2)
REF. DWG. NO.:
PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE
SHEET NO.: 26

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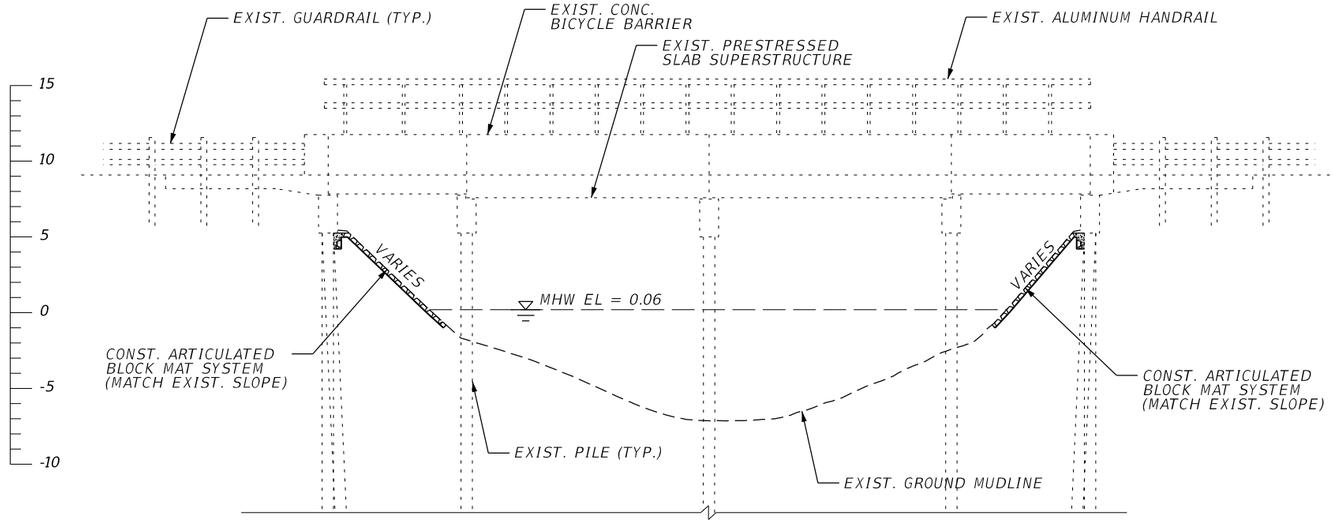
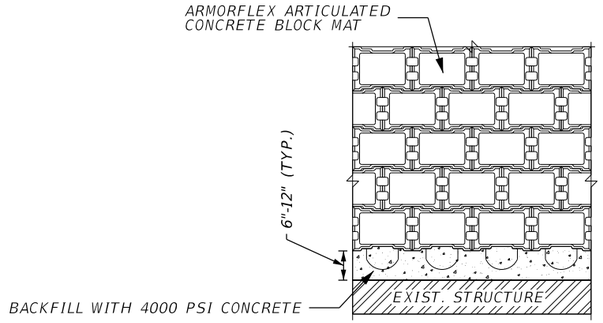


SECTION A-A

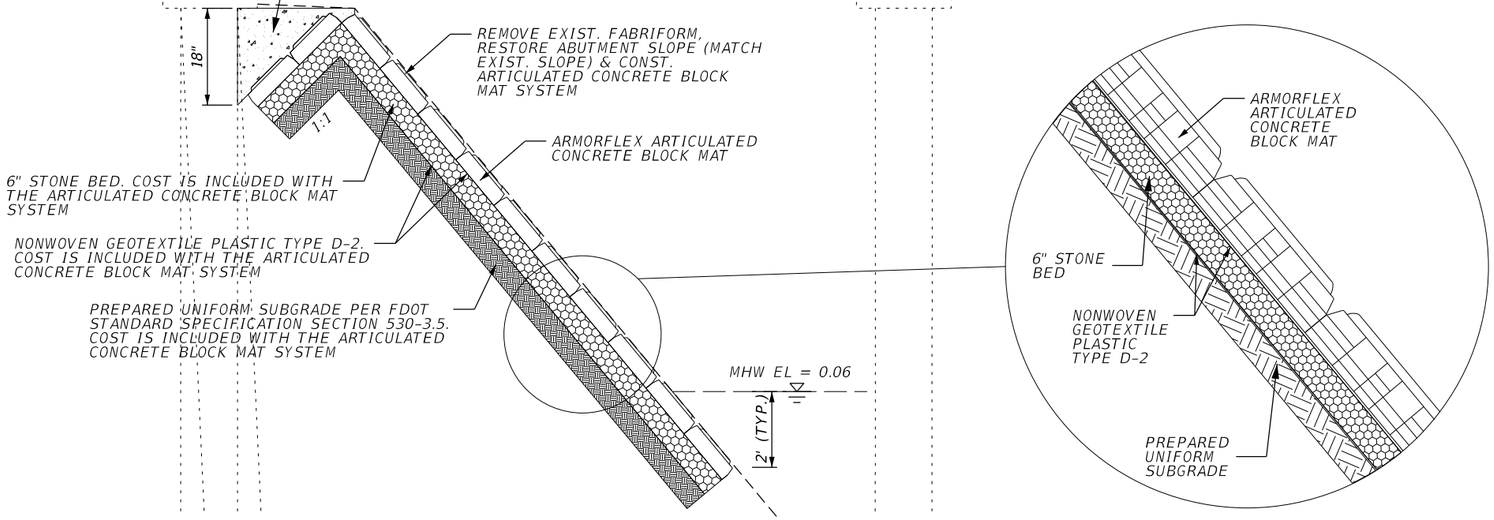
ABUTMENT ARMORING NOTES:

1. *FOR ABUTMENT ARMORING UTILIZE AN ARTICULATED CONCRETE BLOCK MAT PREFABRICATED AS AN ASSEMBLY OF CONCRETE BLOCKS HAVING SPECIFIC HYDRAULIC CAPACITIES, AND LACED WITH REVETMENT CABLES, SUITABLE FOR PROMOTING VEGETATION AND INSTALLATION WITH SMALL MACHINES (MINI EXCAVATORS, ETC.). INSTALL THE ARTICULATED CONCRETE BLOCK MAT SYSTEM IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 530-1.2 AND THE MANUFACTURER'S RECOMMENDATIONS.*
2. *FOR THE ARTICULATED CONCRETE BLOCK MAT SYSTEM UTILIZE "ARMORFLEX" ARTICULATED CONCRETE BLOCK MAT SYSTEM MANUFACTURED BY CONTECH ENGINEERED SOLUTIONS (CONTECHES.COM) OR APPROVED EQUAL. SECURE THE ARTICULATED CONCRETE BLOCK MAT SYSTEM TO THE ROADWAY EMBANKMENT AND ABUTMENTS BY USING EARTH PERCUSSION ANCHORS "TERRA-LOCK 4CRS" MANUFACTURED BY GRIPPLE INC. (GRIPPLE.COM), OR APPROVED EQUAL.*
3. *COST FOR MATERIALS AND INSTALLATION INCIDENTAL TO THE ARTICULATED CONCRETE BLOCK MAT SYSTEM, INCLUDING EARTH PERCUSSION ANCHOR SYSTEMS, WILL BE PAID FOR UNDER PAY ITEM 530-4-6 (SY), IN ACCORDANCE WITH THE SPECIFICATIONS.*
4. *PRIOR TO PLACEMENT OF THE ARTICULATED CONCRETE BLOCK SYSTEM REMOVE ALL ROOTS, STICKS, ROCKS OR DEBRIS OF ANY KIND, STABILIZE AND SMOOTH OUT ALL SUBGRADE SURFACES.*
5. *SPACE THE EARTH PERCUSSION ANCHORS AT MINIMUM 5-FT. CENTERS IN A DIAMOND PATTERN AND TO A DEPTH OF 5-FT.*
6. *UTILIZE NONWOVEN GEOTEXTILE PLASTIC TYPE (D-2) IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATION SECTION 985 FOR UNDERLAYMENT OF THE INSTALLATION. COST FOR NONWOVEN GEOTEXTILE (SY) IS INCLUDED WITH THE ARTICULATED CONCRETE BLOCK SYSTEM.*

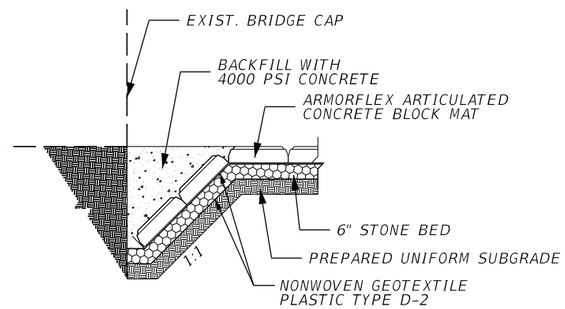


END TO STRUCTURE

TYPICAL MAT TO STRUCTURE DETAIL (N.T.S.)



SECTION B-B (N.T.S)



ARMORFLEX TYPICAL MAT TO STRUCTURE ANCHOR DETAIL (N.T.S.)

ARTICULATED BLOCK MAT QUANTITY (SY)	BEDDING STONE QUANTITY (TN)
634	155.6

BRIDGE NO. 014073

REVISIONS					
Date	By	Description	Date	By	Description

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Checked by:	JCL
Designed by:	BND
Checked by:	JCL

CHARLOTTE COUNTY FLORIDA

NROSALES

SHEET TITLE: ABUTMENT ARMORING DETAILS (2 OF 2)

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 27

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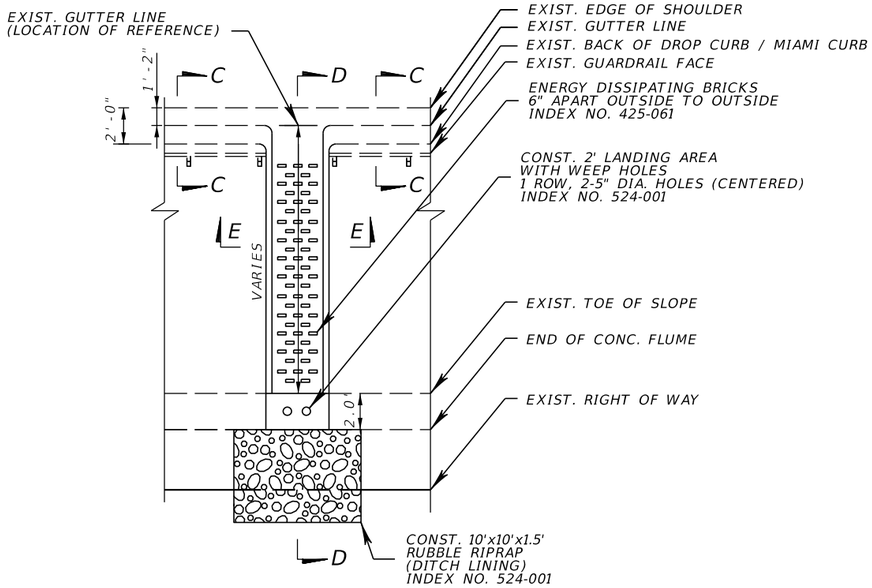
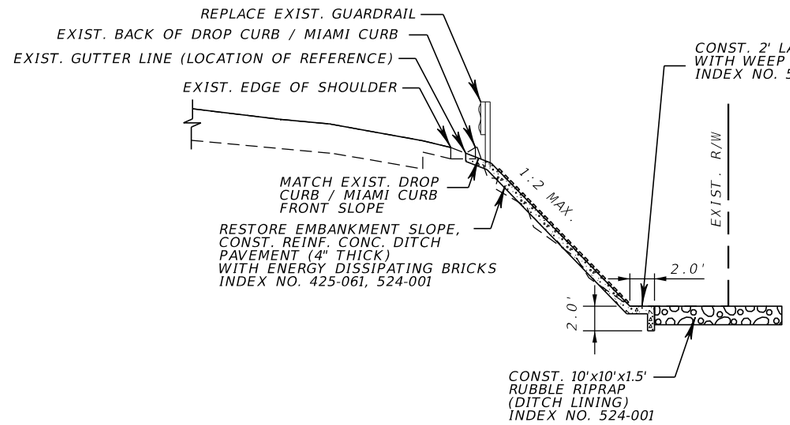
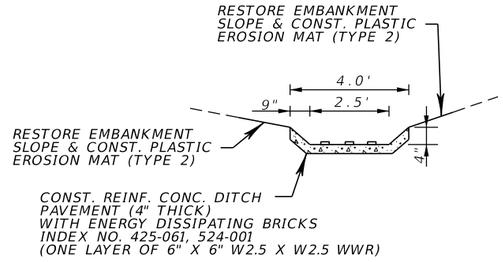


CONCRETE FLUME DETAILS (N.T.S.)



SECTION D-D (N.T.S.)

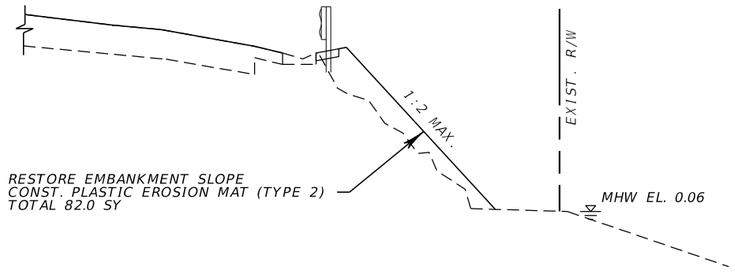


SECTION E-E (N.T.S.)

CONCRETE FLUME LOCATIONS & QUANTITIES					
STATION	SIDE	OFFSET	CONC. QTY. (SY)	RUBBLE RIPRAP (DITCH LINING) QTY. (TN)	BEDDING STONE ASSOCIATED WITH RUBBLE RIPRAP (DITCH LINING) QTY. (TN)
116+90.00	LT	32.00	13.0	8.1	5.8
118+36.00	LT	32.00	13.0	8.1	5.8
TOTAL			26.0	16.2	11.6

NOTE:

RESTORE ALL AREAS DISTURED BY CONSTRUCTION TO PRIOR-TO-CONSTRUCTION CONDITION.
ALL DISTURED AREAS SHALL BE SODDED.



SECTION C-C (N.T.S.)

BRIDGE NO. 014073

REVISIONS					
Date	By	Description	Date	By	Description

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P.E. LICENSE NUMBER 59623
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TAMPA, FL 33609-2548

Drawn By: AS
Checked by: JCL
Designed by: BND
Checked by: JCL

CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: DRAINAGE DETAILS
REF. DWG. NO.
PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE
SHEET NO. 28

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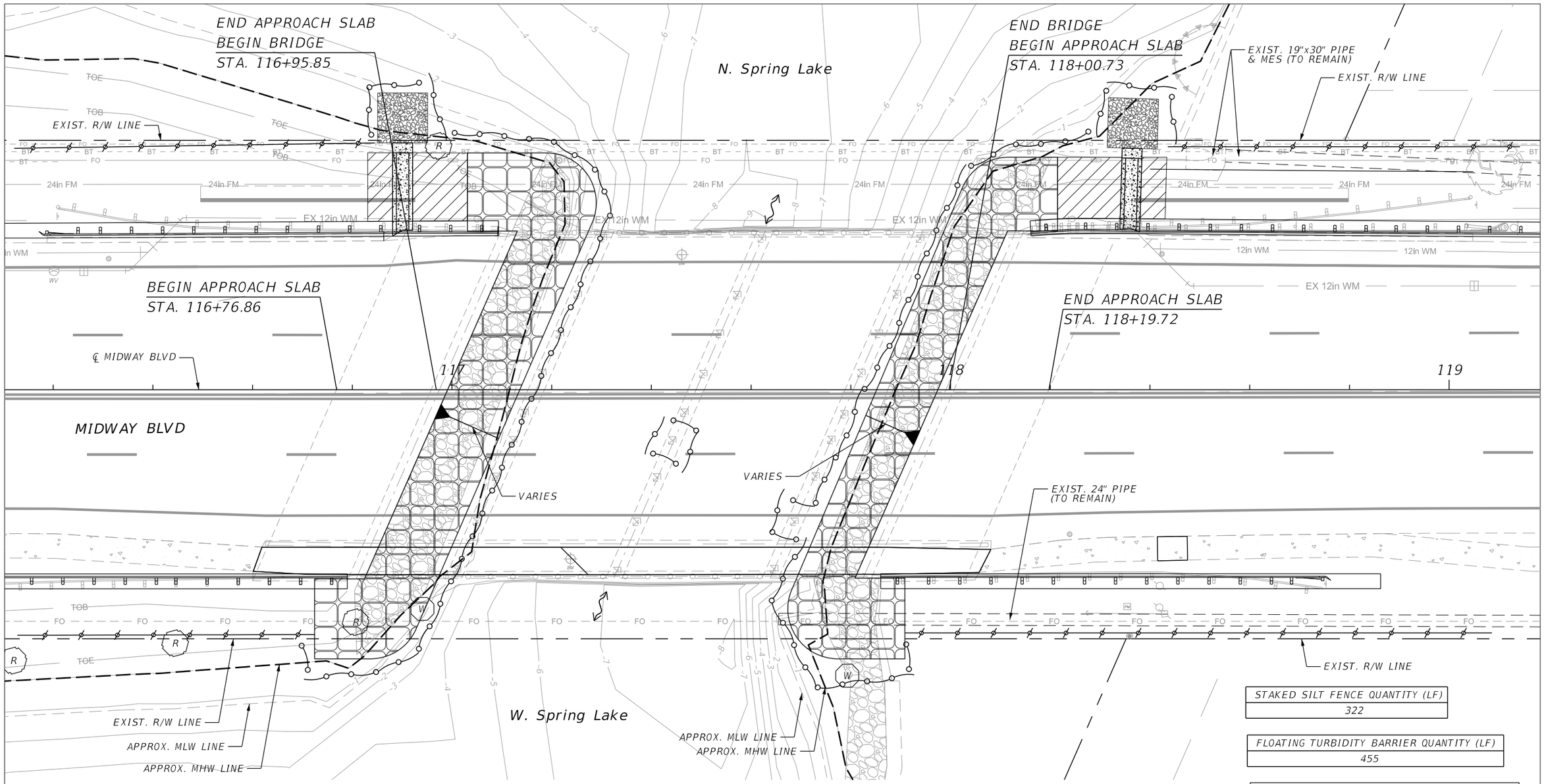

STAKED SILT FENCE QUANTITY (LF)
322

FLOATING TURBIDITY BARRIER QUANTITY (LF)
455

EROSION CONTROL NOTES

1. IMPLEMENT AND MAINTAIN PERFORMANCE-BASED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES IMMEDIATELY PRIOR TO, DURING AND AFTER CONSTRUCTION AS NEEDED TO STABILIZE ALL DISTURBED AREAS, INCLUDING OTHER MEASURES SPECIFIED IN THE PERMITS TO PREVENT ADVERSE IMPACTS TO THE WATER RESOURCES AND ADJACENT LANDS.
2. INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND FLORIDA DEPARTMENT OF TRANSPORTATION LATEST EDITION), AVAILABLE AT HTTPS://WWW.FLRULES.ORG/GATEWAY/REFERENCE.ASP?NO=REF-04227, AND THE FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL (FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, NONPOINT SOURCE MANAGEMENT SECTION, TALLAHASSEE, FLORIDA, JULY 2008), AVAILABLE AT HTTP://PUBLICFILES.DEP.STATE.FL.US/DEAR/STORMWATER TRAINING DOCS/EROSION-INSPECTORS-MANUAL.PDF.
3. WETLAND AND/OR SURFACE WATER IMPACTS ARE LIMITED TO THE AREAS DESCRIBED IN THE WETLAND/SURFACE WATER IMPACTS SHEETS.
4. THE CONTRACTOR SHALL COMPLY WITH THE PERMIT CONDITIONS AS APPROVED BY THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD) AND THE US ARMY CORP OF ENGINEERS (USACE).
5. IF WRITTEN PERMISSION FOR RIGHT-OF-ENTRY IS OBTAINED FROM THE PROPERTY OWNERS, STAKED SILT FENCE MAY BE PLACED BEYOND THE RIGHT-OF-WAY LIMITS, BUT LANDWARD OF ANY WETLANDS, IF WIDER ACCESS IS NEEDED.
6. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM CHARLOTTE COUNTY PRIOR TO COMMENCING WITH ANY SUBSTANTIAL DEVIATIONS TO PROPOSED REQUIREMENTS AS OUTLINED IN THE PLANS AND PERMIT DOCUMENTS.

0 5 20
Feet

LEGEND

Erosion Control

- FLOATING TURBIDITY BARRIER
- STAKED SILT FENCE
- APPROX. MHW LINE
- R RED INDIVIDUAL MANGROVE
- W WHITE INDIVIDUAL MANGROVE

BRIDGE NO. 014073

REVISIONS

Date	By	Description	Date	By	Description

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P.E. LICENSE NUMBER 59623
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TAMPA, FL 33609-2548

Drawn By:	Checked by:	Designed by:	Checked by:
AS	JCL	BND	JCL

CHARLOTTE COUNTY FLORIDA

SHEET TITLE: EROSION TURBIDITY CONTROL PLAN

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: 29

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END APPROACH SLAB
BEGIN BRIDGE
STA. 116+95.85

BEGIN APPROACH SLAB
STA. 116+76.86

END BRIDGE
BEGIN APPROACH SLAB
STA. 118+00.73

END APPROACH SLAB
STA. 118+19.72

N. Spring Lake

EXIST. R/W LINE

FLUME A

FLUME B

0 5 20
Feet

TOE
TOB
FO
BT
24in FM
EX 12in WM
12in WM
WV
D
R
W
A
B
117
118
119
℄ MIDWAY BLVD
MIDWAY BLVD

EXIST. 24" PIPE
(TO REMAIN)

EXIST. 18" SQ. PILE 3-6
STRUCTURAL
PILE JACKET

EXIST. 18" SQ. PILE 4-8
STRUCTURAL
PILE JACKET

EXIST. R/W LINE

APPROX. MLW LINE

APPROX. MHW LINE

W. Spring Lake

LEGEND

Surface Water Impacts

- APPROX. MHW LINE
- FILL AREA 0.019 ACRES
- R — RED INDIVIDUAL MANGROVE
- W — WHITE INDIVIDUAL MANGROVE
- CONCRETE FLUME
- RUBBLE RIPRAP (DITCH LINING)

BRIDGE NO. 014073

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

REVISIONS					
Date	By	Description	Date	By	Description

Bartholomew D. Rohrer, P.E.
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Checked by:	JCL
Designed by:	BND
Checked by:	JCL

CHARLOTTE COUNTY
FLORIDA
NROSALES

SHEET TITLE: WETLAND / SURFACE WATER IMPACTS (1 OF 3)

REF. DWG. NO.

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO. W-1

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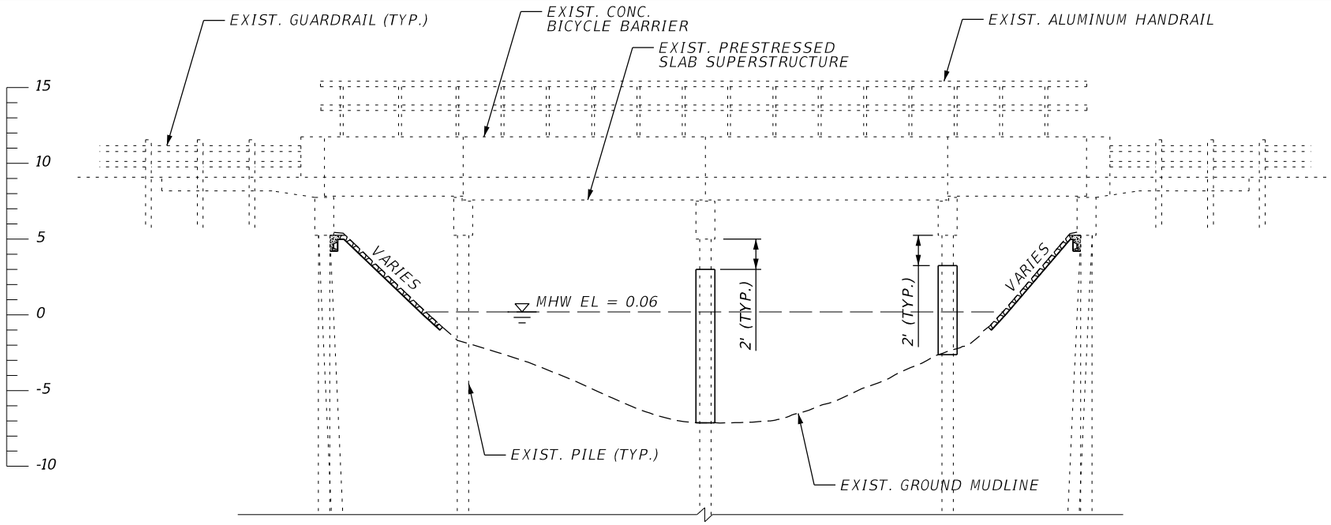
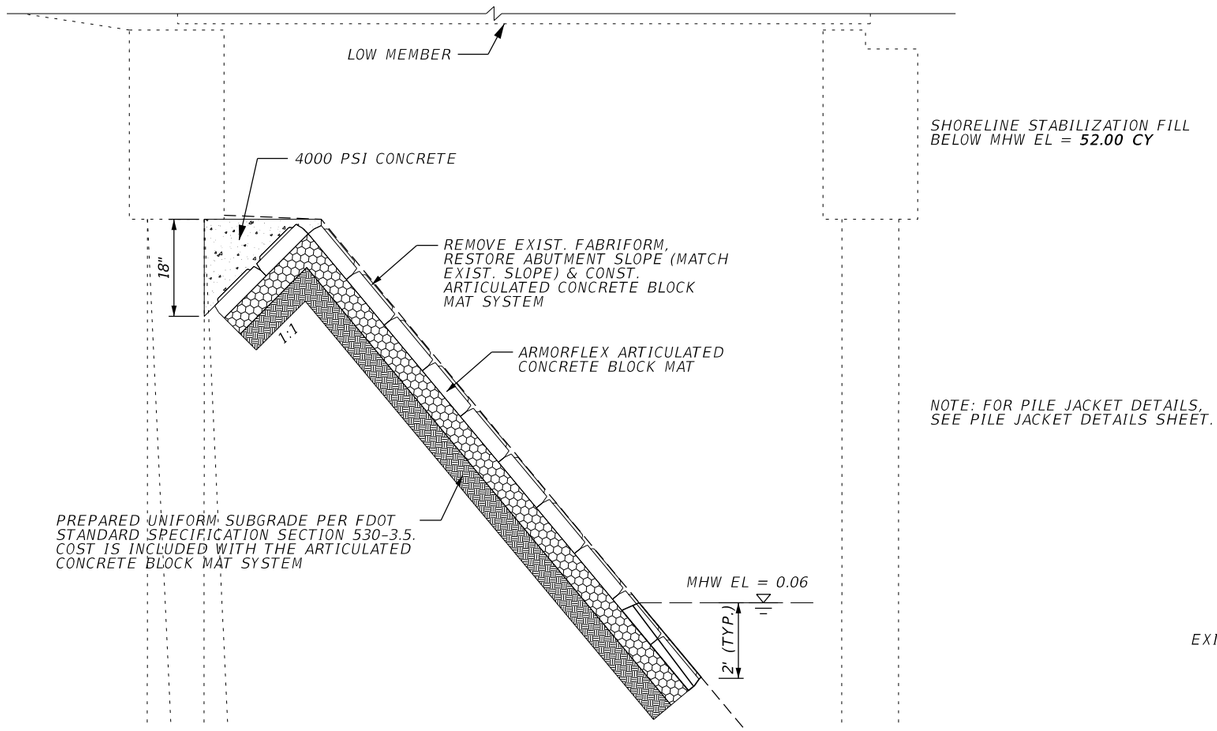


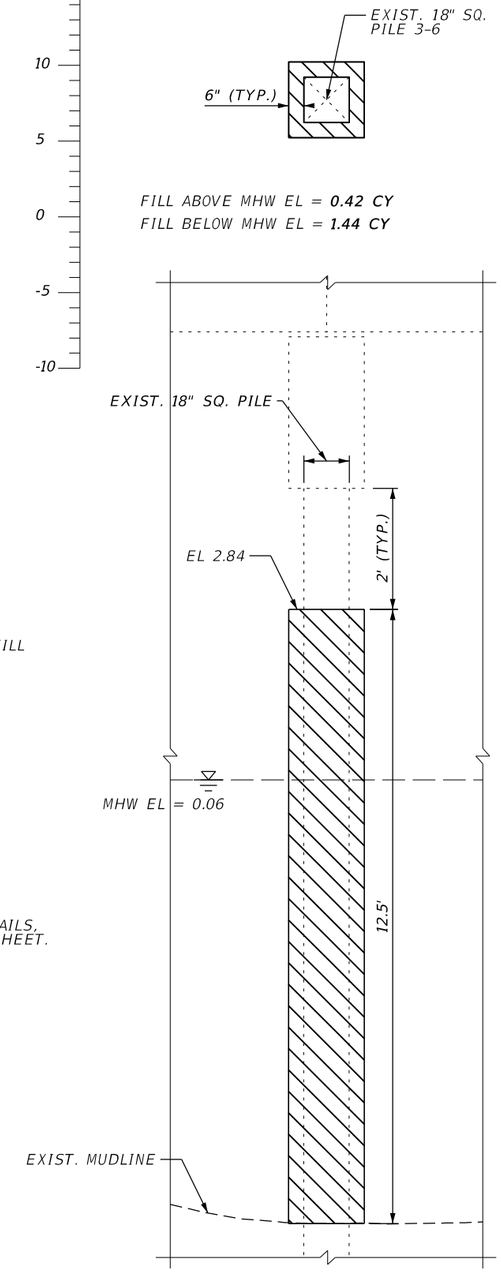
SECTION A-A



SECTION B-B

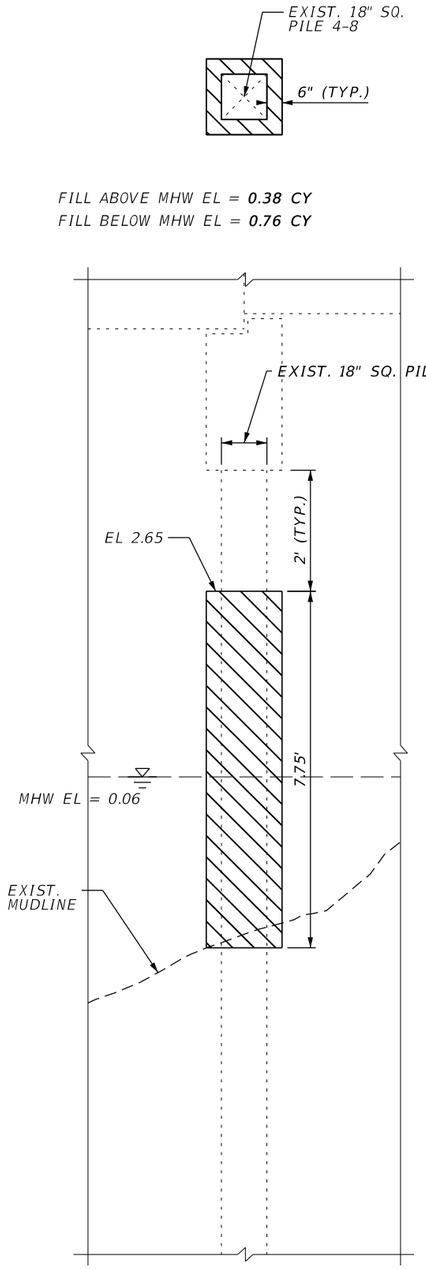
SHORELINE STABILIZATION FILL
BELOW MHW EL = ***52.00 CY***

NOTE: FOR PILE JACKET DETAILS, SEE PILE JACKET DETAILS SHEET.



FILL ABOVE MHW EL = ***0.42 CY***
FILL BELOW MHW EL = ***1.44 CY***

PILE 3-6



FILL ABOVE MHW EL = ***0.38 CY***
FILL BELOW MHW EL = ***0.76 CY***

PILE 4-8

BRIDGE NO. 014073

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REVISIONS					
Date	By	Description	Date	By	Description

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Checked by: JCL
Designed by: BND
Checked by: JCL

CHARLOTTE COUNTY FLORIDA

SHEET TITLE: WETLAND / SURFACE WATER IMPACTS (2 OF 3)

REF. DWG. NO.:

PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE

SHEET NO.: W-2

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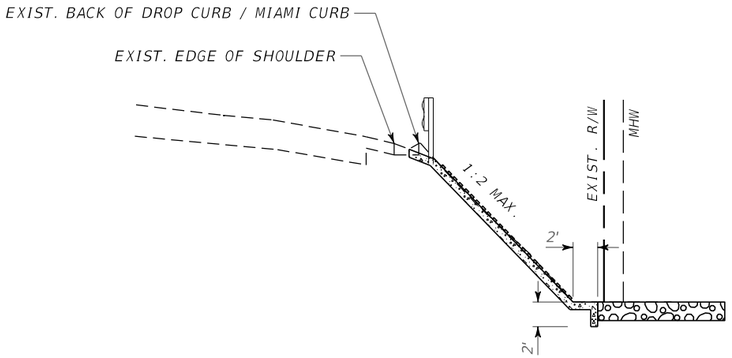
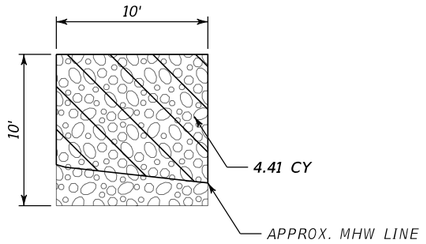
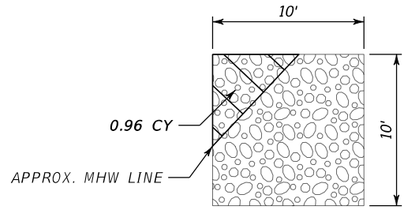


SECTION D-D (N.T.S.)
CONCRETE FLUMES



CONCRETE FLUME A
OUTFALL RUBBLE RIPRAP
(DITCH LINING)



CONCRETE FLUME B
OUTFALL RUBBLE RIPRAP
(DITCH LINING)

BRIDGE NO. 014073

REVISIONS					
Date	By	Description	Date	By	Description

Bartholomew D. Rohrer, P.E.
P.E. LICENSE NUMBER 59623
HDR Engineering, Inc.
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Drawn By: AS
Checked by: JCL
Designed by: BND
Checked by: JCL

CHARLOTTE COUNTY
FLORIDA

SHEET TITLE: WETLAND / SURFACE WATER IMPACTS (3 OF 3)
REF. DWG. NO.:
PROJECT NAME: MIDWAY BLVD AT NORTH SPRING LAKE BRIDGE
SHEET NO.: W-3

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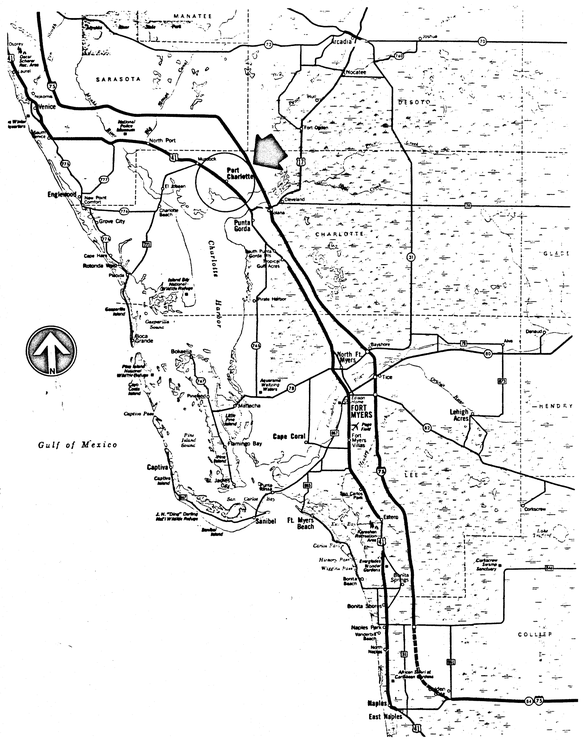
CHARLOTTE COUNTY

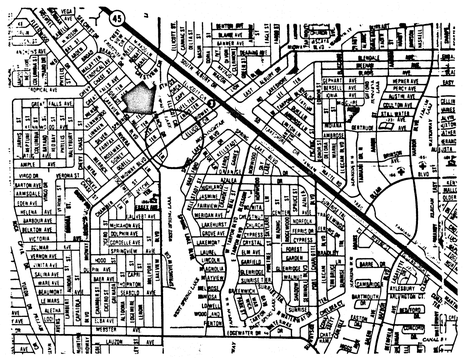
BRIDGE REMOVAL AND REPLACEMENT
BRIDGE NO. 014020

SPRING LAKE WATERWAY AT MIDWAY BLVD.



VICINITY MAP

0 5 10 15 20
GRAPHIC SCALE IN MILES



LOCATION MAP

INDEX OF DRAWINGS

SUMARY OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
7-11.6-1	UTILITY RELOCATION	L.S.	1
102-1	MAINTENANCE OF TRAFFIC	L.S	1
110-3	REMOVAL OF EXISTING STRUCTURE	L.S	1
120-5	CHANNEL EXCAVATION	Cu.Yd	450
120-6	EMBANKMENT	Cu.Yd	86
300-2.3	TACK COAT	Sq.Yd	848
332-1-38	TYPE II ASPHALTIC CONC.(1½")(BRIDGE)	Sq.Yd	751
332-1-38	TYPE II ASPHALTIC CONC.(1½")(ROAD)	Sq.Yd	848
332-2-7	TYPE II ASPHALTIC CONC.(LEVEL COURSE)	TON	106
400-1-2	CLASS I CONC.(ENDWALLS)	Cu.Yd	2.29
400-2-1	CLASS II CONC.(BRIDGE)	Cu.Yd	157
400-5-4	CONCRETE HANDRAIL BARRIER #12931	L.F.	204
400-5-5	CONCRETE HANDRAIL BARRIER #12670	L.F.	102
415-1-1	REINFORCING STEEL (BRIDGE)	Lb.	16888
430-8-124	CORRUGATED AL.UM. PIPE CULVERT(24"SS)	L.F.	120
450-2-1	PRESTRESSED SLAB UNITS (36"x15")	L.F.	109
450-2-2	PRESTRESSED SLAB UNITS (48"x15")	L.F.	543
450-2-3	PRESTRESSED SLAB UNITS (36"x18")	L.F.	187
450-2-4	PRESTRESSED SLAB UNITS (48"x18")	L.F.	933
455-3-2	PRESTR. CONC. PILING FURNISHED(18"SQ)	L.F.	1690
455-4-2	PRESTR. CONC. PILING DRIVEN (18"SQ)	L.F.	1690
455-9-12	UNLOADED TEST PILES (PREST. CONC)(18"SQ)	L.F.	224
455-72	STEEL SHEET PILING	L.S.	1
536-1-2	GUARDRAIL (BRIDGE)	L.F.	350
360-1	CONCRETE APPROACH SLABS	Ea.	2
514-1	SLOPE PROTECTION	Sq.Yd	484

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn J.C.P.
checked [illegible]
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE
OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

REVISIONS

no	date	by	description

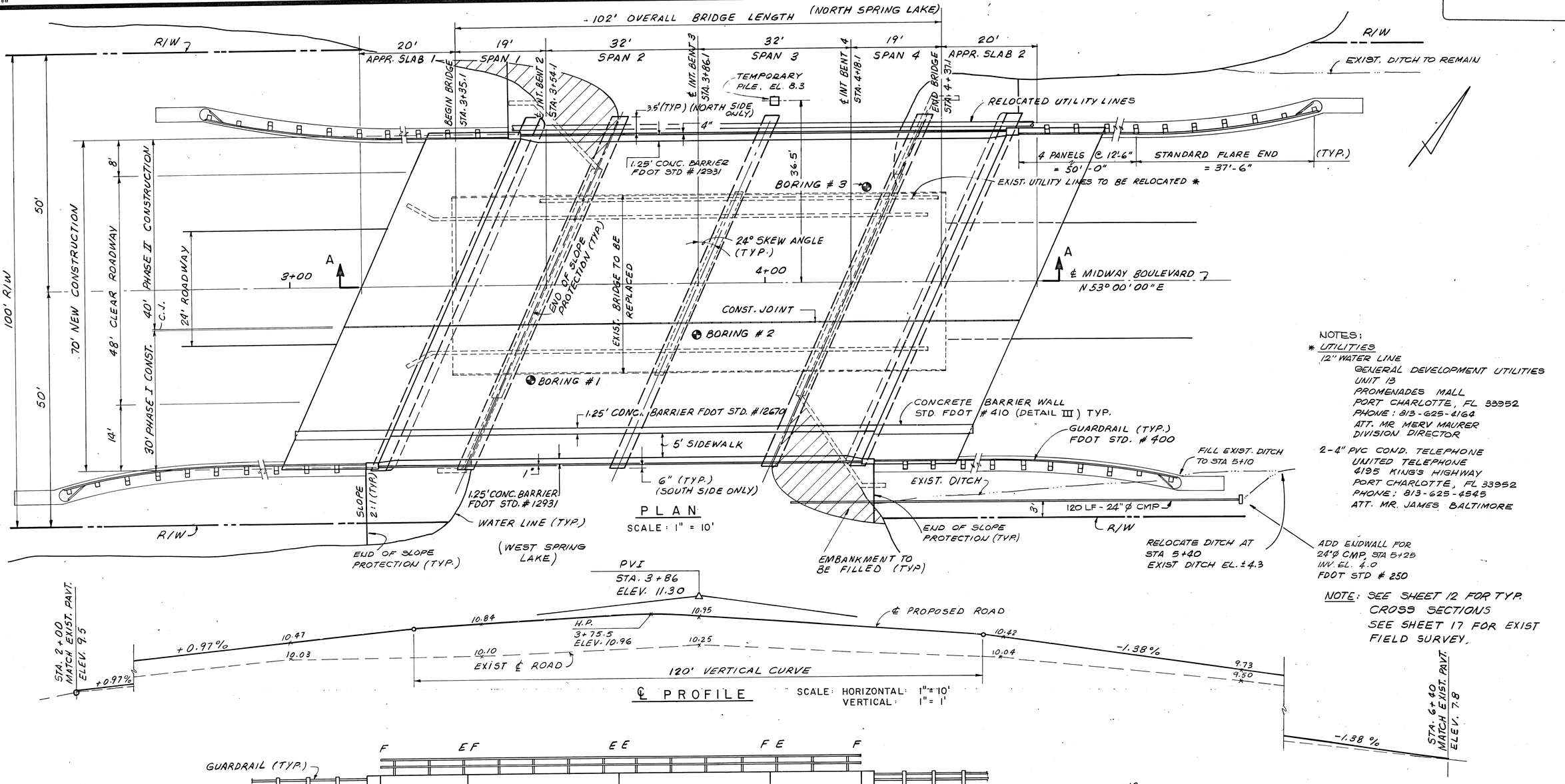
TITLE SHEET

SCALE SHOWN

SH. NO. 1 of 17

BX1-1

PRINT DATE 3-22-85



NOTES:

* UTILITIES

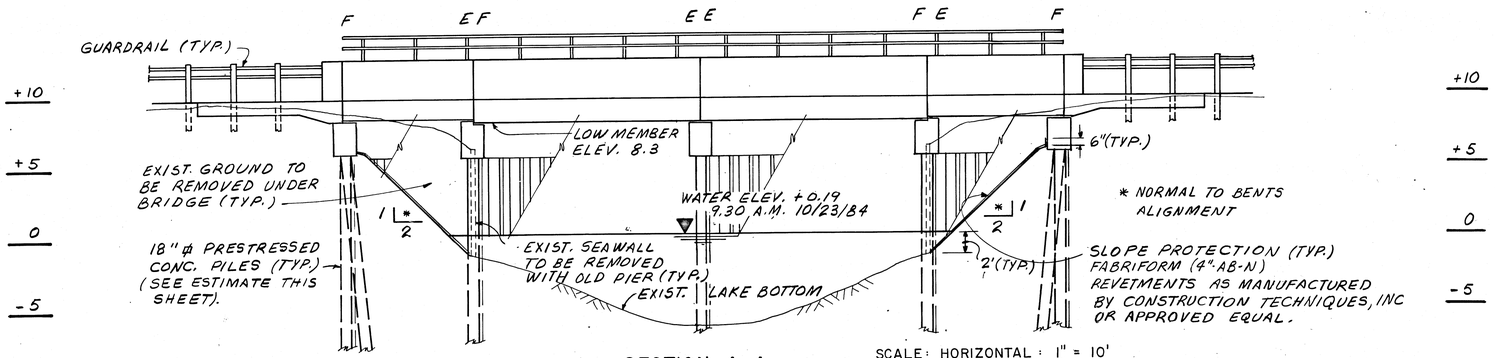
12" WATER LINE
GENERAL DEVELOPMENT UTILITIES
UNIT 13
PROMENADES MALL
PORT CHARLOTTE, FL 33952
PHONE: 813-625-4164
ATT. MR MERV MAURER
DIVISION DIRECTOR

2-4" PVC COND. TELEPHONE
UNITED TELEPHONE
4195 KING'S HIGHWAY
PORT CHARLOTTE, FL 33952
PHONE: 813-625-4545
ATT. MR. JAMES BALTIMORE

℄ PROFILE

SCALE: HORIZONTAL: 1" = 10'
VERTICAL: 1" = 1'

NOTE: SEE SHEET 12 FOR TYP. CROSS SECTIONS
SEE SHEET 17 FOR EXIST FIELD SURVEY.



* NORMAL TO BENTS ALIGNMENT

SECTION A-A

SCALE: HORIZONTAL: 1" = 10'
VERTICAL: 1" = 5'

PILING ESTIMATE

LOCATION	UNLOADED TEST PILES	BEARING PILES
END BENT 1	———	11 x 30 Ft. = 330 Ft.
INT. BENT 2	1 x 42 Ft. = 42 Ft.	8 x 37 Ft. = 296 Ft.
INT. BENT 3	2 x 70 Ft. = 140 Ft.	7 x 61 Ft. = 427 Ft.
INT. BENT 4	1 x 42 Ft. = 42 Ft.	8 x 37 Ft. = 296 Ft.
INT. BENT 5	———	11 x 31 Ft. = 341 Ft.

BX1-2

BRIDGE NO. 014020

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn H.M.L.
checked Larrua
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

PORT CHARLOTTE, FLORIDA.

REVISIONS

no	date	by	description

GENERAL PLAN AND ELEVATION

SCALE AS SHOWN

SH. NO. 2 of 17

AF 12573

SOUTH DADE BLUEPRINT

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: State of Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Current Edition with approved Supplements thereto.

DESIGN SPECIFICATIONS: American Association of State Highway and Transportation Officials (AASHTO) Standard Specifications for Highway Bridges, Current Edition with Approved Revisions thereto.

DESIGN LOADING: Designed in accordance with HS20-44 loading.

FUTURE WEARING SURFACE: An allowance of 15 lbs. per sq. ft. is included for future wearing surfaces.

REINFORCING STEEL: All reinforcing steel shall conform to ASTM A-615 Grade 60 unless otherwise noted. All reinforcing to be epoxy-coated conforming to ASTM A-775

PILING: Piling shall be 18" sq. Prestressed Concrete Piles. For Quantities see Summary of Bridge Pay Items. Maximum pile loads shall be as follows:

BRIDGE WIDTH	SPAN LENGTH (FT)	LOCATION	PILE LOAD (TONS)
48 FT. ROADWAY (MIDWAY BLD. BRIDGE)	19	End Bents	30
	19 - 32	Interm. Bents 2 & 4	40
	32	Interm. Bent 3	50
44 FT. ROADWAY	25 To 35	End Bent	30
	25	Intermediate Bent	40
	27.5 & 30	Intermediate Bent	45
	32.5	Intermediate Bent	50
	35	Intermediate Bent	55

CONCRETE: Class II Concrete (fc' = 3400 psi) shall be used throughout the Substructure. Class II Concrete (fc' = 3400 psi) shall be used for field cast concrete in the Superstructure. Class III Concrete (fc' = 5000 psi) shall be used for prestressed members.

CONCRETE FINISH: Concrete shall be finished in accordance with Specifications. All exposed top, inside and outside surfaces of End Bent Wingwalls, and Concrete Handrail Barrier and outside surfaces of Slab Units shall receive a "Class 5 Applied Finish Coating."

LIMITATIONS FOR USE: These drawings shall not be used for Structures located in Superelevation Transition or for Structures on alignments where the slope (Camber not used) of the slab unit on the bearing is greater than 0.04 feet per foot.

BITUMINOUS MATERIAL: For Type of Bituminous Material, Estimated Quantities, and payment See Sheet 1.

ALTERNATE SECTIONS: At the option of the Contractor, wider units may be furnished provided the amount of prestressing per foot of width is maintained.

PRESTRESSED MEMBERS

FINISH: The top of prestressed units shall be finished smooth by floating or brooming. All other surfaces of the units shall receive a "Class 3" surface finish. The edges of the top surface of the units shall be finished by use of a small radius tool

CONCRETE STRENGTH: At transfer of the prestressing load, the cylinder strength of the concrete shall be 4000psi

HANDLING & STORAGE: During handling and storage, the prestressed units must be maintained in an upright position at all times. The units must be picked up at the ends of the units to prevent damage.

FORMS & PALLETS: All prestressed units shall be cast on concrete based pallets and in metal forms.

STRANDS: At the option of the Contractor, stabilized strands may be used in lieu of stress relieved strands. Calculations are to be submitted showing the substitution meets the following requirements:
1. The strands meet all requirements of ASTM A-416 Grade 270.
2. The net compressive stress in the concrete after all losses is at least as large as that provided by the 270K stress relieved strands.
3. The ultimate strength of the structure meets the requirements of the applicable AASHTO Specifications.

At the option of the Contractor, 250K stress relieved strands may be substituted in lieu of the 270K strands shown provided that calculations are submitted showing compliance with the requirements of items 2 and 3 above. Where alternate strands are proposed, the required calculations shall be submitted with the Shop Drawings.

STRAND EXTENSION: All strands shall extend 2 1/2" beyond the ends of the prestressed units.

TIE BARS: Tie bars shall be 1 1/4" ø Bars for post-tensioning and shall comply with the requirments of Section 933 of the Specifications. The tie bars shall be stressed and anchored at 125,000 lbs. per post-tensioned bar.

SHOP DRAWINGS: The contractor shall submit 7 sets of shop drawings, showing complete details of the proposed prestressed units. The drawings shall include reinforcing steel, prestressing steel, prestressing bed layout, tensioning and detensioning schedules, and all computations required to control the work.

BEARING PADS: Neoprene bearing pads shall be 1/2" X 6" strips in accordance with section 932-2 of the Specifications. The pads may be continuous strips or multiple lengths of 2'-0" minimum length. The pads may be cut from commercially available sheets and shall be Grade 50.

PAYMENT: The contract unit price for the precast-prestressed units shall include the units, prestressed strands, reinforcing steel shipped with the units, tie bars and anchorages, neoprene bearing pads, premoulded expansion material, and epoxy mortar

TIE BAR ANCHORAGES: The fabricator shall submit details of the Tie Bar Anchorage and Anchorage Reinforcement details for approval with the Shop Plans.

CONSTRUCTION NOTES

EQUIPMENT ON UNITS: Before heavy construction equipment is permitted on the structure during construction, sketches showing the axle spacing and anticipated loadings shall be submitted to and approved by the Engineer.

FILLING KEYWAYS: During placement of the units, or prior to filling the joints between the units and keyways with epoxy mortar, the bottom of the openings shall be sealed to prevent leakage during placement of the epoxy mortar. The seal shall extend upward from the bottom of the unit a maximum of 1 inch. The material proposed for the seal shall be shown on the shop plans for approval by the Engineer. After the seals are in place for the entire superstructure, the joints and keyways shall be filled with epoxy mortar (See Epoxy Mortar Note below). Careful attention shall be given to the areas where the tie bars and anchorages for the tie bars are to be installed to avoid filling these holes

TIE BARS: The transverse post-tensioned tie bars shall not be tensioned until the epoxy mortar in the joints and keyways has been cured for a minimum of 72 hours. The bars shall be installed, post-tensioned and anchored to 125,000 lbs. each.

GROUTING BARS: The tie bars shall be grouted in accordance with section 450-11 of the Specifications. The grouted tie bars shall not be disturbed, nor shall appreciable loads be placed on the span for a period of 72 hours following grouting

FILLING ANCHORAGE BLOCKOUTS: All recesses and blockouts for post-tensioned tie bars shall be filled with non-shrinking grout.

"CONTINUED"

PLACING BARRIER WALLS & SURFACING: After all tie bars have been grouted and the minimum 72 hours have passed for all tie bars, the barrier walls and wearing course shall be placed.

SAWED JOINTS: A control crack shall be provided by sawing at all supports a joint, the depth of the wearing surface, from gutter to gutter. The joint shall be centered over the centerline of the concrete joint and shall be sawed upon completion of the surfacing.

EPOXY MORTAR MIX: The epoxy mortar shall be composed of a mixed epoxy binder and sand as follows:

(a) BINDER
The binder shall be a two component (1:1 ratio hydro-ester) material meeting the following requirements:

(1.) The material shall be insensitive to moisture.

(2.) The material shall adhere to wet concrete.

(b) SAND
The sand filler shall be kiln dried silica sand meeting these gradation requirements:

STANDARD SAND

U.S. Sieve Size	% Passing
No. 4	100
No. 16	90-100
No. 30	30-50
No. 50	0-10
No. 100	0-5

ALTERNATE SAND

U.S. Sieve Size	% Passing
No. 4	100
No. 10	90-100
No. 20	0-5
No. 40	0

(c) MIXING
The epoxy mortar shall be machine mixed in strict accordance with the manufacturer's directions

(1.) One part of binder shall be combined with a maximum of three parts of sand filler.

(2.) No more filler shall be mixed than can be placed into the joints and keyways in a peroid of 20 min. Any material so mixed and not used within the 20 minutes immediately following shall be discarded.

(3.) For joints where the above mix will not flow into the voids, the mix may be thinned by adding additional binder to the mix.

(d) STRENGTH
The strength of the epoxy mortar shall be considered acceptable provided that 2 inch cubes of the material demonstrate a compressive strength of 6500 psi when tested. The mix proportions for the test cubes shall consist of one part binder to one part sand filler. The specimen shall be cured at a temperature of 66°F to 74°F and shall be tested in accordance with Section 926-3.2(b) of the Specifications.

BX1-3

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES

GENERAL & CONSTRUCTION NOTES

REVISIONS Dates	Descriptions
10/80	Revised Environment \Note added (Non Coastal)
11/13/80	Concrete Finish
5/81	\Concrete Finish
6/82	\Revised Strength Note.
9/82	\Added Bearing Pad Grade

ROAD NO	COUNTY	PROJECT NO

	Names	Dates
Designed by	C.W.	7/78
Checked by	J.L.M.	7/78
Quantities by		
Checked by		
Supervised by	J.L.M	

APPROVED BY
Deputy Design Engineer, Structures

Drawing No	Index No.
1 OF 1	12661

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SCIENTISTS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn
checked Larrua
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE
OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

REVISIONS no	date	by	description

BRIDGE NO. 014020

STANDARD DRAWING.

SCALE NONE

SH. NO. 3 of 17

AF 12573

SOUTH DADE BLUEPRINT

PITTSBURGH TESTING LABORATORY

LOG OF BORING

Job No. NFL 528

ent Connell Associates, Inc.

Project Midway Bridge, Port Charlotte, Florida

Location of Boring: See plot plan

Water Level	9'0"
Time	Immediate
Date	9-11-84

Boring No. B-1 Date 9-11-84 Sheet ___ of ___

Type of Boring D 1586 Rig CME 55-3

Casing used HA Size 3¼ Drilling mud used No

Boring begun 9-11-84 Boring completed 9-11-84

Ground Elevation Existing referred to ___ Datum

Field Party: Stryker and Mueller

Depth of Casing, ft.	Sample No.	Sample depth (cm or in feet)	Blows/foot on Sampler	ID of Sampler (inches)	Tot. length of recov. sample	Length of Lab. sample	DEPTH IN FEET	SOIL GRAPH	DESCRIPTION
		0-1	2/1				0		Very loose, brown sand with some shell fragments
	102	1-2	2/1				1		
		2-3	1/1				2		
	104	3-4	1/2				3		
		4-5	1/1				4		
	106	5-6	1/1				5		
		6-7	1/1				6		
	108	7-8	2/2				7		
		8-9	2/2				8		
	110	9-10	3/3				9		
							10		
							11		
							12		
							13		
		13-14	/2				14		Loose, light brown sand with shell fragments
	115	14-15	4/7				15		
							16		
							17		
							18		
		18-19	/6				19		
	120	19-20	9/13				20		Medium, light brown sand with shell fragments
							21		
							22		
							23		
		23-24	/5				24		Medium, light gray sand
	125	24-25	6/12				25		
							26		
							27		
							28		
		28-29	/6				29		
	130	29-30	9/16				30		
							31		
							32		
							33		
		33-34	/24				34		Dense, light gray sand
	135	34-35	45/36				35		
							36		
							37		
							38		
		39-40	/10				39		
	141	40-41	10/10				40		Medium, gray sand
							41		
							42		
							43		
		43-44	/6				44		Medium, gray silty sand
	145	44-45	11/10				45		
							46		
							47		
							48		
		48-49	3/4				49		Loose, gray silty sand
	150	49-50	3/4				50		
							51		end of boring 50'
							52		

PITTSBURGH TESTING LABORATORY

LOG OF BORING

Job No. NFL 528

ient Connell Associates, Inc.

Project Midway Bridge, Port Charlotte, Florida

Location of Boring: See Plot Plan

Water Level	10.5' above channel bottom
Time	Immediate
Date	11-16-84

Boring No. B-2 Date 11-16-84 Sheet ___ of ___

Type of Boring D 1586 Rig CME 55-3

Casing used HA Size 3¼ Drilling mud used No

Boring begun 11-16-84 Boring completed 11-16-84

Ground Elevation Channel bottom referred to ___ Datum

Field Party: Stryker and Mueller

Depth of Casing, ft.	Sample No.	Sample depth (cm or in feet)	Blows/foot on Sampler	ID of Sampler (inches)	Tot. length of recov. sample	Length of Lab. sample	DEPTH IN FEET	SOIL GRAPH	DESCRIPTION
		0-1	/9				0		Medium, light brown sand
	202	1-2	9/11				1		
							2		
		3-4	/3				3		Loose, light brown sand
	205	4-5	9/12				4		
							5		
							6		
							7		
		8-9	/7				8		
	210	9-10	11/9				9		
							10		
							11		
							12		Medium, light brown sand
		13-14	/12				13		
	215	14-15	45/28				14		Very dense, no sample obtained
							15		
							16		
							17		
		18-19	/1				18		
	220	19-20	2/4				19		Very loose, gray sand
							20		
							21		
							22		
		23-24	/7				23		Medium, light gray sand
	225	24-25	7/10				24		
							25		
							26		
							27		
		28-29	/0				28		
	230	29-30	1/2				29		Very loose, gray silty sand with shell fragments
							30		
							31		
							32		
		33-34	/1				33		
	235	34-35	1/3				34		
							35		
							36		
							37		
		39-40	/1				38		
	240	40-41	3/5				39		Loose, gray silty sand
							40		
							41		
							42		
		43-44	/4				43		
	245	44-45	8/14				44		Medium, light gray silty sand
							45		
							46		
							47		
							48		
		48-49	/10				49		
	250	49-50	17/22				50		Dense, light gray silty sand
							51		end of boring 50'
							52		50' bottom of channel 70 from surface of bridge

PITTSBURGH TESTING LABORATORY

LOG OF BORING

Job No. NFL 528

ent Connell Associates, Inc.

Project Midway Bridge, Port Charlotte, Florida

Location of Boring: See Plot Plan

Water Level	8'5"
Time	Immediate
Date	9-11-84

Boring No. B-3 Date 9-11-84 Sheet ___ of ___

Type of Boring D 1586 Rig CME 55-3

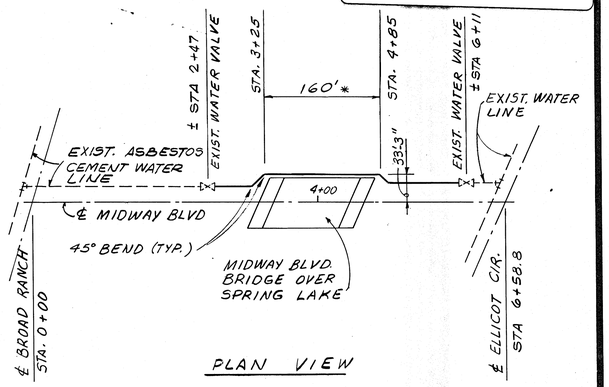
Casing used HA Size 3¼ Drilling mud used No

Boring begun 11-9-84 Boring completed 11-12-84

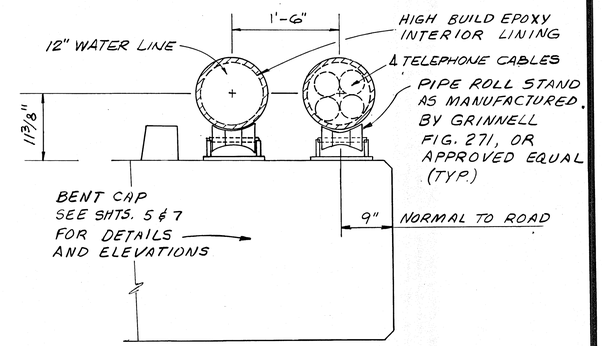
Ground Elevation Existing referred to ___ Datum

Field Party: Stryker and Mueller

Depth of Casing, ft.	Sample No.	Sample depth (cm or in feet)	Blows/foot on Sampler	ID of Sampler (inches)	Tot. length of recov. sample	Length of Lab. sample	DEPTH IN FEET	SOIL GRAPH	DESCRIPTION
		0-1	2/4				0		Loose, brown sand
	302	1-2	3/3				1		
		2-3	3/5				2		
	304	3-4	10/12				3		
		4-5	11/8				4		Medium, brown sand
	306	5-6	7/6				5		
		6-7	5/4				6		Loose, brown sand with limestone fragments
	308	7-8	3/3				7		
		8-9	4/3				8		Loose, brown sand
	310	9-10	4/4				9		
							10		
							11		
							12		
		13-14	/6				13		Medium, brown sand
	315	14-15	9/10				14		
							15		
							16		
							17		
		18-19	/4				18		Loose, light gray sand
	320	19-20	8/11				19		Medium, light gray sand
							20		
							21		
							22		
		23-24	/3				23		Loose, gray sand
	325	24-25	5/4				24		
							25		
							26		
							27		
		28-29	/4				28		Medium, light gray sand
	330	29-30	8/28				29		Dense, light gray silty sand
							30		
							31		
							32		
		33-34	/3				33		
	335	34-35	3/3				34		Loose, light gray silty sand
							35		
							36		
							37		
		38-39	/6				38		Medium, light gray silty sand
	340	39-40	13/19				39		
							40		
							41		
							42		
		43-44	/3				43		Loose, light gray silty sand
	345	44-45	4/5				44		
							45		
							46		
							47		
		48-49	/3				48		Loose, light gray silty sand
	350	49-50	5/5				49		
							50		end of boring 50'
							51		
							52		



* CARBON STEEL PIPE MANUFACTURED IN ACCORDANCE WITH ASTM SPECS. A-139 - GRADE B, A-53 - GRADE B, AWWA C200.



CAP DETAIL

PIPE RELOCATION DETAILS

NOTE:
FOR BORING LOCATIONS SEE SHT 2

BRIDGE NO. 014020

BX1-4

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SCIENTISTS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn
checked Larrie
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

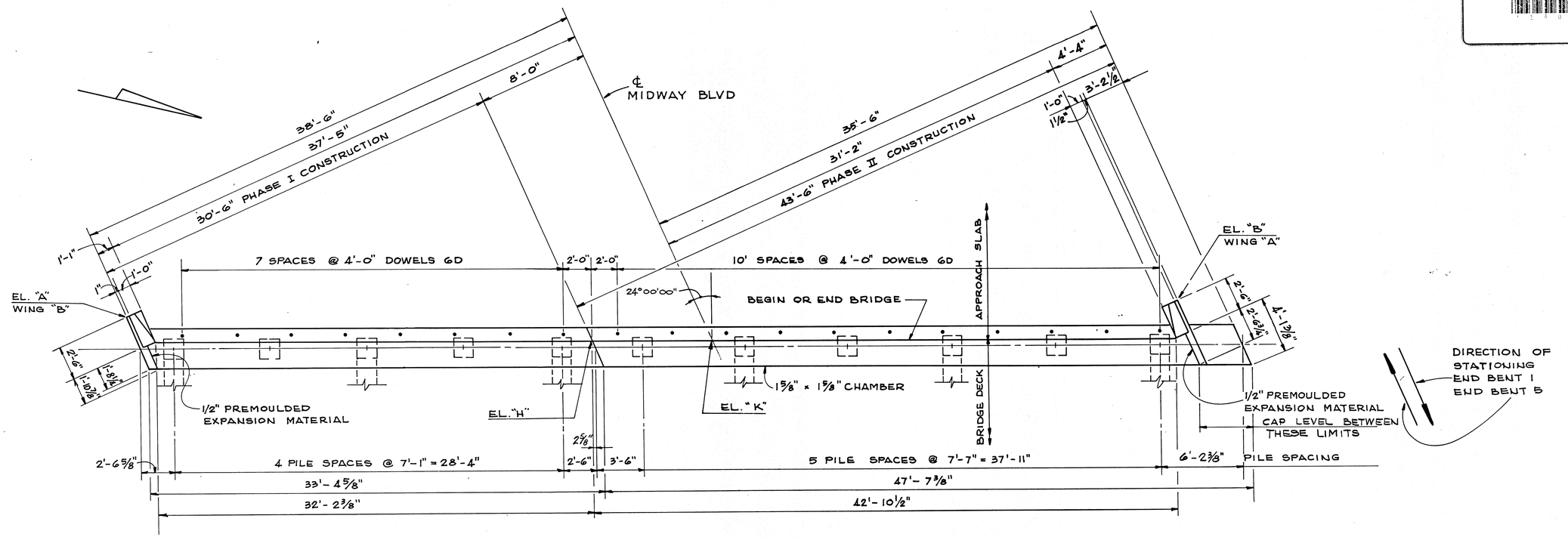
PORT CHARLOTTE, FLORIDA.

REVISIONS			
no	date	by	description

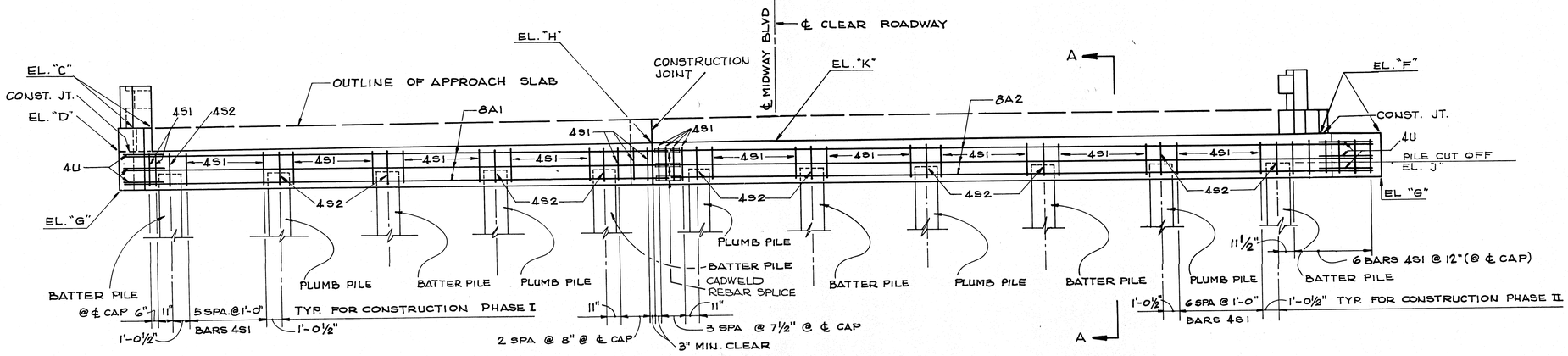
BORINGS AND PIPE RELOCATION DETAILS

SCALE NONE

SH. NO. 4 of 17



PLAN END BENT 1 AS SHOWN
(END BENT 5 OPPOSITE HAND)



ELEVATION

NOTE
FOR WING DETAILS, BILL OF REINFORCING AND SECTION A-A SEE SHT. 6

ELEVATIONS									
LOCATION	A	B	C	D	E	F	G	H	J	K
END BENT 1	9.83	10.21	9.85	8.42	10.23	8.81	5.92	9.18	6.92	9.38
END BENT 5	9.95	9.70	9.97	8.54	9.73	9.31	5.81	9.04	6.81	9.17

BX1-5

BRIDGE NO. 014020

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC
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313 CROSS STREET
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drawn JCP
checked Larrua
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

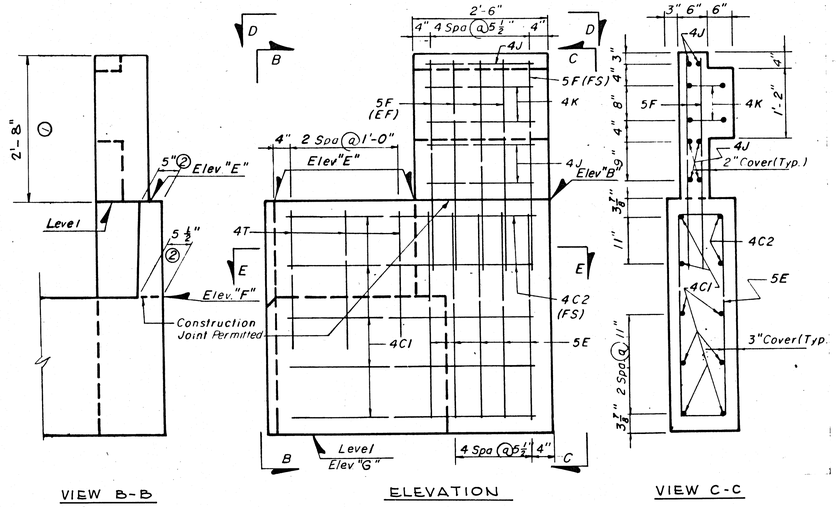
REVISIONS

no	date	by	description

END BENTS

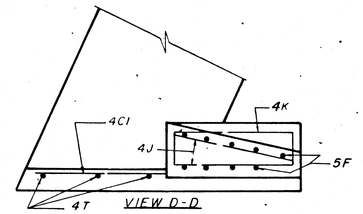
SCALE 1/4" = 1'-0"

SH. NO. 5 of 17

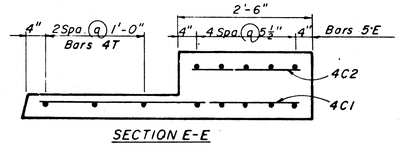


VIEW B-B ELEVATION VIEW C-C

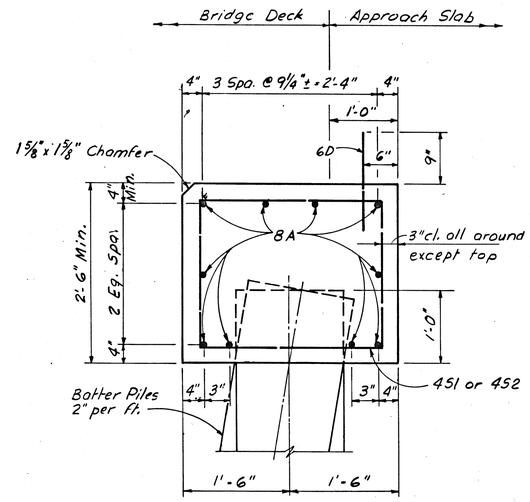
WING "A" DETAILS



VIEW D-D



SECTION E-E



SECTION A-A

NOTES:
1. DIMENSION SHOWN IS FOR NORMAL CROWN ROADWAY 0% GRADE. THIS DIMENSION SHALL BE ADJUSTED IN THE FIELD TO MATCH BRIDGE BARRIER CURB PROFILE FOR STRUCTURES ON GRADE OR SUPERELEVATED.
2. THIS DIMENSION SHALL BE ADJUSTED IN THE FIELD TO MATCH PRESTRESSED SLAB UNITS.

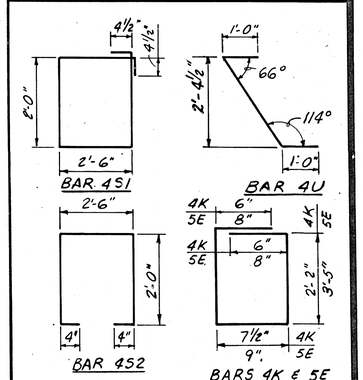
ESTIMATED QUANTITIES		
LOCATION	CLASS II CONC. (CU. YDS)	REINFORCING STEEL (LBS)
END BENT 1	28.26	2955
END BENT 5	27.29	2955

BILL OF REINFORCING

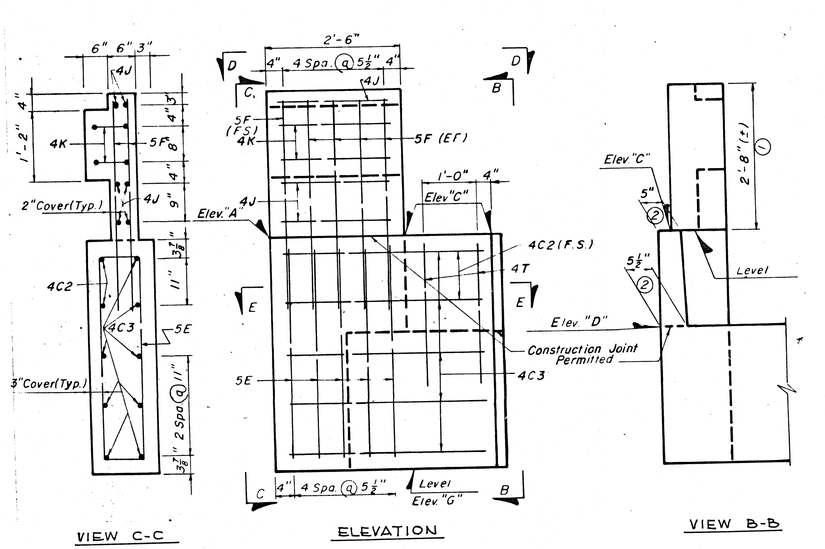
MARK	NO.	LENGTH	BENDING
8A1	10	33'-8"	Straight
8A2	10	46'-10"	Straight
4C1	8	4'-4"	Straight
4C2	4	2'-0"	Straight
4C3	8	3'-9"	Straight
6D	19	1'-6"	Straight
5F	18	3'-9"	Straight
4J	12	2'-2"	Straight
4K	4	6'-0"	See Bending
4T	5	2'-6"	Straight
451	73	9'-9"	See Bending
452	11	7'-2"	See Bending
4U	6	4'-8"	See Bending
5E	10	8'-11"	See Bending

Note: The Numeric Prefix of the Bar Mark Indicates the Bar Size; ie 8A is a Bar Size 8

BENDING DIAGRAMS

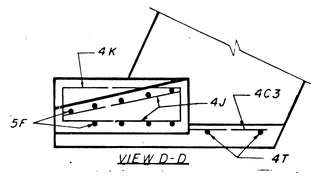


Note: All bar dimensions are out to out.

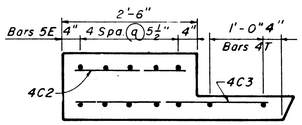


VIEW C-C ELEVATION VIEW B-B

WING "B" DETAILS



VIEW D-D



SECTION E-E

BRIDGE NO. 014020

BX1-6

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn JCP
checked Larrue
approved
date 1/31/1985
project no 2063.0

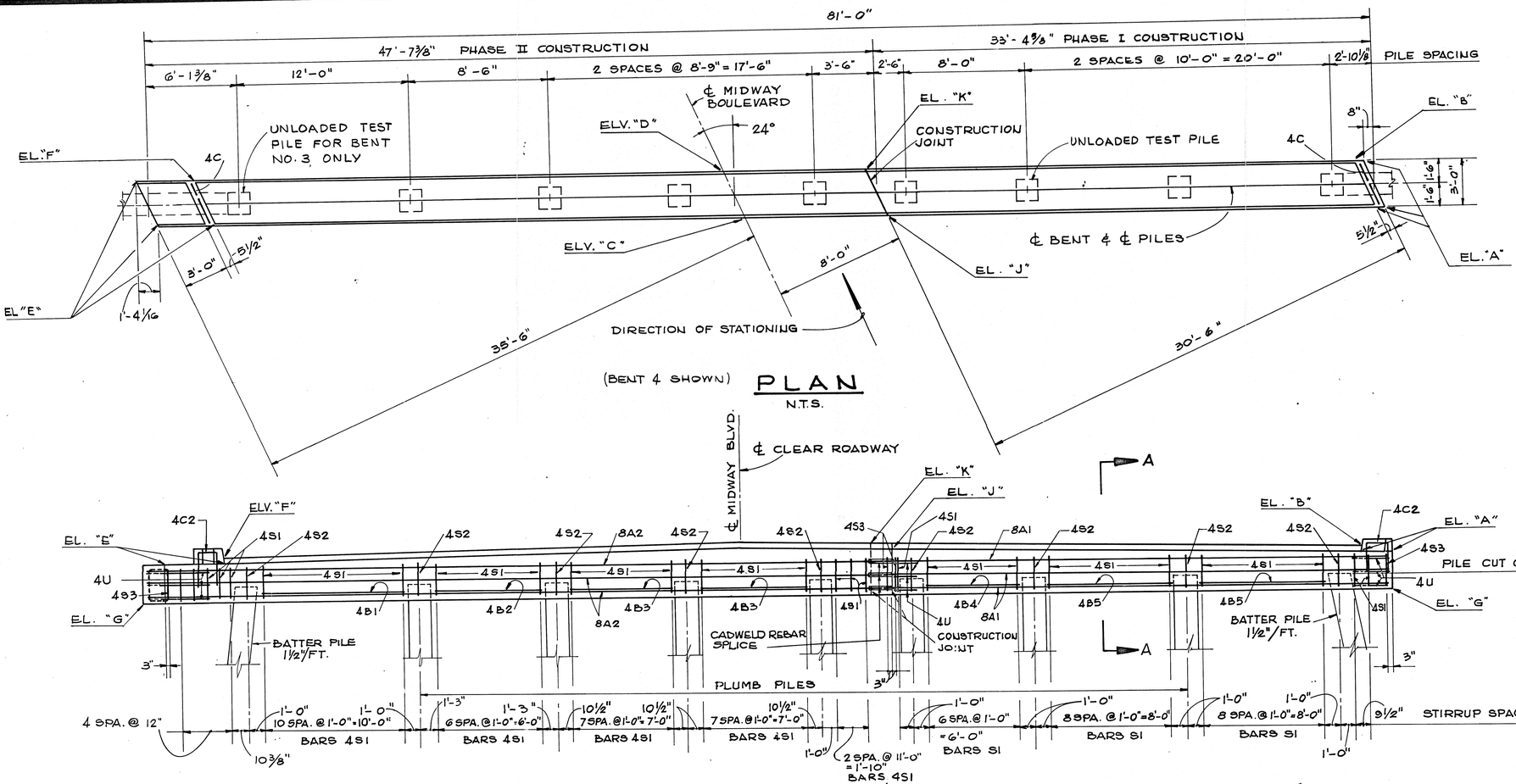
MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

REVISIONS			
no	date	by	description

END BENT SECTION AND WING DETAILS

SCALE NONE

SH. NO. 6 of 17



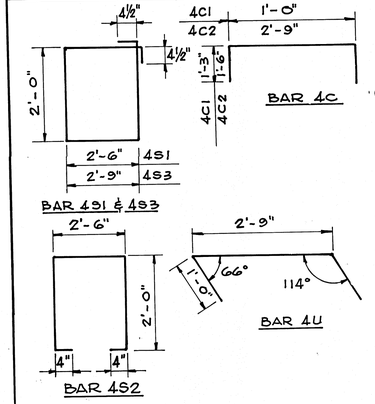
ELEVATION (BENT 4 SHOWN)
N.T.S.

REINFORCING STEEL

MARK	BENTS 2 & 4 NO.	BENTS 2 & 4 LENGTH	BENT 3 NO.	BENT 3 LENGTH	BENDING
8A1	12	33'-8"	10	33'-8"	STRAIGHT
8A2	12	46'-10"	10	46'-10"	STRAIGHT
4B1	2	10'-0"	2	10'-0"	STRAIGHT
4B2	2	6'-6"	2	6'-6"	STRAIGHT
4B3	4	6'-9"	4	6'-9"	STRAIGHT
4B4	2	6'-0"	2	6'-0"	STRAIGHT
4B5	4	8'-0"	4	8'-0"	STRAIGHT
4C1	74	3'-6"	—	—	SEE DIAGRAM
4C2	2	5'-9"	2	5'-9"	SEE DIAGRAM
4S1	70	9'-9"	70	9'-9"	SEE DIAGRAM
4S2	9	7'-2"	9	7'-2"	SEE DIAGRAM
4S3	4	10'-3"	4	10'-3"	SEE DIAGRAM
4U	9	4'-9"	9	4'-9"	SEE DIAGRAM

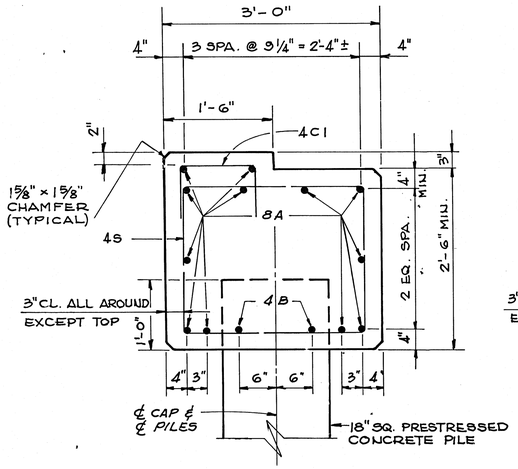
NOTE: THE NUMERIC PREFIX OF THE BAR MARK INDICATES THE BAR SIZE, ie, 8A IS A BAR SIZE 8

BENDING DIAGRAMS

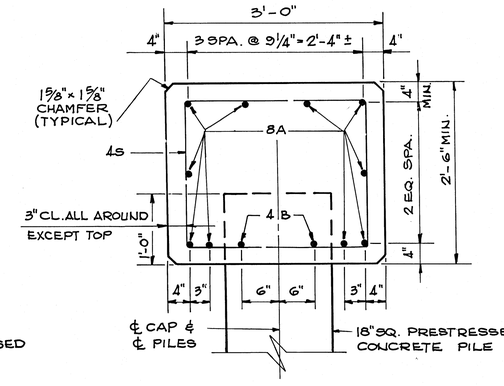


NOTE: ALL BAR DIMENSIONS ARE OUT TO OUT

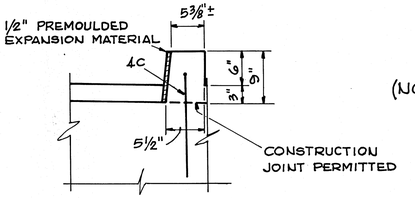
NOTE: PLACE DOWELS "G" AT FIXED (F) END OF SPANS. SEE SUPERSTRUCTURE DETAILS AND PLAN AND ELEVATION SHEETS.



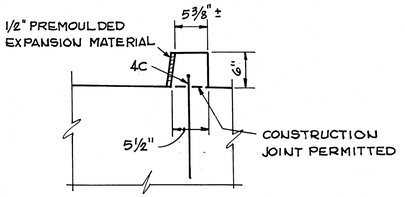
SECTION A-A
BENT 4 (BENT 2 OPPOSITE HAND)
N.T.S.



SECTION A-A
BENT 3
N.T.S.



TYPICAL SECTION THRU KEEPER BLOCK
BENTS 2 & 4
(NORMAL TO ℄ MIDWAY BOULEVARD)
N.T.S.



TYPICAL SECTION THRU KEEPER BLOCK
BENT 3
(NORMAL TO ℄ MIDWAY BOULEVARD)
N.T.S.

ESTIMATED QUANTITIES

INT. BENT NO.	CLASS II CONCRETE (CU. YDS.)	REINFORCING STEEL (LBS)
2	28.12	3364
3	26.11	3098
4	27.46	3384

TABLE OF ELEVATIONS

BENT NO.	ELEVATION A	B	C	D	E	F	G	H	J	K
2	8.33	8.58	9.23	9.48	8.59	8.84	5.83	6.83	9.00	9.25
3	8.47	8.47	9.26	9.26	8.54	8.54	5.97	6.97	9.06	9.06
4	8.41	8.66	9.10	9.35	8.28	8.53	5.78	6.78	8.92	9.17

BRIDGE NO. 014020

BX1-7

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn JCP
checked Larrua
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

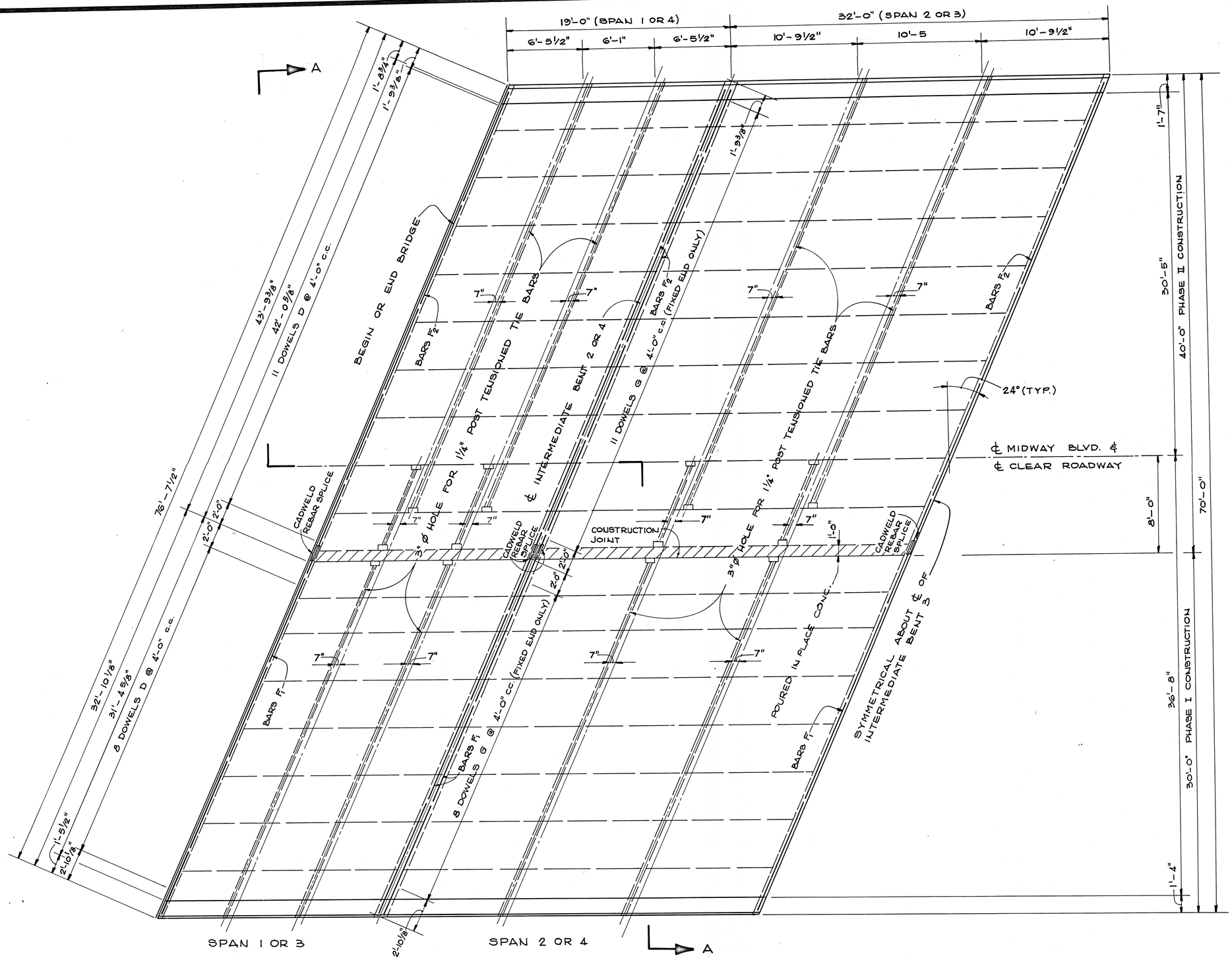
REVISIONS no	date	by	description

INTERMEDIATE BENTS

SCALE AS SHOWN

AF 21418B

SOUTH DADE BLUEPRINT



PLAN VIEW

NOTE:
FOR SECTION A-A & DETAILS
SEE SHEET 9.

BRIDGE NO. 014020

BX1-8

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES INC
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn JCP
checked Larua
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

PORT CHARLOTTE, FLORIDA.

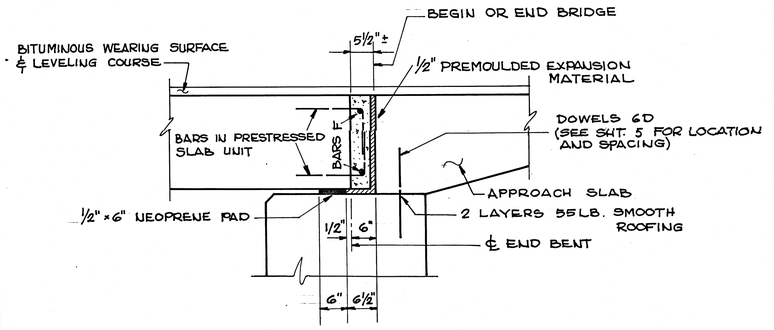
REVISIONS

no	date	by	description

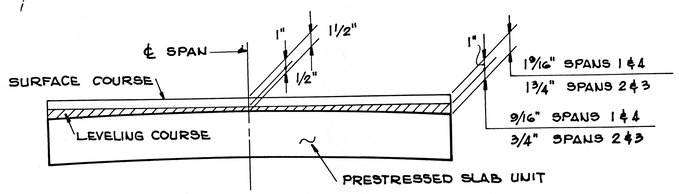
SUPERSTRUCTURE

SCALE 1/4" = 1'-0"

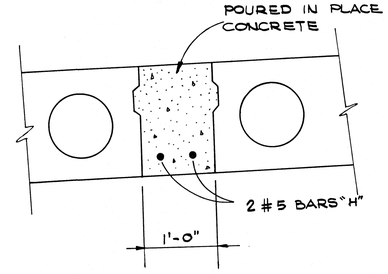
SH. NO. 8 of 17



TYPICAL SECTION AT END BENT
(NORMAL TO ℄ BENT)
N.T.S.



LEVELING COURSE FOR SURFACING
N.T.S.

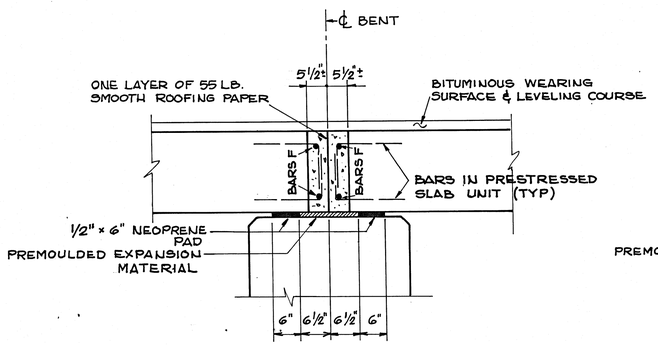


DETAIL 1
N.T.S.

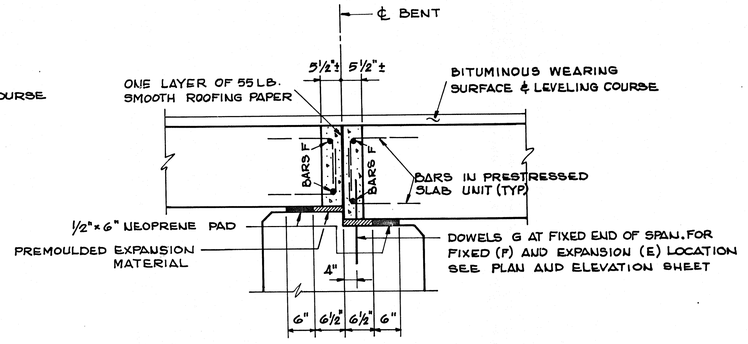
BILL OF REINFORCING STEEL					
SPAN NO.	MARK	SIZE	TYPE	NO.	LENGTH
1 OR 4	F1	4	1	4	33'-1"
	F2	4	1	4	44'-3"
	H	5	STR	2	17'-11"
2 OR 3	F1	4	1	4	33'-1"
	F2	4	1	4	44'-3"
	G	6	STR.	19	1'-6"
	H	5	STR	2	30'-1"

1'-3"
LEUGTH *
TYPE 1

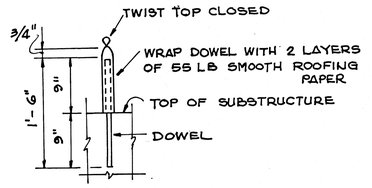
* INCLUDES LAPS FOR #4 BARS MORE THAN 36'-0" LONG



TYPICAL SECTION AT INTERMEDIATE BENT 3
(NORMAL TO ℄ BENT)
N.T.S.



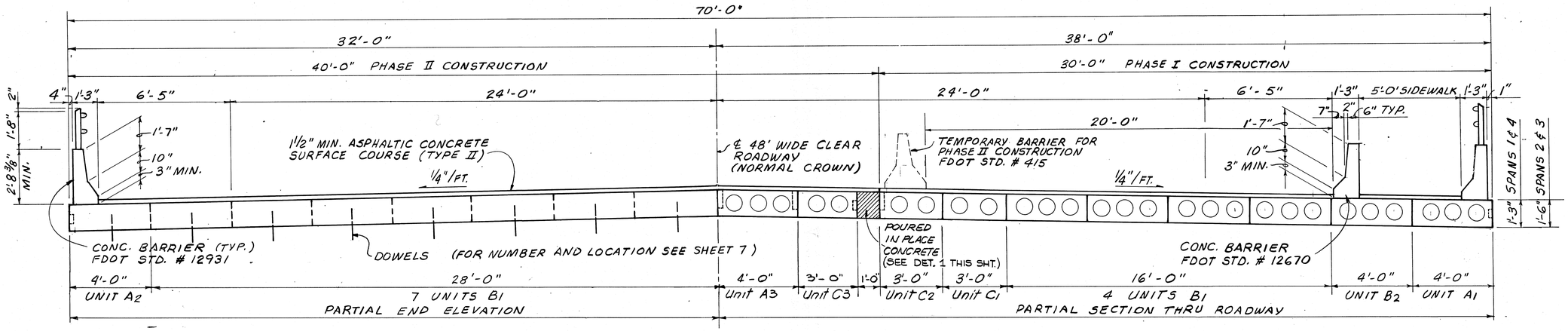
TYPICAL SECTION AT INTERMEDIATE BENTS 2 & 4
(NORMAL TO ℄ BENT)
N.T.S.



DOWEL DETAIL
N.T.S.

ESTIMATED QUANTITIES		
SPAN	CLASS II CONC. (C.Y.)	REINFORCED STEEL (LBS)
1 OR 4	3.94	243
2 OR 3	5.63	313

PRESTRESSED SLAB UNITS (L.F.)				
SPAN	48"×15"	36"×15"	48"×18"	36"×18"
1 OR 4	271.25	54.25	—	—
2 OR 3	—	—	466.25	93.25



TYPICAL SECTION A-A
SCALE: 3/8" = 1'-0"

S-CUBE ENGINEERING / CONNELL

BRIDGE NO. 014020

BX1-9

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SCIENTISTS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn HML/JCP
checked karma
approved
date 1/31/1985
project no 2063.00

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

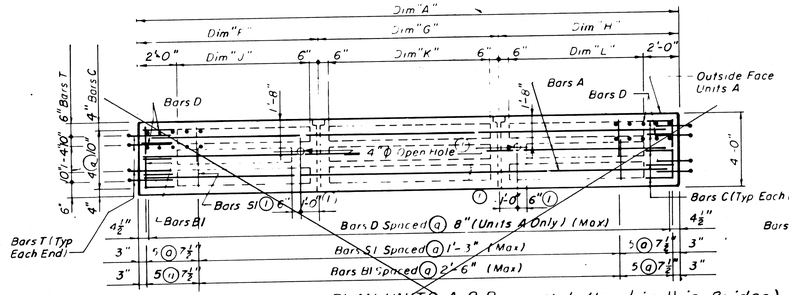
REVISIONS			
no	date	by	description

SUPERSTRUCTURE SECTION AND DETAILS

SCALE AS SHOWN

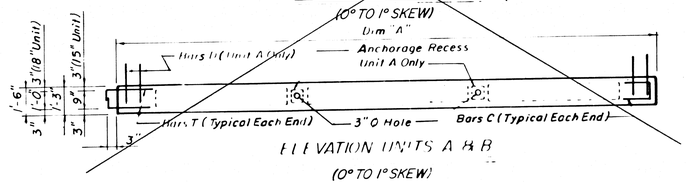
SH. NO. 9 of 17

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			



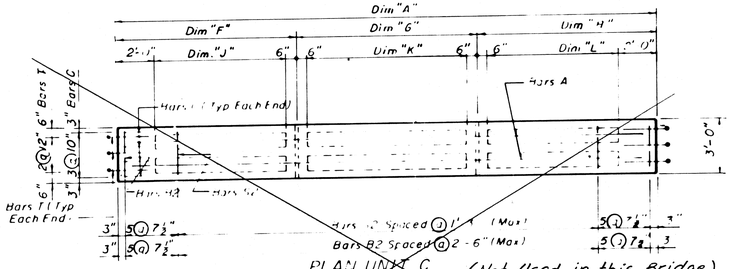
PLAN UNITS A & B (Not Used in this Bridge)

(0° TO 1° SKEW)



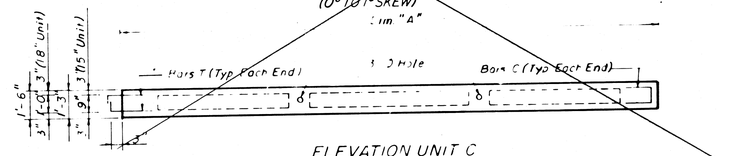
ELEVATION UNITS A & B

(0° TO 1° SKEW)



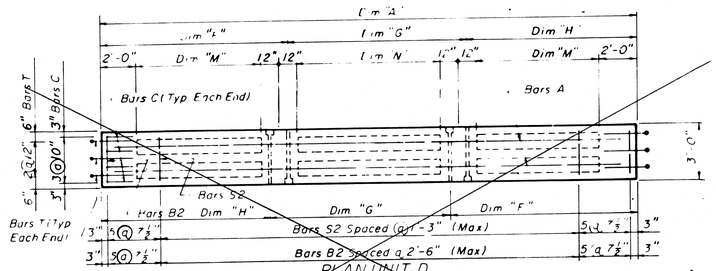
PLAN UNIT C (Not Used in this Bridge)

(0° TO 1° SKEW)



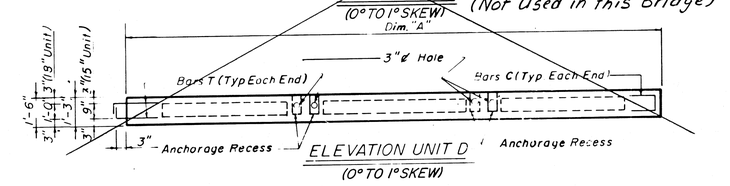
ELEVATION UNIT C

(0° TO 1° SKEW)



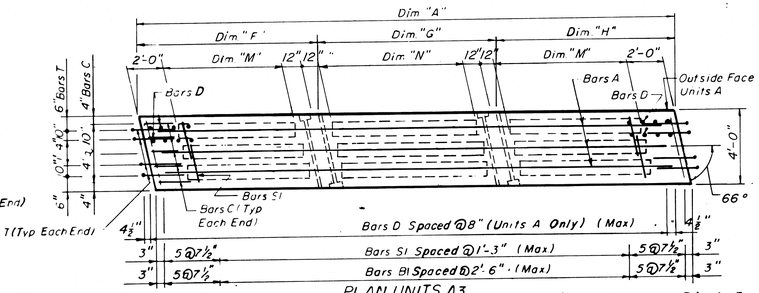
PLAN UNIT D (Not Used in this Bridge)

(0° TO 1° SKEW)



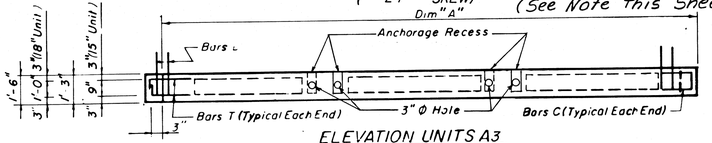
ELEVATION UNIT D

(0° TO 1° SKEW)



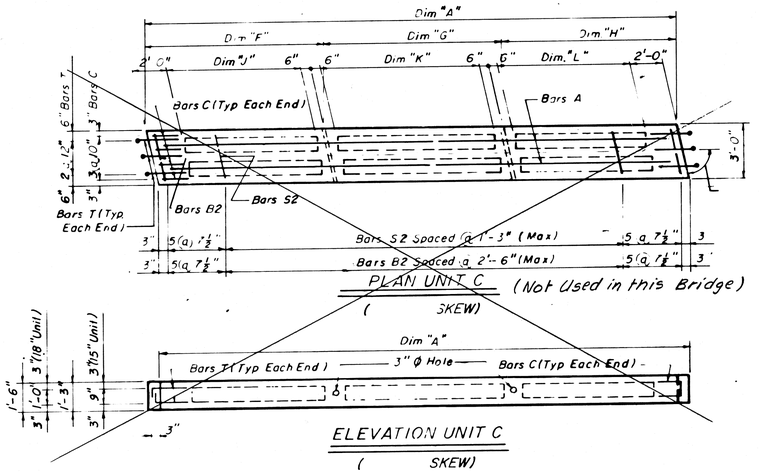
PLAN UNITS A3 (Used in Midway Blvd. Bridge (See Note this Sheet)

(24° SKEW)



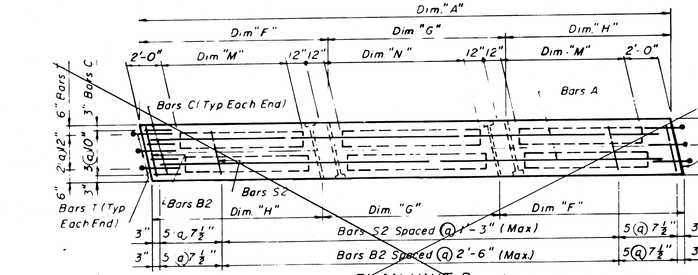
ELEVATION UNITS A3

(24° SKEW)



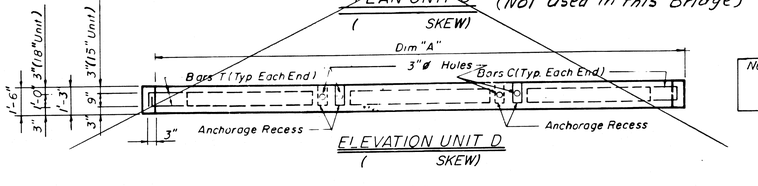
PLAN UNIT C (Not Used in this Bridge)

(SKEW)



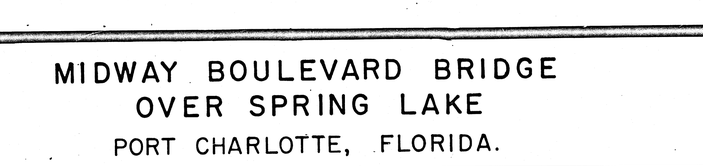
ELEVATION UNIT C

(SKEW)



PLAN UNIT D (Not Used in this Bridge)

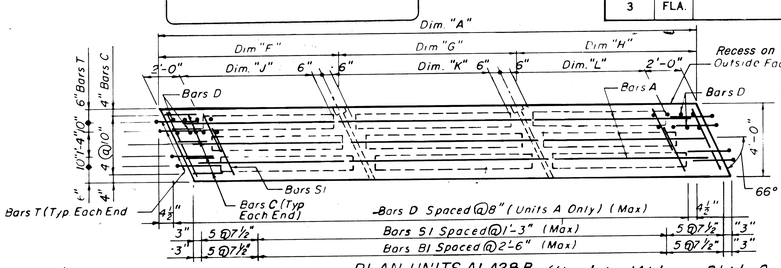
(SKEW)



ELEVATION UNIT D

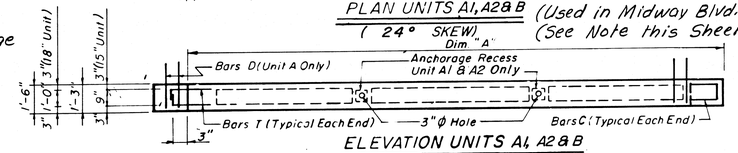
(SKEW)

NOTE: Details Shown are for Skew Left Bridge. Skew Right Bridge is Opposite Hand.



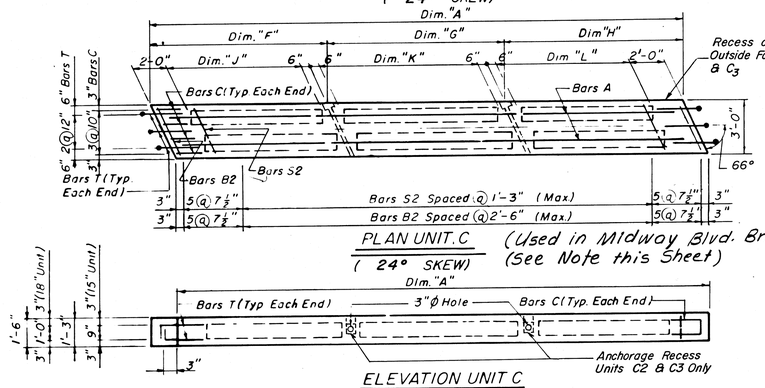
PLAN UNITS A1, A2 & B (Used in Midway Blvd. Bridge)

(24° SKEW) (See Note this Sheet)



ELEVATION UNITS A1, A2 & B

(24° SKEW)

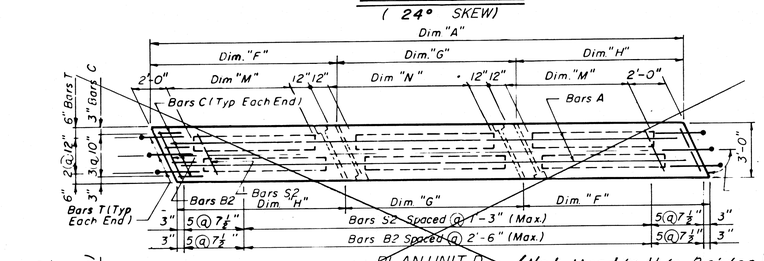


PLAN UNIT C (Used in Midway Blvd. Bridge)

(24° SKEW) (See Note this Sheet)

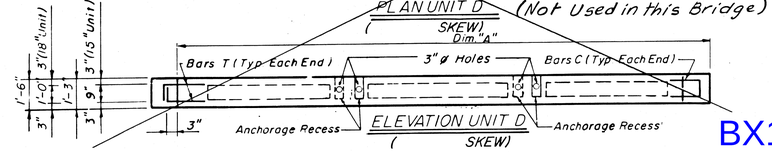
ELEVATION UNIT C

(24° SKEW)



PLAN UNIT D (Not Used in this Bridge)

(SKEW)



ELEVATION UNIT D

(SKEW)

BX1-10

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES

PRESTRESSED SLAB UNITS

REVISIONS	
Dates	Descriptions
10-78	Squared Ends of All Voids
11-80	Bars S2 & Dim "J" Ø Holes
1-81	Dimensions changed for unit D Maximum spacing added. Dimension for projection of Bar T changed

ROAD NO.	COUNTY	PROJECT NO.

	Names	Dates
Designed by	R. N.	7/78
Checked by	J.L.M.	7/78
Quantities by		
Checked by		
Supervised by	J.L.M.	

APPROVED BY

Deputy Design Engineer, Structures

Drawing No.	Index No.
1 of 3	12,670

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SITES
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn	
checked	
approved	
date	1/31/1985
project no	2063.00

MIDWAY BOULEVARD BRIDGE
OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

REVISIONS			
no	date	by	description

BRIDGE NO. 014020

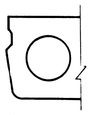
STANDARD DRAWING

SCALE NONE

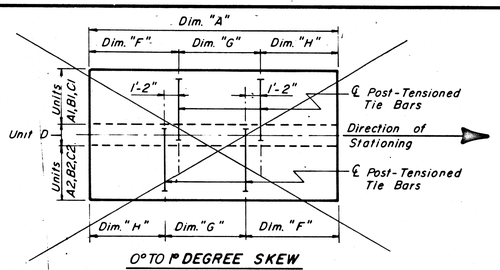
SH. NO. 10 of 17

AF 10118

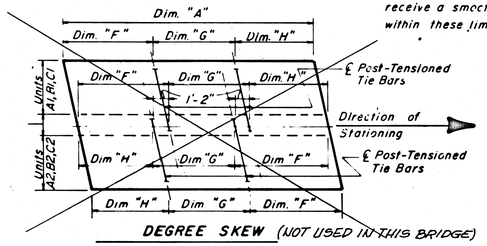
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			



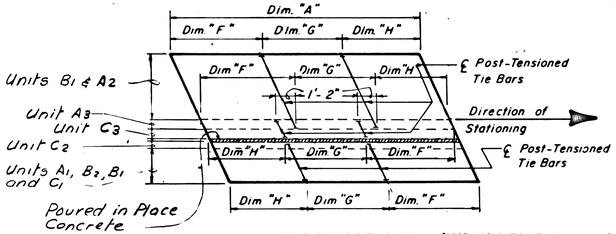
Optional Corner Detail For Mold Form



0° TO 1ª DEGREE SKEW
(NOT USED IN THIS BRIDGE)

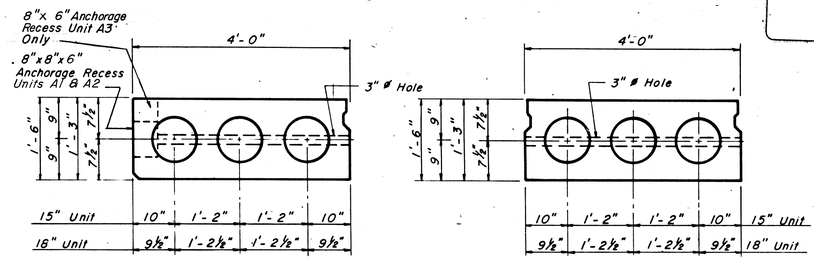


DEGREE SKEW (NOT USED IN THIS BRIDGE)

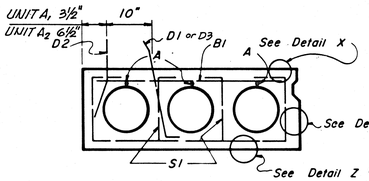


24° DEGREE SKEW (MIDWAY BLVD. BRIDGE)
(RIGHT SKEW)

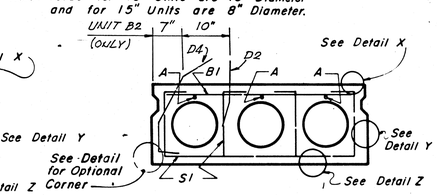
TIE BAR LOCATION DETAILS
(Skew Left Details Shown. Skew Right Details Opposite Hand.)



Note 1: Exterior Units A shall receive a smooth finish within these limits.

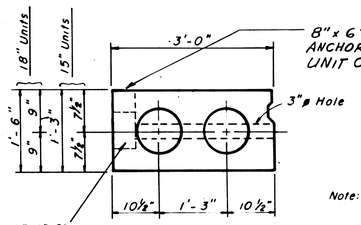


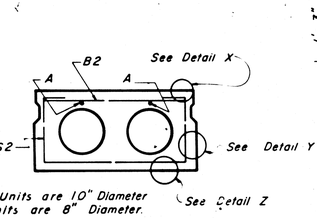
TYPICAL SECTION UNIT A



TYPICAL SECTION UNIT B

Note: Voids for 18" units are 10" Diameter and for 15" Units are 8" Diameter.





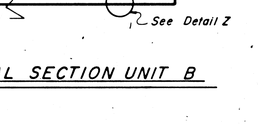
Note: Voids For 18" Units are 10" Diameter and for 15" Units are 8" Diameter.

TYPICAL SECTIONS UNITS C

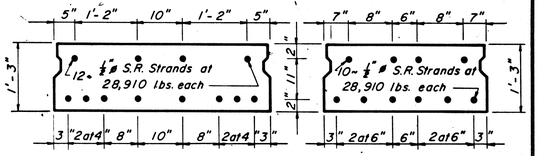
ALTERNATE SHEAR KEYS

DETAIL X

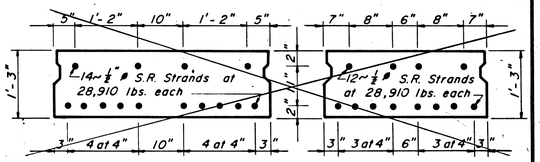
DETAIL Y



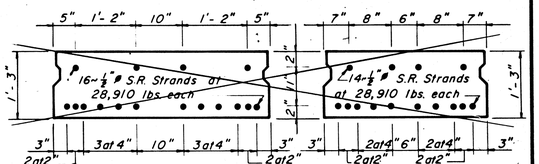
DETAIL Z



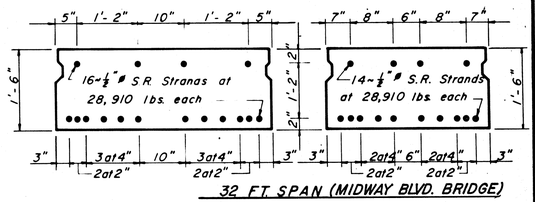
19 FT. SPAN (MIDWAY BLVD. BRIDGE)



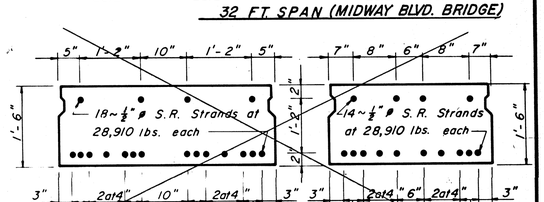
27.5 FT. SPAN
(NOT USED IN THIS BRIDGE)



30 FT. SPAN
(NOT USED IN THIS BRIDGE)



32 FT. SPAN (MIDWAY BLVD. BRIDGE)



35 FT. SPAN
(NOT USED IN THIS BRIDGE)

UNITS A & B UNITS C

PRESTRESSING STRAND LOCATIONS

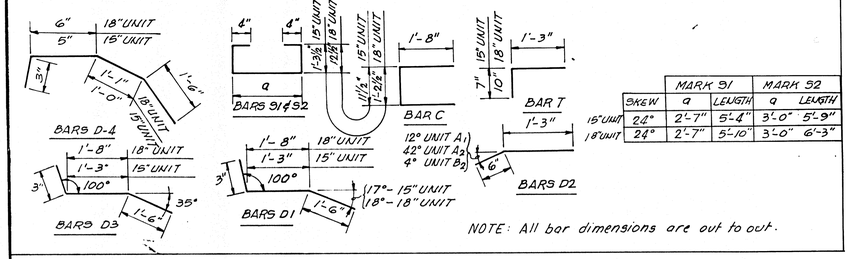
BX1-11

BILL OF REINFORCING STEEL

MARK	SIZE	NO. REQUIRED PER UNIT A1	A2	A3	B1	B2	C	LENGTH
		SPAN 19 FEET						
A	3	3	3	3	3	3	2	17'-9"
B1	3	16	16	16	16	16	—	3'-7"
B2	3	—	—	—	—	—	16	2'-7"
C	3	10	10	10	10	10	8	4'-4"
D1	4	27	—	—	—	—	—	3'-0"
D2	4	27	27	—	—	27	—	1'-9"
D3	4	—	27	—	—	—	—	3'-0"
D4	4	—	—	—	—	27	—	3'-4"
S1	4	42	42	42	42	42	—	*
S2	4	—	—	—	—	—	21	*
T	4	16	16	16	16	16	12	1'-10"
		SPAN 32 FEET						
A	3	3	3	3	3	3	2	30'-9"
B1	3	21	21	21	21	21	—	3'-7"
B2	3	—	—	—	—	—	21	2'-7"
C	3	10	10	10	10	10	8	4'-7"
D1	4	46	—	—	—	—	—	3'-5"
D2	4	46	46	—	—	46	—	1'-9"
D3	4	—	46	—	—	—	—	3'-5"
D4	4	—	—	—	—	46	—	3'-2"
S1	4	62	62	62	62	62	—	*
S2	4	—	—	—	—	—	31	*
T	4	16	16	16	16	16	12	2'-1"

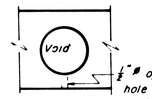
* SEE BENDING DIAGRAM

BENDING DIAGRAM



SKEW	MARK S1 a	MARK S1 LENGTH	MARK S2 a	MARK S2 LENGTH
24°	2'-7"	5'-4"	3'-0"	5'-9"
24°	2'-7"	5'-10"	3'-0"	6'-3"

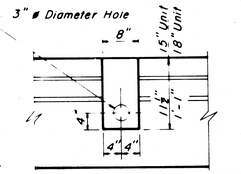
NOTE: All bar dimensions are out to out.

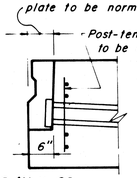


½" ø open vent hole in each Void (Typical)

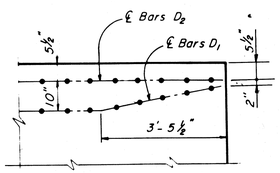
VENT DETAIL
(Typical Each Void)

NOTE: Form Vent to Clear ½" ø Strands in Prestressed Slab Units.

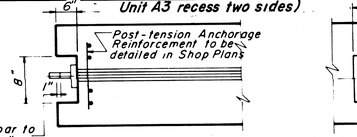




DETAIL OF ANCHORAGE RECESS (Units C2 recess one side only, Unit A3 recess two sides)



PLAN OF BARS "D" IN UNITS A ADJACENT TO END BENTS



DETAILS ANCHORAGE RECESS (FOR UNITS A1, A2 & C3)

TABLE OF DIMENSIONS

SKEW	DIMENSIONS A	F	G	H	J*	K*	L*	M**	N**
19 FEET SPAN									
24°	18'-0"	6'-6½"	6'-1"	5'-4½"	4'-0½"	3'-1"	2'-10½"	2'-11½"	4'-1"
32 FEET SPAN									
24°	31'-0"	10'-10½"	10'-5"	9'-8½"	8'-4½"	5'-5"	7'-2½"	7'-3½"	8'-5"

* ALL UNITS EXCEPT "A3"
** UNIT "A3" ONLY

S-CUBE ENGINEERING / CONNELL

REVISIONS			
Dates	Descriptions		
10-78	Detail Showing Cover Between Void & S.R. Strands Removed		
11-80	Dim. Unit D (J & L)		
1-81	Table of Dimensions Revised		
10-81	Optional Corner Detail added		
5-82	Unit A Anchorage Recess		

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES

PRESTRESSED SLAB UNITS

ROAD NO.	COUNTY	PROJECT NO.

	Names	Dates
Designed by	R.N.	7/78
Checked by	J.L.M.	7/78
Quantities by		
Checked by		
Supervised by	J.L.M.	

APPROVED BY
Deputy Design Engineer, Structures

Drawing No.	Index No.
2 of 3	12,670

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
2313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn J.C.P.
checked Larrua
approved
date 1/31/1985
project no 2063.00

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

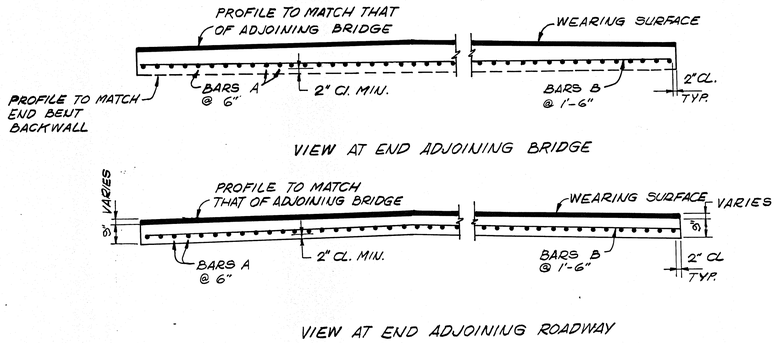
REVISIONS			
no	date	by	description

BRIDGE NO. 014020

STANDARD DRAWING

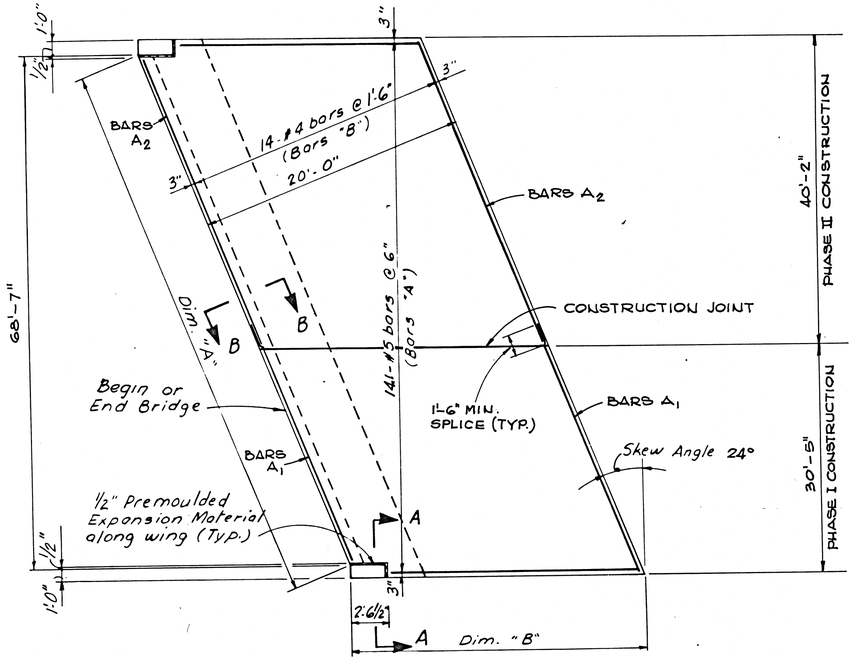
SCALE NONE

SH. NO. 11 of 17



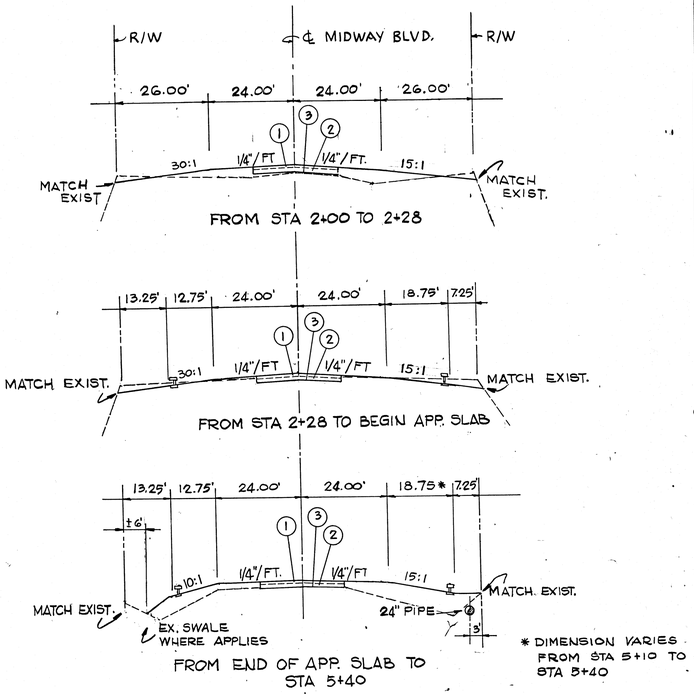
VIEW AT END ADJOINING BRIDGE

VIEW AT END ADJOINING ROADWAY



APPROACH SLAB NO. 2 (As Shown)

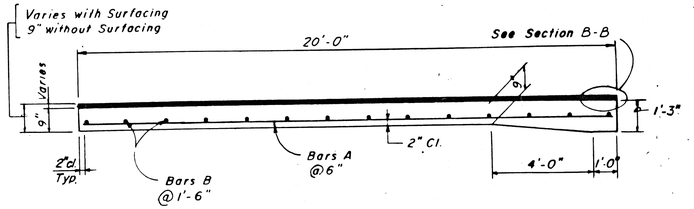
(Approach Slab No. 1 Opposite Hand)



TYPICAL SECTION AT APPROACHES

① 1½" TYPE II ASPHALTIC CONC.
② LEVELING COURSE (TYPE II ASPH. CONC.)
③ TACK COAT

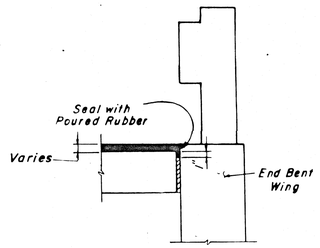
TABLE OF VARIABLE DIMENSIONS AND ESTIMATED QUANTITIES			
DIMENSIONS		CONCRETE CLASS II (CY)	REINFORCING STEEL (LBS)
A	B		
75'-0 7/8"	21'-10 3/4"	44.06	3,869



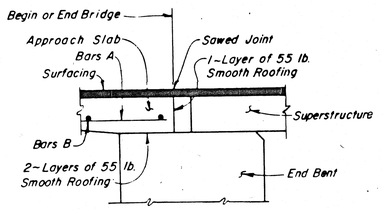
TYPICAL SECTION THRU SLAB

(Normal to End Bent)

BILL OF REINFORCING STEEL				
MARK	SIZE	TYPE	NO.	LENGTH
A	5	STRAIGHT	141	21'-4"
B_1	4	STRAIGHT	14	35'-0"
B_2	4	STRAIGHT	14	43'-2"



SECTION A-A



SECTION B-B

BRIDGE NO. 014020

BX1-12

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SCIENTISTS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn JCP
checked Larrua
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

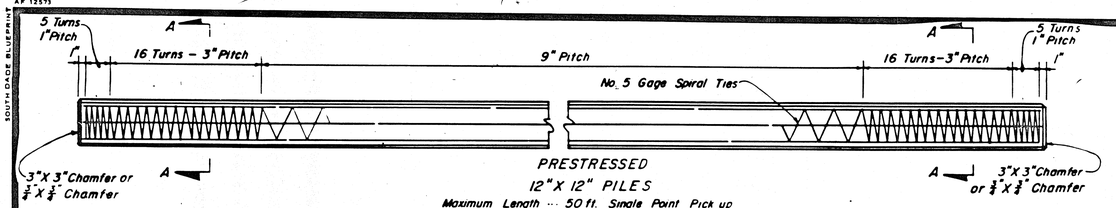
PORT CHARLOTTE, FLORIDA.

REVISIONS			
no	date	by	description

APPROACHES AND APPROACH SLABS

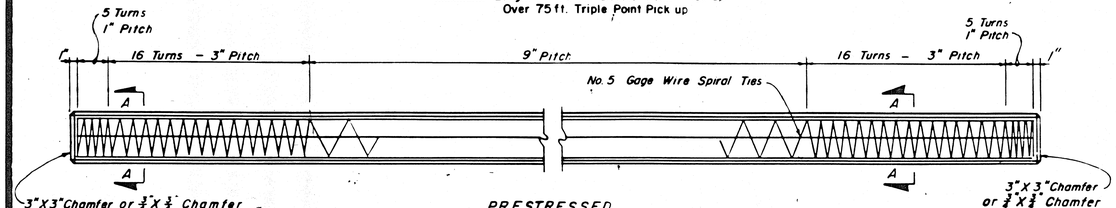
SCALE NONE

SH. NO. 12 of 17

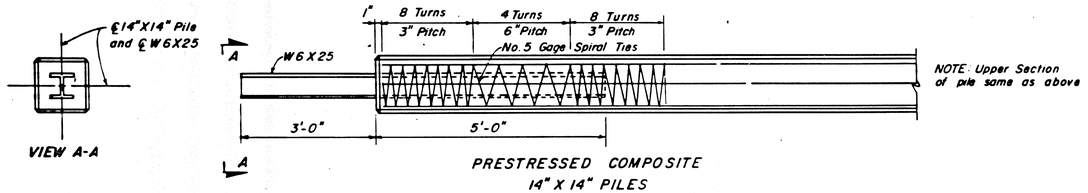


PRESTRESSED
12"X 12" PILES

Maximum Length ··· 50 ft. Single Point Pick up
Maximum Length ··· 75 ft. Double Point Pick up
Over 75 ft. Triple Point Pick up



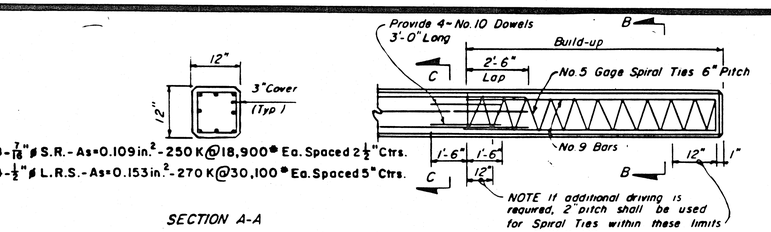
PRESTRESSED
14"X 14" PILES

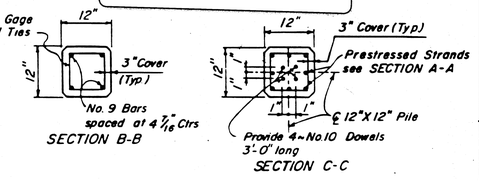


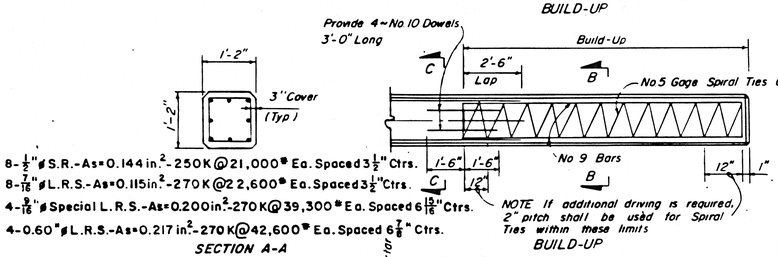
PRESTRESSED COMPOSITE
14" X 14" PILES

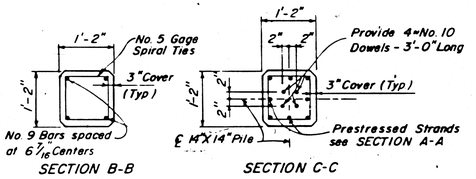
Maximum Length ··· 60 ft. Single Point Pick up
Maximum Length ··· 85 ft. Double Point Pick up
Over 85 ft. Triple Point Pick up

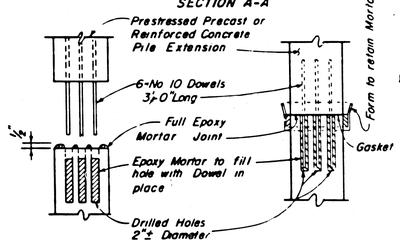
NOTE: Upper Section of pile same as above



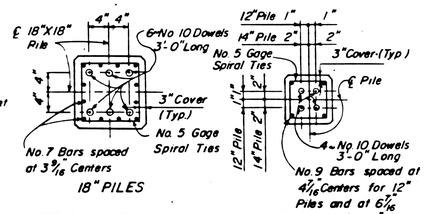






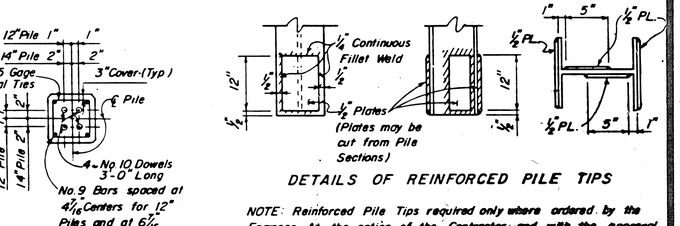


TYPICAL BONDING DETAILS FOR 18" PILE



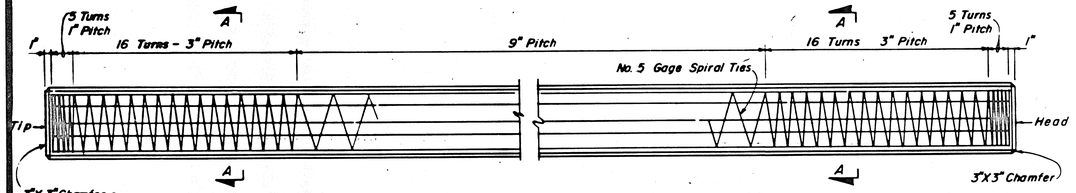
NOTE: Spliced Piles may be driven after Splice is two days old

EPOXY BONDED SPLICE

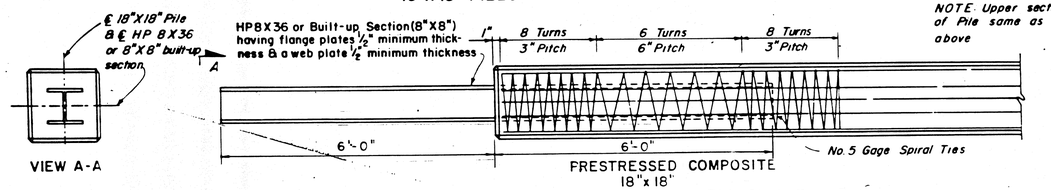


DETAILS OF REINFORCED PILE TIPS

NOTE: Reinforced Pile Tips required only where ordered by the Engineer. At the option of the Contractor and with the approval of the Engineer Commercial Tips may be used in lieu of the Reinforced Pile Tips shown.



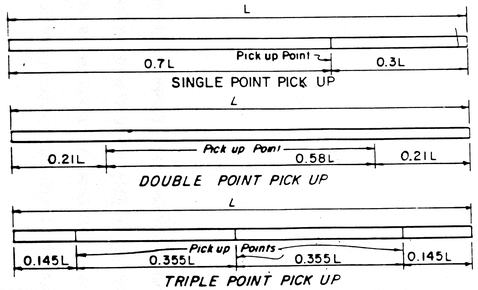
PRESTRESSED
18"X 18" PILES

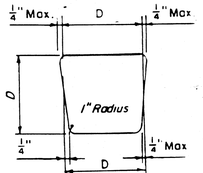


PRESTRESSED COMPOSITE
18"x 18"

Maximum Length ···· 70 ft. Single Point Pick up
Maximum Length ···· 95 ft. Double Point Pick up
Over 95 ft. Triple Point Pick up

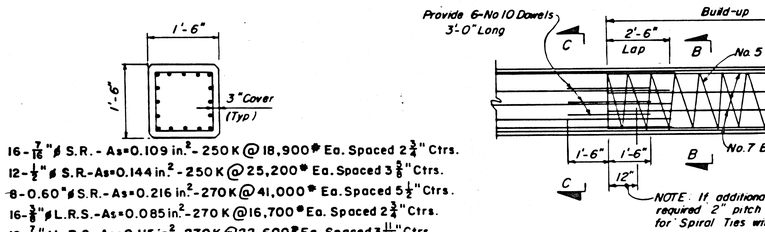
NOTE: Upper section of Pile same as above

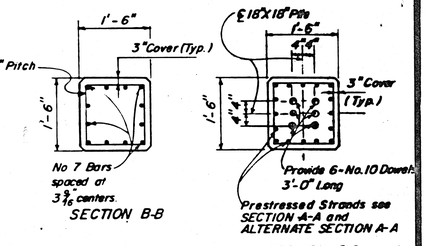




NOTE: Piles shall be marked at pick up points to indicate proper points for attaching handling lines

S-CUBE ENGINEERING/ CONNELL





SECTION A-A

GENERAL NOTES

SPIRAL TIES: Each wrap of spiral shall be tied to at least two corner strands

MATERIAL FOR SPIRAL TIES: Spirals may be manufactured from stock meeting requirements of any grade of reinforcing steel or hard drawn steel

PILE CUTOFFS: In cutting off Concrete Piles an abrasive saw shall be used to score the Concrete at cut off elevation to the approximate depth of Reinforcing Stee

CONCRETE STRENGTH: For Class III Concrete the Cylinder Strength shall be 5,000 psi minimum at 28 days and 4,000 psi minimum at transfer of the Prestressing Force

WEBS: Webs of Wide Flange sections shall be in a vertical position when Composite Pile is cast

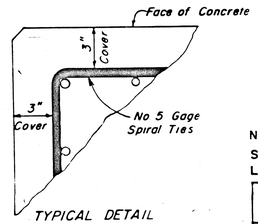
NOTE: All Reinforcing Steel shall be Grade 40 or 60

APPROVAL: Prior Approval in Writing By the Engineer is Required for Reinforced Concrete Build-Up in Excess of 2'-0" This will not be approved for piles in a coastal environment

DUNNAGE: Place Dunnage under pick up points shown for double pick up Where Pile Length exceeds that requiring double point pick up, place dunnage at pickup points called for in Triple Point Pick up

OCTAGONAL PILES: Prestressed Octagonal Piles of equivalent strength may be substituted for square piles. Details of Pile shall be submitted to the Engineer for approval

SPIRAL SPLICES: One turn required for spiral splices.



NOMENCLATURE:
S.R. = Stress Relieved Strand
L.R.S. = Low Relaxation Strand

BX1-13

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES

12", 14" AND 18"
PRESTRESSED CONCRETE PILES

ROAD NO.	COUNTY	PROJECT NO.

	Names	Dates
Designed by	S.A.B	5-75
Checked by	L.A.L.	5-75
Quantities by		
Checked by		
Supervised by		

APPROVED B*
Deputy Design Engineer / Structures

Drawing No. 1 of 1
Index No. 3400

REVISIONS

Dates	Description
5-5-75	Retraced
7-22-75	Change Chamfer, 7-28-75 Change Approval Note
10-8-75	ADD TRIPLE POINT PICK UP
9-21-76	Change Lok-Stress Strands to Stabilized Strands
8-21-78	Removed Head & Tip from 12" & 14" Piles; Added Chamfer
9-30-85	L-o-Lax Strands Added
12-3-85	Spiral Splices

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SOILSTS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn
checked
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE
OVER SPRING LAKE
PORT CHARLOTTE, FLORIDA.

REVISIONS

no	date	by	description

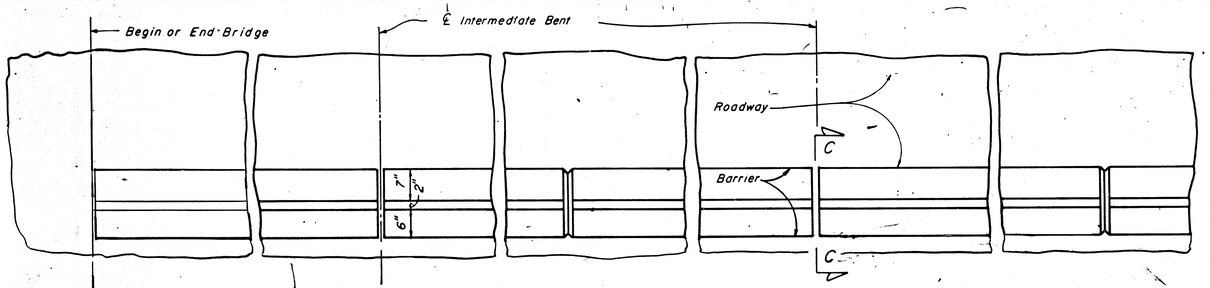
BRIDGE NO. 014020

STANDARD DRAWING

SCALE NONE

SH. NO. 13 of 17

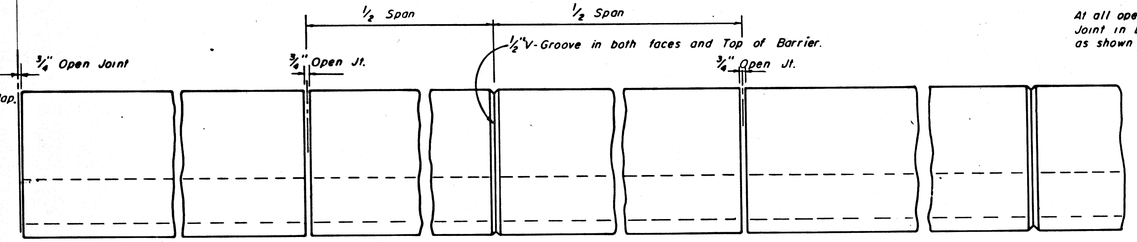
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			



PLAN

Begin or End Bridge

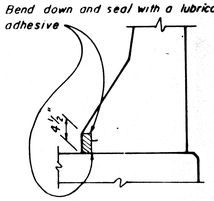
For payment Barrier shall be measured to this point



ELEVATION

At all open joints the Joint in Barrier shall be sealed as shown in Section C-C.

Provide extra 4" of Seal. Cut away all but top of Shell to provide end flap. Bend down and seal with a lubricating adhesive



SECTION C-C

Polychloroprene Compression Seals used in 3/4 Open Joints shall be 1" wide minimum

NOTE: At the option of the Contractor, Barrier walls may be constructed by slip-forming subject to the following: the width may be increased a maximum of 2 inches provided that the Front Face at the Base of each Barrier infringes on the clear Roadway width no more than 1/2" and that any additional materials required are at the expense of the Contractor. The shape of the Barrier on the Roadway side shall not be altered.

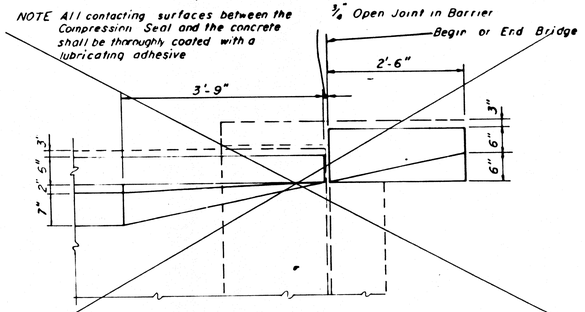
NOTE: At the Option of the Contractor Handrail Barriers and End Bent Wingwalls, on Superelevated Bridges, may be constructed perpendiculer to the roadway surface. The Cost of modifications shall be at the Contractors expense.

QUANTITIES: Class II Concrete = 0.0817 Cu. Yds. per linear ft. of Barrier (Based on Roadway Cross Slope of .02"/ft) REINFORCING STEEL = 10.19 lbs per linear ft. of Barrier.

GENERAL NOTES

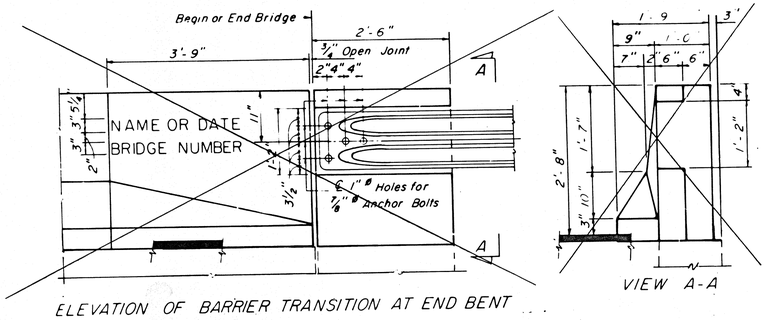
CONCRETE: Class II Concrete shall be used in Barrier.
REINFORCING STEEL: Reinforcing Steel shall be Grade 60.
PAYMENT: Barrier shall be paid for per linear foot, which shall include all Concrete and Reinforcing Steel Barrier shall be measured along the centerline of the top surface of the Barrier.
CYLINDER STRENGTH: The Cylinder Strength of the Concrete shall be 3,400 p.s.i. minimum at 28 days.
MARKERS: Markers recording the Elevation shall be placed on top of the Barrier at End Bents. On Bridges longer than 100 ft. one marker shall be placed at each end of the Bridge. On Bridges less than 100 ft long, one marker shall be placed at one end of the Bridge only. Markers are to be furnished by the Department of Transportation and installed by the Contractor. The Cost of installing the Markers shall be included in the Contract Unit Price for Concrete Barrier
ANCHOR BOLTS: Anchor Bolts, Nuts and Washes shall be hot dip galvanized in accordance with A.S.T.M. A-123.

NOTE All contacting surfaces between the Compression Seal and the concrete shall be thoroughly coated with a lubricating adhesive



PLAN OF BARRIER TRANSITION AT END BENT (Not Used in this Bridge)

NOTE: Reinforcing Steel within transition area shall be adjusted or field bent as needed to obtain required minimum cover.



ELEVATION OF BARRIER TRANSITION AT END BENT (Not Used in this Bridge)

VIEW A-A

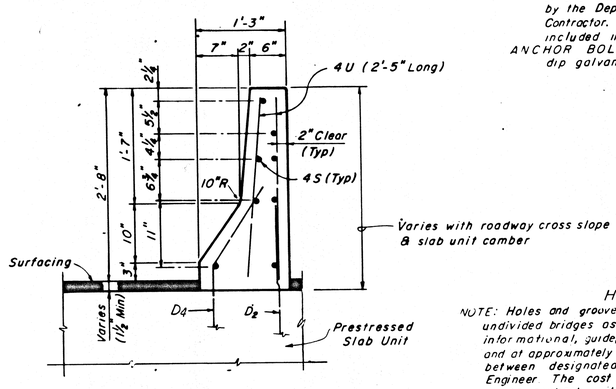
DETAILS OF GUARDRAIL ATTACHMENT AT WING POSTS (Not Used in this Bridge)

NOTE: For Guardrail Shoe and Attachment See Standard Drawing in Roadway Plans.

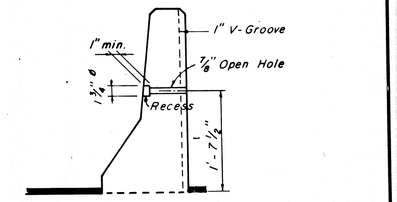
REINFORCING STEEL NOTES

Bars D4 & D2 shall be cast in the prestressed Slab unit. Payment for Bars D4 & D2 Shall be included in the Contract Unit Price for Prestressed Slab Units.

All reinforcing steel in Barrier shall be No. 4's. Bars 4 U to be spaced at 8"c.c. (Spliced to Bars D).
At all open joints Bars 4U and the ends of Bars 4S shall have 2" min. cover.
At all construction joints Bars 4S may be either continuous or lap spliced. All splices in Bars 4S shall be 1'-4" min.

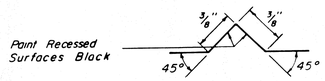


TYPICAL SECTION THRU BARRIER



HOLES FOR INCIDENTAL SIGNING

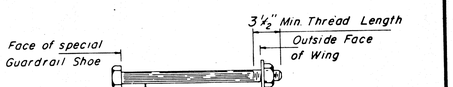
NOTE: Holes and grooves shall be placed on barrier type handrails of divided and undivided bridges as shown in the plans for designated type "C" single column, informational, guide, regulatory and warning sign locations (see signing plans) and at approximately 500' intervals along the right handrails of bridges between designated locations for future signs as directed by the Engineer. The cost of the extra holes and grooves shall be included in the contract unit price for Concrete Handrail (Barrier). If Signing Plans are not available the Project Engineer should secure necessary information from the District Maintenance or Traffic Operations Office.



SECTION THRU RECESSED "V" GROOVE TO FORM INSCRIBED LETTERS AND FIGURES

NOTES

The Name and Bridge Number to be placed on the Barrier shall be seen on the drivers right when approaching Bridge. The Date to be placed on the drivers left when approaching Bridge. The Date shall be the Year the Bridge is constructed.
All letters and figures to be formed with 3/8" V Groover. "V" Grooves shall be formed by preformed Letters and Figures.



ANCHOR BOLT DETAIL

NOTE Cost of Anchor Bolts to be included in the Contract Unit Price for Guardrail.

BX1-14

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES

CONCRETE HANDRAIL BARRIER

REVISIONS		ROAD NO.	COUNTY	PROJECT NO.
Number	Remarks			
-81	Slip-Forming Note added.			
8-21-81	Change Anchor Bolt Dim.			
10-5-82	Superelevation Note Added			
10-6-82	Superelevation Note Changed.			

	Names	Dates
Designed by	D.O.D	3/78
Checked by	P.B.	3/78
Quantities by		
Checked by		
Supervised by	P.B.	

APPROVED BY

Deputy Design Engineer, Structures

Drawing No.	Index No.
3 of 3	12,670

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn
checked
approved
date 1/31/1985
project no 2063.00

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

PORT CHARLOTTE, FLORIDA.

REVISIONS			
no	date	by	description

BRIDGE NO. 014020

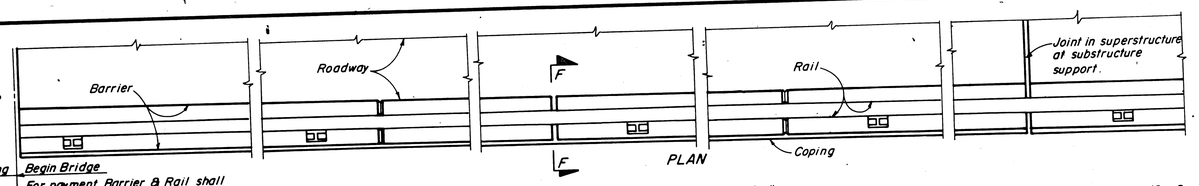
STANDARD DRAWING

SCALE NONE

SH. NO. 14 of 17

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3.	FLA.			

NOTE: For Barrier Transition at End Bents see Details below, this sheet.
* NOTE: See Superstructure drawing for actual dimensions.



PLAN

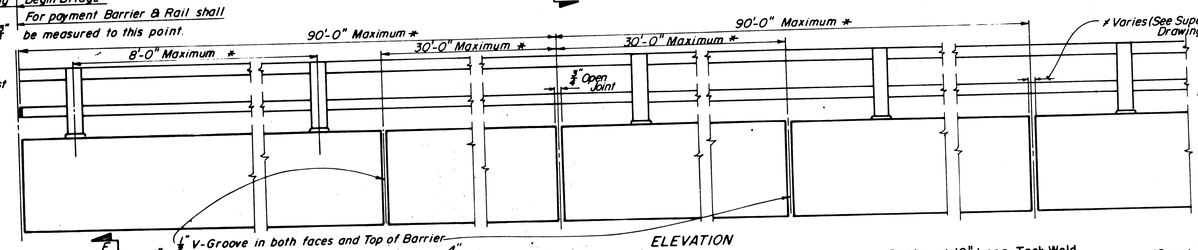
End Bent Wing Post — Begin Bridge

For payment Barrier & Rail shall be measured to this point.

NOTE: There shall be a $\frac{3}{4}$" Min. Open Joint at all Substructure Supports.

NOTE: Concrete Wing post shall be paid for at the Contract Unit Price for Concrete (Substructure) and Reinforcing Steel (Substructure)

NOTE: Rail shall be continuous over a minimum of 3 posts before splicing.

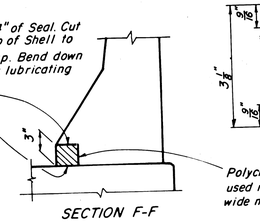


ELEVATION

* At substructure supports where Roadway Slab is continuous, the joint in Barrier shall be sealed as shown in Section F-F.

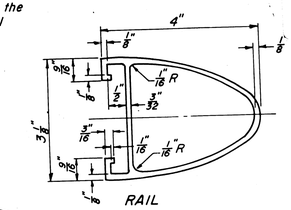
NOTE: All contacting surfaces between the Compression Seal and the concrete shall be thoroughly coated with a lubricating adhesive.

Provide extra 4" of Seal. Cut away all but top of Shell to provide end flap. Bend down and seal with a lubricating adhesive



SECTION F-F

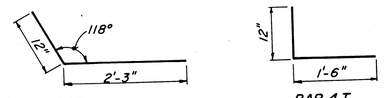
Polychloroprene Compression Seals used in $\frac{3}{4}$ Open Joints shall be 1" wide minimum.



RAIL

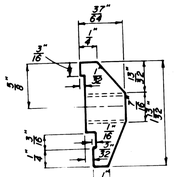
BENDING DIAGRAM (Not Used in this Bridge)

NOTE: All bar dimensions are out-to-out.



BAR 4 R — BAR 4 T

QUANTITIES: Class II Concrete = 0.07594 Cu.Yds. per linear ft. of Barrier (Based on Roadway Cross Slope of .02' ft.)
REINFORCING STEEL = 15.782 lbs. per linear ft. of Barrier.



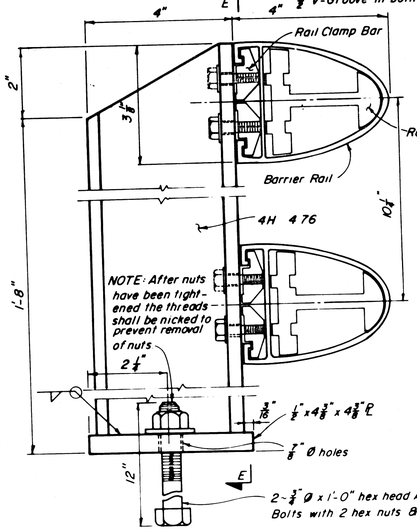
VIEW C-C

REINFORCING STEEL NOTES

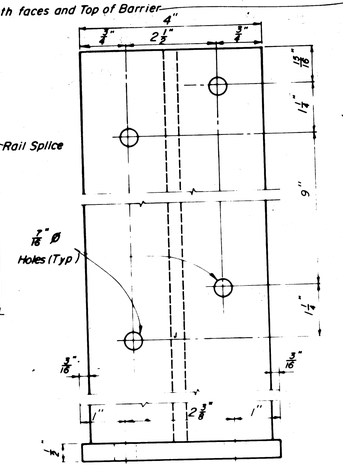
All Reinforcing Steel in Barrier shall be No. 4's. Bars 4R, 4T, 4U to be spaced at 8" C.C. At all open joints, Bars 4R, 4T, 4U and the ends of bars 4S shall have 2" Min. cover. At all construction joints, bars 4S may be either continuous or spliced. All splices in bars 4S shall be 1'-4" minimum.

GENERAL NOTES

CONCRETE: Class II Concrete shall be used in Barrier.
REINFORCING STEEL: Reinforcing Steel shall be Grade 60.
PAYMENT: Barrier shall be paid for per linear foot, which shall include all Rail, Concrete and Reinforcing Steel. Barrier shall be measured along the centerline of the top surface of the Barrier.
CYLINDER STRENGTH: The Cylinder Strength of the Concrete shall be 3,400 p.s.i. minimum at 28 days.
MARKERS: Markers recording the Elevation shall be placed on top of the barrier at End Bents. On Bridges longer than 100 ft. one marker shall be placed at each end of the Bridge. On Bridges less than 100 ft. long, one marker shall be placed at one end of the Bridge only. Markers are to be furnished by the Department of Transportation and installed by the Contractor. The Cost of installing the markers shall be included in the Contract Unit Price for Concrete Barrier.



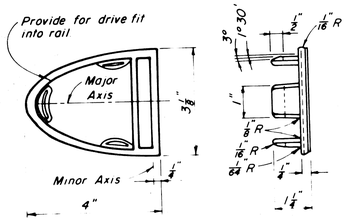
SECTION THRU RAIL



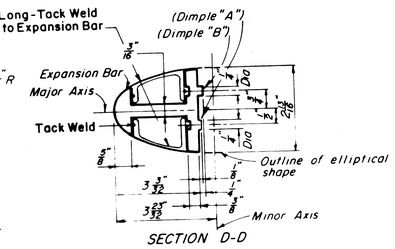
SECTION E-E

NOTE: At the option of the Contractor, the bottom nut shown in "Section Thru Rail" may be used in conjunction with top nut to secure Anchor Bolt to form work during pour.

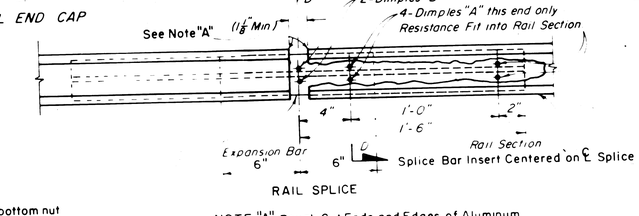
Splice Bar Insert 12" Long-Tack Weld Two Places Each End to Expansion Bar



RAIL END CAP

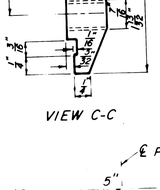


SECTION D-D



RAIL SPLICE

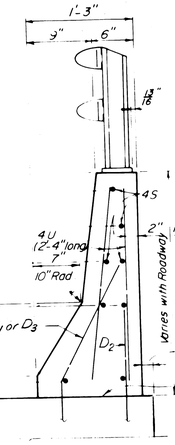
NOTE "A"-Rough Cut Ends and Edges of Aluminum Rails shall be Ground or Filed Smooth to Remove All Sharp Edges, Nicks or Burrs that would be Injurious to the Human Touch.



RAIL CLAMP BAR

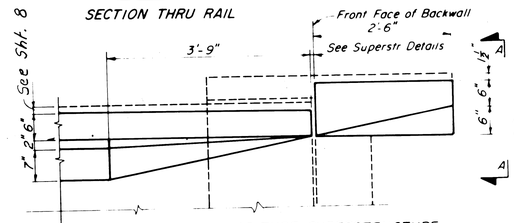
SPECIFICATIONS FOR BRIDGE RAIL

POST: Fabricated wrought aluminum A.S.T.M. B221, alloy 6061-T6 or alloy 6351-T5 with welding using filler wire 4043.
RAIL & RAIL SPLICE: Aluminum; A.S.T.M. 3221, alloy 6061-T6 or alloy 6351-T5
RAIL CLAMP BAR: Aluminum; A.S.T.M. B221, alloy 6061-T6 or alloy 6351-T5
ANCHOR BOLTS: Anchor Bolts shall be in accordance with A.S.T.M. A-36 or A-307 Anchor Bolts, nuts and washers shall be hot-dip galvanized in accordance with A.S.T.M. Designation A-153
RAIL END CAP: A.S.T.M. B 26 sand cast aluminum alloy, S.G 70A-F (Alum. Assoc. alloy designation A-356-F)
RAIL INSTALLATION: Rail Post shall be normal to Profile Grade. Posts shall be seated on $\frac{3}{8}$" thick resilient pads in accordance with Article 932-2.1. The dimension shall be the same as the post base. Rail expansion joints shall occur in the panel between posts on either side of Bridge expansion joints. Rail expansion joints shall be similar to rail splices with provision for movement equal to 1.5 times the bridge joint opening.
SHOP DRAWINGS: Complete details and description of materials of the proposed bridge rail shall be submitted by the contractor for the Engineers approval prior to fabrication.



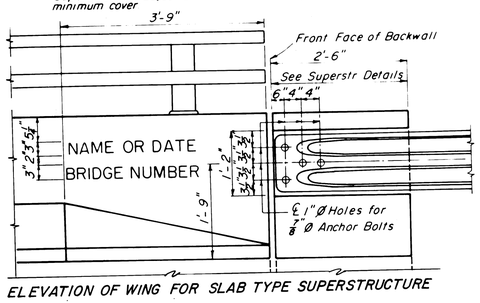
TYPICAL SECTION THRU BARRIER

NOTE:
Bars D shall be cast in the prestressed slab unit. Payment for Bars D shall be included in the Contract Unit Price for Prestressed Slab Units



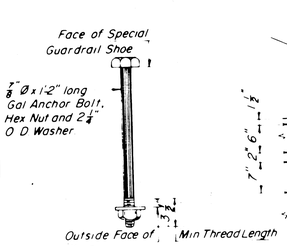
PLAN OF WING FOR SLAB TYPE SUPERSTRUCTURE

NOTE For Reinforcing Steel in Transition Area on Slab Type Superstructure adjust and field bend as required for minimum cover



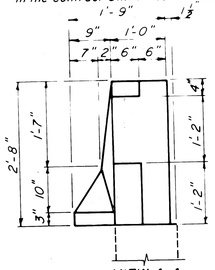
ELEVATION OF WING FOR SLAB TYPE SUPERSTRUCTURE

Face of Special Guardrail Shoe



ANCHOR BOLT DETAIL

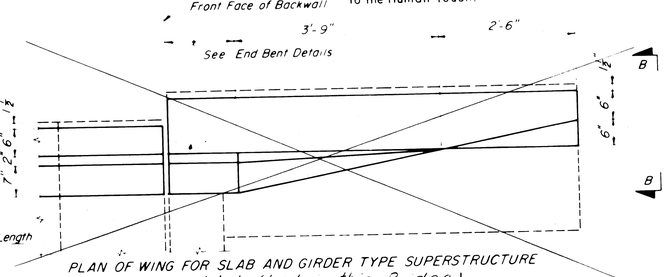
NOTE: Cost of Anchor Bolts to be included in the Contract Unit Price for Guardrail



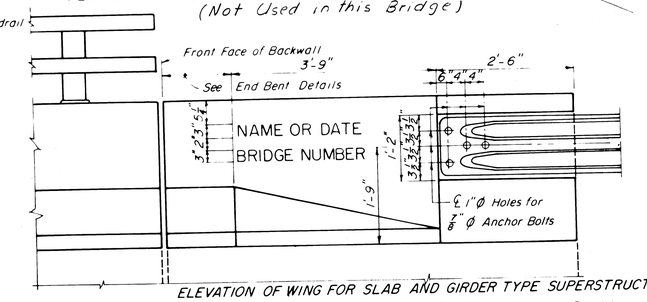
VIEW A-A

DETAILS OF GUARDRAIL ATTACHMENT AT WING POSTS

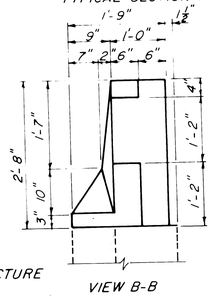
NOTE: For Guardrail Shoe see Road Design Standards Booklet



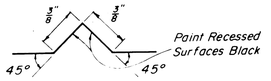
PLAN OF WING FOR SLAB AND GIRDER TYPE SUPERSTRUCTURE (Not Used in this Bridge)



ELEVATION OF WING FOR SLAB AND GIRDER TYPE SUPERSTRUCTURE



VIEW B-B



SECTION THRU RECESSED "V" GROOVE TO FORM INSCRIBED LETTERS AND FIGURES

All Letters and figures to be formed with 3/8" V Groover

"V" Grooves shall be formed by preformed Letters and Figures.

The Name and Bridge Number to be placed on the Barrier shall be seen on the drivers right when approaching Bridge. The date to be placed on the drivers left when approaching Bridge. The date shall be the Year the Bridge is constructed

REVISIONS	
Dates	Descriptions
3-2-81	Added Anchor Bar Tie Notes
3-19-81	Added Splice Bar Insert & Note "A"
8-17-81	CHGD Splice Bar Dimension
8-21-81	Change Anchor Bolt Dim.
10-16-84	Rev. Dimension Section E-E
11-28-84	Guard Rail Anchor Bolt Location.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
STRUCTURES

BICYCLE BARRIER

ROAD NO	COUNTY	PROJECT NO

	Names	Dates
Designed by	CAC	1-79
Checked by	DEK	1-79
Quantities by		
Checked by		
Supervised by	SHN	

APPROVED BY
Deputy Design Engineer, Structures

Drawing No.	Index No.
1 of 1	12931

BX1-15

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn
checked
approved
date 1/31/1985
project no 2063.00

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

PORT CHARLOTTE, FLORIDA.

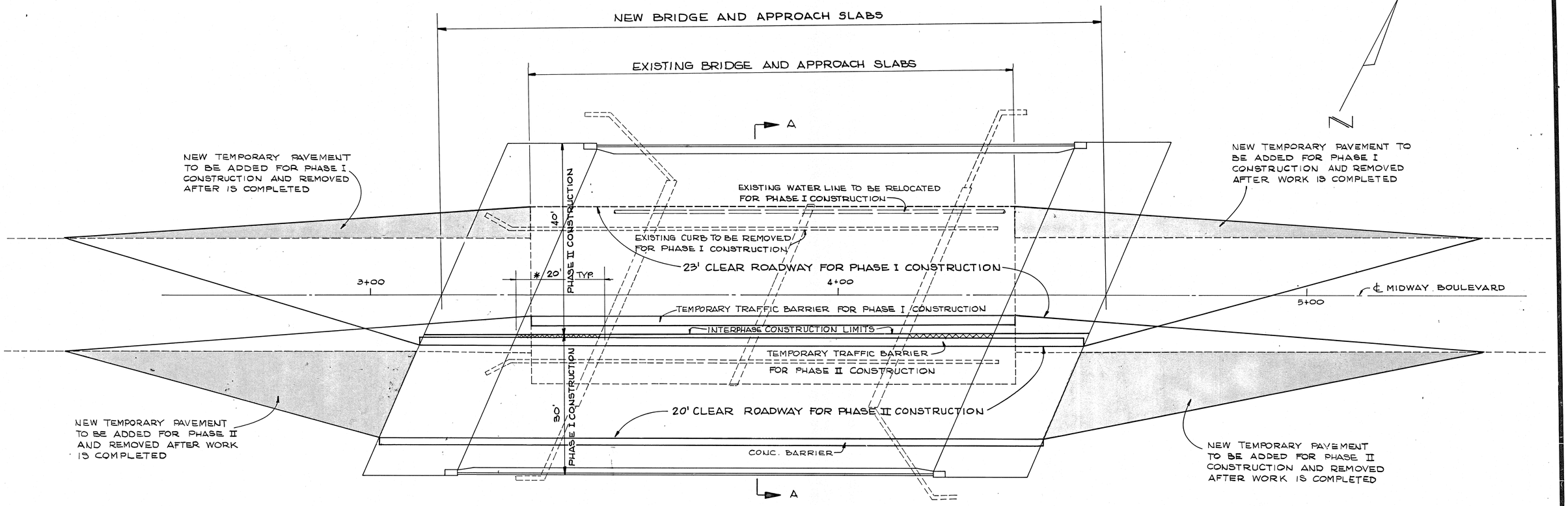
REVISIONS			
no	date	by	description

BRIDGE NO. 014020

STANDARD DRAWING

SCALE NONE

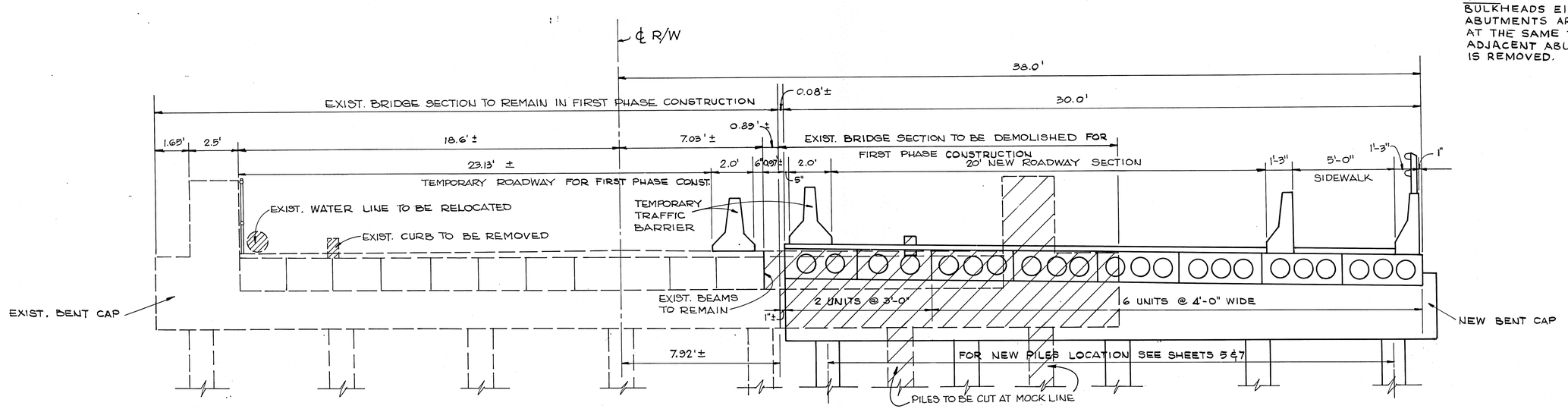
SH. NO. 15 of 17



PLAN VIEW

* TEMPORARY CONT. SHEET PILING FOR PHASE I CONSTRUCTION

NOTE:
BULKHEADS EITHER SIDE OF ABUTMENTS ARE TO BE REMOVED AT THE SAME TIME AS THE ADJACENT ABUTMENT SECTION IS REMOVED.



SECTION A-A

S-CUBE ENGINEERING / CONNELL

BRIDGE NO. 014020

BX1-16

CONNELL ASSOCIATES INC.
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn JCP
checked [illegible]
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

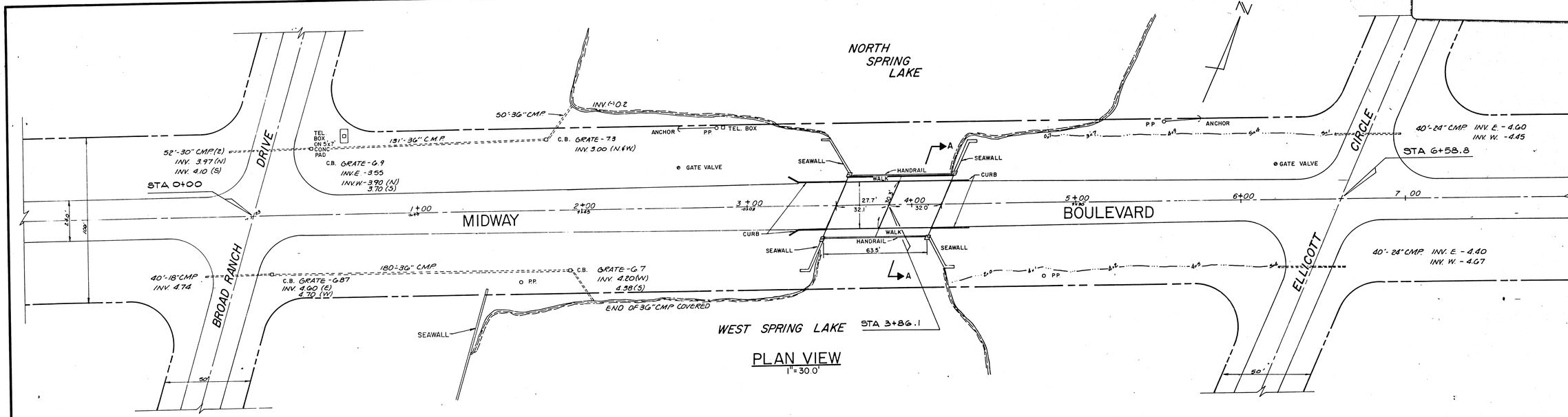
PORT CHARLOTTE, FLORIDA.

REVISIONS			
no	date	by	description

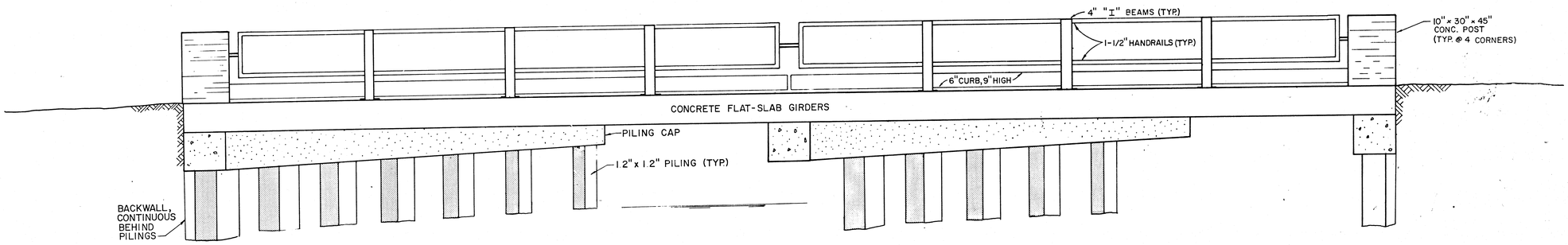
MAINTENANCE OF TRAFFIC

SCALE 1" = 10'

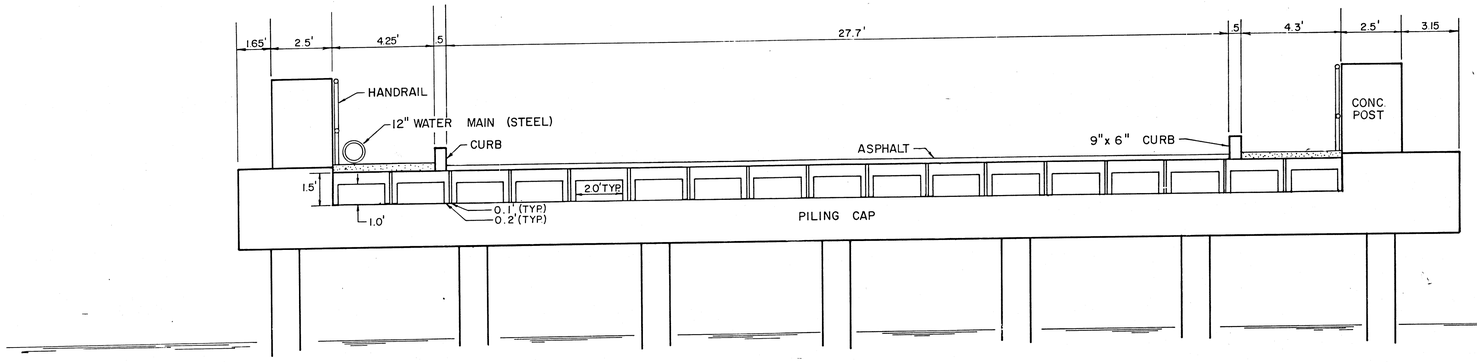
SH. NO. 16 of 17



PLAN VIEW
1"=30.0'



BRIDGE PROFILE
1"=3.0'



SECTION "A-A"
1" = 3.0'

BRIDGE NO. 014020

PREPARED FOR: BOARD OF COUNTY COMMISSIONERS CHARLOTTE COUNTY

SUBJECT: EXISTING FIELD SURVEY

PROJECT NO. 84-462 | FB 45/1-5 | CHECKED BY | SCALE AS NOTED

DRAWN BY fmh | DATE 10/18/84

S-CUBE ENGINEERING, INC.
ENGINEERS — LAND PLANNERS
LAND SURVEYORS
313 CROSS STREET PUNTA GORDA, FLORIDA 33950 PHONE: (813) 639-7166

REVISIONS	DATE	BY

S-CUBE ENGINEERING / CONNELL

313 CROSS STREET PUNTA GORDA, FLORIDA 33950

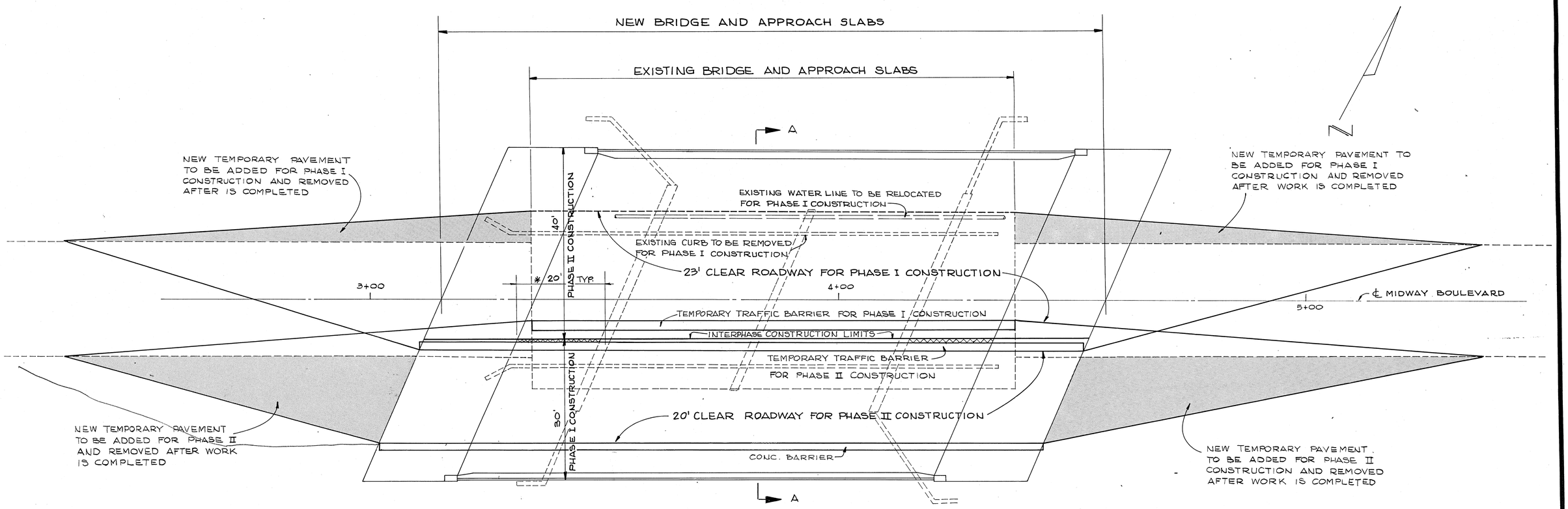
CONNELL ASSOCIATES, INC. ENGINEERS PLANNERS ARCHITECTS

SHEET 17 OF 17 SHEETS

BX1-17

AF 12573

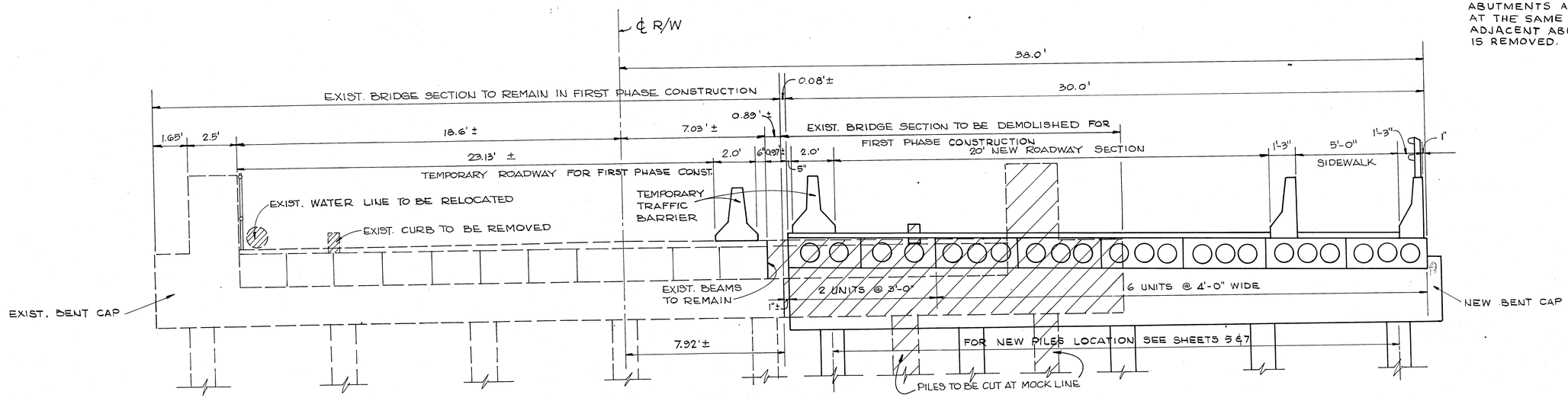
SOUTH DADE BLUEPRINT



PLAN VIEW

* TEMPORARY CONT. SHEET PILING FOR PHASE I CONSTRUCTION

NOTE:
BULKHEADS EITHER SIDE OF ABUTMENTS ARE TO BE REMOVED AT THE SAME TIME AS THE ADJACENT ABUTMENT SECTION IS REMOVED.



SECTION A-A

BRIDGE NO. 014020

BX1-18

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC.
ARCHITECTS ENGINEERS PLANNERS SCIENTISTS
313 CROSS STREET
PUNTA GORDA, FLORIDA 33950

drawn JCP
checked [illegible]
approved
date 1/31/1985
project no 2063.0

MIDWAY BOULEVARD BRIDGE OVER SPRING LAKE

PORT CHARLOTTE, FLORIDA.

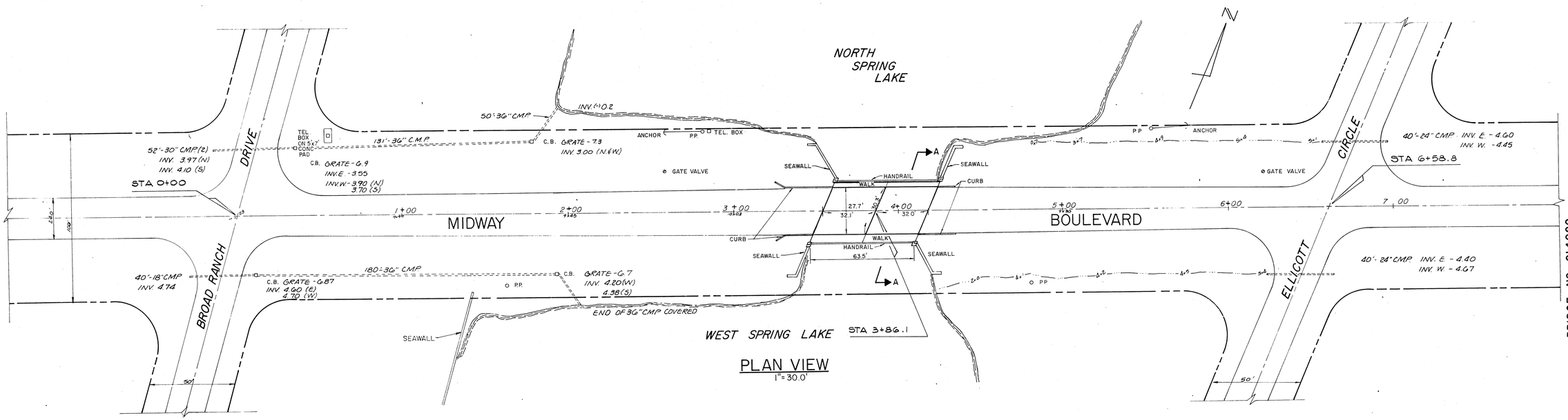
REVISIONS

no	date	by	description

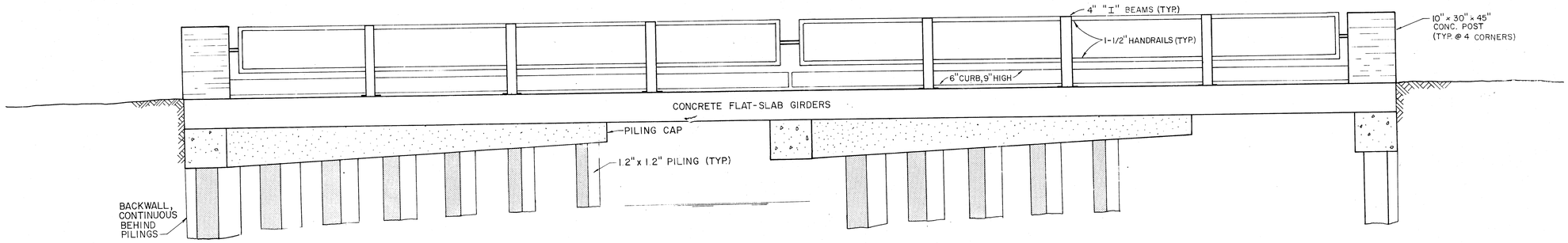
MAINTENANCE OF TRAFFIC

SCALE 1" = 10'

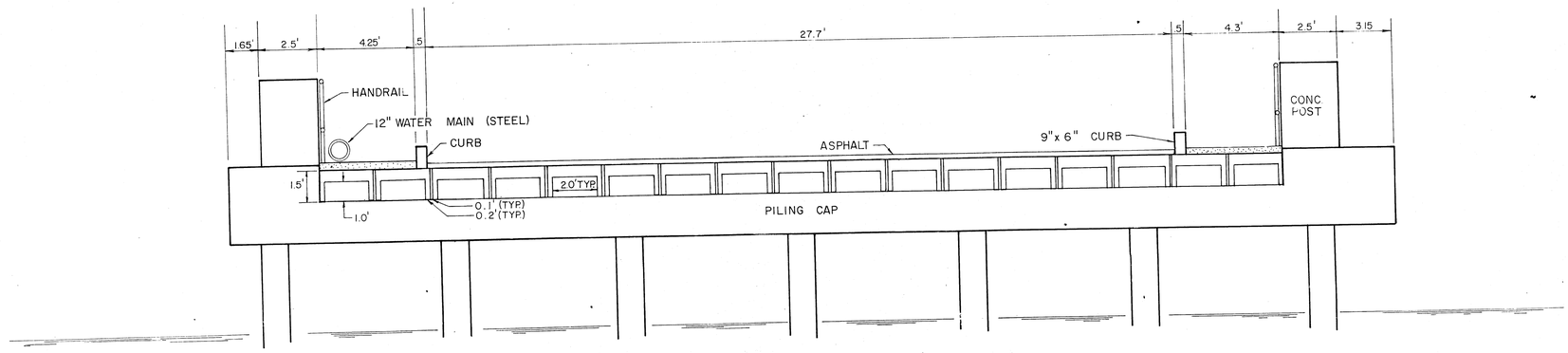
SH. NO. 16 of 17



PLAN VIEW
1" = 30.0'



BRIDGE PROFILE
1" = 3.0'



SECTION "A-A"
1" = 3.0'

BRIDGE NO. 014020

PREPARED FOR: CHARLOTTE COUNTY BOARD OF COUNTY COMMISSIONERS

SUBJECT: EXISTING FIELD SURVEY

FB	PROJECT NO	CHECKED BY
45 / 1-5	84-462	
DRAWN BY	SCALE	
fmh	AS NOTED	
DATE		
10/18/84		

S-CUBE ENGINEERING, INC.
ENGINEERS — LAND SURVEYORS — LAND PLANNERS
313 CROSS STREET PUNTA GORDA, FLORIDA 33950 PHONE: (813) 639-7166

S-CUBE ENGINEERING / CONNELL

CONNELL ASSOCIATES, INC. ARCHITECTS ENGINEERS PLANNERS SURVEYORS
313 CROSS STREET PUNTA GORDA, FLORIDA 33950

REVISIONS | BY | DATE

SHEET 17 OF 17 SHEETS

BX1-19