

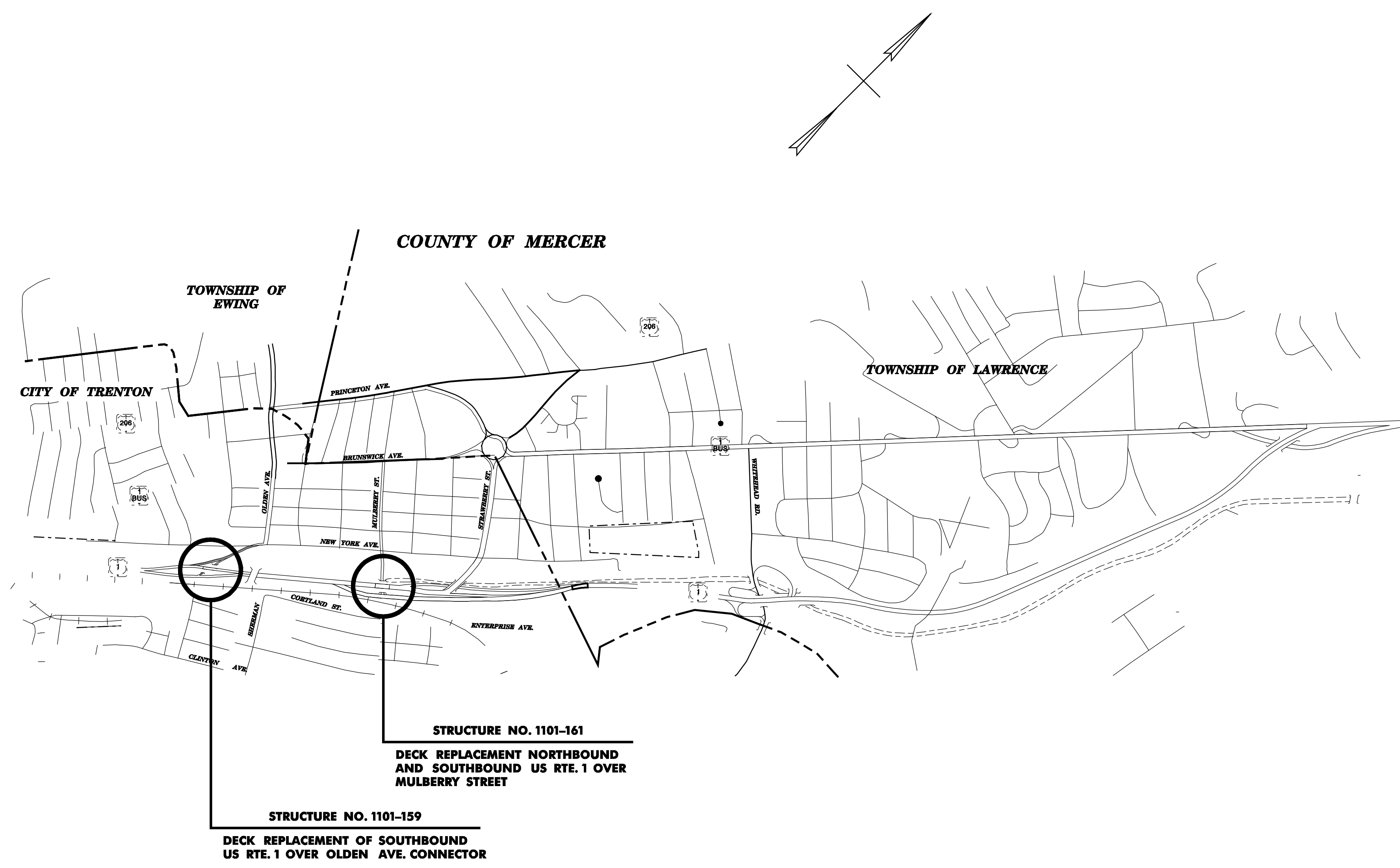
PROJECT: ROUTE US 1 SECTION 1

PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	AS - BUILT QUANTITY	PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY	AS - BUILT QUANTITY
ROUTE US 1 NORTH & SOUTH OVER MULBERRY STREET STRUCTURE NO. 1101-161											
81	2A31C	CLEARING SITE, BRIDGE	LS	LUMP SUM							
82	2A21B	TEMPORARY SHIELDING	LS	LUMP SUM							
83	N5A04	CONCRETE IN SUBSTRUCTURES, ABUTMENT WALLS - RSLMC	CY	25							
84	N5A01	CONCRETE IN SUPERSTRUCTURE, PARAPETS - HPC	LF	145							
85	N5A02	PRECAST MEDIAN PARAPETS - HPC	LF	136							
86	5A31E	REINFORCEMENT STEEL IN STRUCTURES, EPOXY-COATED	LB	4550							
87	5A31G	EPOXY WATERPROOFING SEAL COAT	SY	65							
88	5A20H	1-3/4" x 1-3/4" PREFORMED ELASTOMERIC, JOINT SEALER	LF	165							
89	N5A03	DIAMOND GRINDING OF CONCRETE DECK SURFACE	SF	5280							
90	5C22D	STRUCTURAL STEEL DECK JOINTS	LS	LUMP SUM							
91	9Z99Z	NO ITEM									
92	5C41H	STRUCTURAL BEARING ASSEMBLY	UNIT	40							
93	N5C05	PREFABRICATED SUPERSTRUCTURE UNITS	SF	5500							
94	7A41C	3" RIGID METALLIC CONDUIT, TYPE CUG	LF	370							
95	7A27J	10"X36" JUNCTION BOXES	UNIT	4							
96	9Z99Z	NO ITEM									
97	9Z99Z	NO ITEM									
ROUTE US 1 SOUTH OVER OLDEN AVE. CONECTOR STRUCTURE NO. 1101-159											
98	2A31C	CLEARING SITE, BRIDGE	LS	LUMP SUM							
99	2A21B	TEMPORARY SHIELDING	LS	LUMP SUM							
100	N5A01	CONCRETE IN SUPERSTRUCTURE, PARAPETS - HPC	LF	310							
101	5A31G	EPOXY WATERPROOFING SEAL COAT	SY	120							
102	5A20H	1-3/4" x 1-3/4" PREFORMED ELASTOMERIC, JOINT SEALER	LF	168							
103	N5A03	DIAMOND GRINDING OF CONCRETE DECK SURFACE	SF	3840							
104	5C22D	STRUCTURAL STEEL DECK JOINTS	LS	LUMP SUM							
105	9Z99Z	NO ITEM									
106	5C41H	STRUCTURAL BEARING ASSEMBLY	UNIT	20							
107	N5C04	PREFABRICATED SUPERSTRUCTURE UNITS	SF	3985							
108	7A41C	3" RIGID METALLIC CONDUIT, TYPE CUG	LF	710							
109	7A27J	10"X36" JUNCTION BOXES	UNIT	4							
110	9Z99Z	NO ITEM									
111	9Z99Z	NO ITEM									

ESTIMATE OF QUANTITIES

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STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159 & 1101-161			
STRUCTURE NAME US ROUTE 1 OVER MULBERRY ST. AND OLDEN AVE. CONNECTOR			



INDEX OF DRAWINGS	
SHEET NO.	DESCRIPTION
B1	ESTIMATE OF QUANTITIES
B2	KEY PLAN TO STRUCTURES
B3-B4	GENERAL PLAN AND ELEVATION (OLDEN AVE.)
B5	DEMOLITION DETAILS (OLDEN AVE.)
B6	SOUTH ABUTMENT (OLDEN AVE.)
B7	NORTH ABUTMENT (OLDEN AVE.)
B8	PROPOSED DECK PLAN AND SECTION (OLDEN AVE.)
B9-B14	ARCHITECTURAL DETAILS (OLDEN)
B15-B16	GENERAL PLAN AND ELEVATION (MULBERRY ST.)
B17	DEMOLITION DETAILS (MULBERRY ST.)
B18	SOUTH ABUTMENT (MULBERRY ST.)
B19	NORTH ABUTMENT (MULBERRY ST.)
B20	PROPOSED DECK PLAN AND SECTION (MULBERRY ST.)
B23-B24	ARCHITECTURAL DETAILS (MULBERRY ST.)
B25	ELASTOMERIC BEARING DETAILS
B26	DECK JOINT DETAILS
B27	TYPICAL DETAILS

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

KEY PLAN TO STRUCTURE
ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY
BRIDGE SHEET NO. B 2 OF B 27

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagrana	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahlepor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

REVISION	BY	C'K'D	DATE

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STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159			
STRUCTURE NAME			
US ROUTE 1 OVER OLDEN AVE. CONNECTOR			

GENERAL NOTES

- Design Specifications**
2002 (17th Edition) AASHTO Standard Specifications for Highway Bridges (with Interims) as modified by Section 3A of NJDOT Design Manual for Bridges and Structures.
- Construction Specifications**
2001 NJDOT Standard Specifications for Road and Bridge Construction with current Supplemental Specifications, as modified by the Special Provisions.
- Live Load**
AASHTO HS20 + 25% (HS25) or tandem 24 kips axles at 4 foot centers, whichever is less.
- Concrete Design Stresses**
 - Design Compressive Strengths - (f'c)**
(In accordance with the Retest Limit for Pay-Adjustment Items as specified in Table 914-4 of the NJDOT Standard Specifications and as modified by the Special Provisions)
Class P 5,000 psi
Class A 4,000 psi

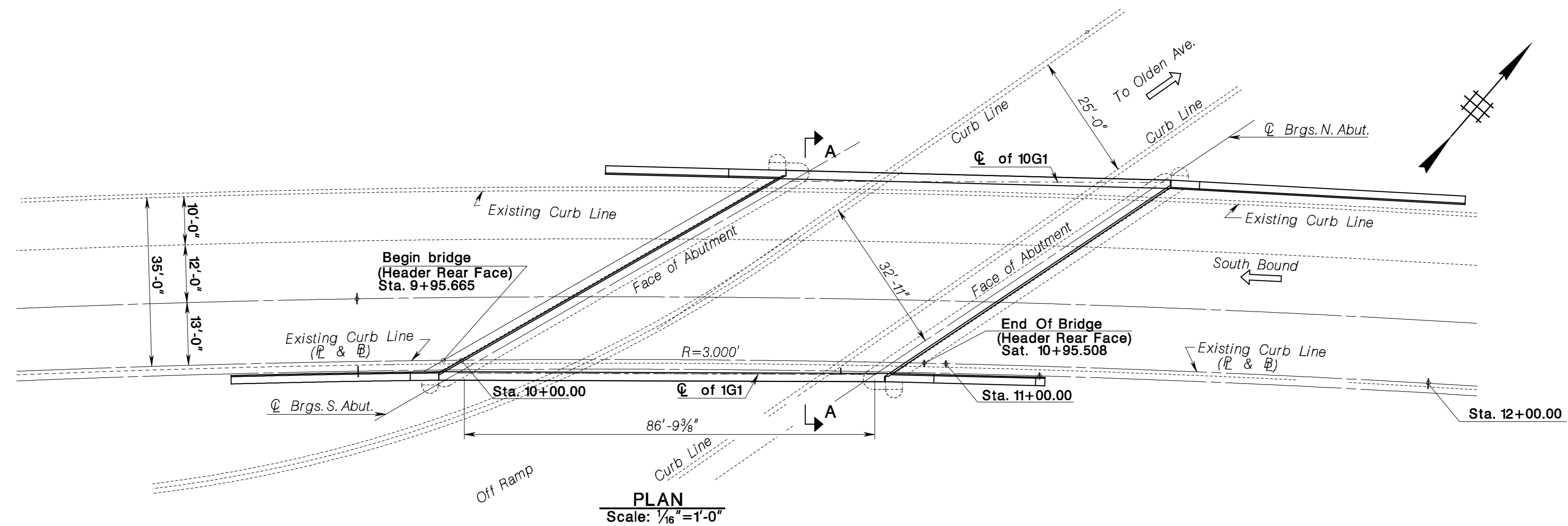
(The retest limit for non-pay-adjustment items shall be as specified on the last line of Table 914-4 of the NJDOT Standard Specifications and as may be modified by the Special Provisions)
 - Class Mix Design Strengths**
(In accordance with Table 914-3 of the NJDOT Standard Specifications)
Class P 5,000 psi
Class A 4,600 psi
- Reinforcement Steel**
ASTM A615M (Grade 60)
- Superstructure**
Dead load includes a 25 lbs./sq.ft. provision for future 2 inch thick concrete overlay protective system on the bridge deck.
Structural Steel: AASHTO M270, Grade 50W with Supplementary Requirements for Notch Toughness for all member components marked (T).

Structural Steel painting system and finish coat color, see Sheet B8.

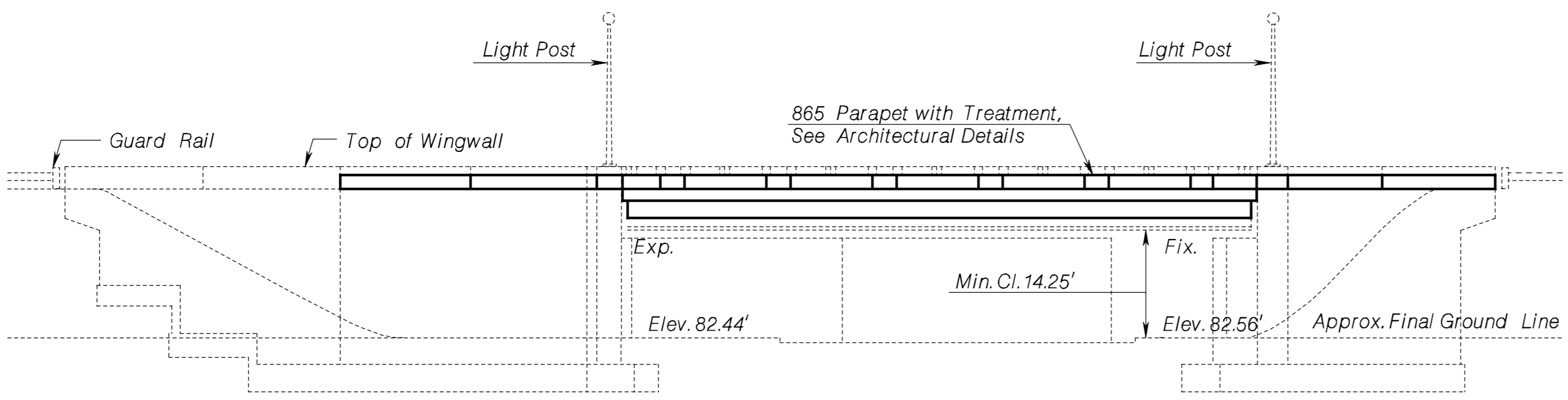
High Performance Concrete Mix designed to be used for deck slabs, pylons & parapets.
- The dimensions of existing bridge were reproduced from NJDOT Microfilm File Reference No. A1101-159. The information presented is for informational purposes only and is not guaranteed to be correct. The Contractor shall examine and verify in the field all conditions and dimensions. He shall take all such field measurements to assure proper fit of the finished work and shall assume full responsibility for their accuracy.

If field conditions and dimensions differ from those shown on the plans, the Contractor shall use the field measurements and make the appropriate changes to those shown on the plans when shop drawings are submitted for Engineer's approval. The field measurement shall be indicated on the shop drawings submitted.

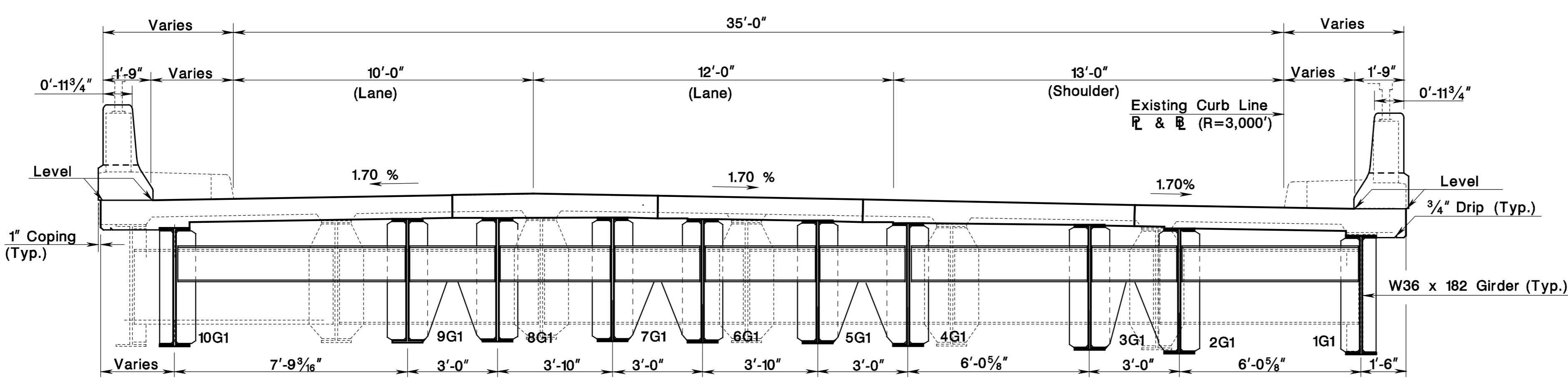
Separate payment will not be made for the verification of existing field conditions and dimensions or associated plan revisions and all cost, thereof, will be included in the bid price for various pay items.



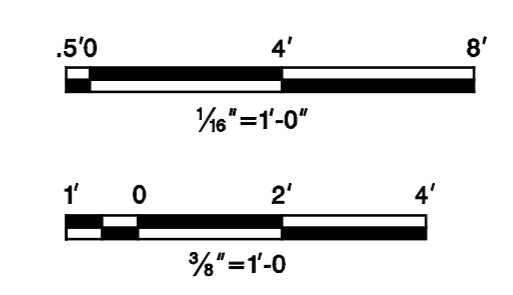
PLAN
Scale: 1/16" = 1'-0"



ELEVATION
Scale: 1/16" = 1'-0"



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



CONTROL SECTION	1101	JOB NO. 1101-513
DES.	R. Villagracia	CHK. D. Patel
DWN.	U. Wallace	
IN CHARGE	Seth Ahlepor Project Engineer - Structural Transportation	
SUBMITTED	Wilfredo Sia Manager - Structural Engineering	

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BUREAU OF STRUCTURAL ENGINEERING

GENERAL PLAN AND ELEVATION
OLDEN AVE. (SHEET 1)

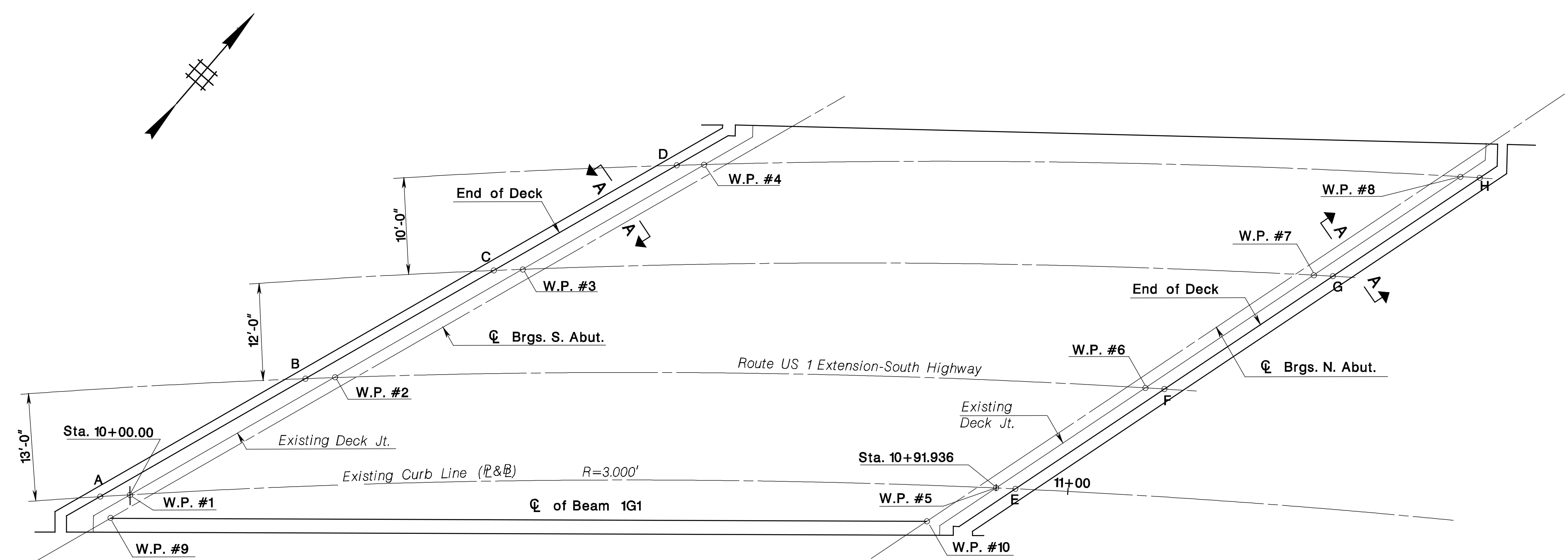
ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B...3... OF B. 27

REVISION	BY	C/K'D	DATE

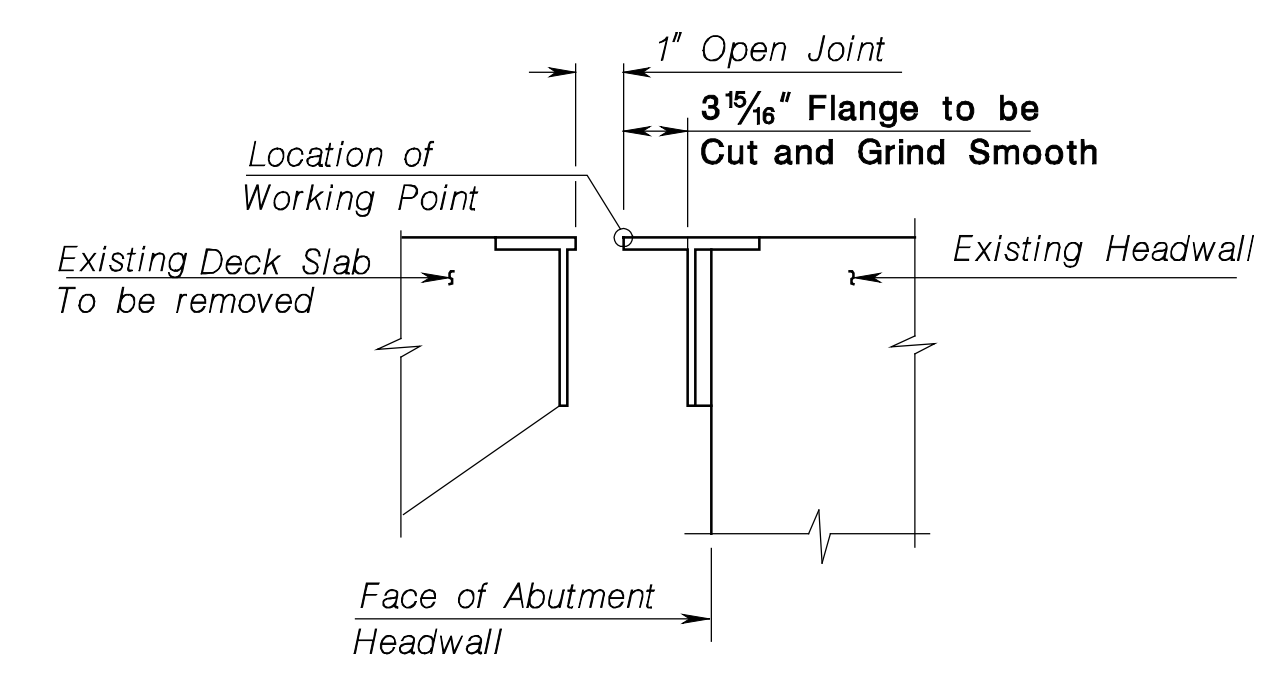
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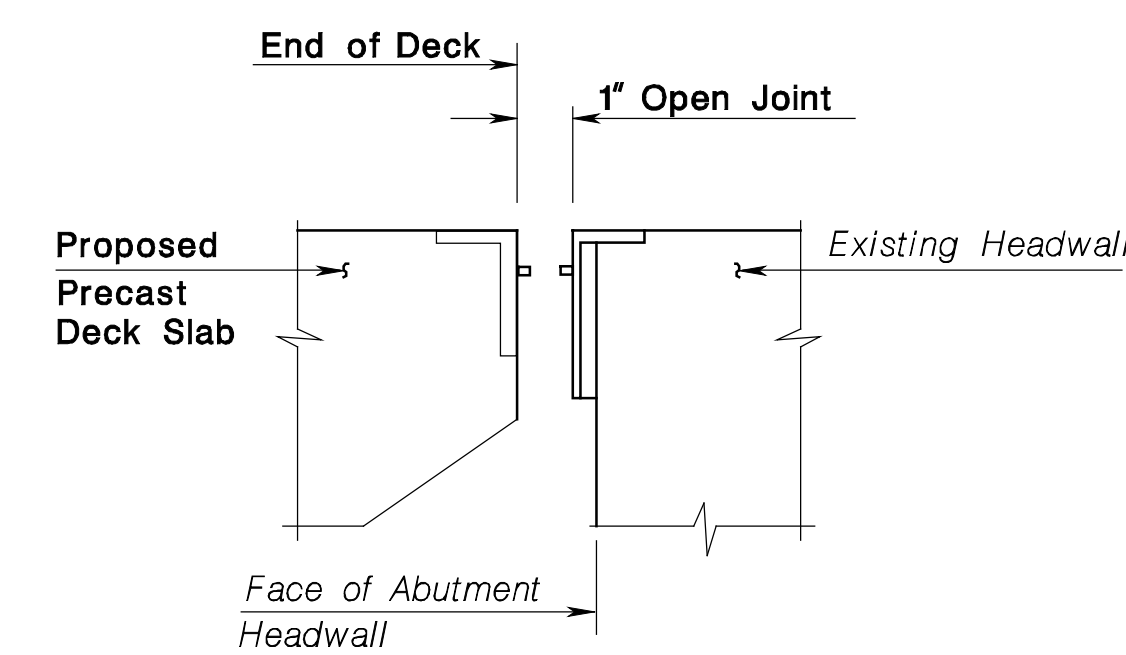
NOTES
For lettered A through H joint locations and elevations, see deck sheet.

WORKING POINTS				
W. P. #	STATION	OFFSET	ELEVATION	BASELINE
1	Sta. 10+00.000	-	102.306	Exis. Curb Line
2	Sta. 10+22.039	13' LT	102.261	"
3	Sta. 10+42.577	25' LT	102.191	"
4	Sta. 10+60.472	35' LT	101.765	"
5	Sta. 10+91.936	-	101.042	"
6	Sta. 11+09.685	13' LT	100.872	"
7	Sta. 11+26.725	25' LT	100.695	"
8	Sta. 11+40.794	34' LT	100.223	"
9	Sta. 9+98.632	2.637' RT	102.277*	"
10	Sta. 10+85.110	2.687' RT	101.086*	"

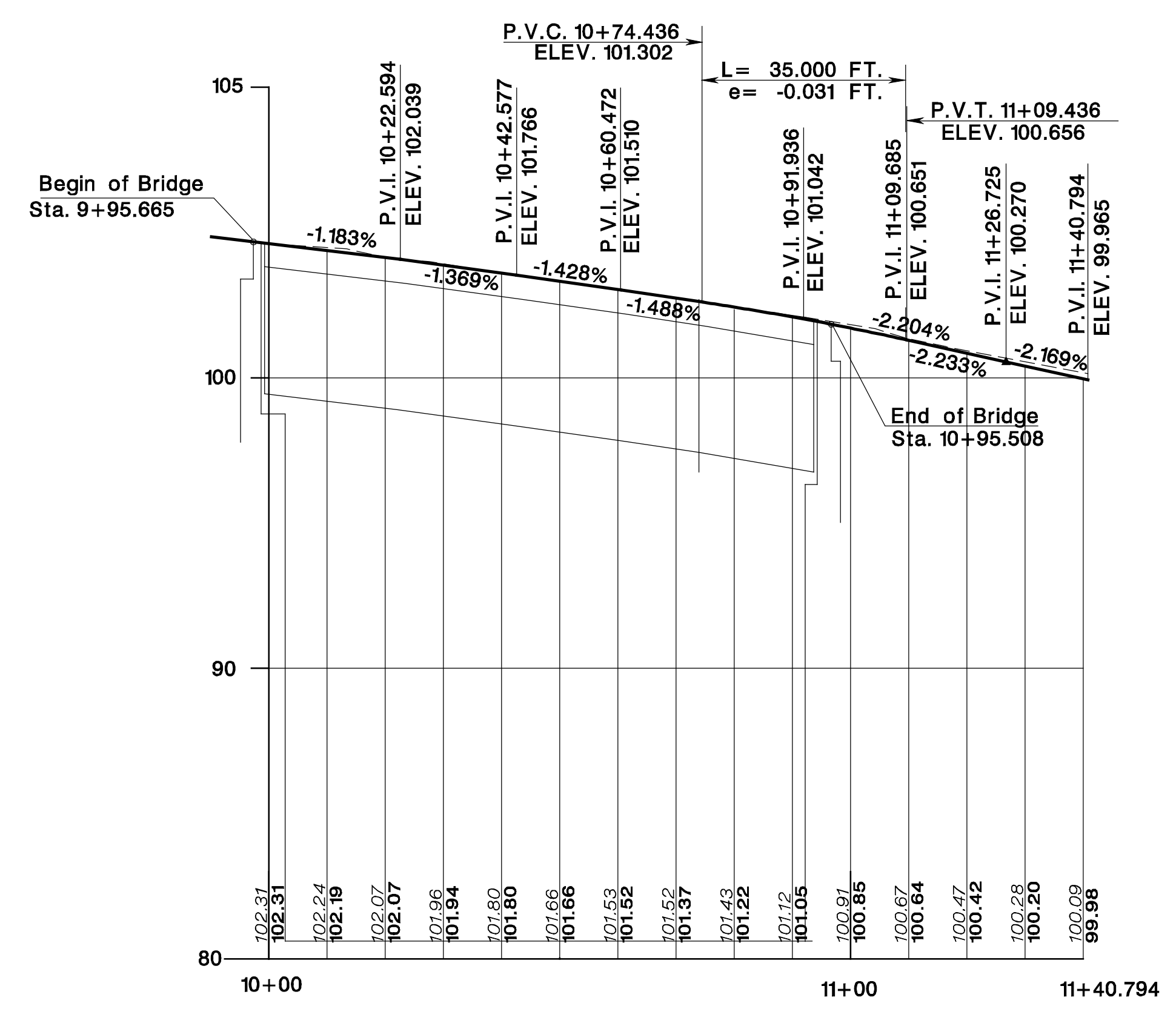
* Elevation at Top of Deck above Beam



EXISTING - SECTION A-A
N. T. S.



PROPOSED - SECTION A-A
N. T. S.



ELEVATION ALONG EXISTING CURB LINE
(CONSTRUCTION BASE LINE & PROFILE LINE)
Scale: 1" = 20'-0"

SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
98	2A31C	CLEARING SITE, BRIDGE	LS	LUMP SUM
99	2A21B	TEMPORARY SHIELDING	LS	LUMP SUM
100	N5A01	CONCRETE IN SUPERSTRUCTURES, PARAPET - HPC	LF	310
101	5A31G	EPOXY WATERPROOFING SEAL COAT	SY	120
102	5A20H	1-3/4"x 1-3/4" PREFORMED ELASTOMERIC, JOINT SEALER	LF	168
103	N5A03	DIAMOND GRINDING OF CONCRETE DECK SURFACE	SF	3840
104	5C22D	STRUCTURAL STEEL DECK JOINT (7,600LBS)	LS	LUMP SUM
105	9Z99Z	NO ITEM		
106	5C41H	STRUCTURAL BEARING ASSEMBLY	UNIT	20
107	N5C04	PREFABRICATED SUPERSTRUCTURE UNITS	SF	3985
108	7A41C	3" RIGID METALLIC CONDUIT, TYPE CUG	LF	710
109	7A27J	10"X36" JUNCTION BOXES	UNIT	4
110	9Z99Z	NO ITEM		
111	9Z99Z	NO ITEM		

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

GENERAL PLAN AND ELEVATION
OLDEN AVE. (SHEET 2)

ROUTE US 1 SECTION 1

CITY OF TRENTON
MUNICIPALITY

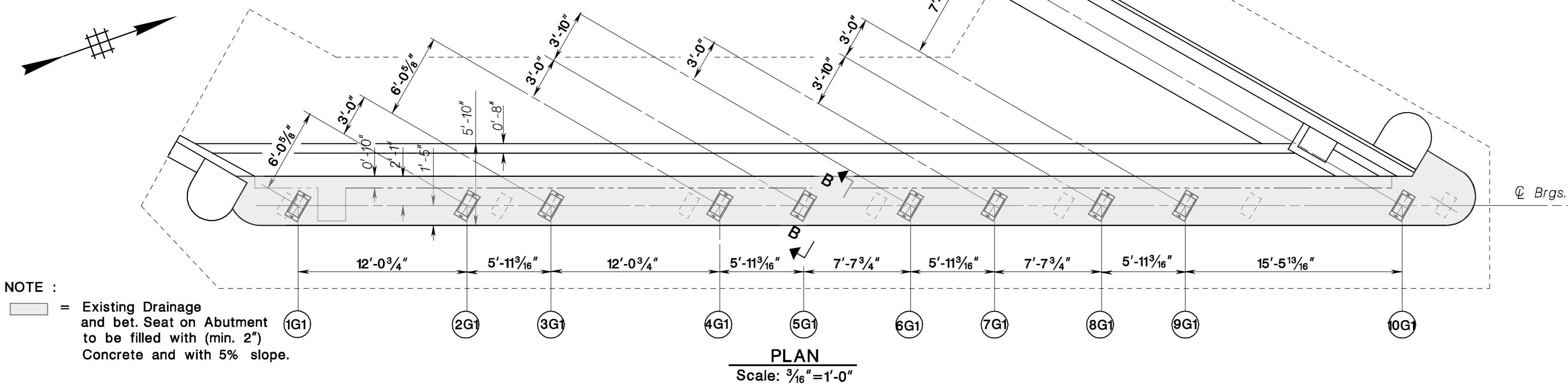
MERCER
COUNTY

BRIDGE SHEET NO. B...4... OF B...27

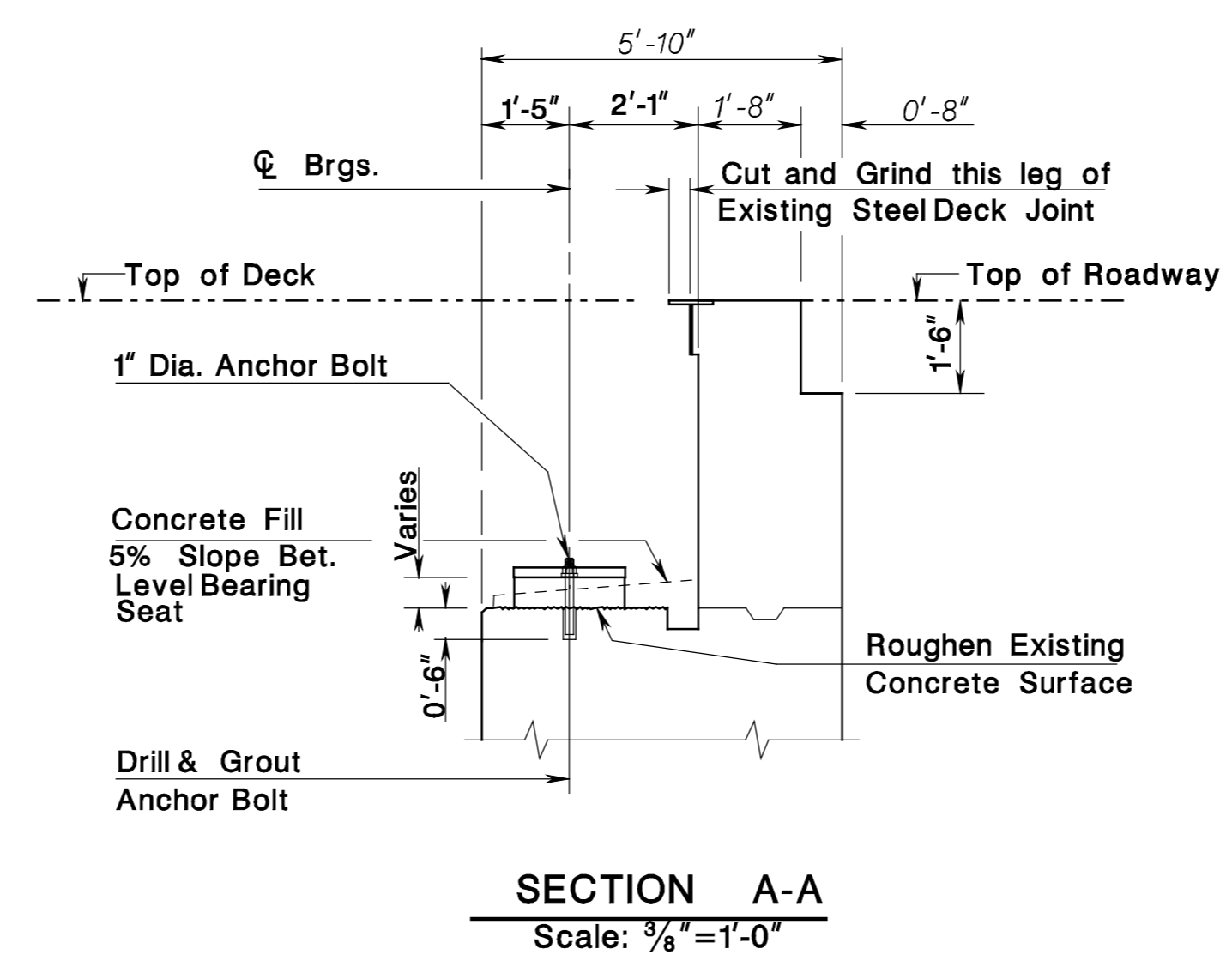
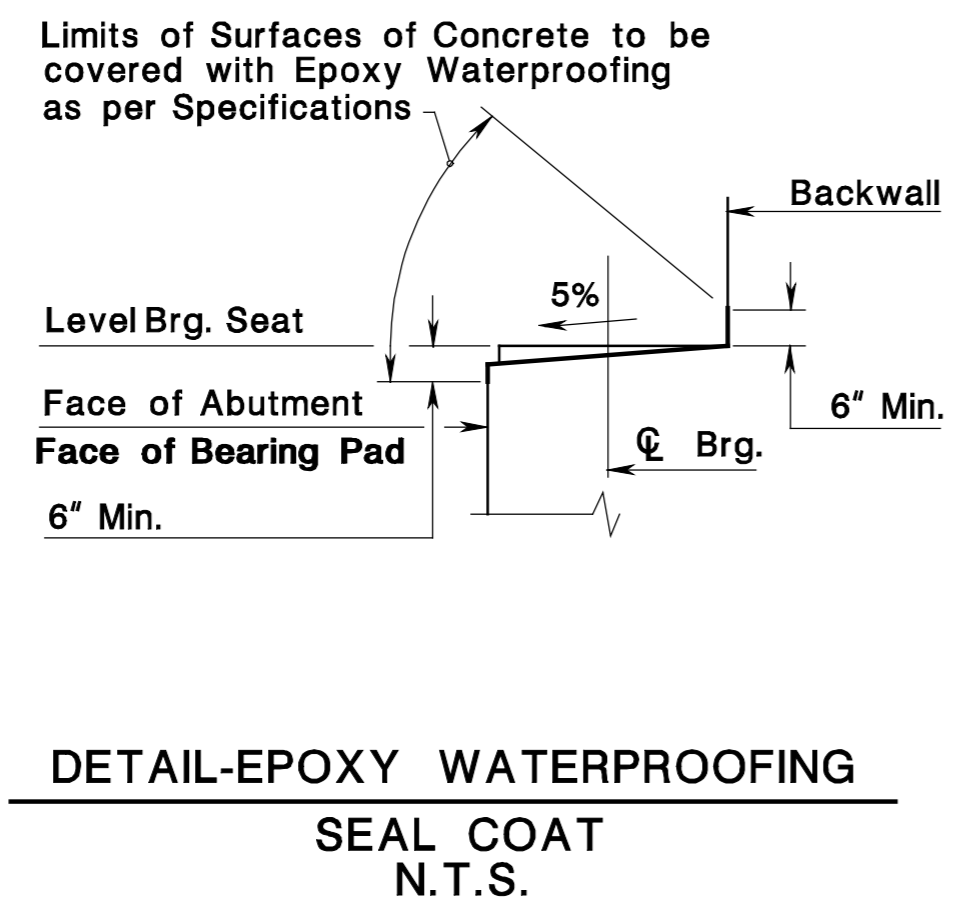
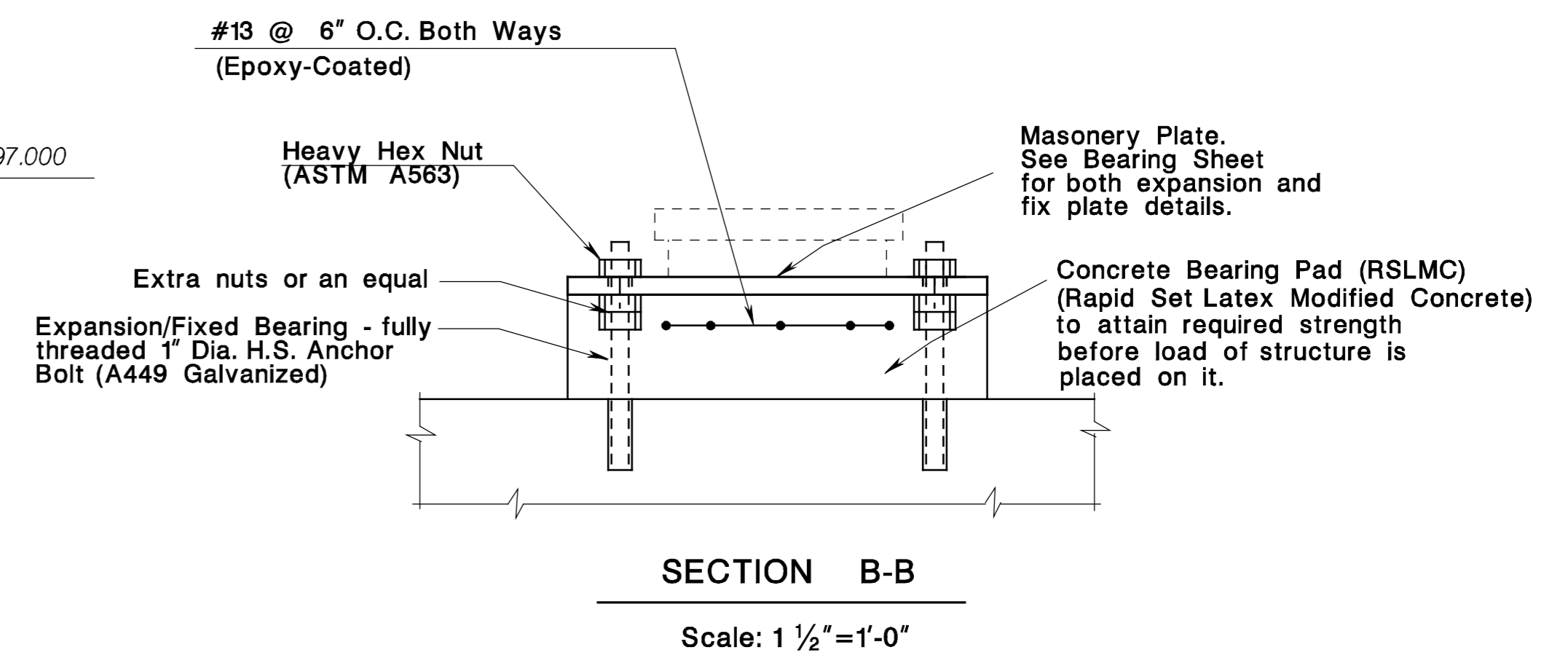
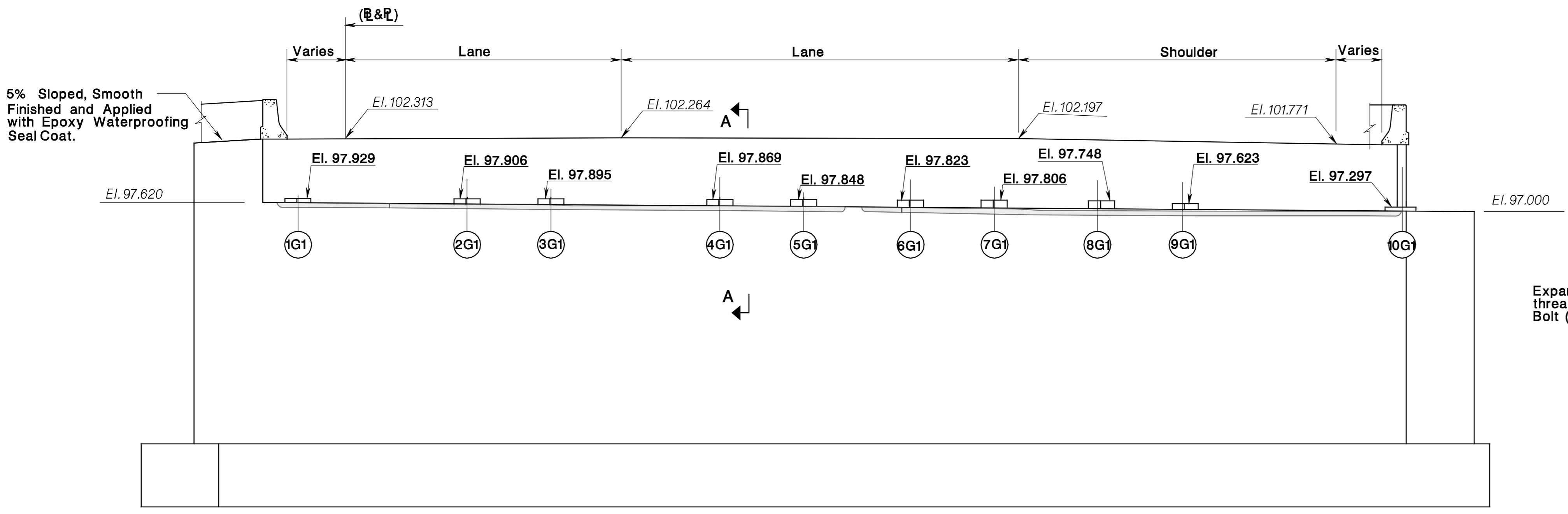
CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagracia	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahlekpour Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

REVISION	BY	C'K'D	DATE

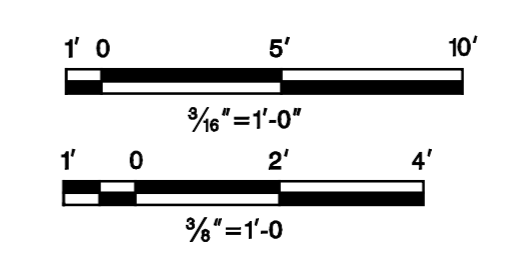
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- NOTES:**
1. Concrete Bearing Pad top elevation shown were calculated based on 9" deck thickness and 36.33" depth of beam. The Contractor shall verify the elevations in the field. Any changes shall be brought to the attention of the Engineer and Fabricator.
 2. For Anchor Bolt setting, refer to Elastomeric Bearing Detail Sht. No. B25
 3. Concrete Bearing Pad for existing drainage, Pay Item "Structural Bearing Assembly".
 4. The Contractor has the option to prefabricate the Concrete Bearing Pad, however without extra cost to NJDOT. The Calculations and Details to be submitted for Engineer's approval.
 5. Rapid Set Latex Modified Concrete (RSLMC) shall be used for concrete fill and bearing pad.



SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
101	5A31G	Epoxy Waterproofing Seal Coat	SY	60



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 BUREAU OF STRUCTURAL ENGINEERING

SOUTH ABUTMENT (OLDEN AVE.)

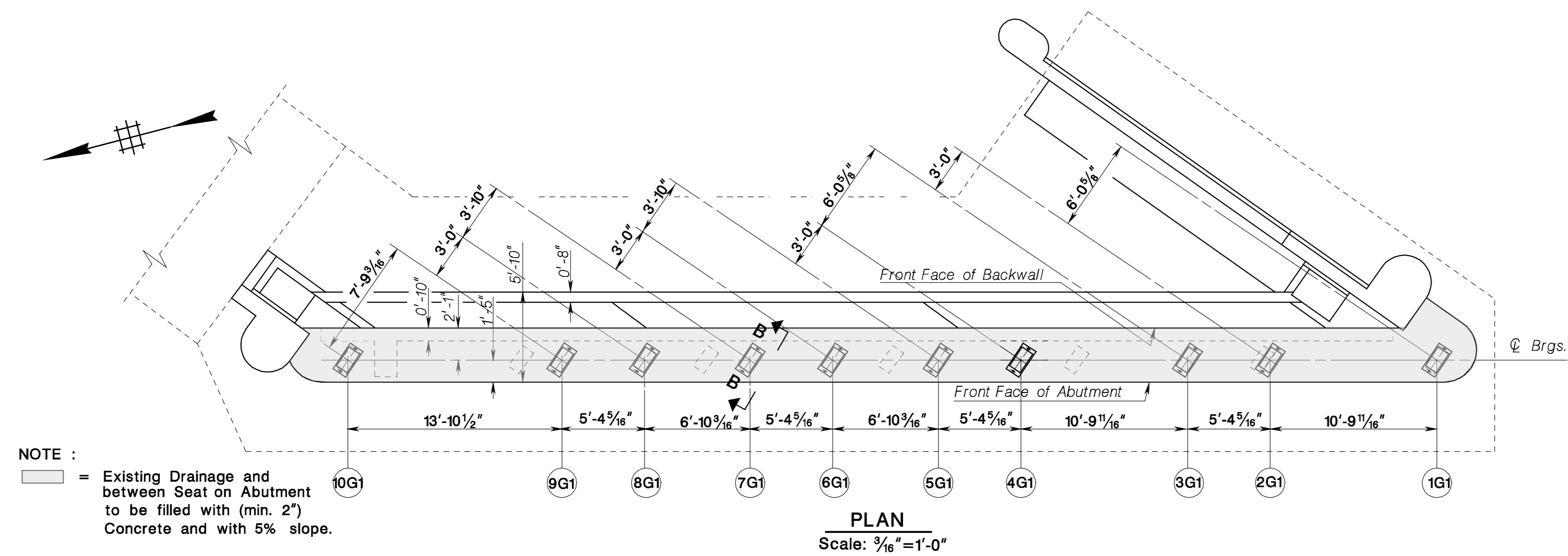
ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
 MUNICIPALITY COUNTY

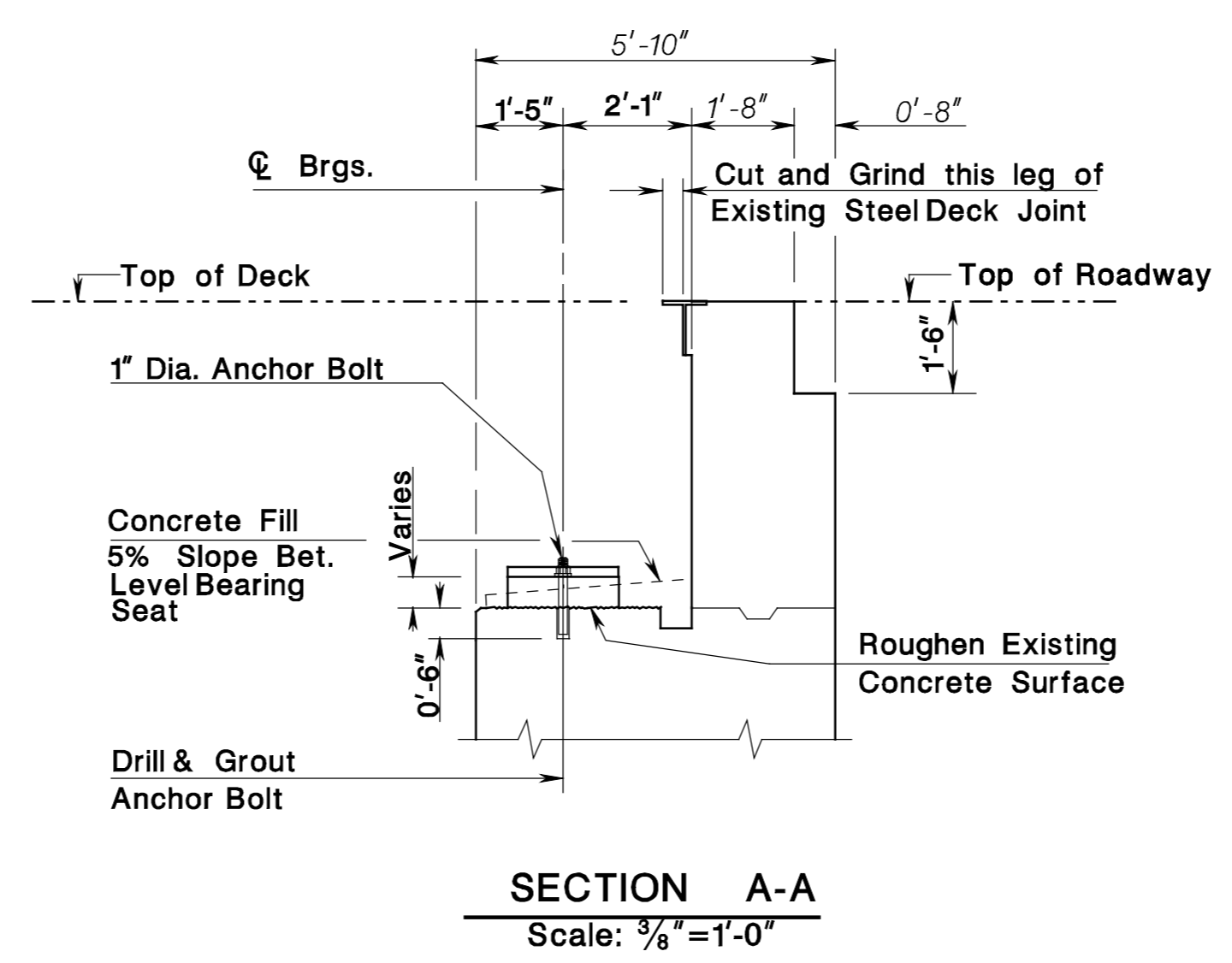
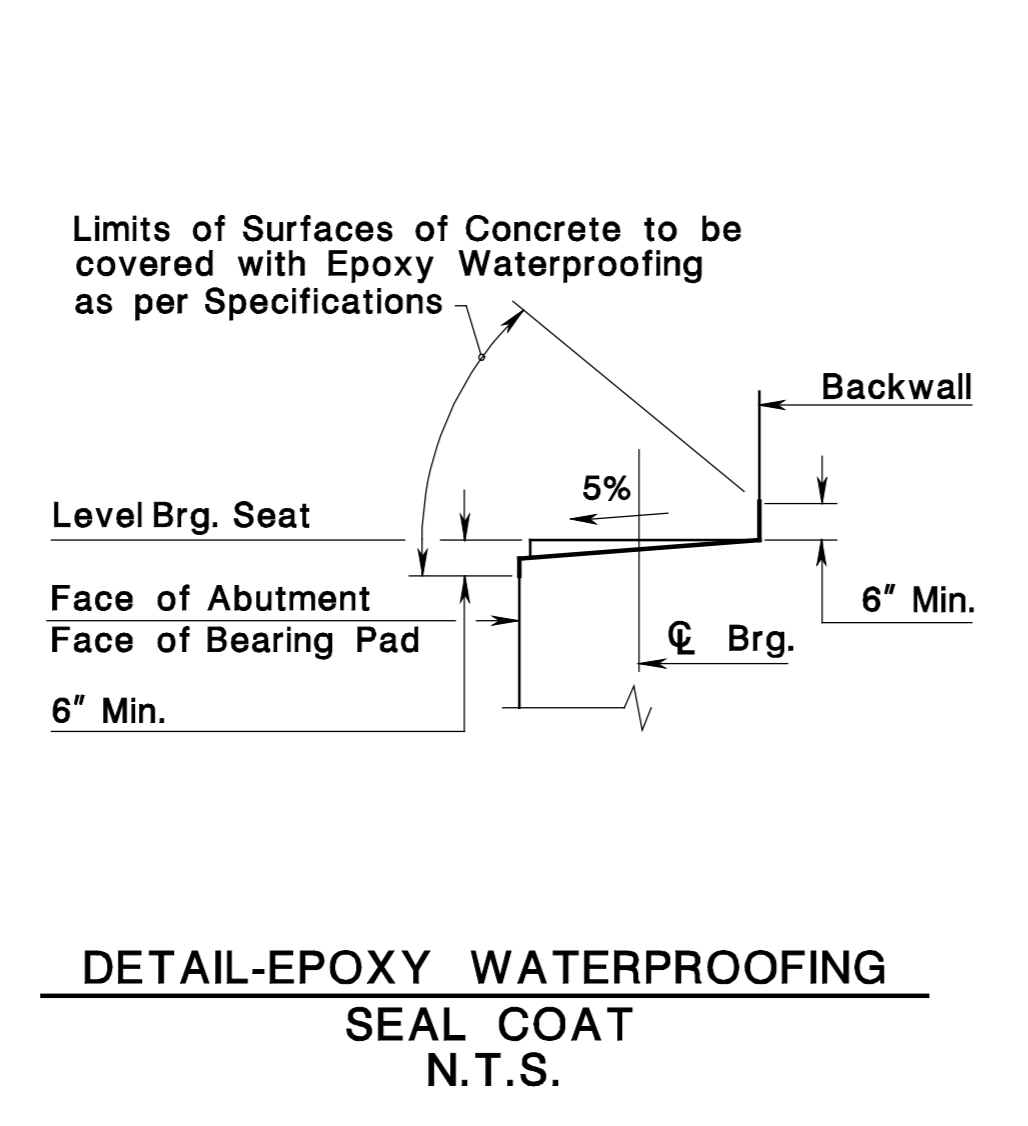
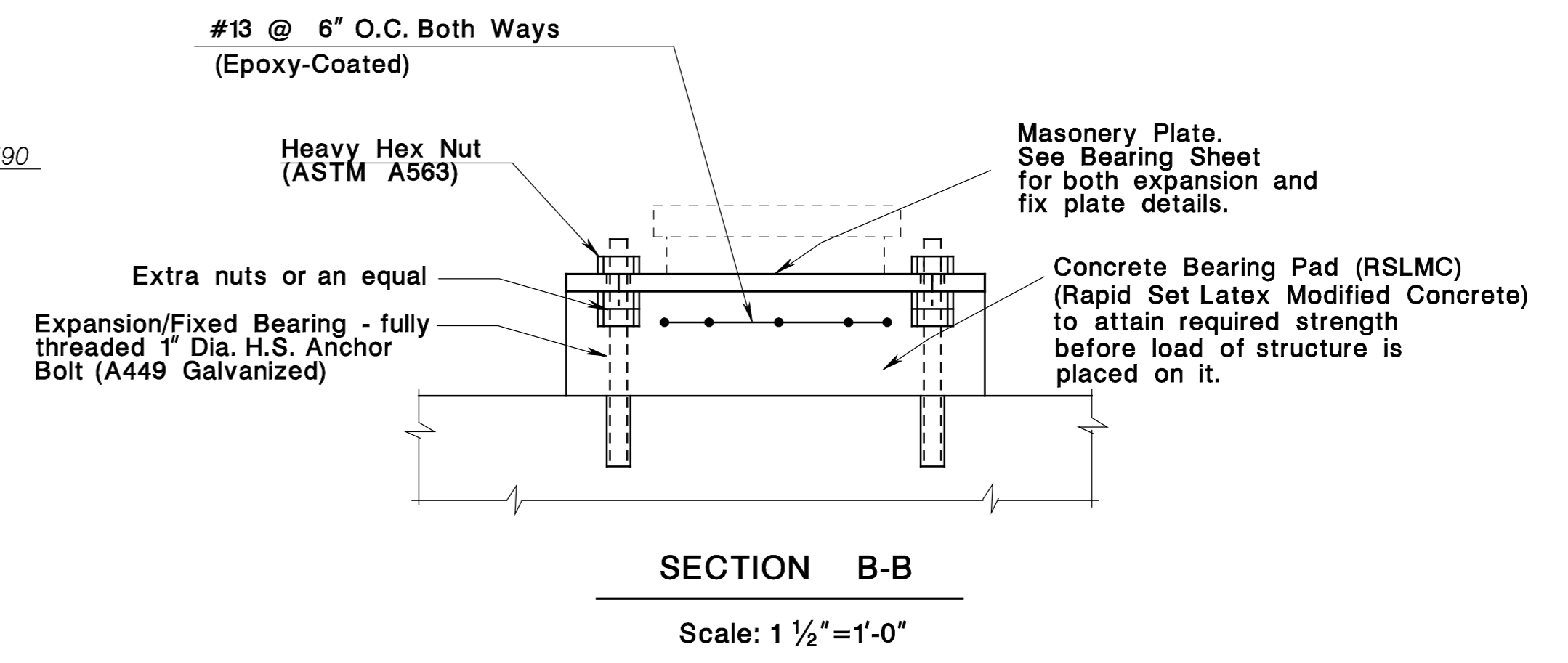
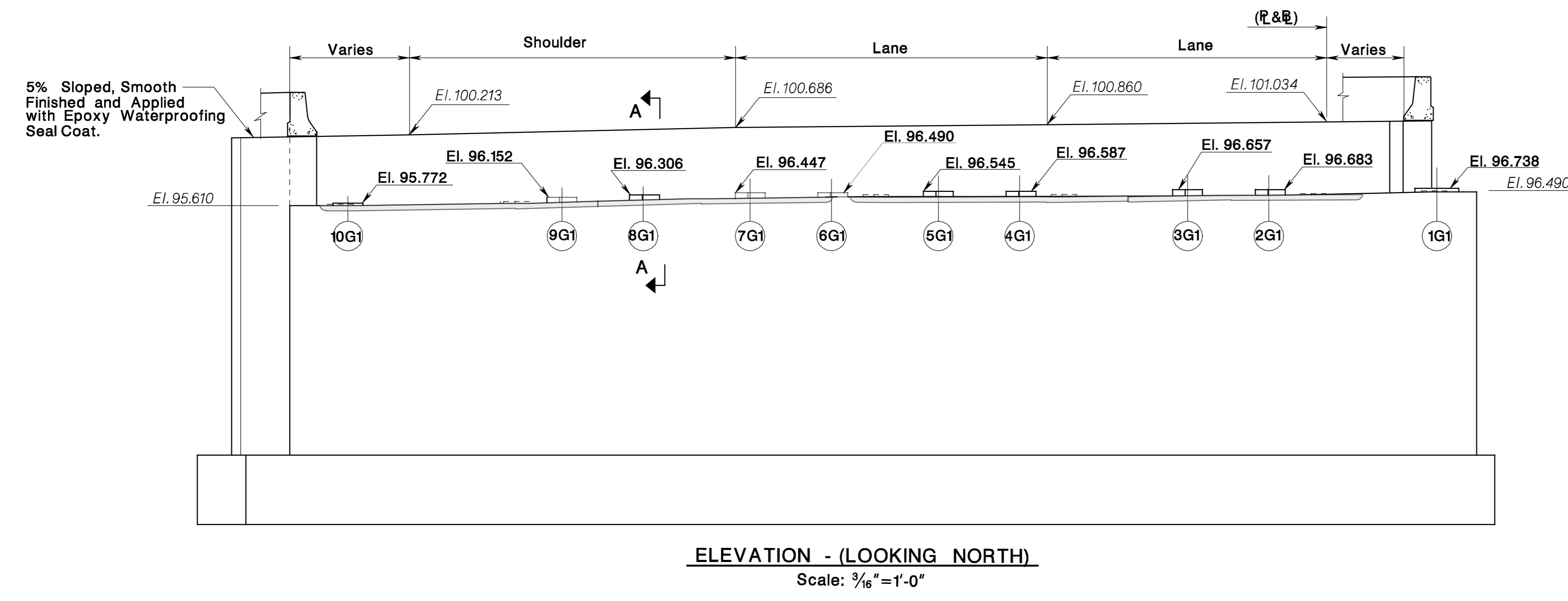
BRIDGE SHEET NO. B 6 OF B 27

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagracia	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahiskpor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

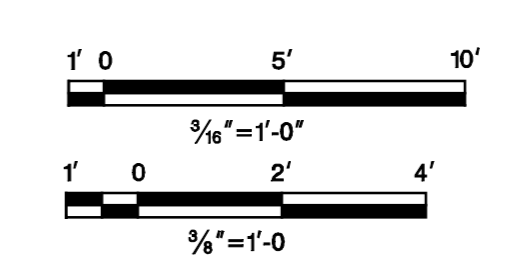
REVISION	BY	C/K'D	DATE



- NOTES:**
1. Concrete Bearing Pad top elevation shown were calculated based on 9" deck thickness and 36.33" depth of beam. The Contractor shall verify the elevations in the field. Any changes shall be brought to the attention of the Engineer and Fabricator.
 2. For Anchor Bolt setting, refer to Elastomeric Bearing Detail Sht. No. B25
 3. Concrete Bolt for existing drainage, between bearing seat and Concrete Bearing Pad shall be included in Pay Item "Structural Bearing Assembly".
 4. The Contractor has the option to prefabricate the Concrete Bearing Pad, however without extra cost to NJDOT. The Concrete and Details to be submitted for Engineer's approval.
 5. Rapid Set Latex Modified Concrete (RSLMC) shall be used for concrete fill and bearing pad.



SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
101	5A31G	Epoxy Waterproofing Seal Coat	SY	60



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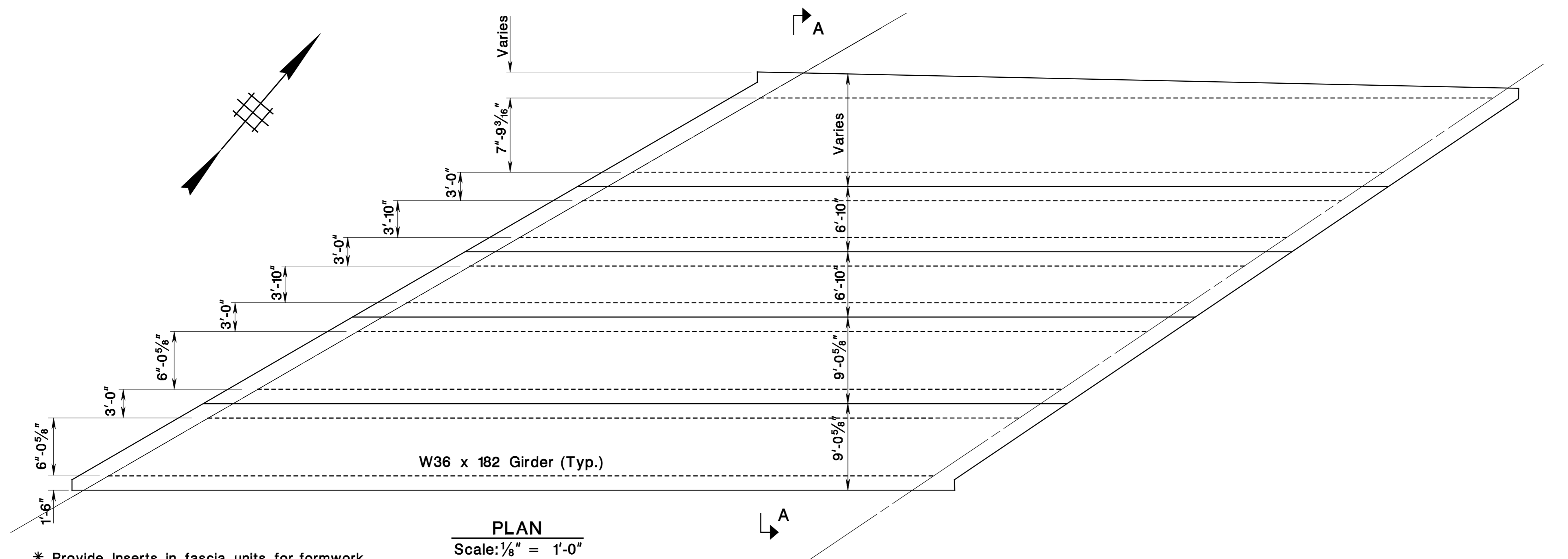
NORTH ABUTMENT (OLDEN AVE.)
ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

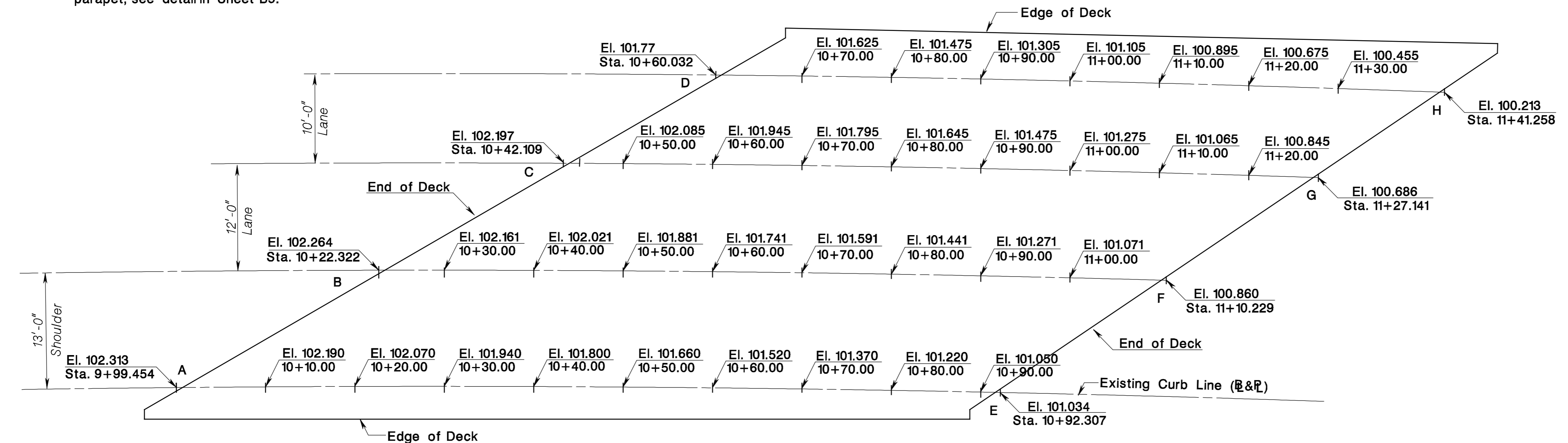
BRIDGE SHEET NO. B 7 OF B 27

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagracia	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahlspoor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sta. Manager - Structural Engineering		

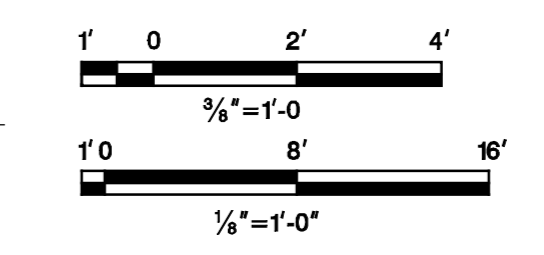
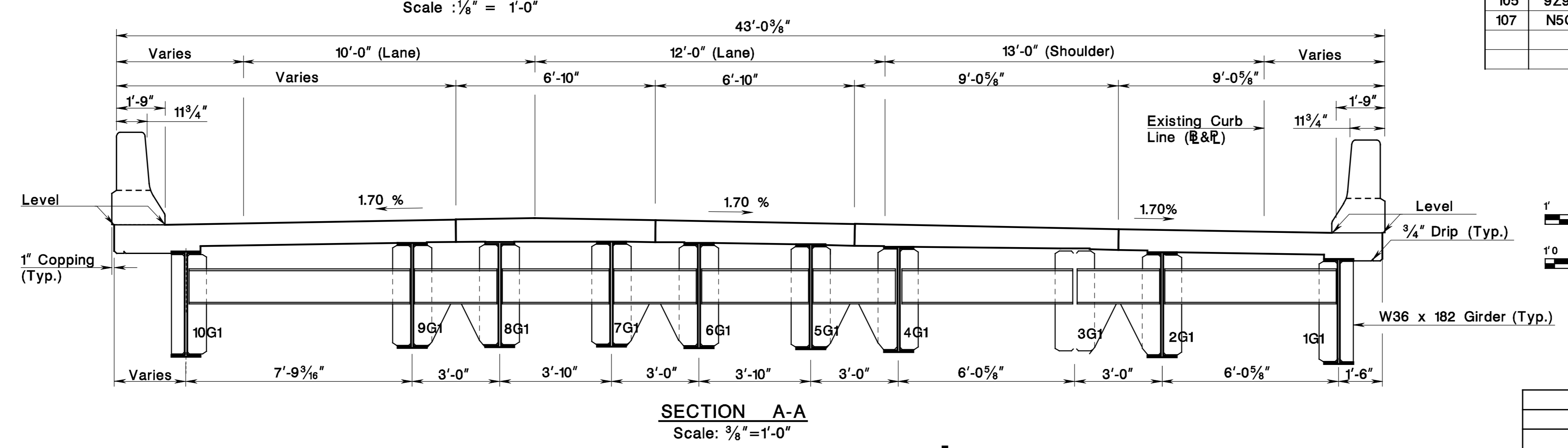
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- NOTES :**
- The Deck shall be Prefabricated Concrete/Steel Composite Superstructure Unit.
 - The Contractor shall submit the Calculations and Working Drawings to the Engineer per NJDOT Standard Specifications. Verify in field the correctness of Dimensions and Elevations before shop fabrication of the Superstructure Unit.
 - For details of the four (4) corners of the deck, see Architectural Sheets.
 - For Areas to be Diamond Grinded, Refer to NJDOT BCD-5, Sawcut Grooving for Bridge Decks.
 - Cleaning and Painting of Structural Steel shall be in accordance with NJDOT Standard Specifications.
Coating System: IEU
Finish Coat Color: Foliage Green



SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
103	N5A03	Diamond Grinding of Concrete Deck Surface	SF	3840
105	9Z99Z	No Item		
107	N5C04	Prefabricated Superstructure Unit	SF	3985



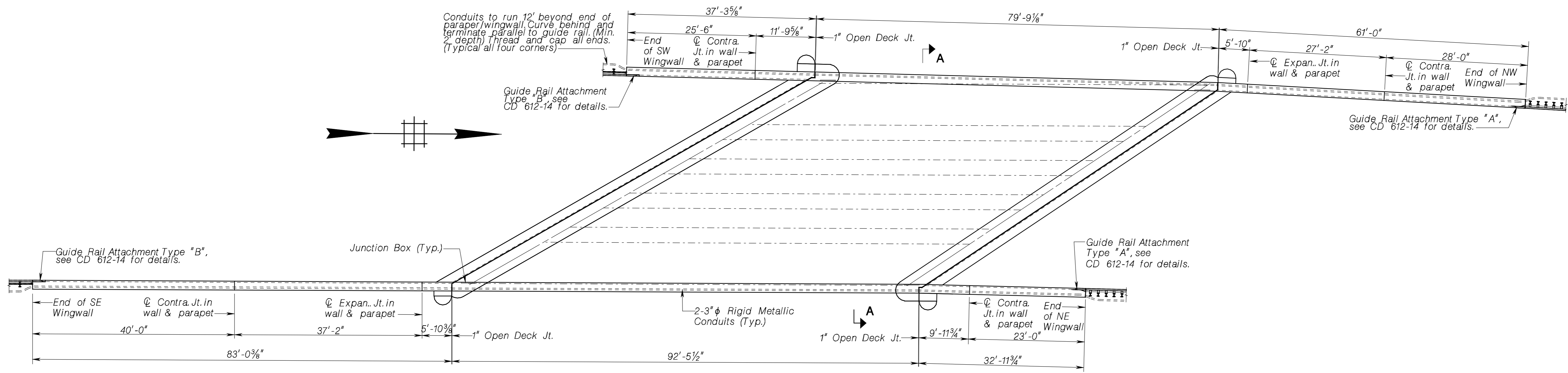
ALL DIMENSIONS SHOWN ARE IN US UNITS
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BUREAU OF STRUCTURAL ENGINEERING

PROPOSED DECK PLAN AND SECTION (OLDEN AVE.)
ROUTE US 1 SECTION 1
CITY OF TRENTON MERCER
MUNICIPALITY COUNTY
BRIDGE SHEET NO. B...8... OF B. 27...

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagracia	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahlekpour Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

REVISION	BY	C/K'D	DATE

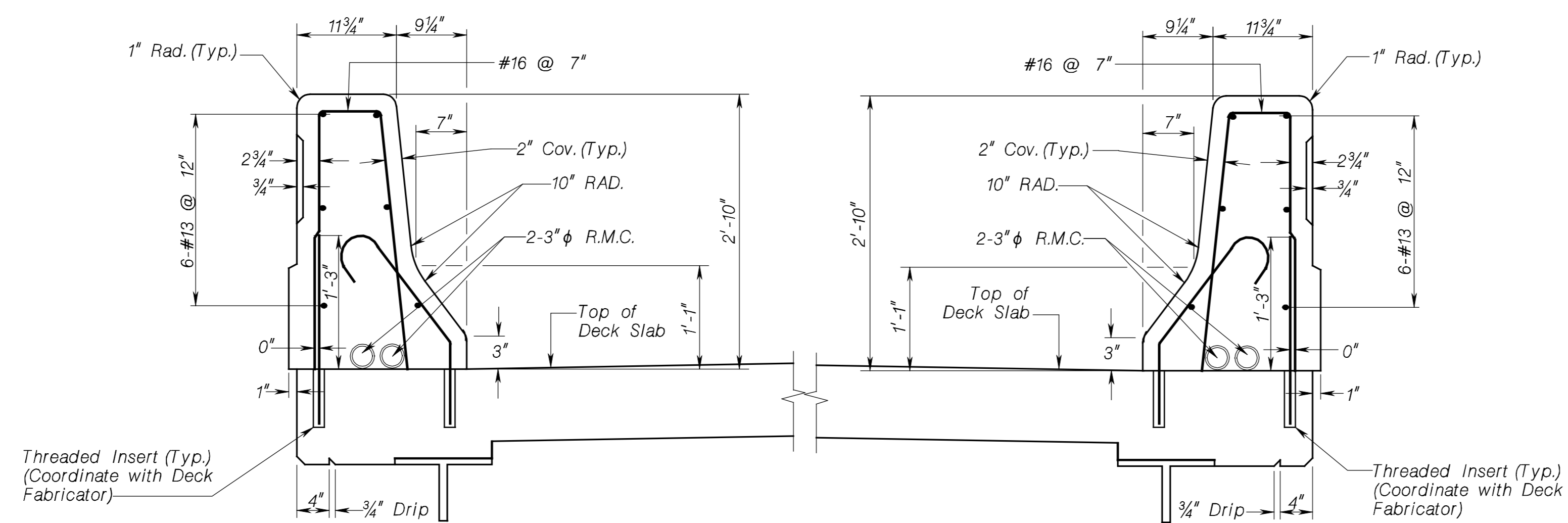
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159			
STRUCTURE NAME US ROUTE 1 OVER OLDEN AVE. CONNECTOR			



PLAN
Scale: 3/32" = 1'-0"

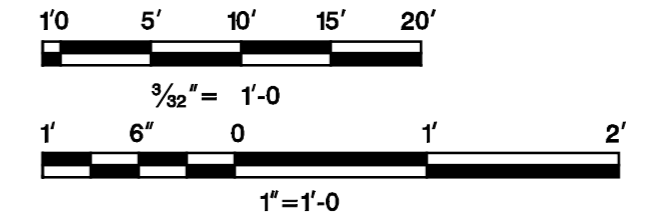
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PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
100	N5A01	CONCRETE IN SUPERSTRUCTURE, PARAPETS (HPC)	LF	310
	5A31E	REINFORCEMENT STEEL IN STRUCTURES, EPOXY COATED	LBS	2260
108	7A41C	3" RIGID METALLIC CONDUIT, TYPE CUG	LF	710
109	7A27J	10" x 36" JUNCTION BOXES	UNIT	4

Note: Cost of "REINFORCEMENT STEEL IN STRUCTURES, EPOXY COATED" shall be paid under item, "CONCRETE IN SUPERSTRUCTURE, PARAPETS (HPC)".



SECTION: A-A
Scale: 1" = 1'-0"

CONTROL SECTION	1101	JOB NO. 1101513
DES.	Jay Patel	CHK. Seth Ahiekpor
DWN.	Jay Patel	
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation	
SUBMITTED	Wilfredo Sia Manager - Structural Engineering	



REVISION	BY	C'K'D	DATE

ALL DIMENSIONS SHOWN ARE IN US UNITS

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

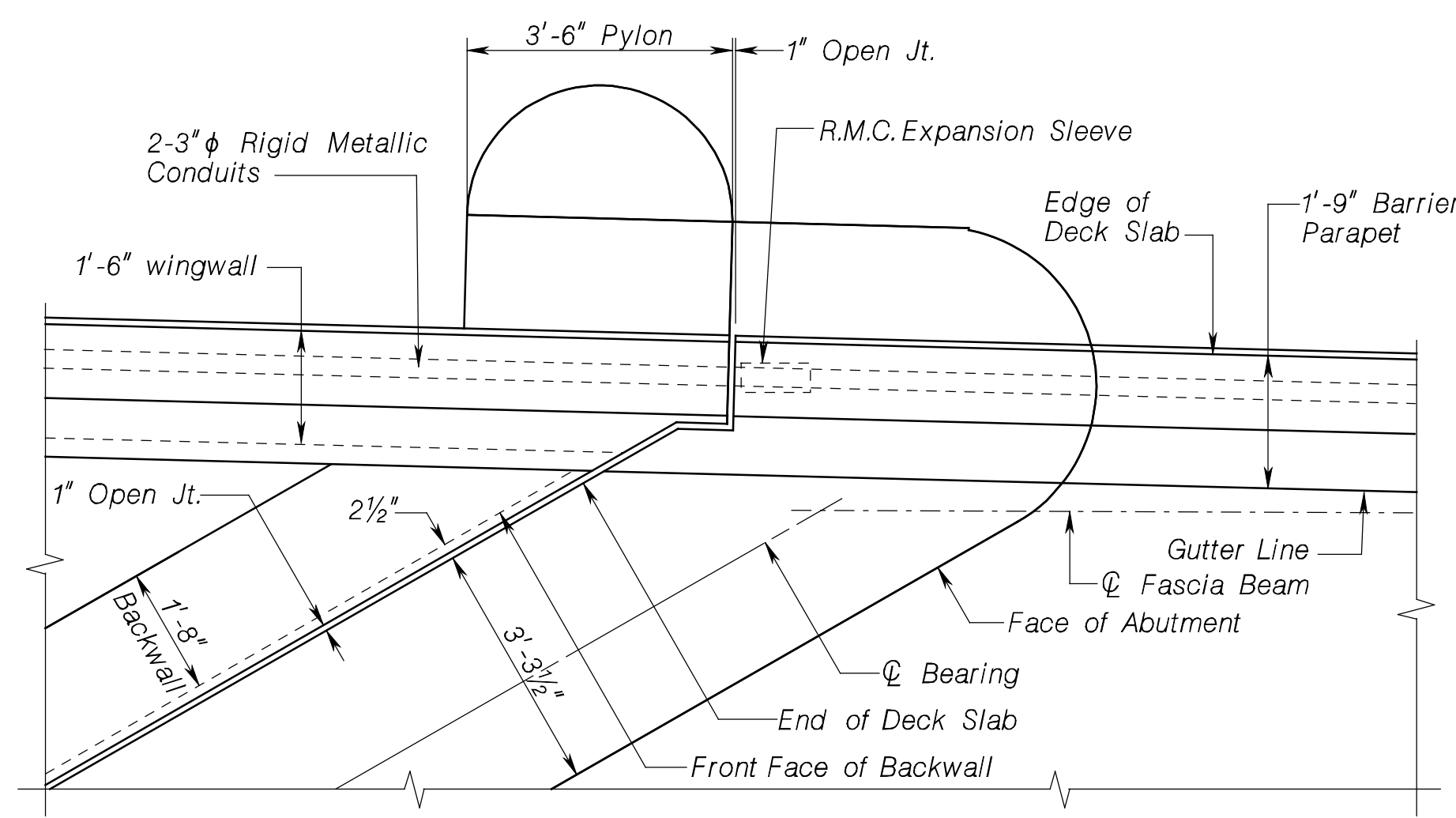
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(OLDEN AVE.)

ROUTE US 1 SECTION 1

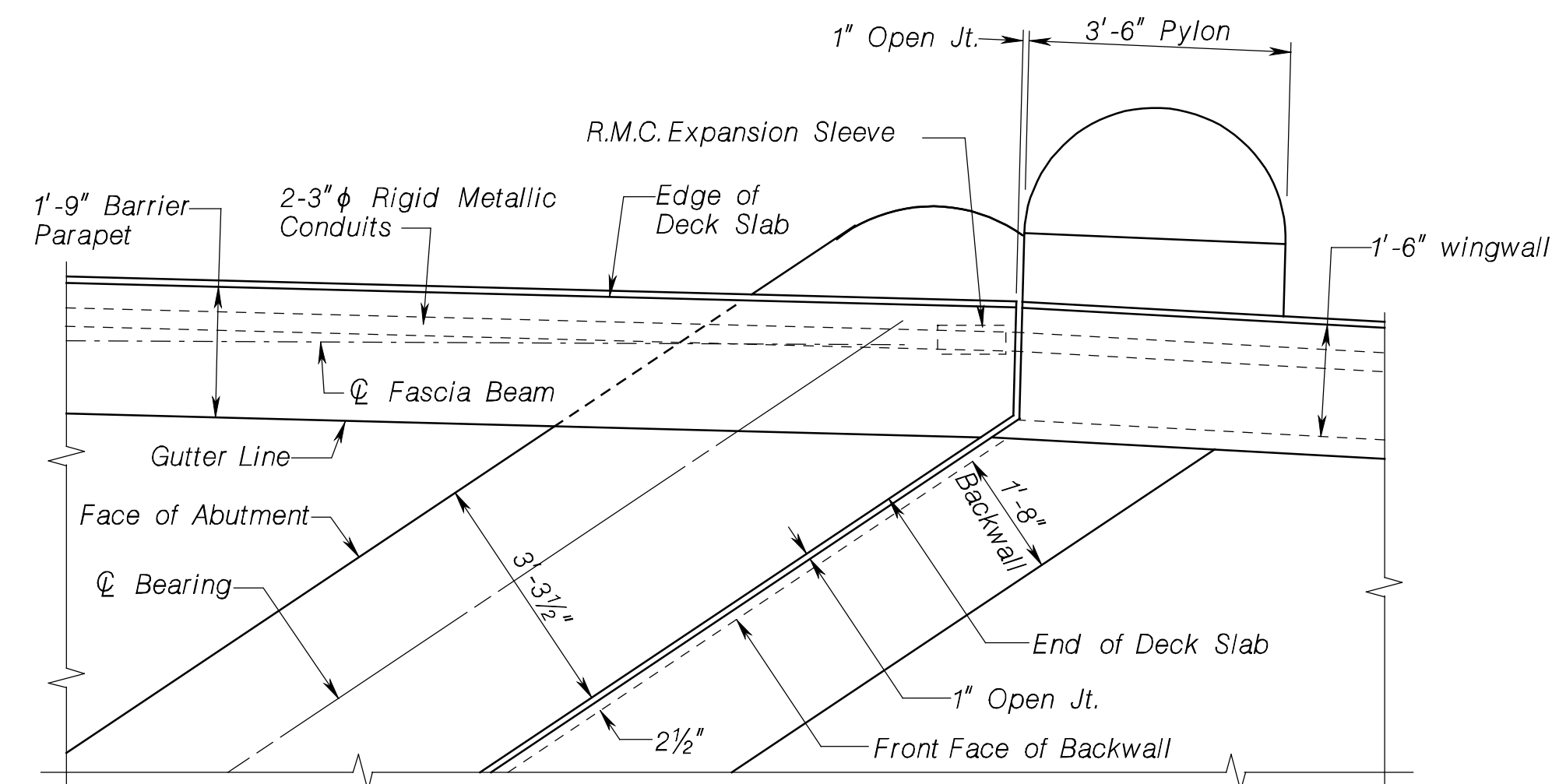
CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B. 9 OF B27

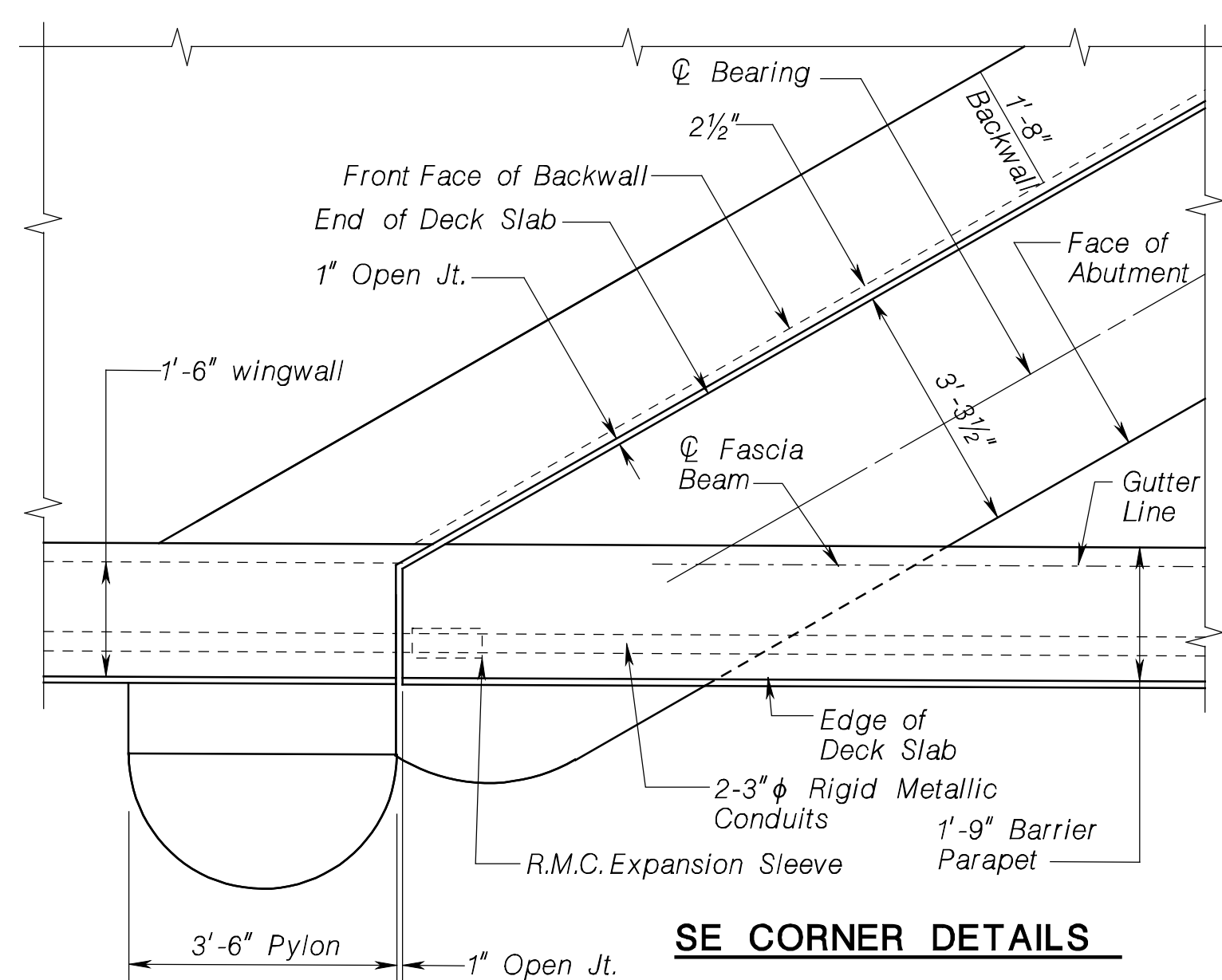
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159			
STRUCTURE NAME US ROUTE 1 OVER OLDEN AVE. CONNECTOR			



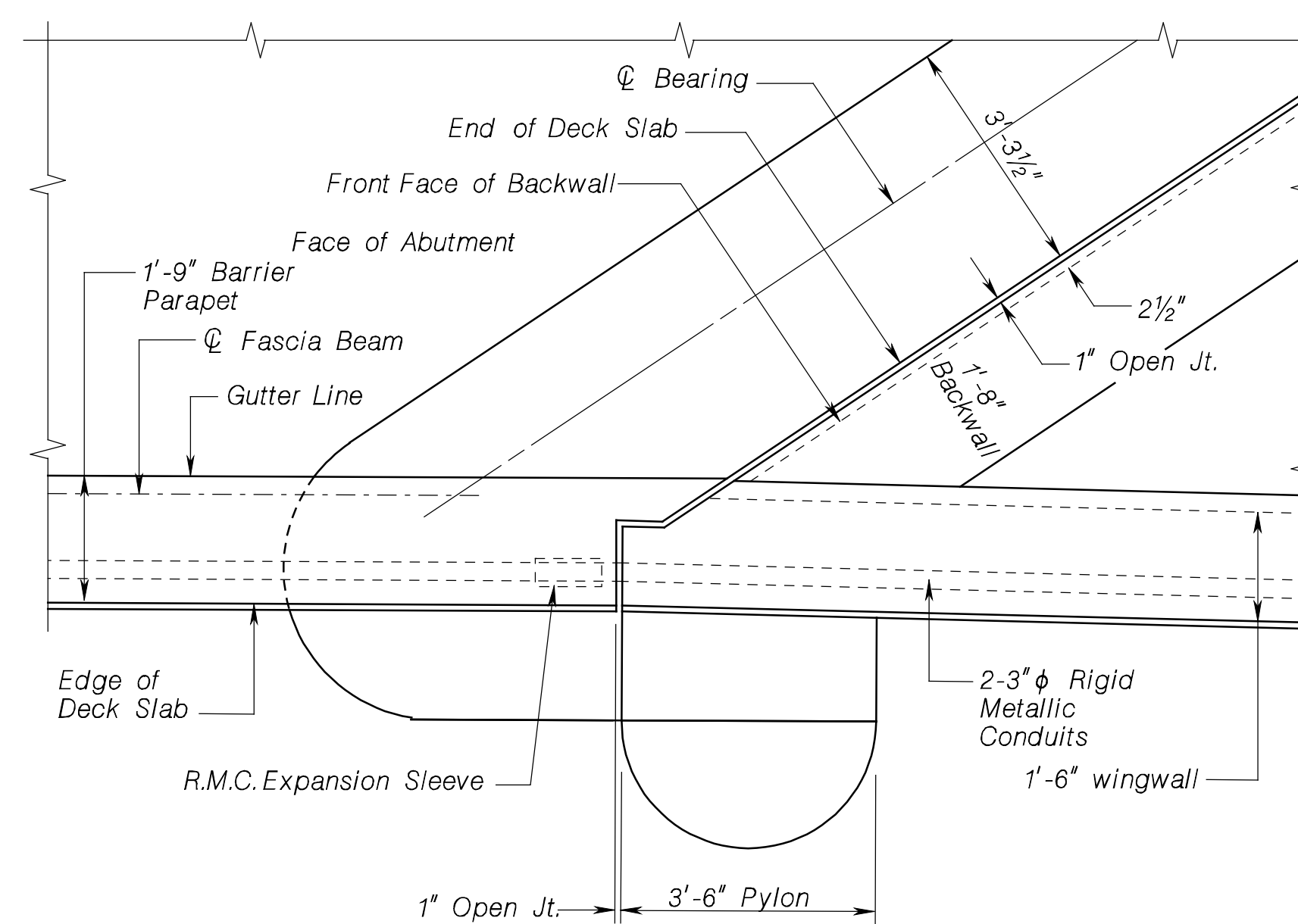
SW CORNER DETAILS



NW CORNER DETAILS



SE CORNER DETAILS



NE CORNER DETAILS

ALL DIMENSIONS SHOWN ARE IN US UNITS

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

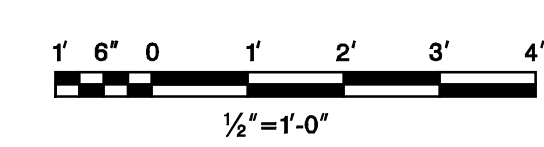
ARCHITECTURAL DETAILS NO. 2
(OLDEN AVE.)

ROUTE US 1 SECTION 1

CITY OF TRENTON
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B_10 OF B27

CORNER DETAILS
Scale: 1/2" = 1'-0"

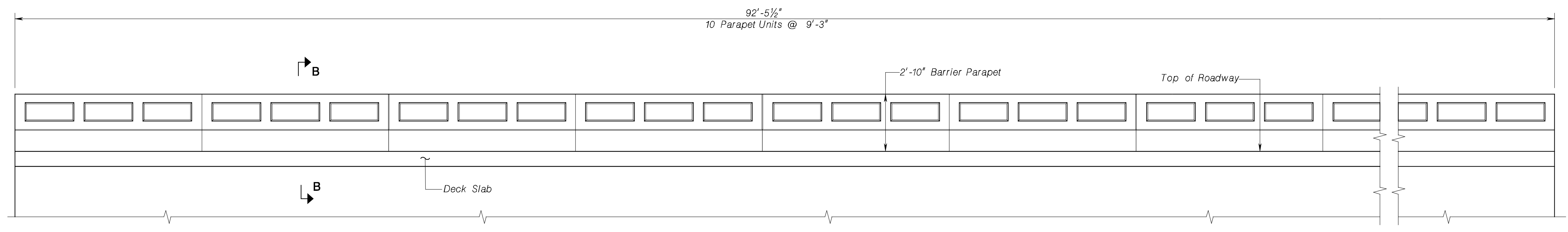


REVISION	BY	C'K'D	DATE

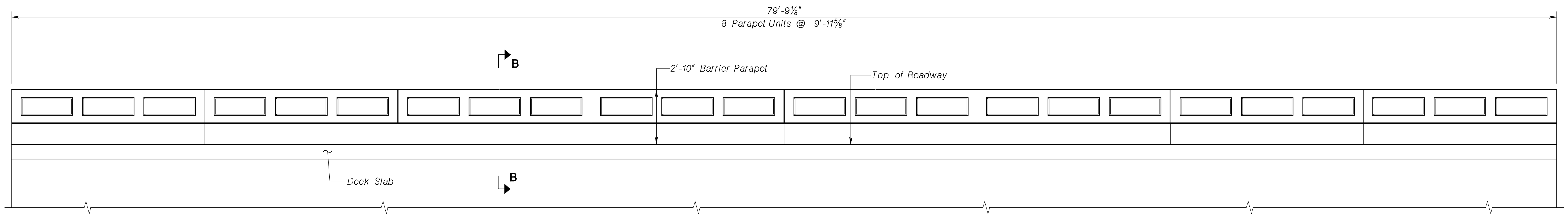
CONTROL SECTION	1101	JOB NO. 1101513
DES.	Jay Patel	CHK. Seth Ahiekpor
DWN.	Jay Patel	
IN CHARGE Seth Ahiekpor Project Engineer - Structural Transportation		
SUBMITTED Willfredo Sia Manager - Structural Engineering		

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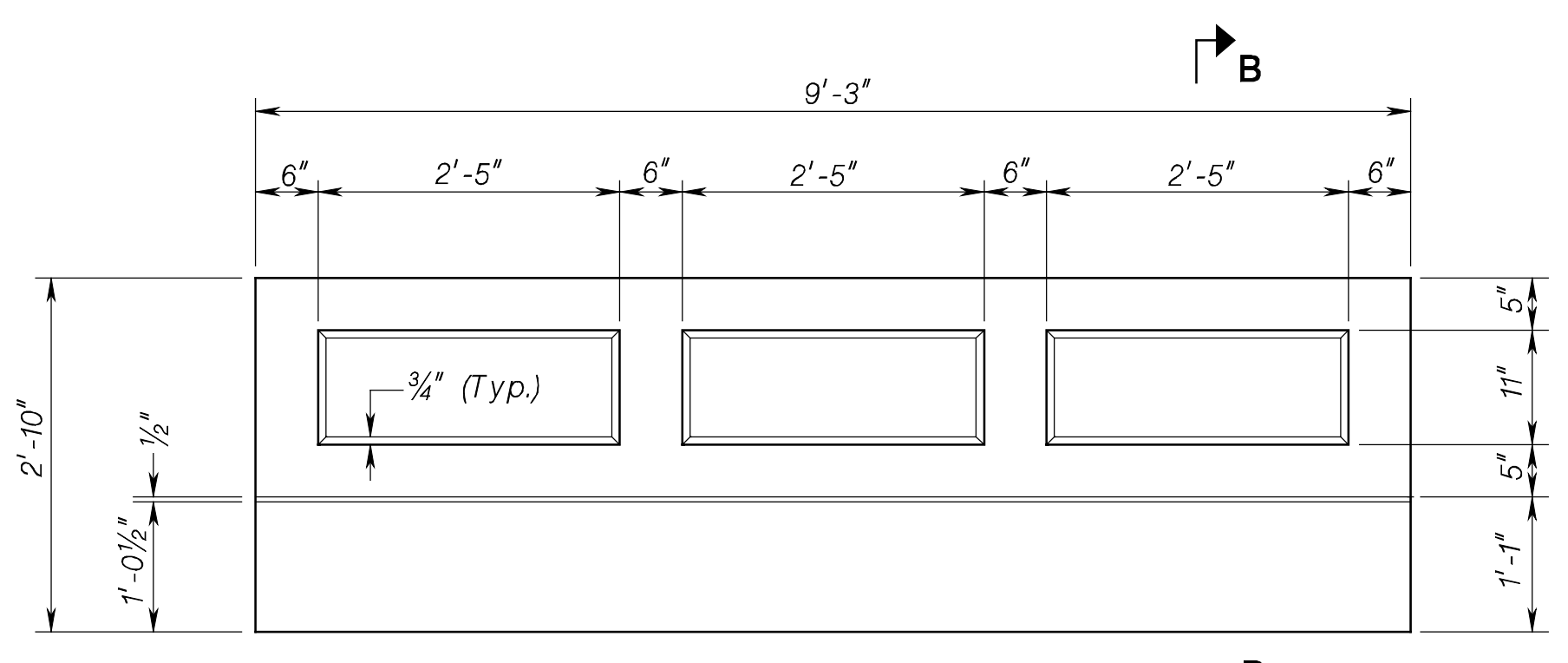
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159			
STRUCTURE NAME US ROUTE 1 OVER OLDEN AVE. CONNECTOR			



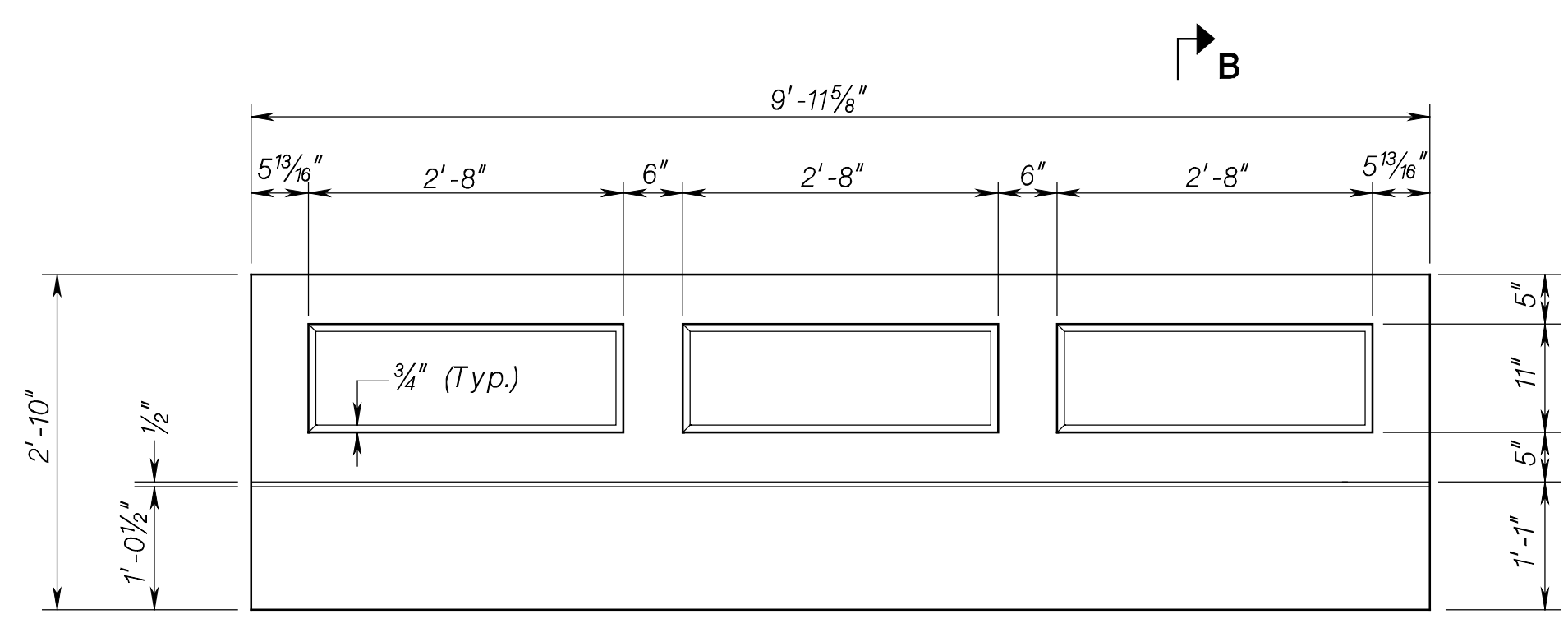
EXTERIOR ELEVATION - EAST BARRIER PARAPET - SPAN
Scale: 3/8" = 1'-0"



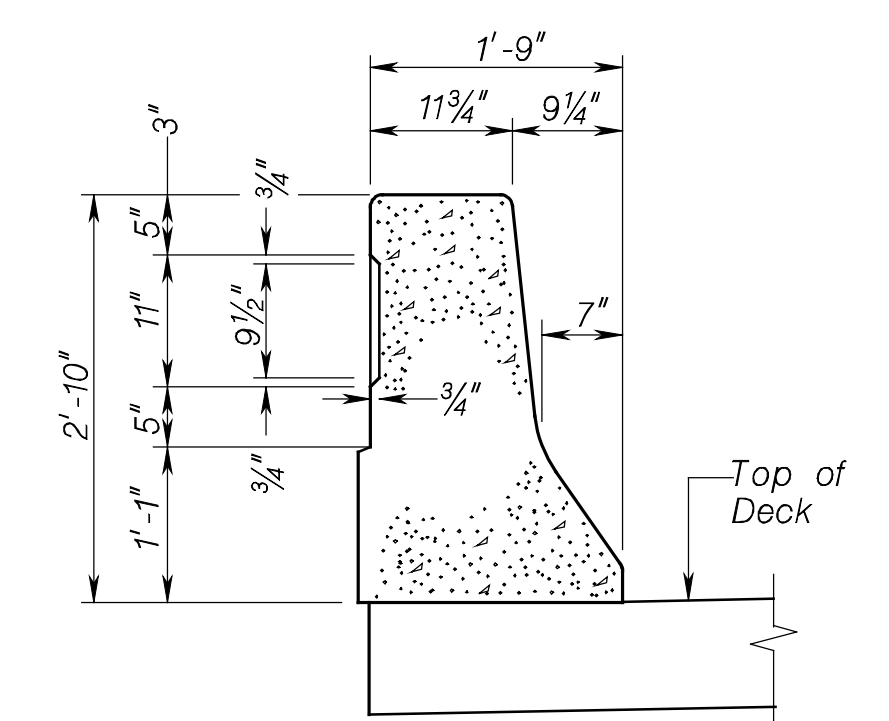
EXTERIOR ELEVATION - WEST BARRIER PARAPET - SPAN
Scale: 3/8" = 1'-0"



EXTERIOR ELEVATION - EAST BARRIER PARAPET UNIT
Scale: 3/4" = 1'-0"



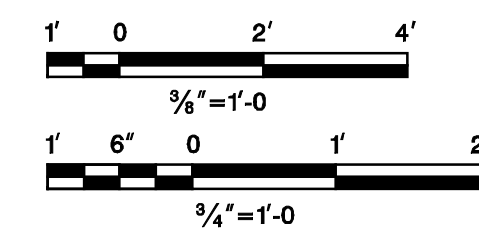
EXTERIOR ELEVATION - WEST BARRIER PARAPET UNIT
Scale: 3/4" = 1'-0"



SECTION: B-B
Scale: 3/4" = 1'-0"

ALL DIMENSIONS SHOWN ARE IN US UNITS

CONTROL SECTION	1101	JOB NO. 1101513
DES.	Jay Patel	CHK. Seth Ahiekpor
DWN.	Jay Patel	
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation	
SUBMITTED	Willfredo Sia Manager - Structural Engineering	



REVISION	BY	C'K'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

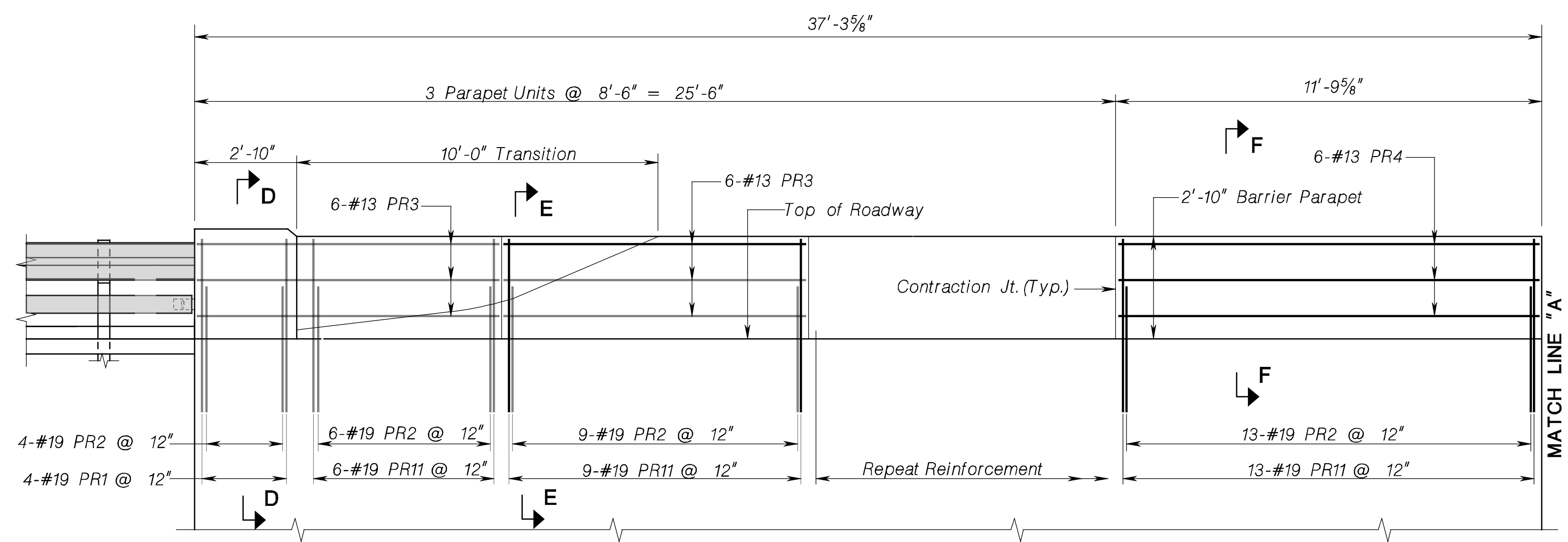
ARCHITECTURAL DETAILS NO. 3
(OLDEN AVE.)

ROUTE US 1 SECTION 1

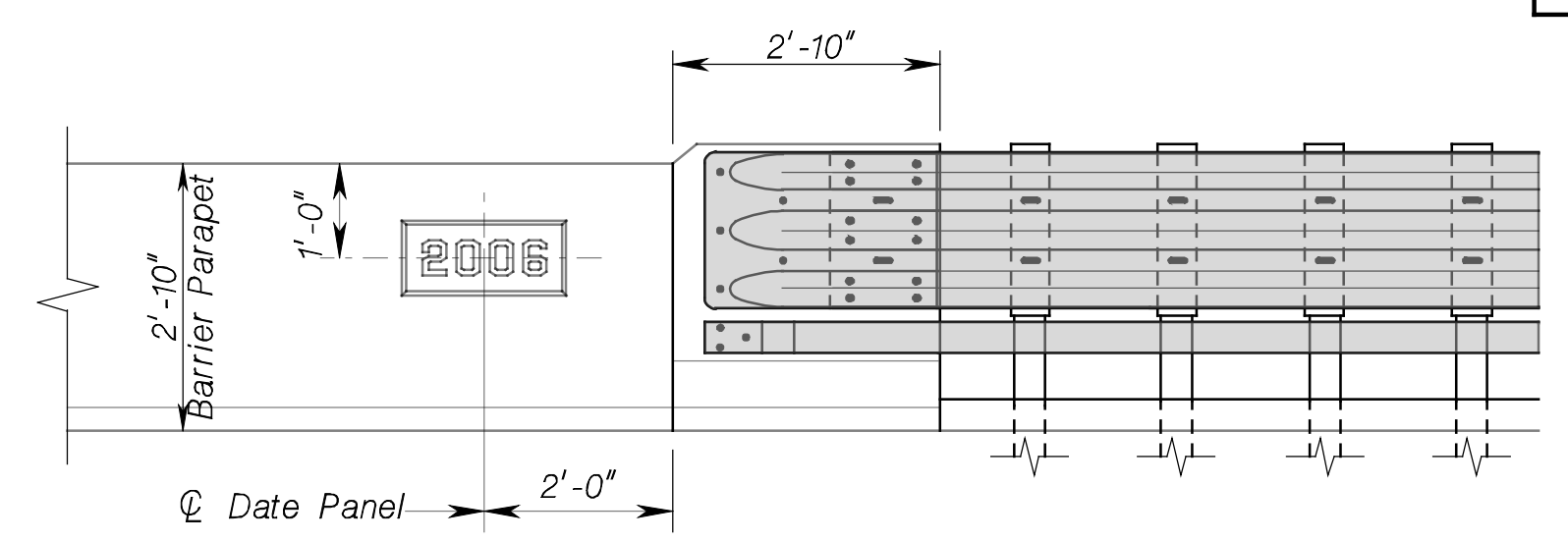
CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B. 11 OF B27

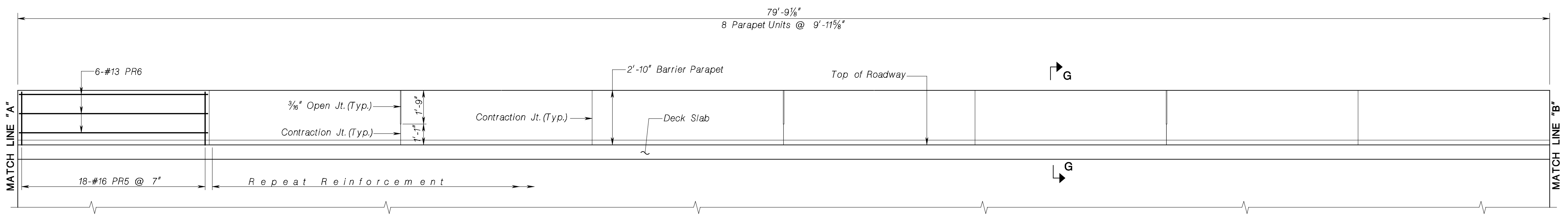
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159			
STRUCTURE NAME US ROUTE 1 OVER OLDEN AVE. CONNECTOR			



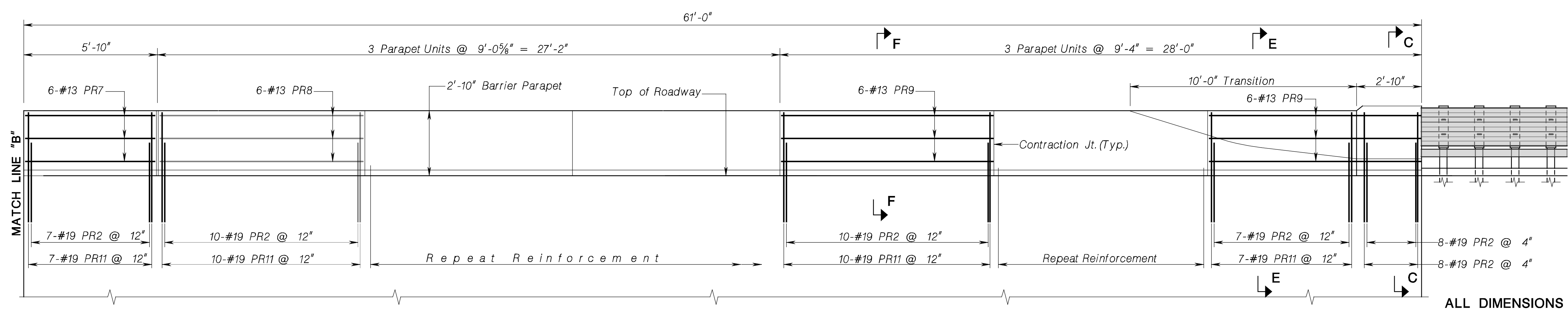
INTERIOR ELEVATION - BARRIER PARAPET - SW WINGWALL
Scale: 3/8" = 1'-0"



NUMERAL PANEL LOCATION DETAIL - NW PARAPET ONLY
Scale: 1/2" = 1'-0"



INTERIOR ELEVATION - WEST BARRIER PARAPET - SPAN
Scale: 3/8" = 1'-0"

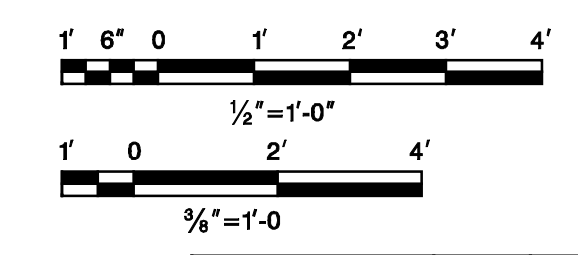


INTERIOR ELEVATION - BARRIER PARAPET - NW WINGWALL
Scale: 3/8" = 1'-0"

Note: For cross sections, see sheet "ARCHITECTURAL DETAILS NO. 6".

ALL DIMENSIONS SHOWN ARE IN US UNITS

CONTROL SECTION	1101	JOB NO. 1101513
DES.	Jay Patel	CHK. Seth Ahiekpor
DWN.	Jay Patel	
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation	
SUBMITTED	Willfredo Sia Manager - Structural Engineering	



REVISION	BY	C'K'D	DATE

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

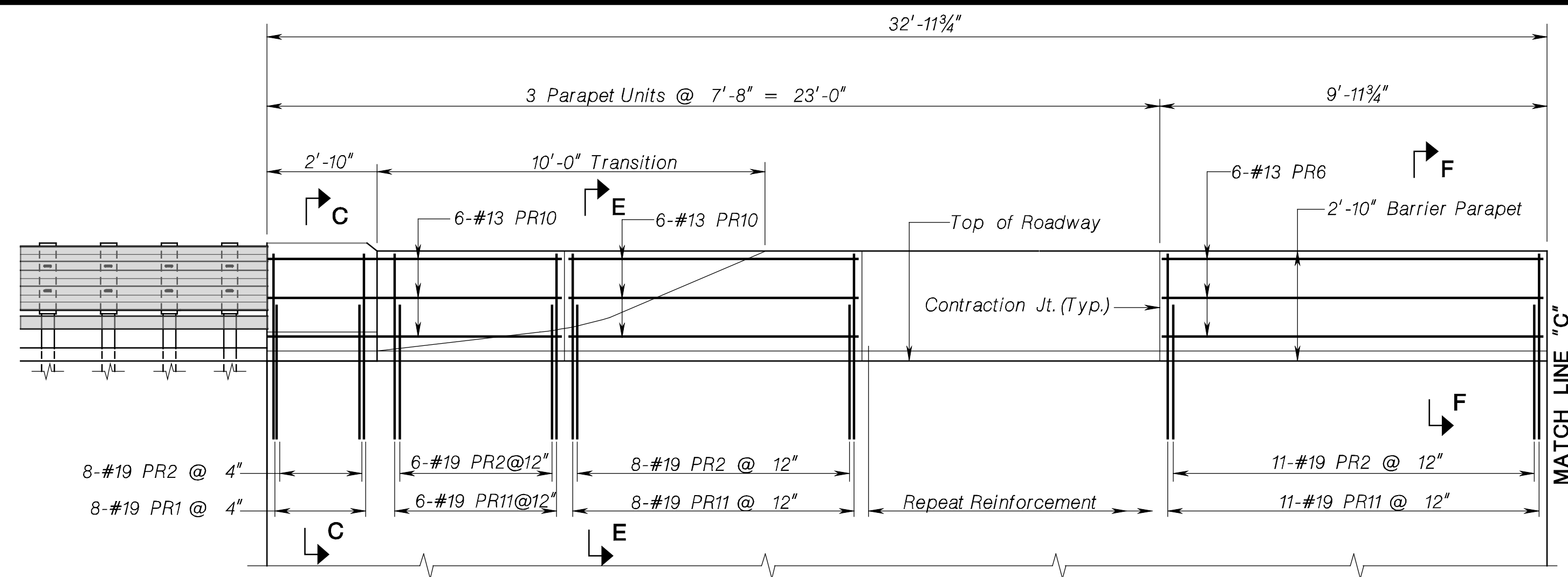
ARCHITECTURAL DETAILS NO. 4
(OLDEN AVE.)

ROUTE US 1 SECTION 1

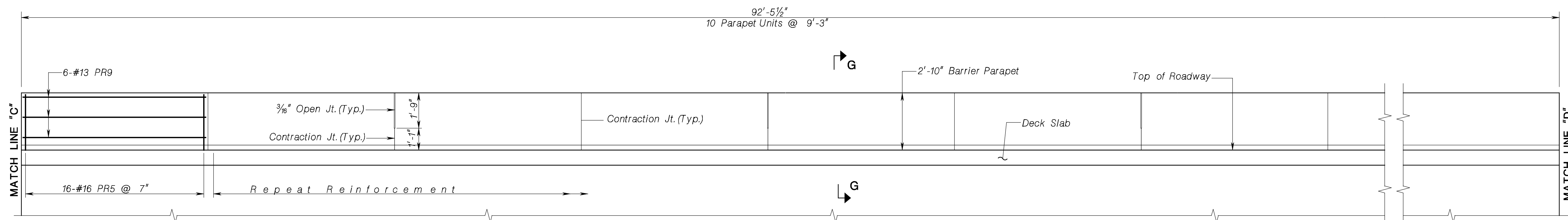
CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B.12 OF B27

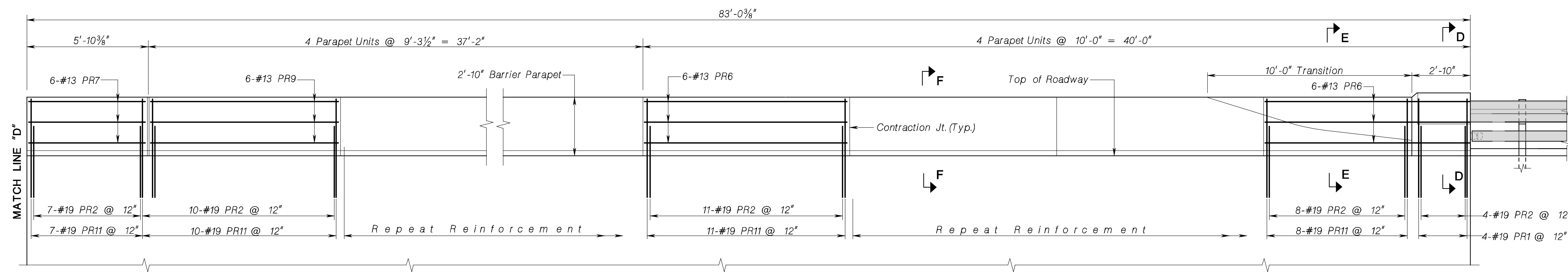
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159			
STRUCTURE NAME US ROUTE 1 OVER OLDEN AVE. CONNECTOR			



INTERIOR ELEVATION - BARRIER PARAPET - NE WINGWALL
Scale: 3/8" = 1'-0"



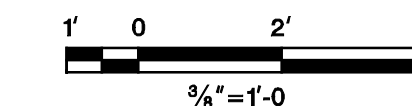
INTERIOR ELEVATION - EAST BARRIER PARAPET - SPAN
Scale: 3/8" = 1'-0"



INTERIOR ELEVATION - BARRIER PARAPET - SE WINGWALL
Scale: 3/8" = 1'-0"

Note: For cross sections, see sheet "ARCHITECTURAL DETAILS NO. 6".

CONTROL SECTION	1101	JOB NO. 1101513
DES.	Jay Patel	CHK. Seth Ahiekpor
DWN.	Jay Patel	
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation	
SUBMITTED	Willfredo Sia Manager - Structural Engineering	



ALL DIMENSIONS SHOWN ARE IN US UNITS

REVISION	BY	C/K/D	DATE

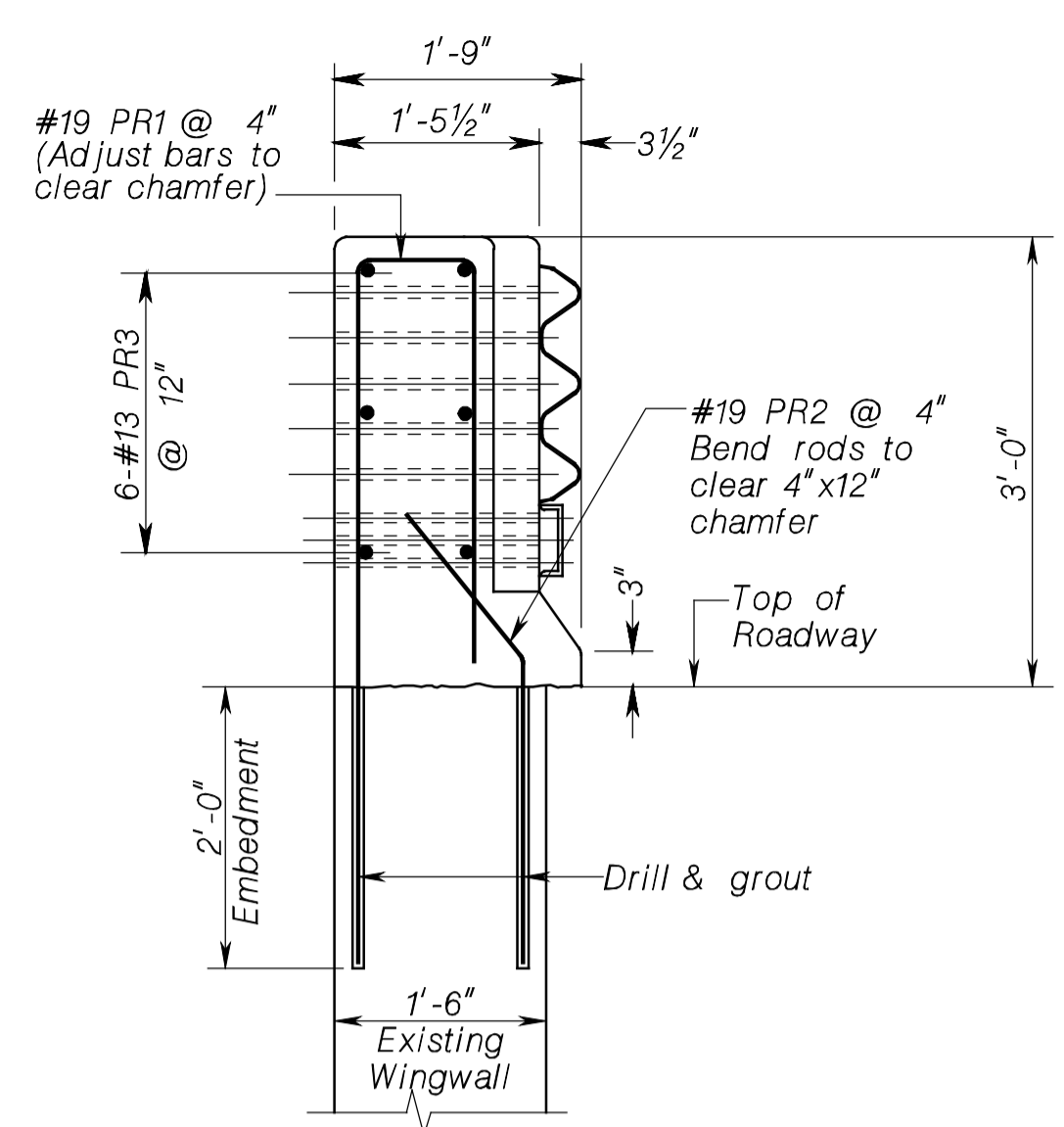
NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

ARCHITECTURAL DETAILS NO. 5
(OLDEN AVE.)

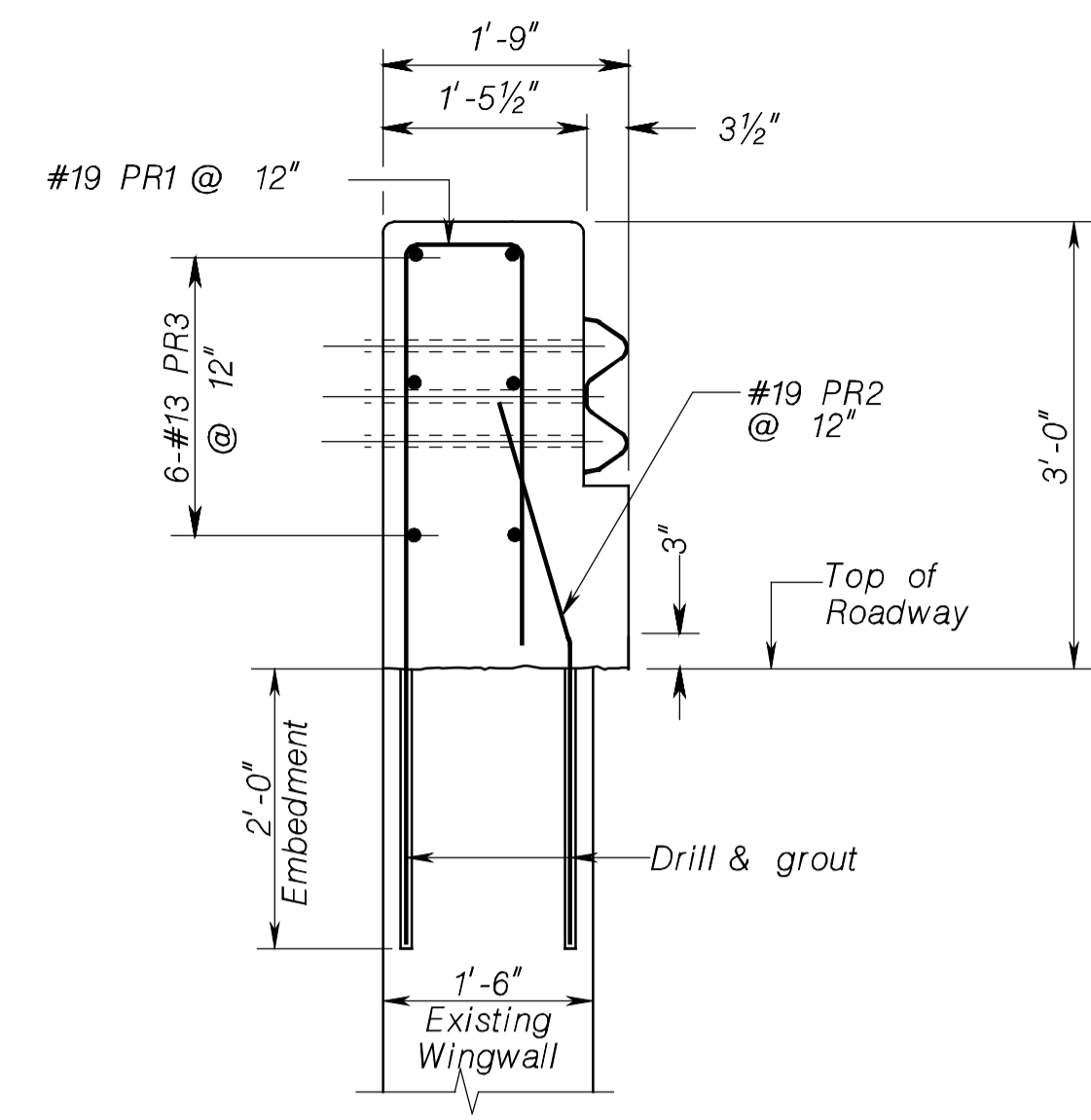
ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

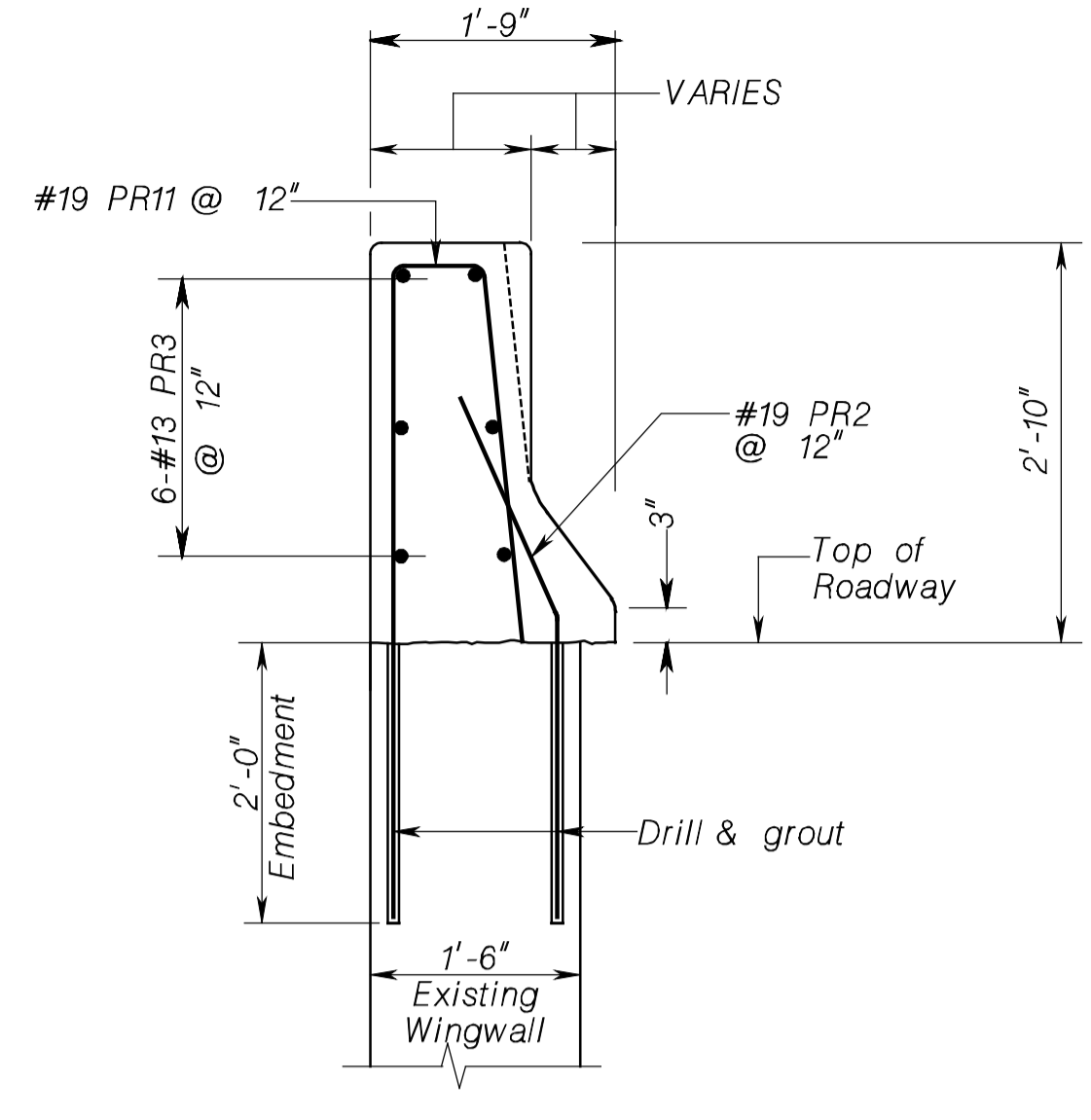
BRIDGE SHEET NO. B. 13 OF B27



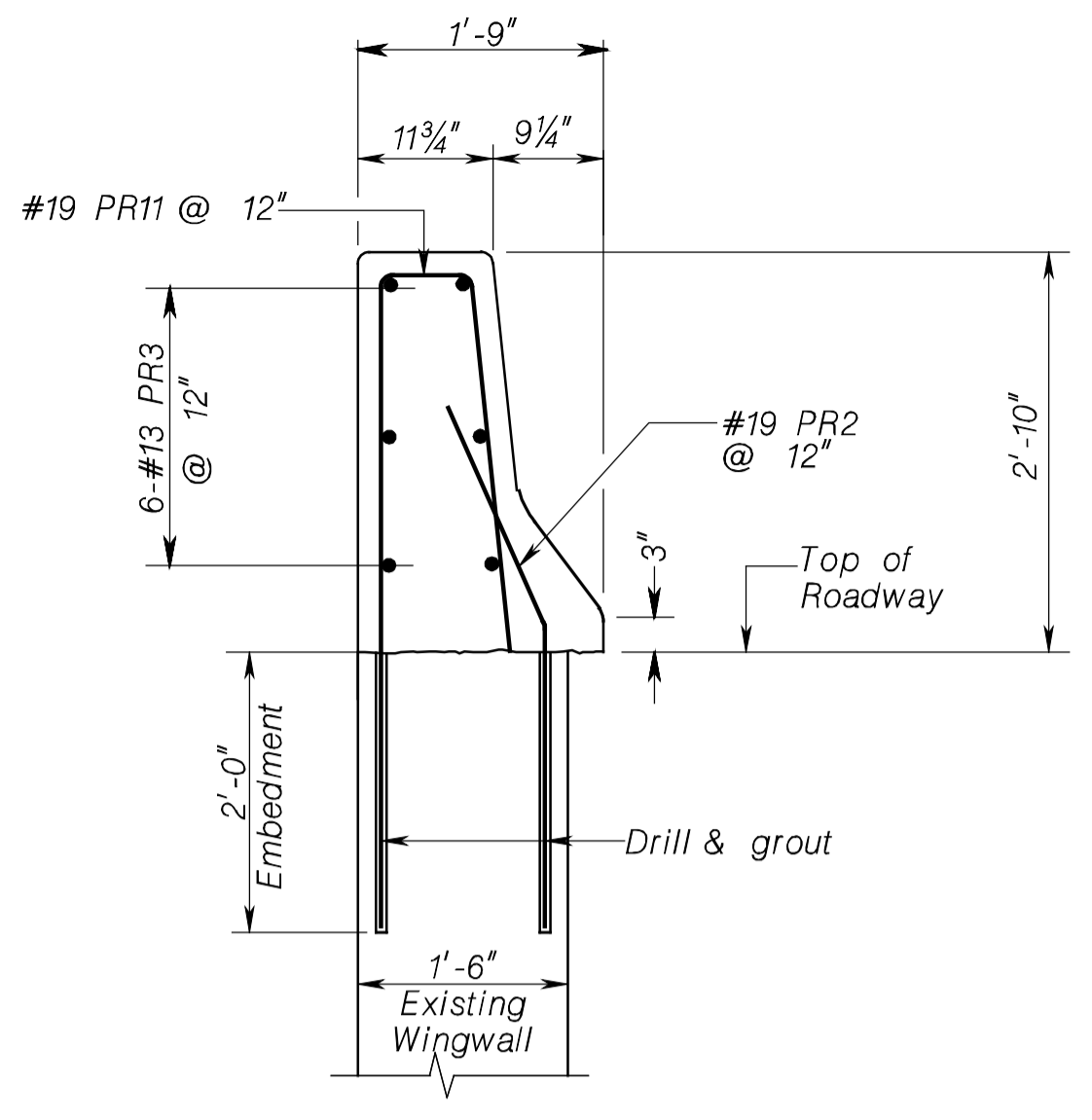
SECTION: C-C
Scale: 3/4"=1'-0"



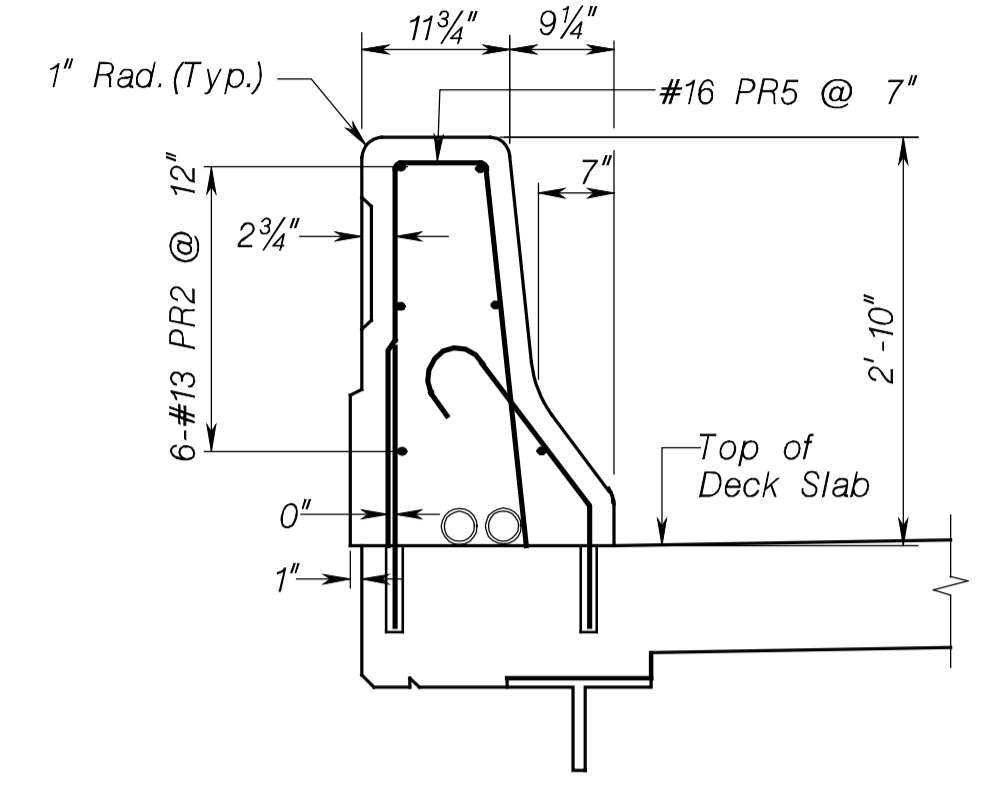
SECTION: D-D
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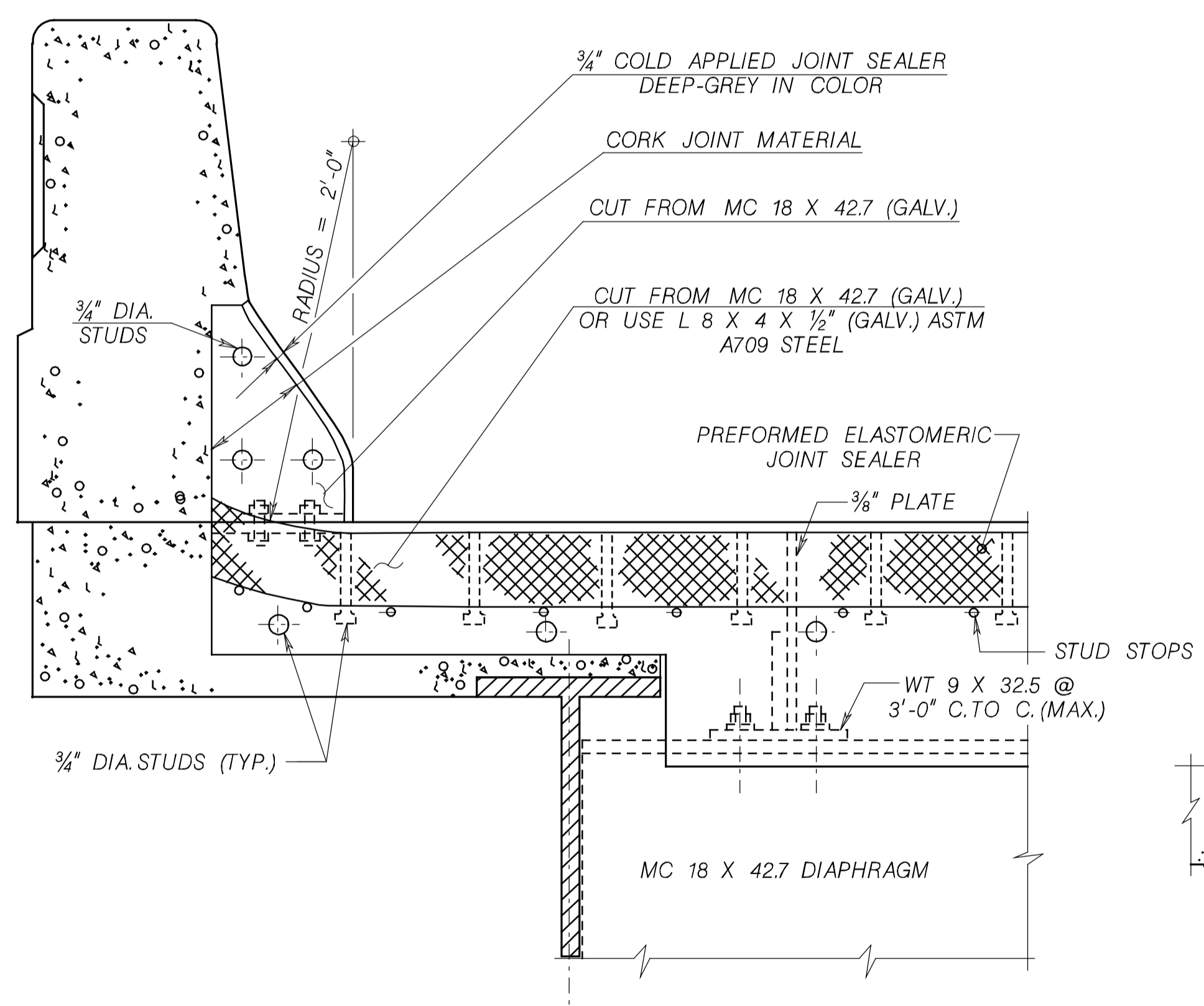
SECTION: E-E
Scale: 3/4"=1'-0"



SECTION: F-F
Scale: 3/4"=1'-0"

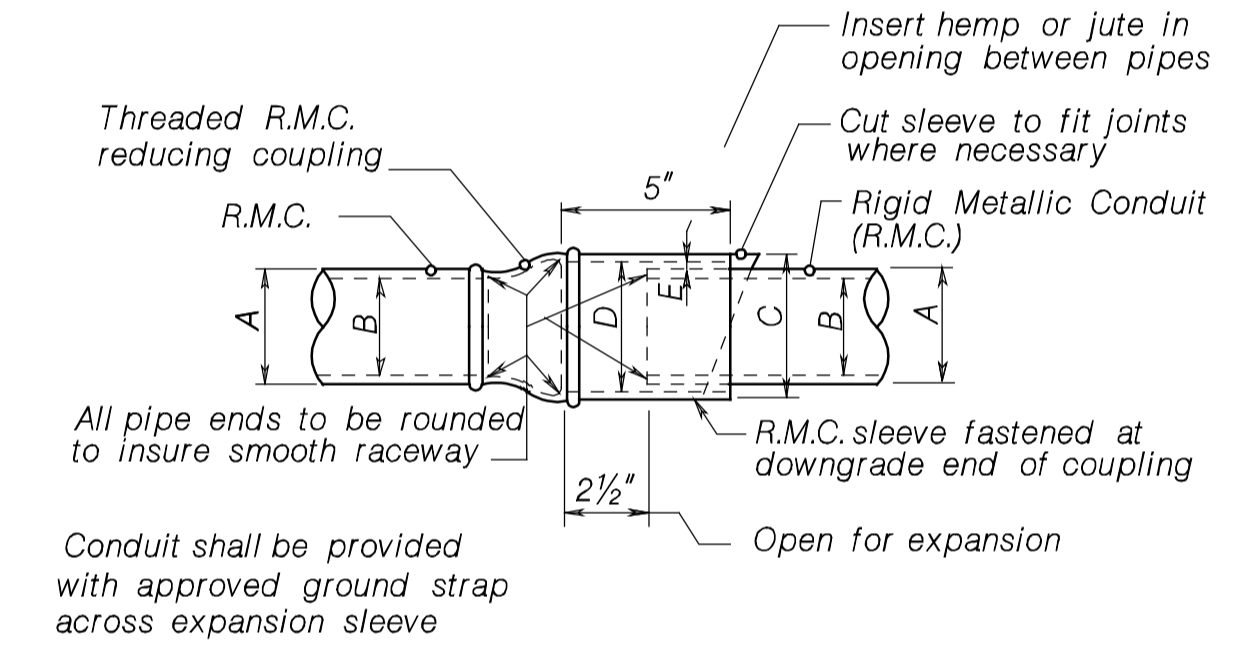
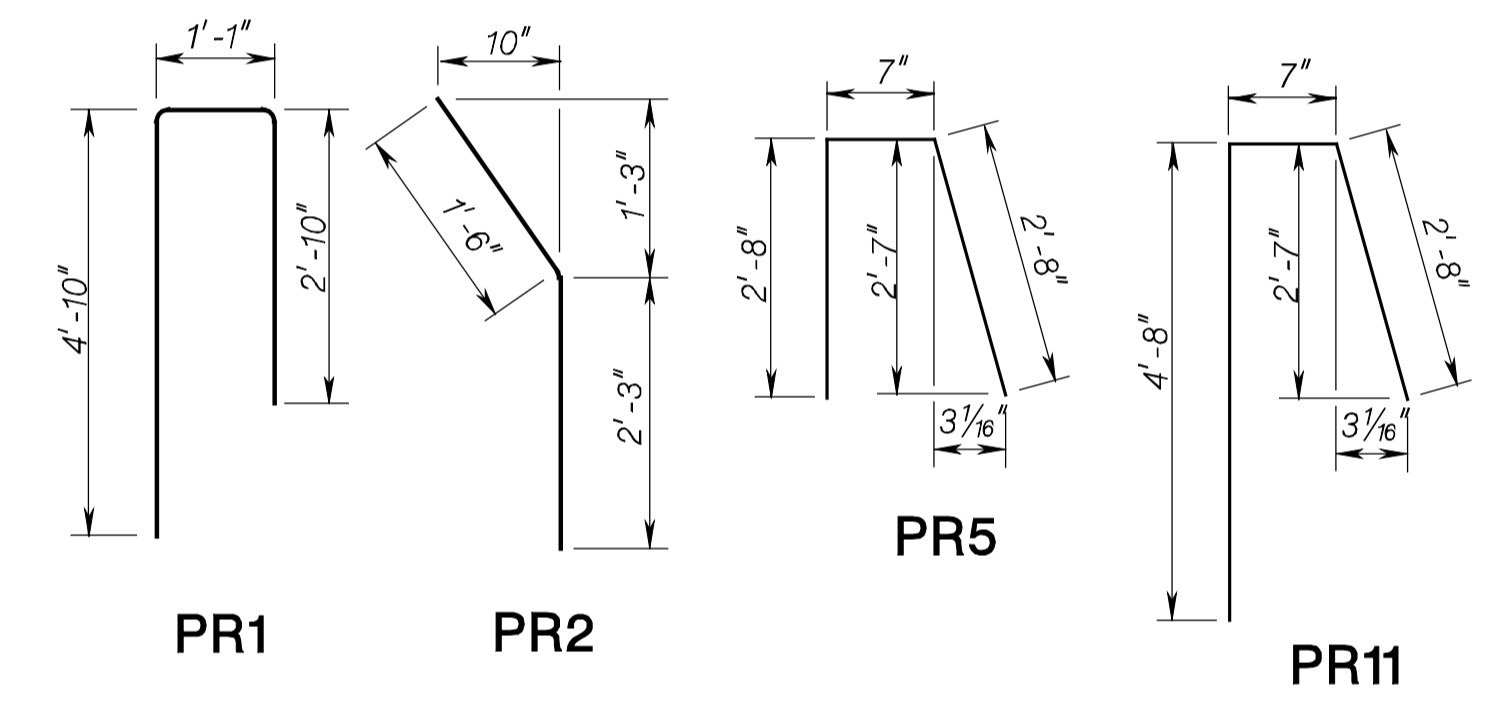


SECTION: G-G
Scale: 3/4"=1'-0"



LONGITUDINAL SECTION THROUGH JOINT AT ABUTMENT SHOWING STEEL ARMOR PLATE AT JOINT FOR BARRIER PARAPET
Scale: 1 1/2"=1'-0"

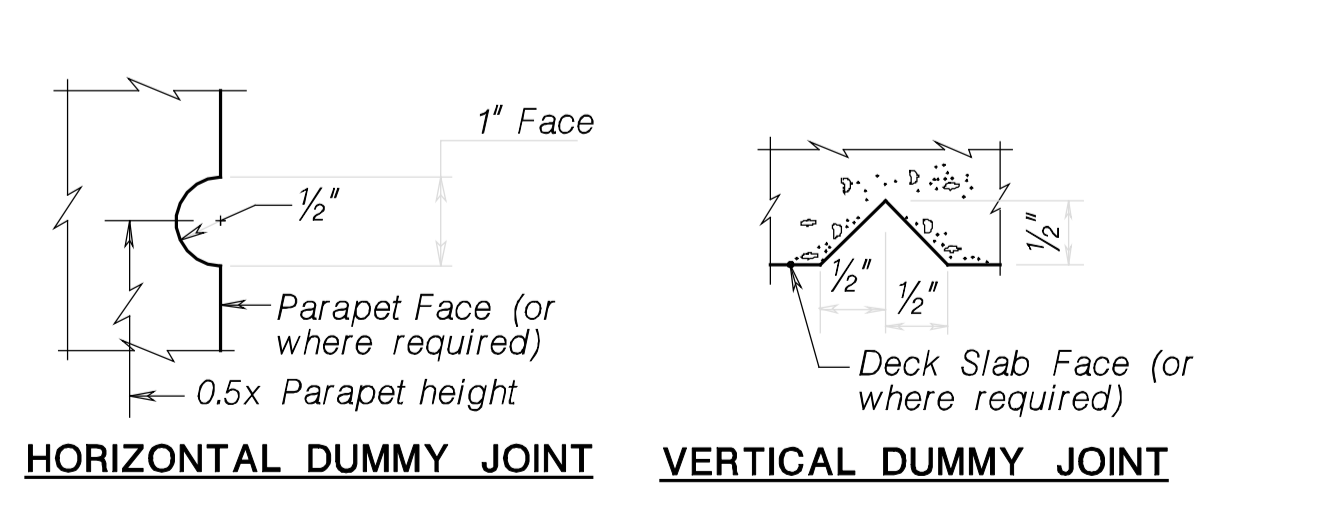
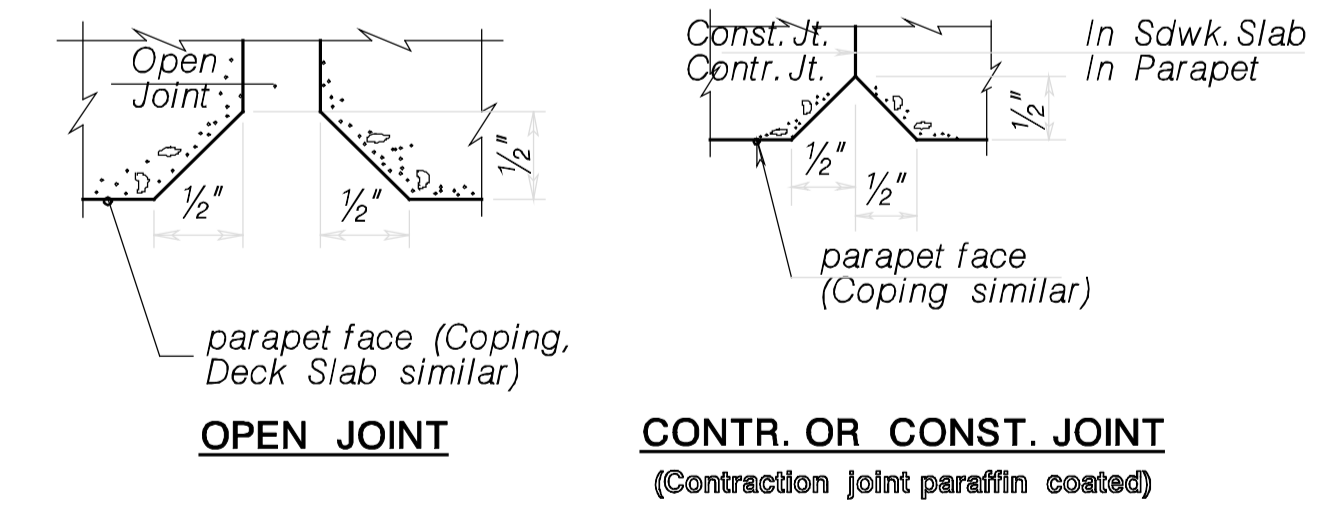
BAR SCHEDULE				
MARK	SIZE	LENGTH	NO.	TYPE
PR1	#19	8'-9"	24	DETAILED
PR2	#19	3'-9"	246	DETAILED
PR3	#13	8'-2"	18	STRAIGHT
PR4	#16	11'-5"	6	STRAIGHT
PR5	#16	5'-11"	304	DETAILED
PR6	#13	9'-5"	72	STRAIGHT
PR7	#13	5'-6"	12	STRAIGHT
PR8	#13	8'-8"	18	STRAIGHT
PR9	#13	8'-11"	102	STRAIGHT
PR10	#13	7'-4"	18	STRAIGHT
PR11	#19	7'-11"	222	DETAILED



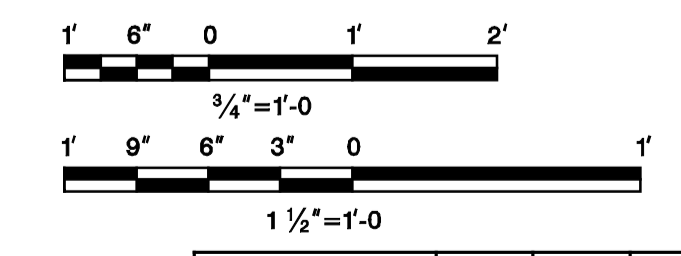
Nom. Dia.	R. M. C.		SLEEVE			Nominal Reducing Coupling	Clearance E
	Ext. Dia. A	Int. Dia. B	Nom. Dia.	Ext. Dia. C	Int. Dia. D		
1 1/2"	1.900	1.610	2 1/2"	2.875	2.469	2 1/2" to 1 1/2"	9/32"
2"	2.375	2.067	3"	3.500	3.068	3" to 2"	7/32"
3"	3.500	3.068	4"	4.500	4.026	4" to 3"	1/4"
4"	4.500	4.026	5"	5.563	5.047	5" to 4"	1/4"

Expansion sleeves shall be as provided in all fittings and details shown elsewhere as shown or approved. R.M.C. and all fittings shall be hot-dip galvanized.

DETAILS OF R.M.C. EXPANSION SLEEVE



NOTES:
Date shall be year of completion of the structure.
Numerals proposed for use shall be approved by the Engineer.
Cost of the panel shall be included in the price bid for concrete containing the panel.



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CONTROL SECTION	1101	JOB NO.	1101513
DES.	Jay Patel	CHK.	Seth Ahiekpor
DWN.	Jay Patel		
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

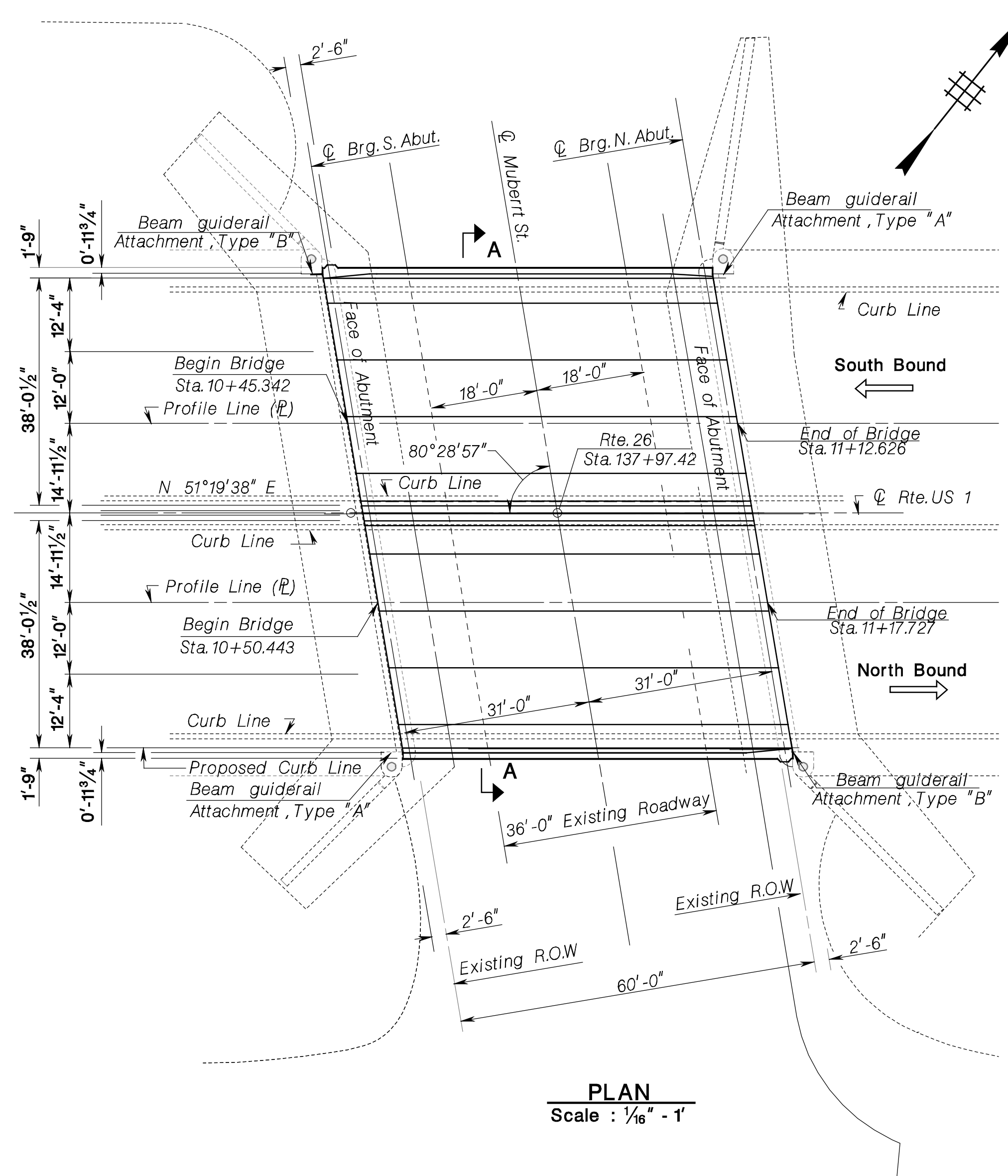
ARCHITECTURAL DETAILS NO. 6
(OLDEN AVE.)

ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B. 14 OF B27

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-161			
STRUCTURE NAME US ROUTE 1 OVER MULBERRY ST.			



GENERAL NOTES

- Design Specifications**
2002 (17th Edition) AASHTO Standard Specifications for Highway Bridges (with Interim Revisions) as AASHTO by Section 3A of NJDOT Design Manual for Bridges and Structures.
- Construction Specifications**
2001 NJDOT Standard Specifications for Road and Bridge Construction with current Supplemental Specifications, as modified by the Special Provisions.
- Live Load**
AASHTO HS20 + 25% (HS25) or tandem 24 kips axles at 4 foot centers, whichever governs.
- Concrete Design Stresses**
 - Design Compressive Strengths - (f'c)**
(In accordance with the Retest Limit for Pay-Adjustment Items as specified in Table 914-4 of the NJDOT Standard Specifications and as modified by the Special Provisions)
 - Class P 5,000 psi
 - Class B 3,000 psi

(The retest limit for non-pay-adjustment items shall be as specified on the last line of Table 914-4 of the NJDOT Standard Specifications and as may be modified by the Special Provisions)
 - Class Mix Design Strengths**
(In accordance with Table 914-3 of the NJDOT Standard Specifications)
 - Class P 5,500 psi
 - Class B 3,700 psi
- Reinforcement Steel**
ASTM A615M (Grade 60)

- Superstructure**
dead load includes a 25 lbs./sq.ft. provision for future 2 inch thick concrete overlay protective system on the bridge deck.

Structural Steel: AASHTO M270, Grade 50W with Supplementary Requirements for Notch Toughness for all member components marked (T).

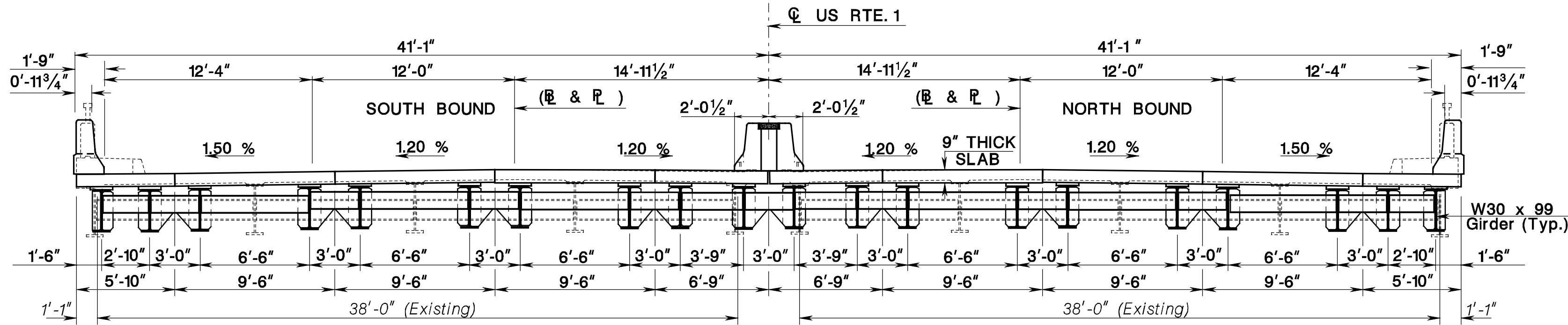
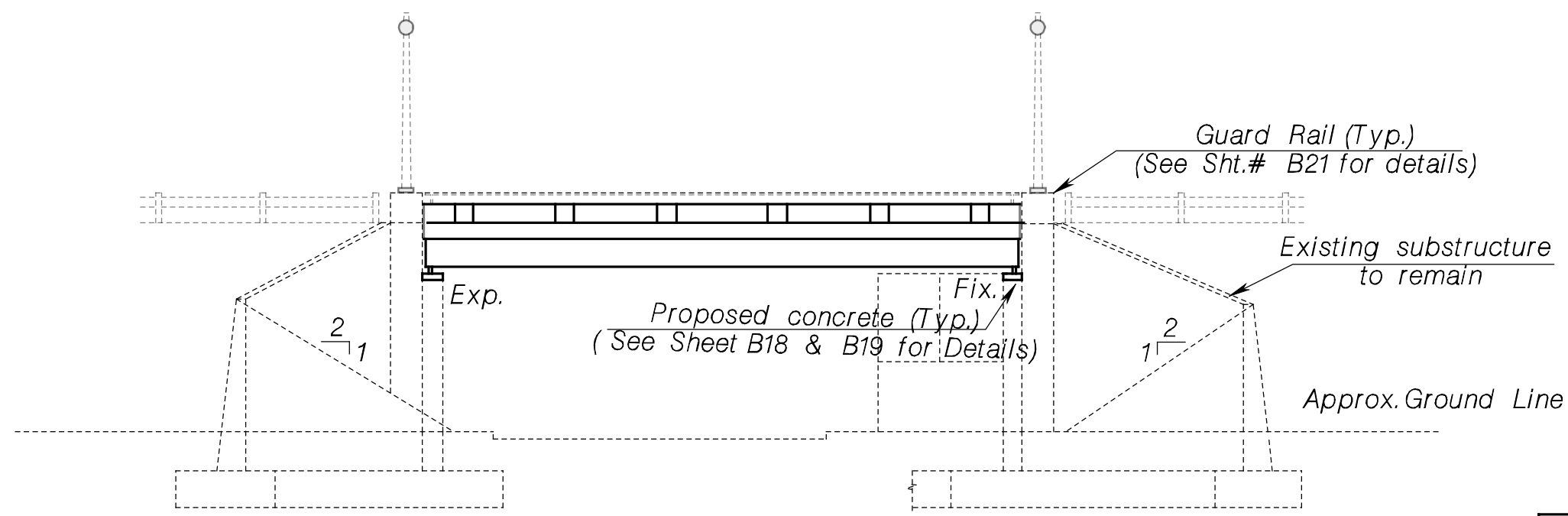
Structural Steel painting system and finish coat color, see Sheet B20.

High Performance Concrete Mix designed to be used for deck slabs, pylons & parapets.

The dimensions of existing bridge were reproduced from NJDOT Microfilm File Reference No. A1101-159. The information presented is for informational purposes only and is not guaranteed to be correct. The Contractor shall examine and verify in the field all conditions and dimensions. He shall take all such field measurements to assure proper fit of the finished work and shall assume full responsibility for their accuracy.

If field conditions and dimensions differ from those shown on the plans, the Contractor shall use the field measurements and make the appropriate changes to those shown on the plans when shop drawings are submitted for Engineer's approval. The field measurement shall be indicated on the shop drawings submitted.

Separate payment will not be made for the verification of existing field conditions and dimensions or associated plan revisions and all cost, thereof, will be included in the bid price for various pay items.



SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
81	2A31C	CLEARING SITE, BRIDGE	LS	LUMP SUM
82	2A21B	TEMPORARY SHIELDING	LS	LUMP SUM
83	N5A04	CONCRETE IN SUBSTRUCTURES, ABUTMENT WALLS - RSLMC	CY	25
84	N5A01	CONCRETE IN SUPERSTRUCTURES, PARAPET - HPC	LF	145
85	N5A02	PRECAST MEDIAN PARAPET - HPC	LF	136
86	5A31E	REINFORCEMENT STEEL IN STRUCTURES, EPOXY-COATED	LB	4550
87	5A31G	EPOXY WATERPROOFING SEAL COAT	SY	65
88	5A20H	1-3/4" x 1-3/4" PREFORMED ELASTOMERIC, JOINT SEALER	LF	165
89	N5A03	DIAMOND GRINDING OF CONCRETE	SF	5280
90	5C22D	STRUCTURAL STEEL DECK JOINT (14,300 LBS.)	LS	LUMP SUM
91	9Z99Z	NO ITEM		
92	5C41H	STRUCTURAL BEARING ASSEMBLY	UNIT	40
93	N5C05	PREFABRICATED SUPERSTRUCTURE UNITS	SF	5500
94	7A41C	3" RIGID METALLIC CONDUIT, TYPE CUG	LF	370
95	7A27J	10"x36" JUNCTION BOXES	UNIT	4
96	9Z99Z	NO ITEM		
97	9Z99Z	NO ITEM		

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

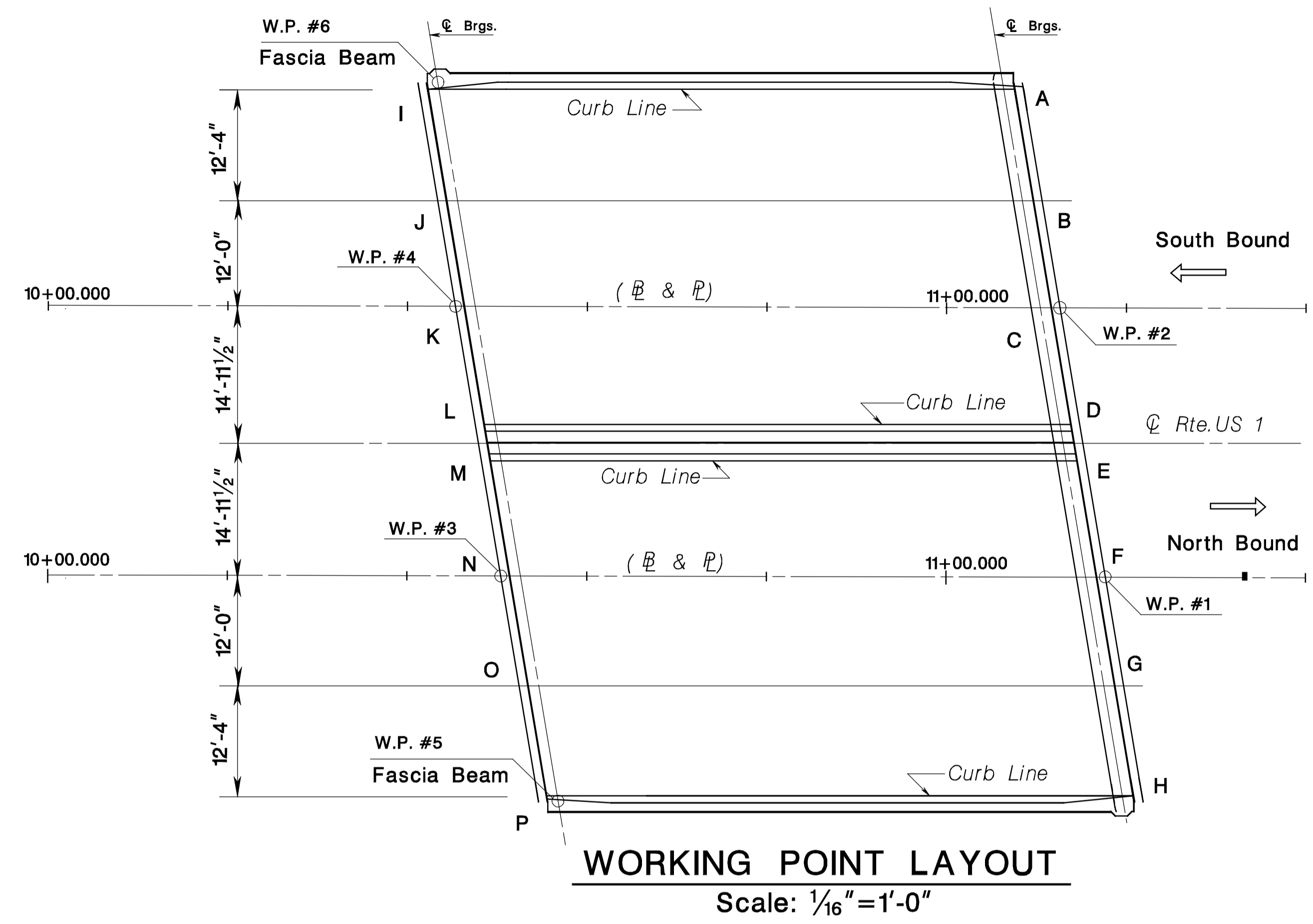
GENERAL PLAN AND ELEVATION
MULBERRY ST. (SHEET 1)
ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY
BRIDGE SHEET NO. B...15 OF B. 27.

REVISION	BY	C/K'D	DATE

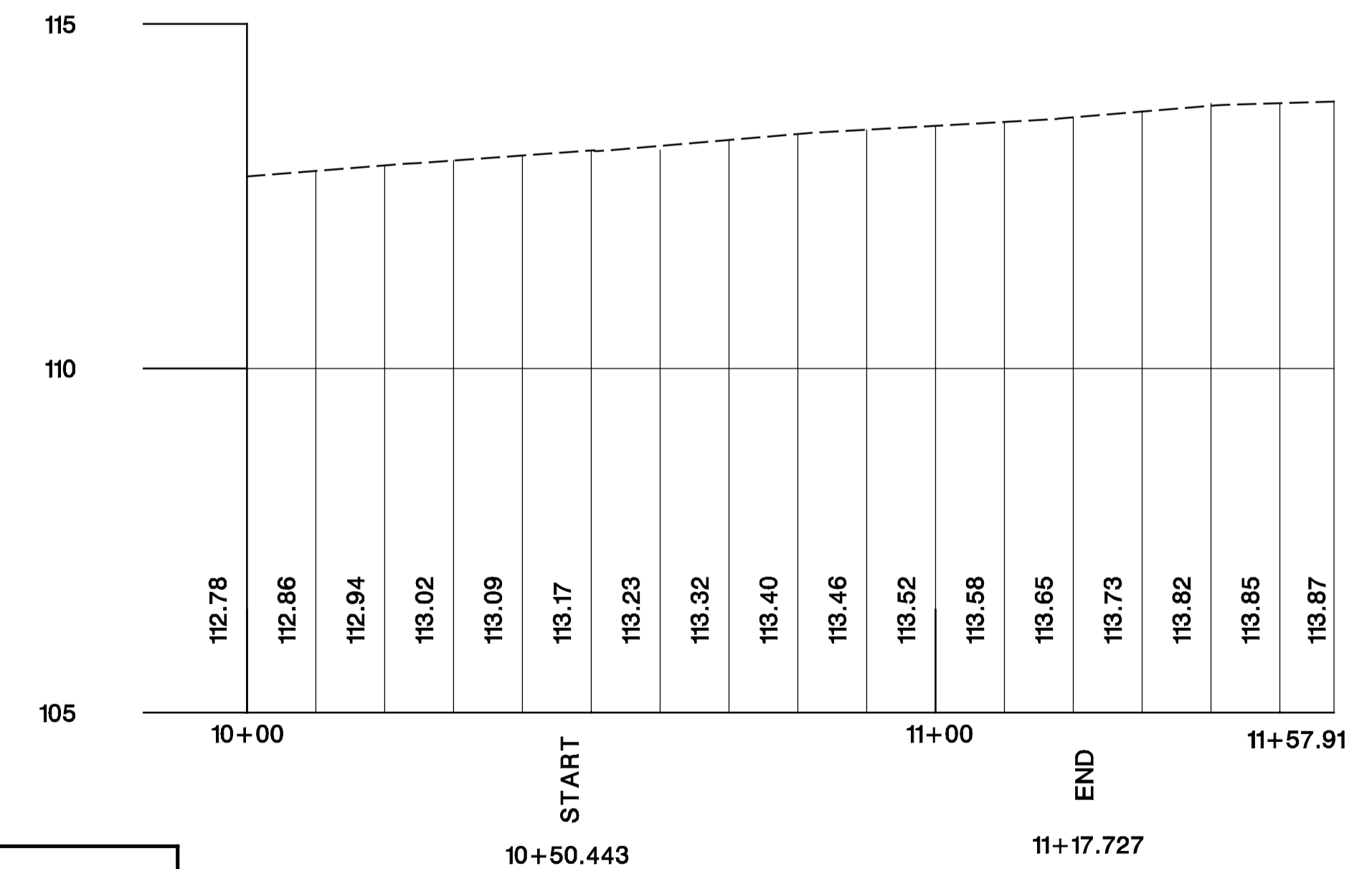
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NOTES
For lettered A through P joint locations and elevations, see deck sheet.

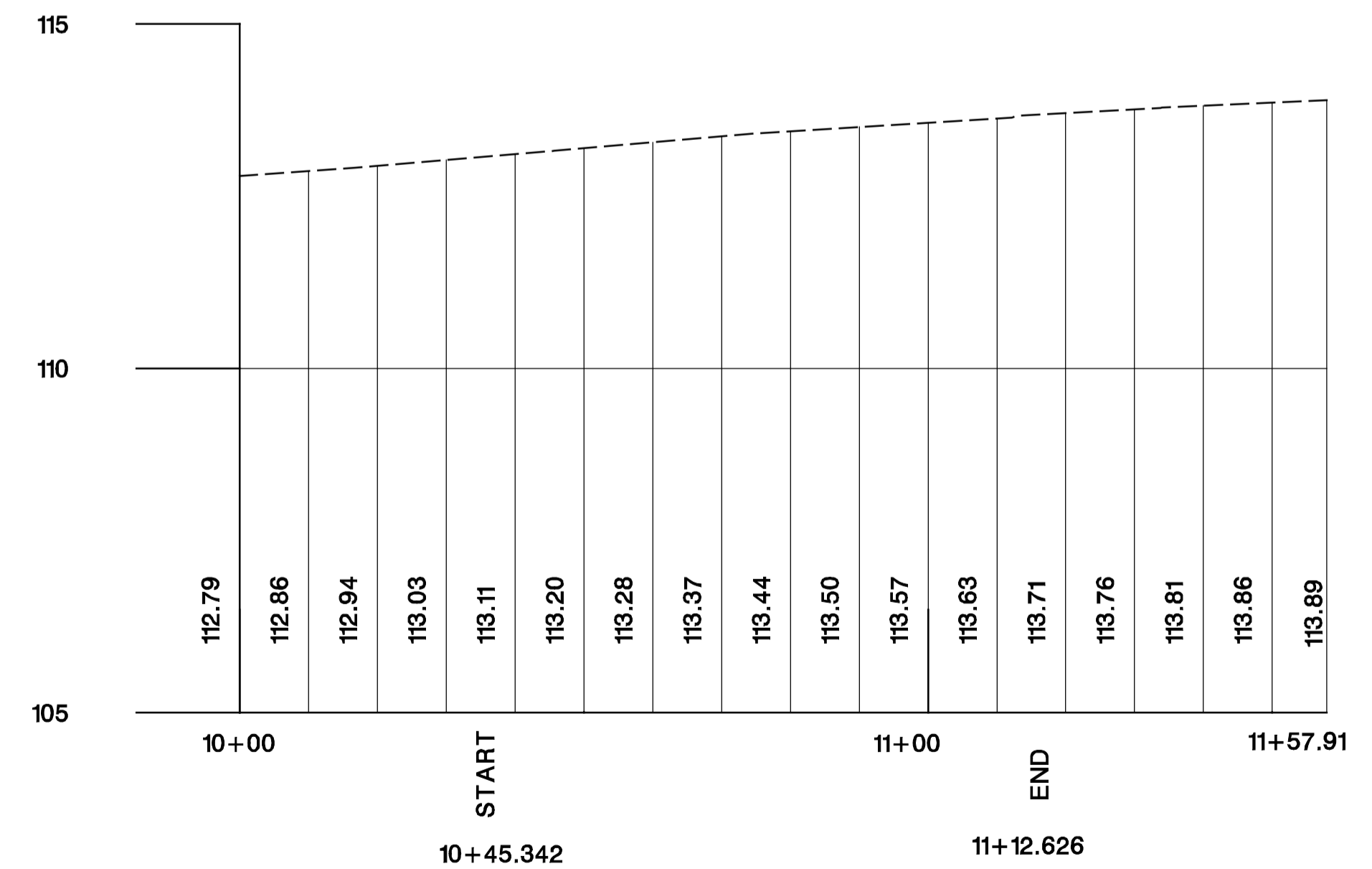


WORKING POINTS				
W. P. #	STATION	OFFSET	ELEVATION	BASELINE
1	Sta. 11+17.727	-	113.625	Exist. NB
2	Sta. 11+12.626	-	113.662	Exist. SB
3	Sta. 10+50.443	-	113.162	Exist. NB
4	Sta. 10+45.342	-	113.157	Exist. SB
5	Sta. 10+56.844	24.720' RT	-	Exist. NB
6	Sta. 10+43.387	24.415' LT	-	Exist. SB

WORKING POINT LAYOUT
Scale: 1/16" = 1'-0"



RT-1 NB @ MULBERRY ST. OVERPASS
CONSTRUCTION PROFILE LINE



RT-1 SB @ MULBERRY ST. OVERPASS
CONSTRUCTION PROFILE LINE

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	D. Patel	CHK.	R. Villagrana
DWN.	U. Wallace		
IN CHARGE	Seth Ahlepor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

REVISION	BY	C'K'D	DATE

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

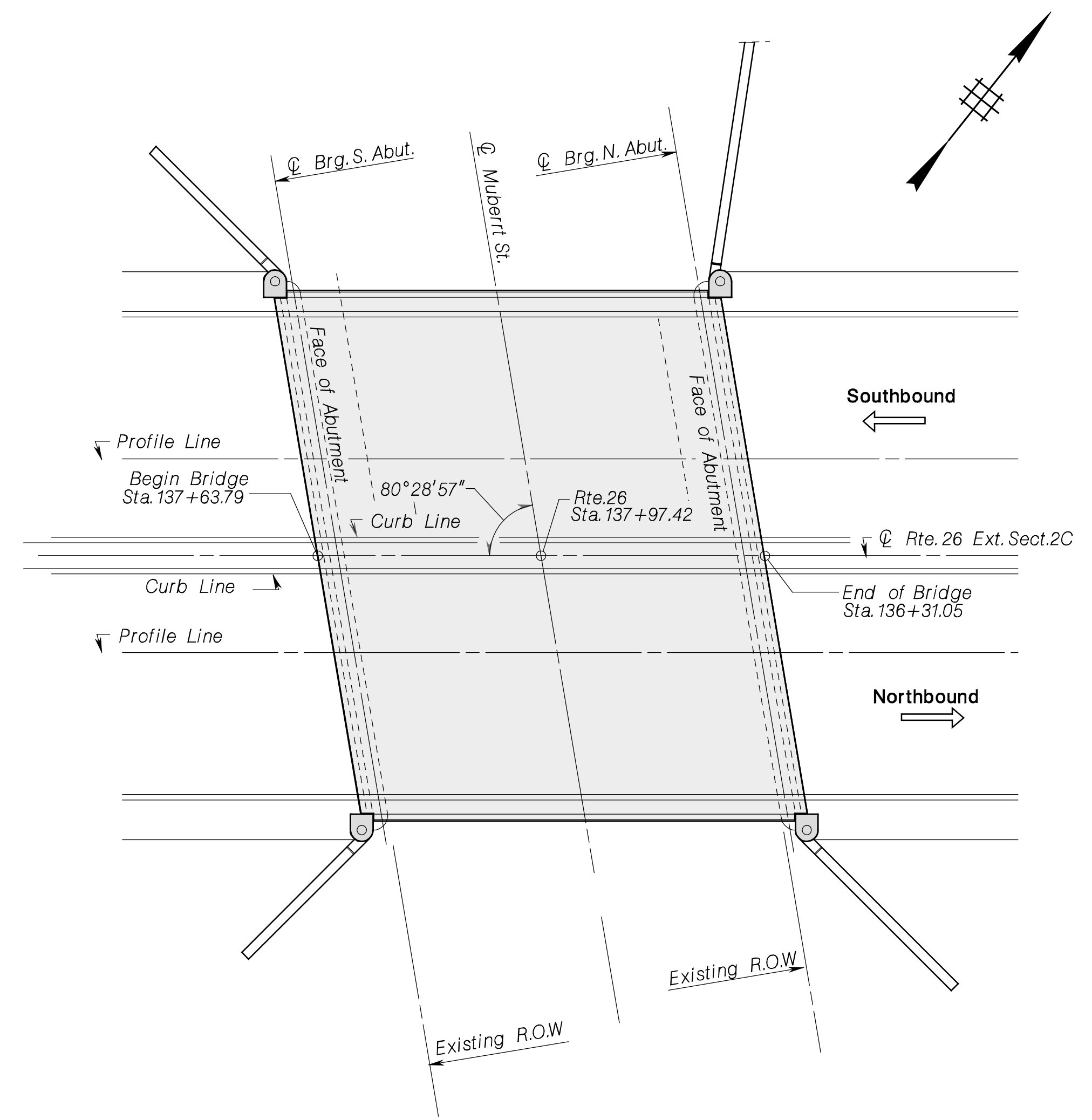
GENERAL PLAN AND ELEVATION
MULBERRY ST. (SHEET 2)

ROUTE US 1 SECTION 1

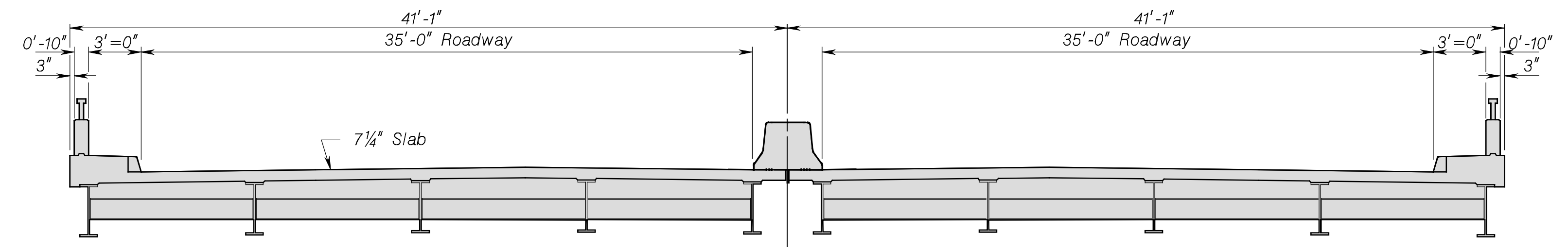
CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B. 16 OF B. 27

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-161			
STRUCTURE NAME			
US ROUTE 1 OVER MULBERRY ST.			



PLAN
N. T. S.

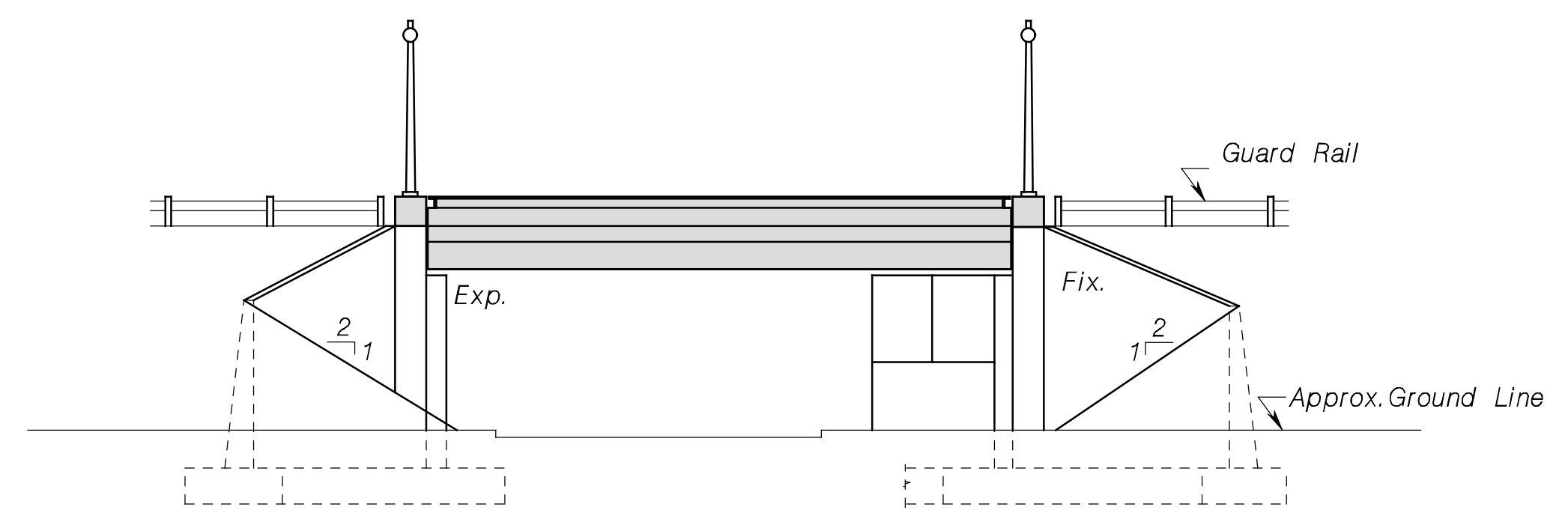


SECTION A-A
N. T. S.

LEGEND:
 Indicates Items to be Demolished.

DEMOLITION NOTES:

- Contractor is responsible for the method and design of Superstructure removal and shall submit these to the Engineer for review prior to removal.
- The Contractor shall prepare and submit all documents to obtain permits and approvals necessary to remove, transport and dispose demolished superstructure.
- Disposal of materials and debris shall be in accordance with NJDOT Standard Specifications.
- Contractor shall be aware that duration of work should be one (1) weekend for the start of demolition of existing superstructure and completion of proposed superstructure, see traffic control plans.
- All works, equipment, transportation, and permits necessary to remove existing superstructure are included in Pay Item "Clearing Site, Bridge".



EAST ELEVATION
N. T. S.

APPROXIMATE DEMOLITION QUANTITIES (For Information Only)		
ITEM	UNIT	QUANTITY
Concrete Parapet	LF	131
Metal Railing	LF	130
Structural Steel	LB	180,000
Class "B" Concrete in Structures	CY	155
Reinforcement Steel in Structures	LB	32,500

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

DEMOLITION PLAN, (MULBERRY ST.)

ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

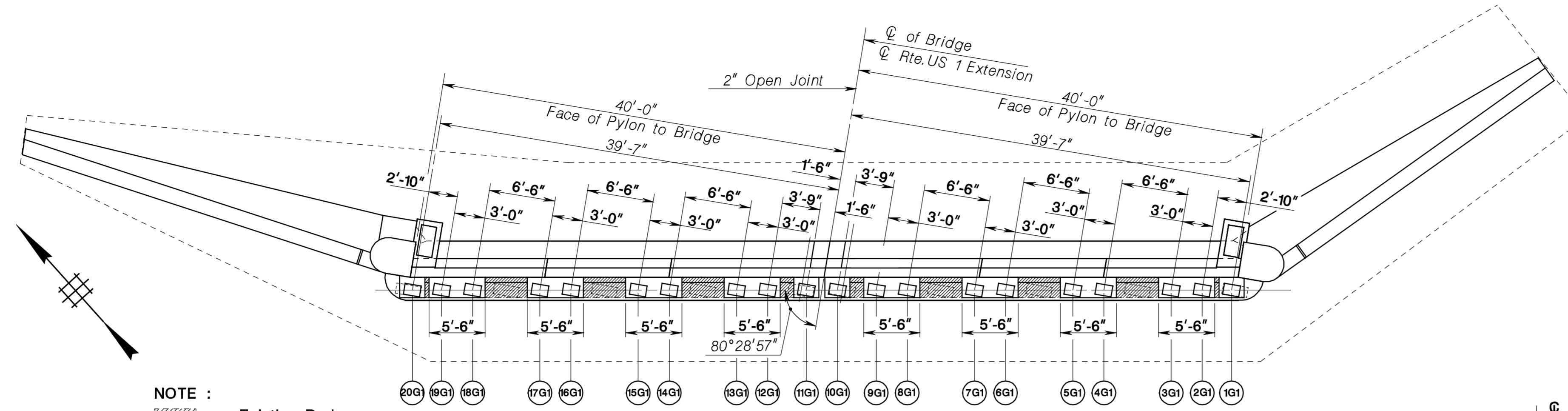
BRIDGE SHEET NO. B. 17 OF B. 27

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	D. Patel	CHK.	R. Villagrana
DWN.	U. Wallace		
IN CHARGE	Seth Ahlepor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

REVISION	BY	C/K/D	DATE

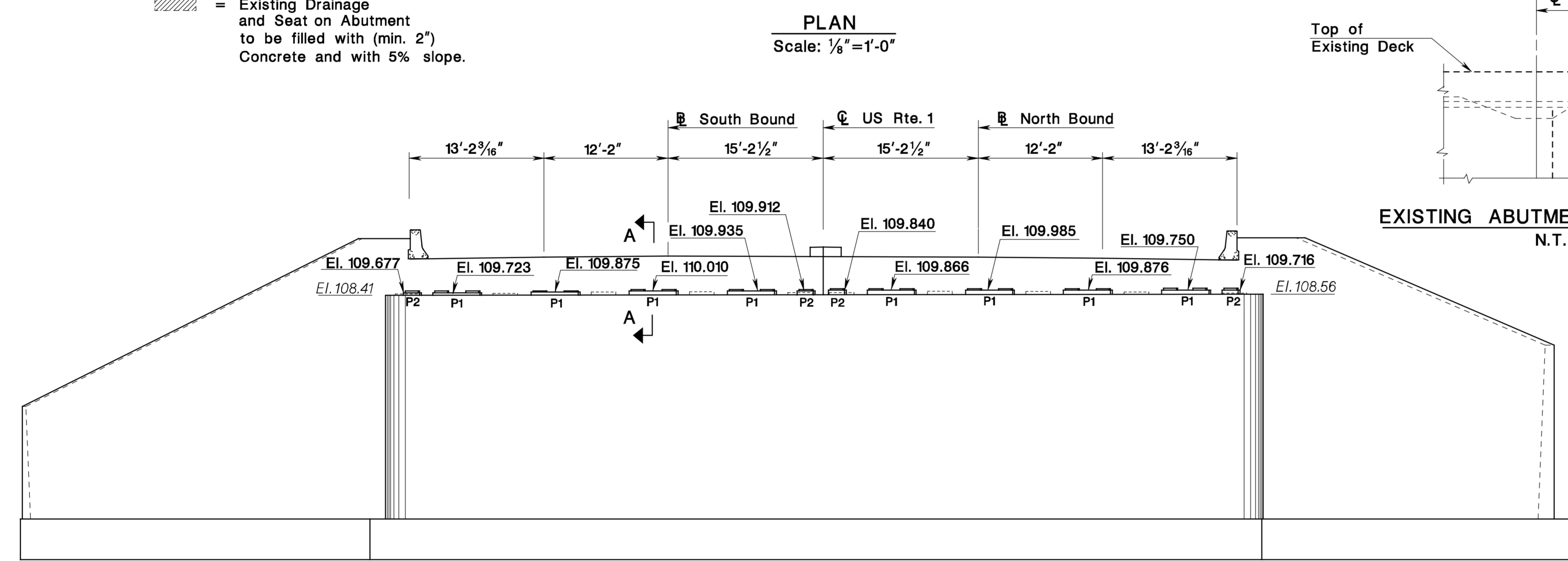
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 scale=0.069508:1.000000
 date=30-NOV-2011 10:47
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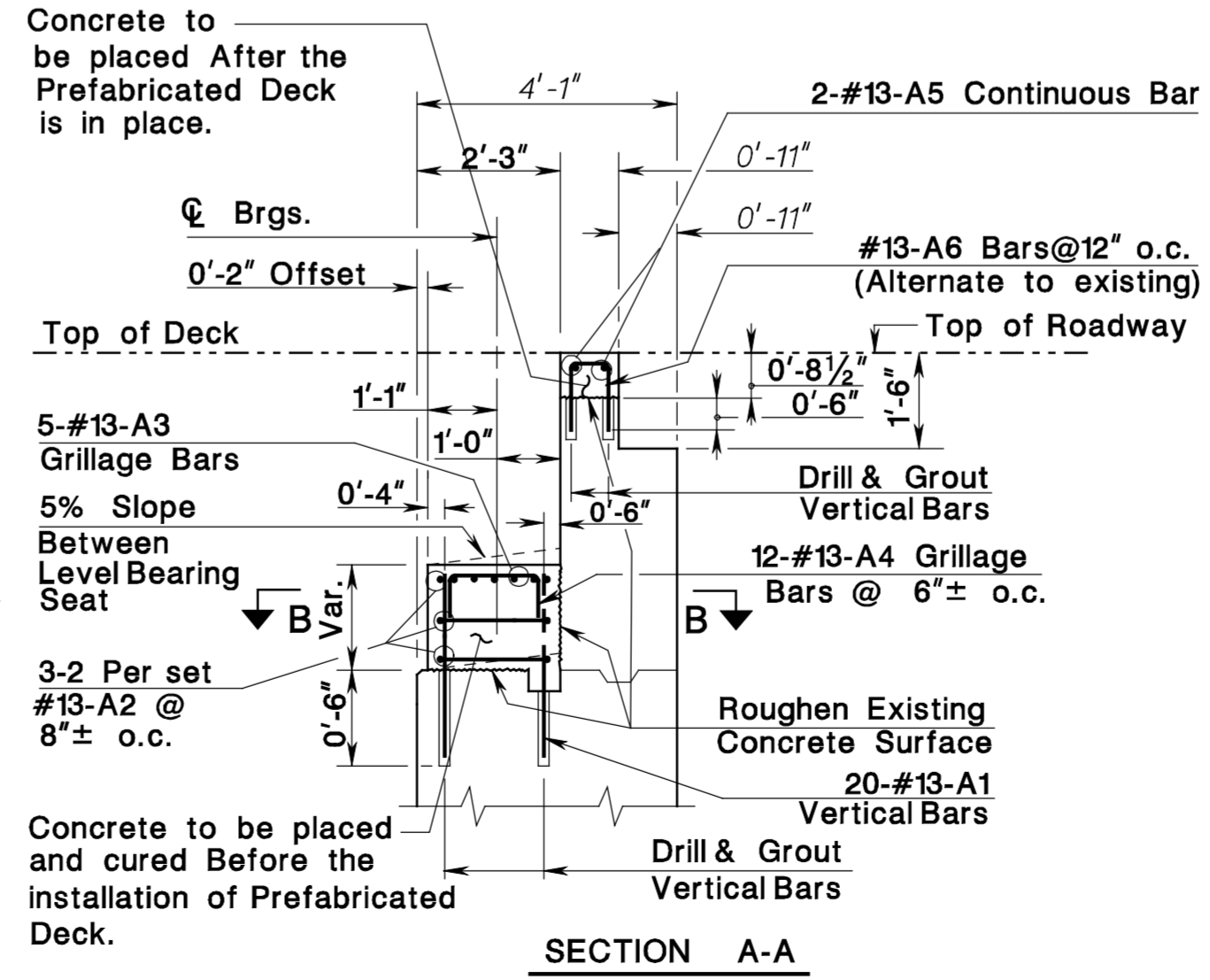
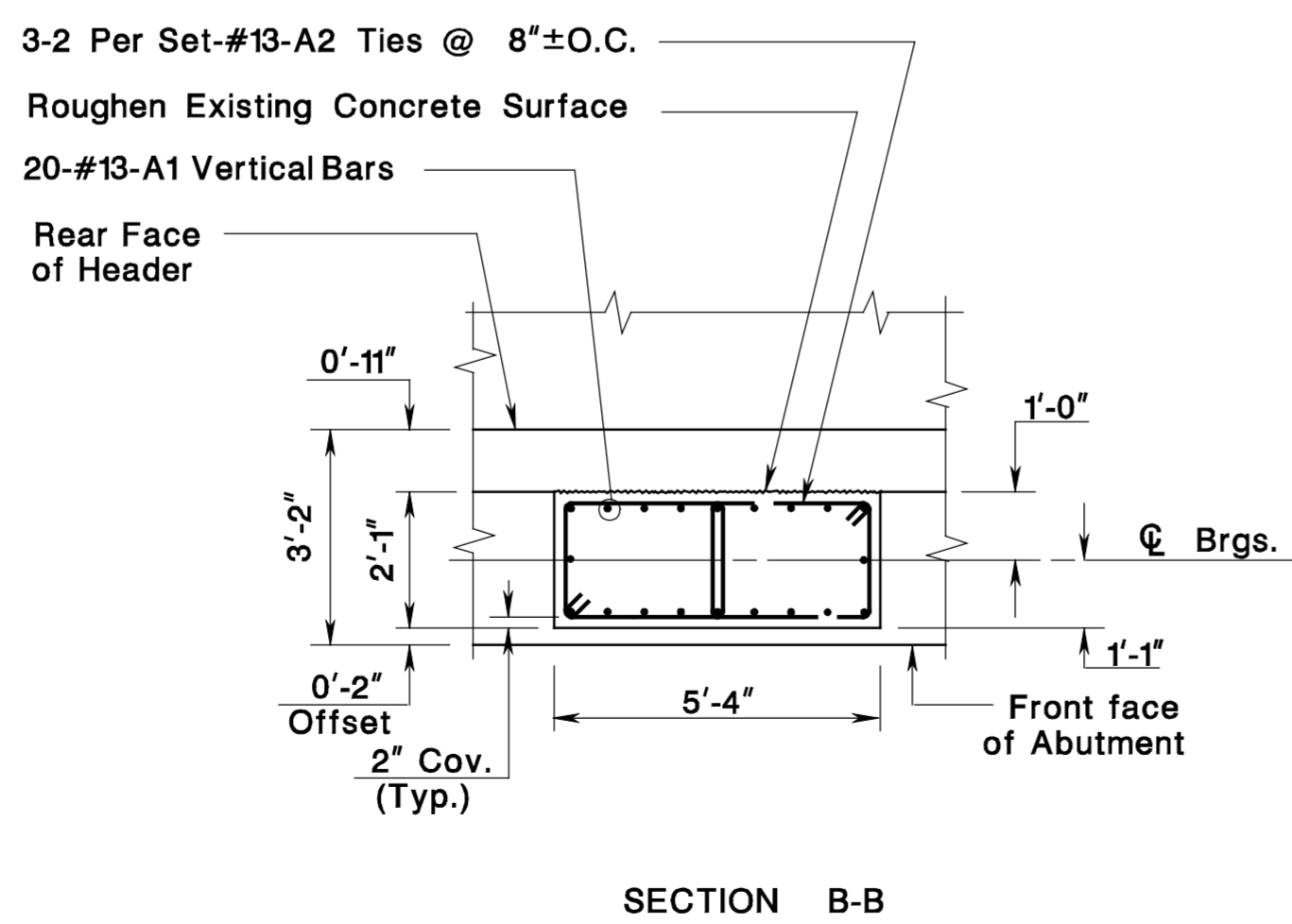
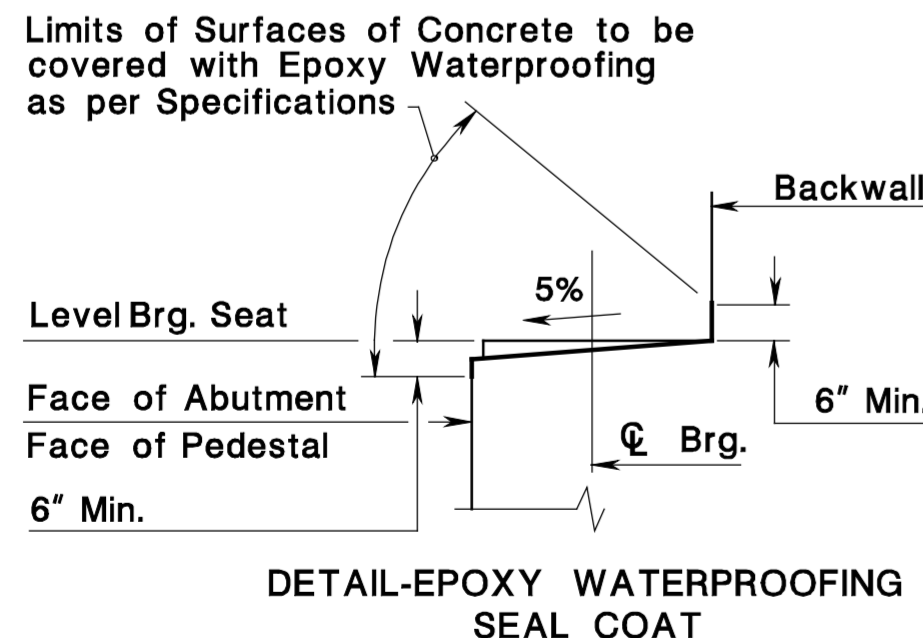
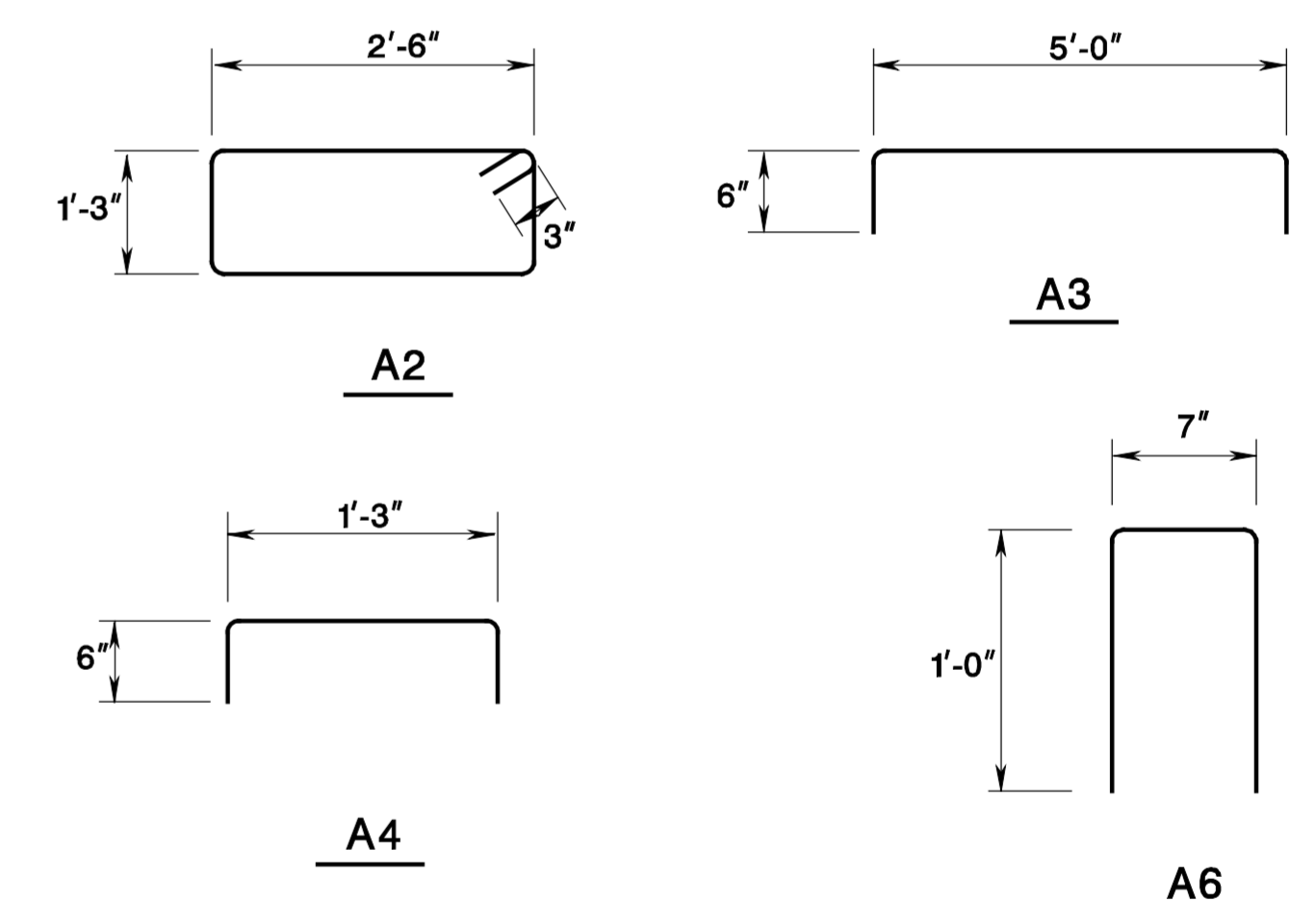


NOTES :

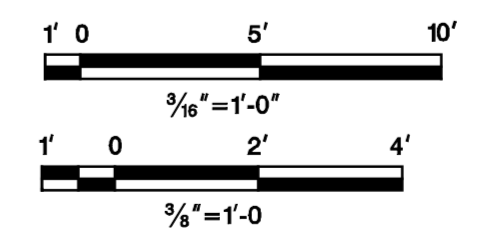
1. Pedestals shall be Cast-in-Place, however the Contractor has the option to prefabricate them but without extra cost to NJDOT and shall submit calculation and details of fabrication and installation for Engineer's approval.
2. Rapid Set Latex Modified Concrete (RSLMC) shall be used for Pedestals, Header and Concrete Fill. (These items to be included in Pay Item "Concrete in Substructures, Abutment Walls (RSLMC)".
3. Elevations shown to be verified by the Contractor before shop fabrication of Prefabricated Superstructure Unit. Assumed Pedestals Elevations were based on 9" field thickness and 29.65" beam depth. Any changes noted in the field shall be brought to the attention of Engineer and Fabricator.
4. All Rebars should be Epoxy Coated.
5. If the proposed rebar encoungers existing rebar, the contractor may vary the spacing of proposed rebar.



REINFORCEMENT STEEL				
MARK	SIZE	LENGTH	NO.	REMARKS
A1	#13	1'-3"	160	STRAIGHT
A2	#13	8'-0"	48	DETAILED
A3	#13	6'-0"	40	DETAILED
A4	#13	2'-3"	96	DETAILED
A5	#13	40'-2"	4	STRAIGHT
A6	#13	2'-7"	81	DETAILED



SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
83	N5A04	Concrete in Substructures, Abutment Walls - RSLMC	CY	12
86	5A31E	Reinforcement Steel in Structure, Epoxy Coated	LB	2275
87	5A31G	Epoxy Waterproofing Seal Coat	SY	32



CONTROL SECTION	1101	JOB NO.	1101-513
DES.	D. Patel	CHK.	R. Villagraca
DWN.	U. Wallace		
IN CHARGE	Seth Ahiepor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sla Manager - Structural Engineering		

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
 BUREAU OF STRUCTURAL ENGINEERING

NORTH ABUTMENT
 (MULBERRY ST.)

ROUTE US 1 SECTION 1

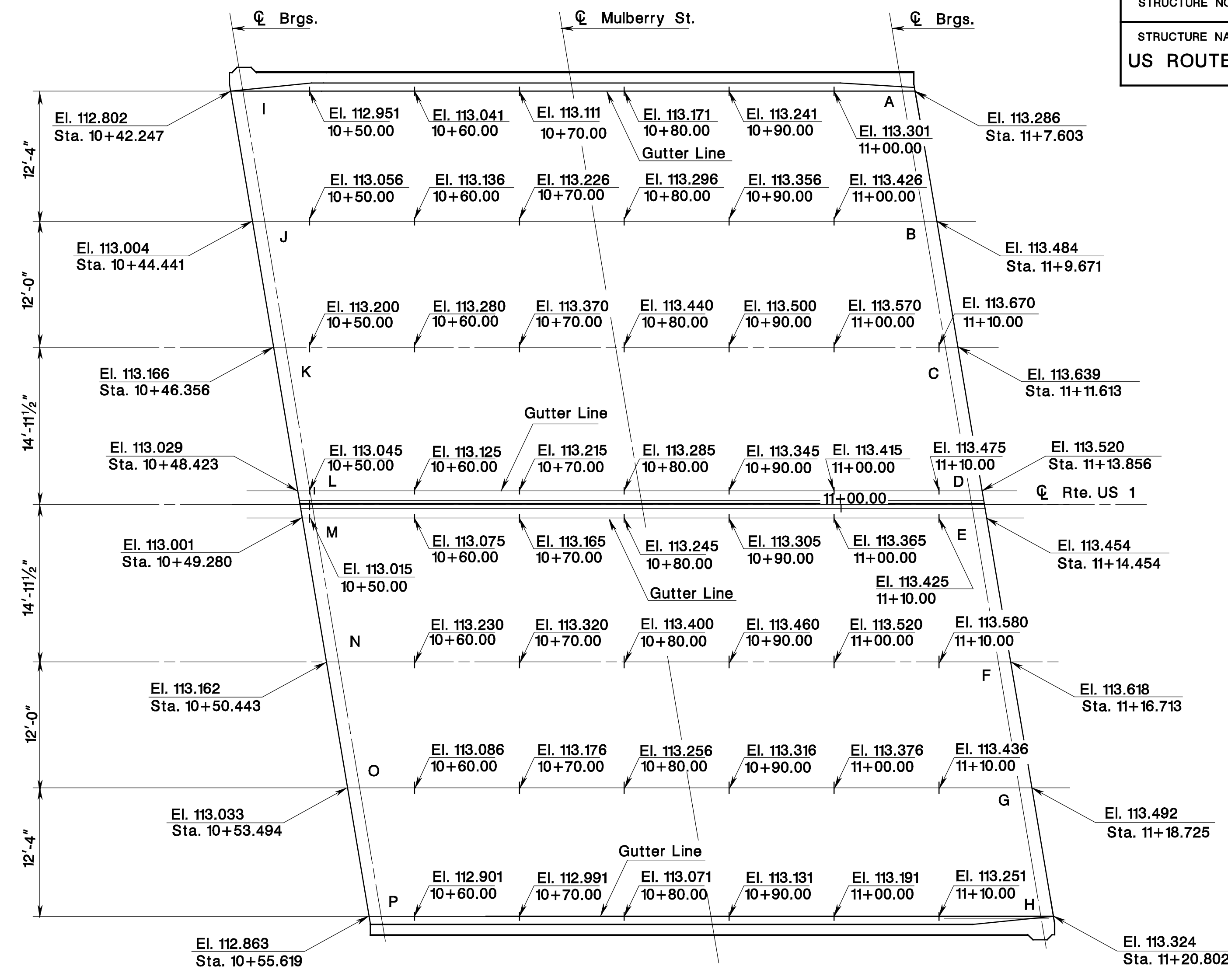
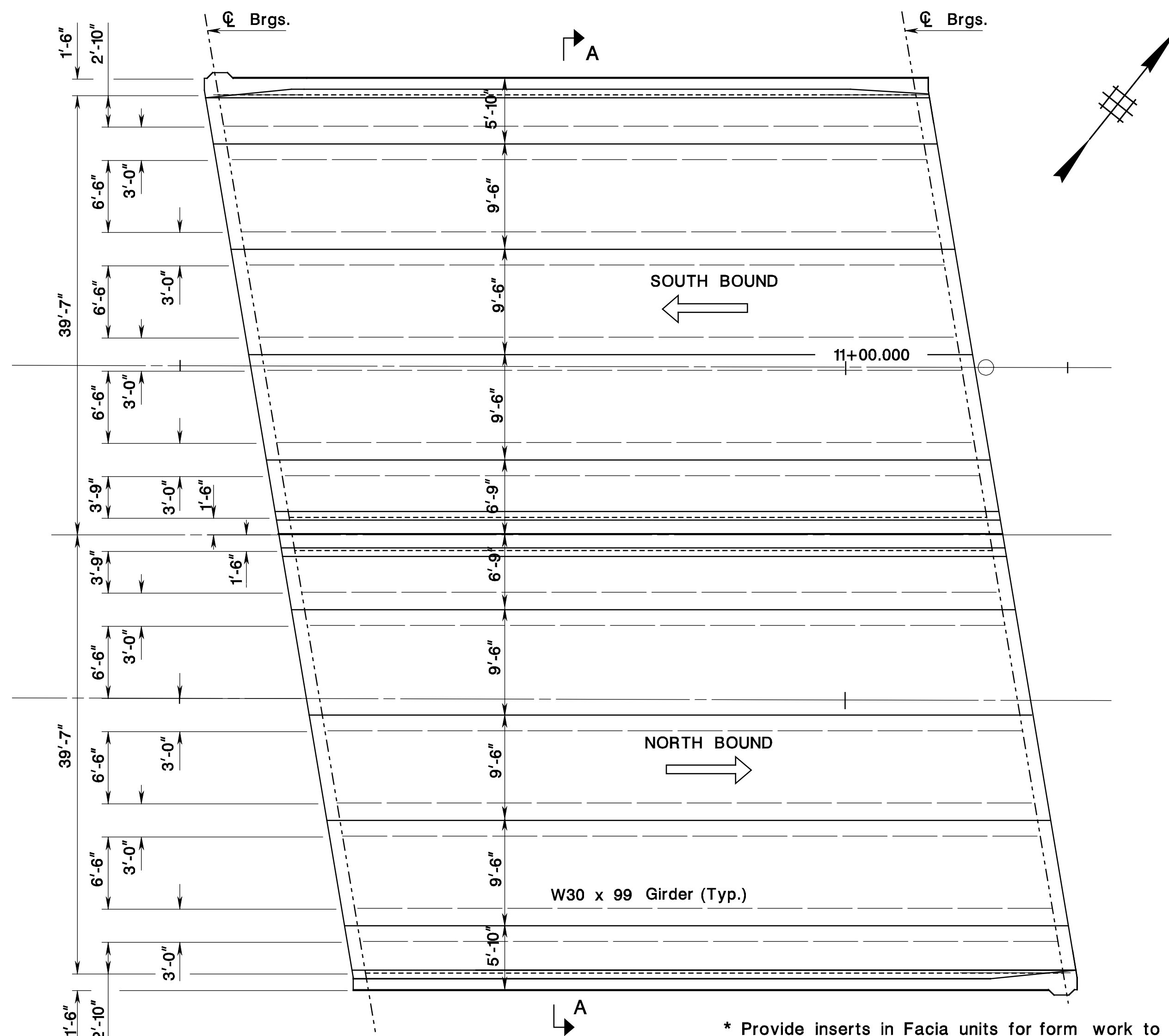
CITY OF TRENTON MERCER
 MUNICIPALITY COUNTY

BRIDGE SHEET NO. B. 19 OF B. 27

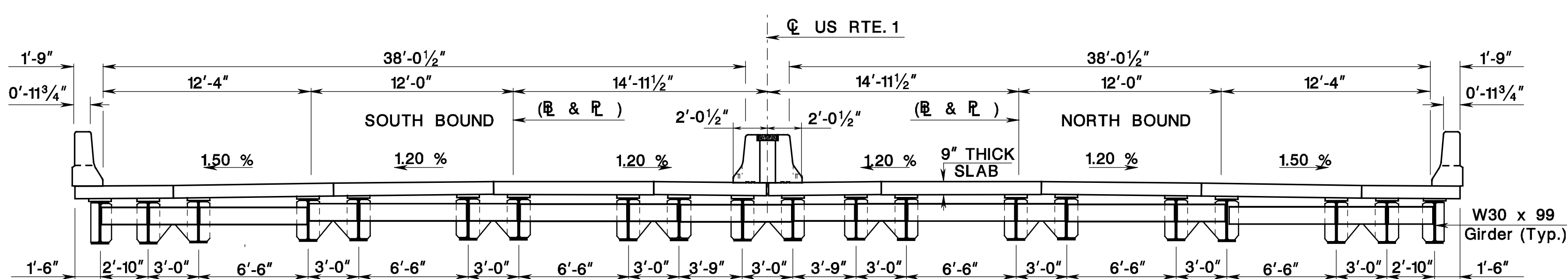
66

REVISION	BY	C/K/D	DATE

STRUCTURE NO. 1101-161
 STRUCTURE NAME
 US ROUTE 1 OVER MULBERRY ST.



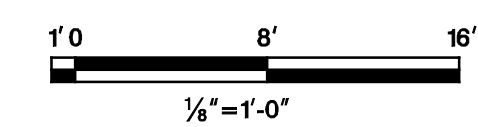
* Provide inserts in Facia units for form work to be used in constructing cast in place deck parapets, See details on Sheet B21.



SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
84	N5A02	Diamond Grinding of Concrete Deck Surface	SF	5280
93	N5C05	Prefabricated Superstructure Unit	SF	5500

DECK SLAB NOTES :

- The Deck shall be Prefabricated Concrete/Steel Composite Superstructure Unit.
- The Contractor shall submit the Calculations and Working Drawings to the Engineer per NJDOT Standard Specifications. Verify in field the correctness of Dimensions after shop fabrication of the Superstructure.
- For details of the four (4) corners of the deck, see Architectural Sheets.
- For Areas to be Diamond Grinded, Refer to NJDOT BCD-5, Sawcut Grooving for Bridge Decks.
- Cleaning and painting of Structural Steel shall be in accordance with NJDOT Specifications.
 Coating System: IEU
 Finish Coat Color: Foliage Green



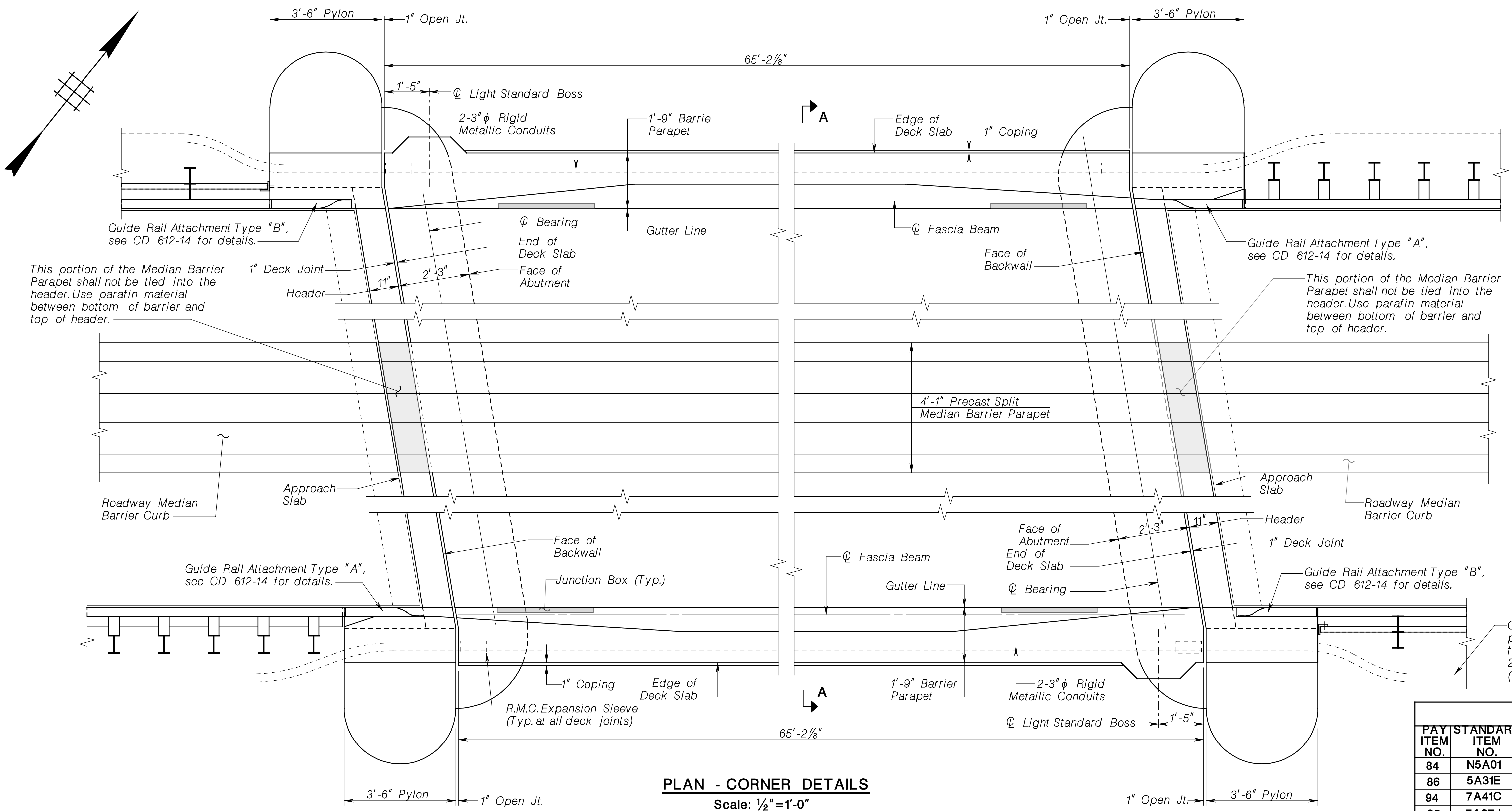
CONTROL SECTION	1101	JOB NO.	1101-513
DES.	D. Patel	CHK.	R. Villagracia
DWN.	U. Wallace		
IN CHARGE	Seth Ahlekpour Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

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 BUREAU OF STRUCTURAL ENGINEERING

PROPOSED DECK PLAN AND SECTION
 (MULBERRY ST.)
 ROUTE US 1 SECTION 1
 CITY OF TRENTON MERCER
 MUNICIPALITY COUNTY
 BRIDGE SHEET NO. B. 20 OF B. 27

REVISION	BY	C/K'D	DATE

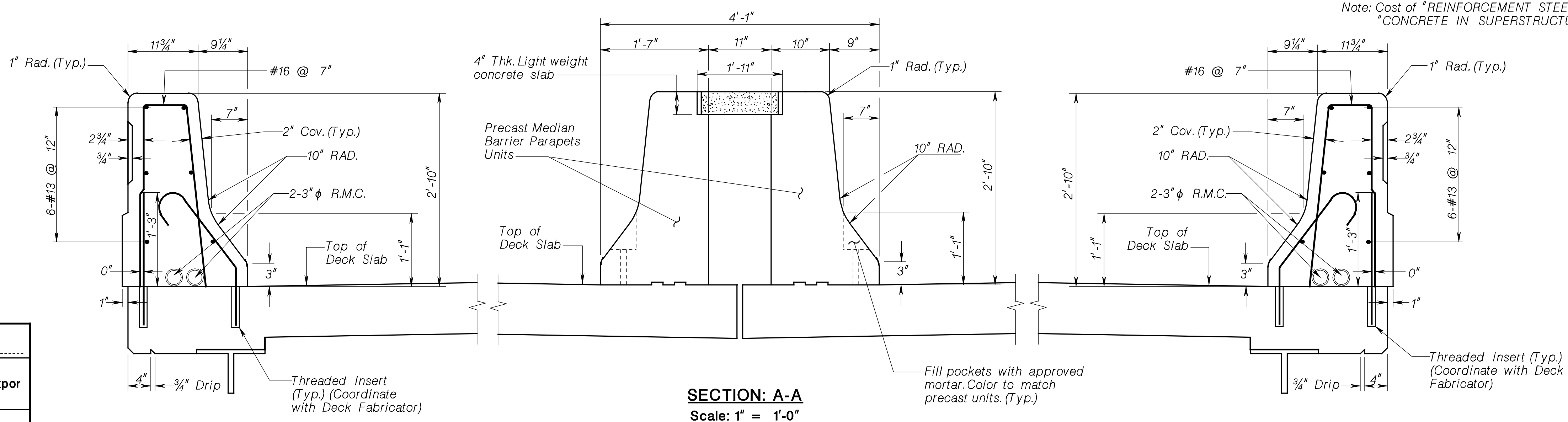
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-161			
STRUCTURE NAME			
US RTE. 1 OVER MULBERRY ST.			



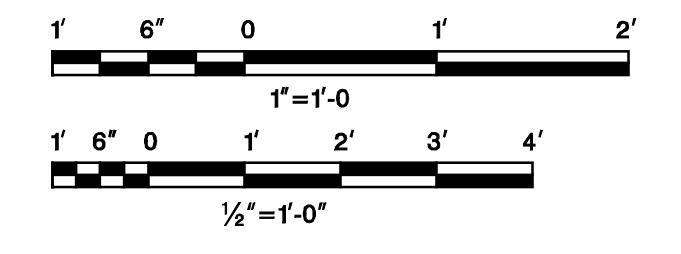
PLAN - CORNER DETAILS
Scale: 1/2" = 1'-0"

QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
84	N5A01	CONCRETE IN SUPERSTRUCTURE, PARAPETS (HPC)	LF	145
86	5A31E	REINFORCEMENT STEEL IN STRUCTURES, EPOXY COATED	LBS	7660
94	7A41C	3" RIGID METALLIC CONDUIT, TYPE CUG	LF	370
95	7A27J	10" x 36" JUNCTION BOXES	UNIT	4
85	N5A02	PRECAST MEDIAN PARAPET	LF	136

Note: Cost of "REINFORCEMENT STEEL IN STRUCTURES, EPOXY COATED" shall be paid under item, "CONCRETE IN SUPERSTRUCTURE, PARAPETS (HPC)".



SECTION: A-A
Scale: 1" = 1'-0"



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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

ARCHITECTURAL DETAILS NO. 1
(MULBERRY ST.)

ROUTE US 1 SECTION 1

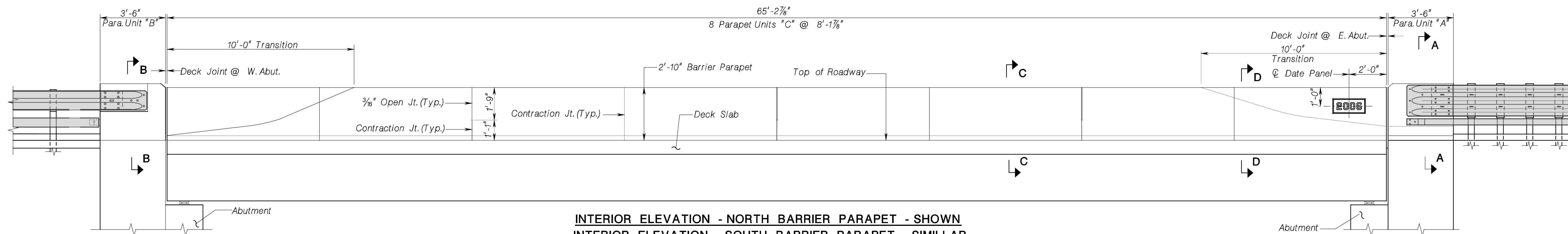
CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B_21 OF B27

CONTROL SECTION	1101	JOB NO.	1101513
DES.	Jay Patel	CHK.	Seth Ahiekpor
DWN.	Jay Patel		
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

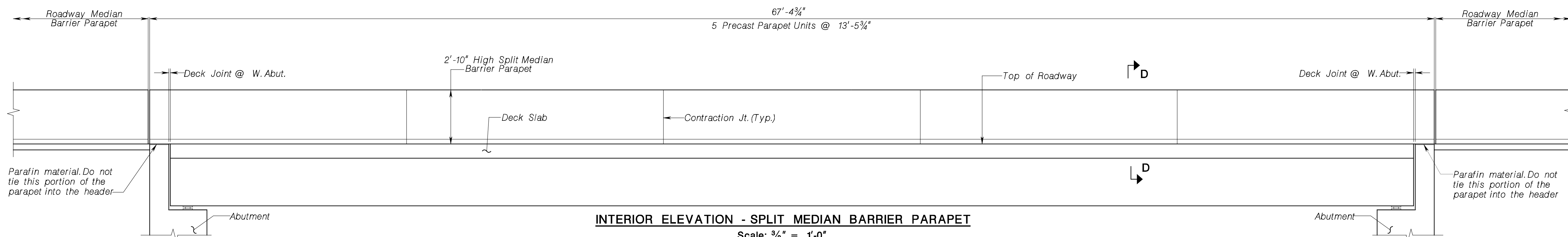
REVISION	BY	C'K'D	DATE

STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-161			
STRUCTURE NAME			
US RTE. 1 OVER MULBERRY ST.			



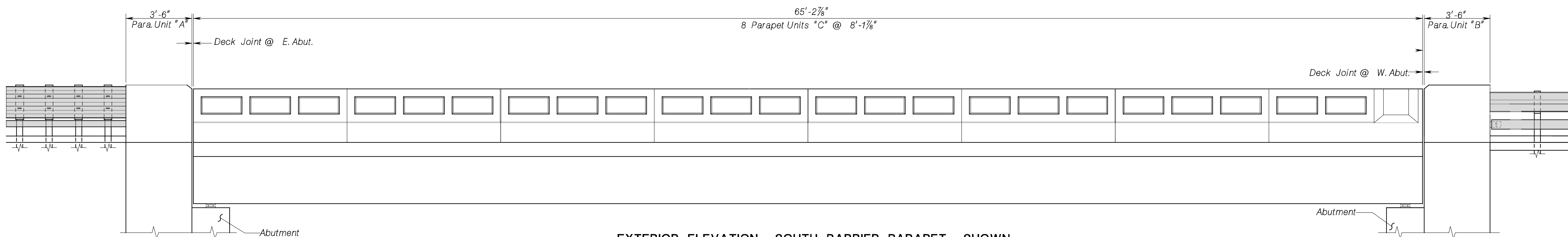
INTERIOR ELEVATION - NORTH BARRIER PARAPET - SHOWN
INTERIOR ELEVATION - SOUTH BARRIER PARAPET - SIMILAR

Scale: 3/8" = 1'-0"



INTERIOR ELEVATION - SPLIT MEDIAN BARRIER PARAPET

Scale: 3/8" = 1'-0"



EXTERIOR ELEVATION - SOUTH BARRIER PARAPET - SHOWN
EXTERIOR ELEVATION - NORTH BARRIER PARAPET - SIMILAR

Scale: 3/8" = 1'-0"

NOTE: For sections, see sheet "ARCHITECTURAL DETAILS NO. 3".

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NEW JERSEY DEPARTMENT OF TRANSPORTATION
 BUREAU OF STRUCTURAL ENGINEERING

ARCHITECTURAL DETAILS NO. 2
 (MULBERRY ST.)

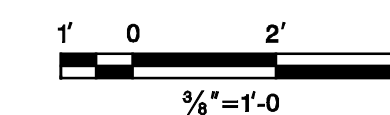
ROUTE US 1 SECTION 1

CITY OF TRENTON
 MUNICIPALITY

MERCER COUNTY
 BRIDGE SHEET NO. B. 22 OF B27

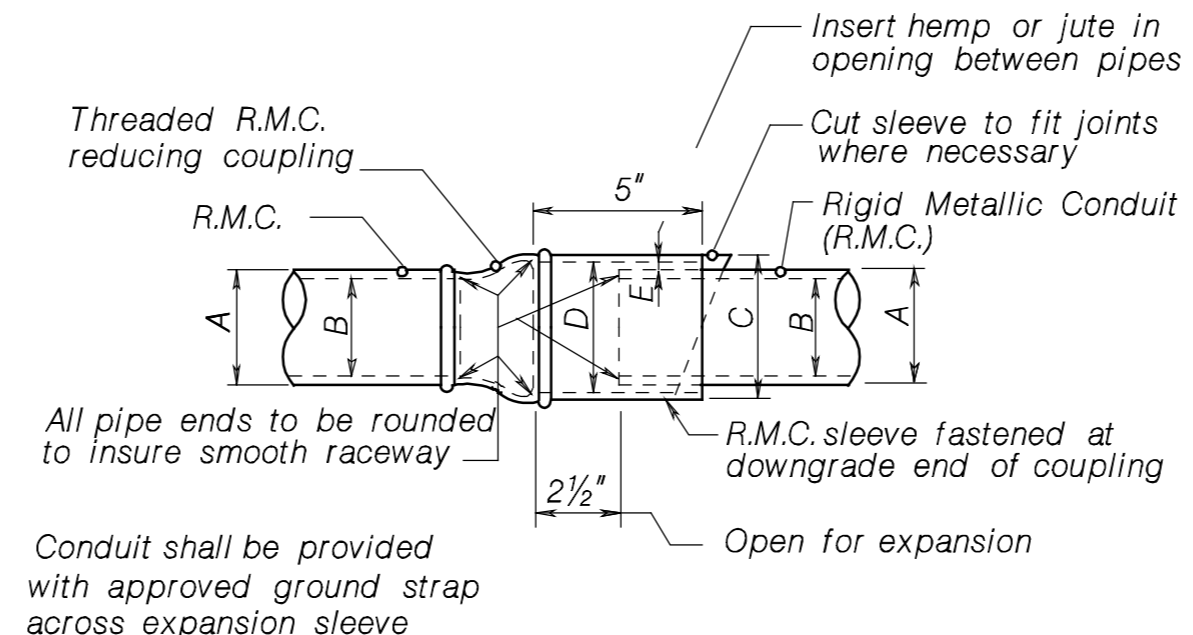
69

CONTROL SECTION	1101	JOB NO.	1101513
DES.	Jay Patel	CHK.	Seth Ahiekpor
DWN.	Jay Patel		
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		



ALL DIMENSIONS SHOWN ARE IN US UNITS

REVISION	BY	C/K'D	DATE

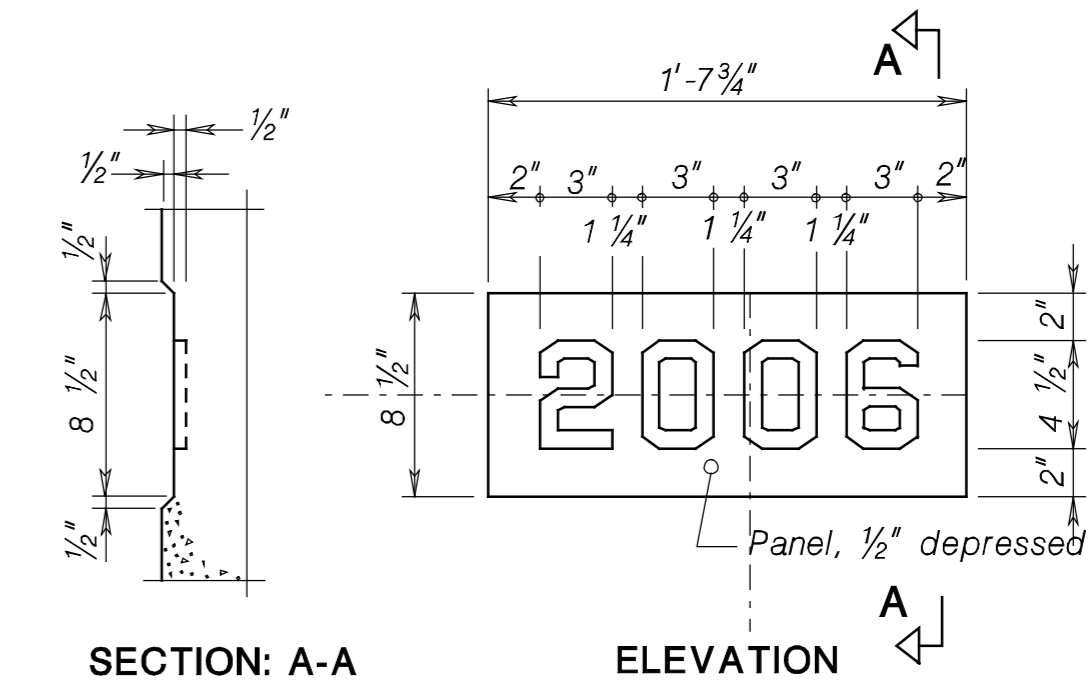


ELEVATION

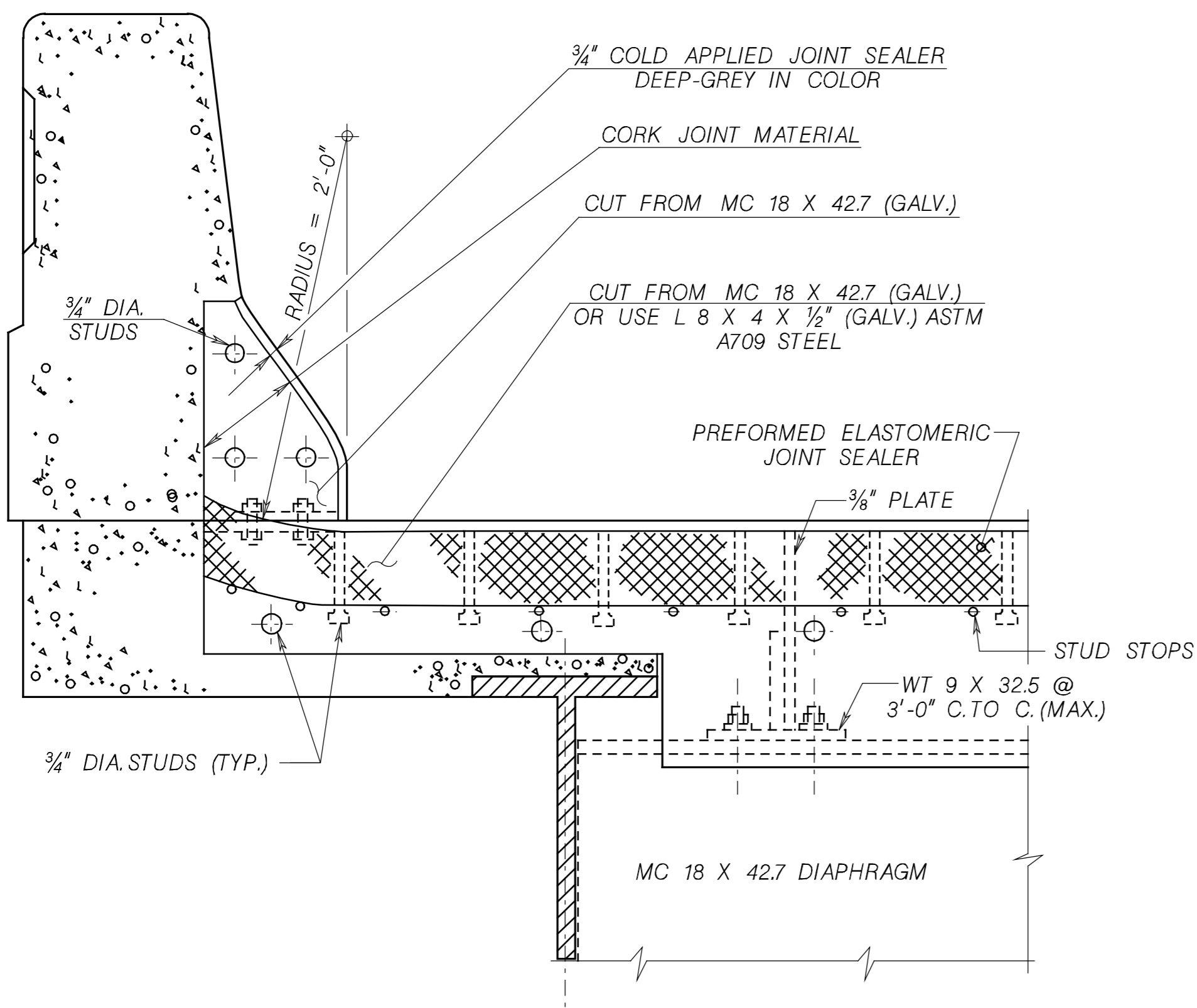
R. M. C.			SLEEVE			Nominal Reducing Coupling	Clearance E
Nom. Dia.	Ext. Dia. A	Int. Dia. B	Nom. Dia. C	Ext. Dia. D	Int. Dia. D		
1 1/2"	1.900	1.610	2 1/2"	2.875	2.469	2 1/2" to 1 1/2"	9/32"
2"	2.375	2.067	3"	3.500	3.068	3" to 2"	1/32"
3"	3.500	3.068	4"	4.500	4.026	4" to 3"	1/4"
4"	4.500	4.026	5"	5.563	5.047	5" to 4"	1/4"

Expansion sleeves shall be installed at all Fixed and Expansion joints and elsewhere as shown or approved. R.M.C. and all fittings shall be hot-dip galvanized.

DETAILS OF R.M.C. EXPANSION SLEEVE

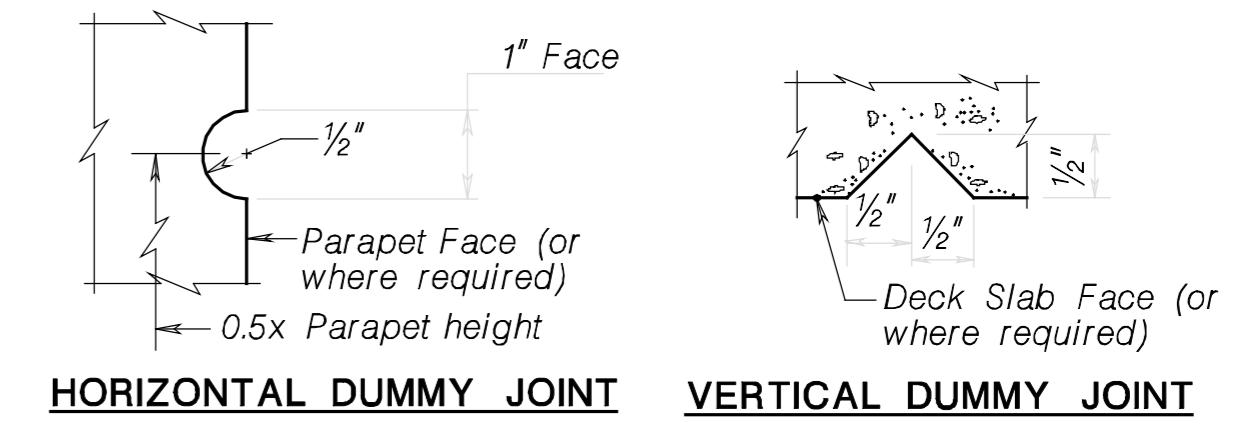
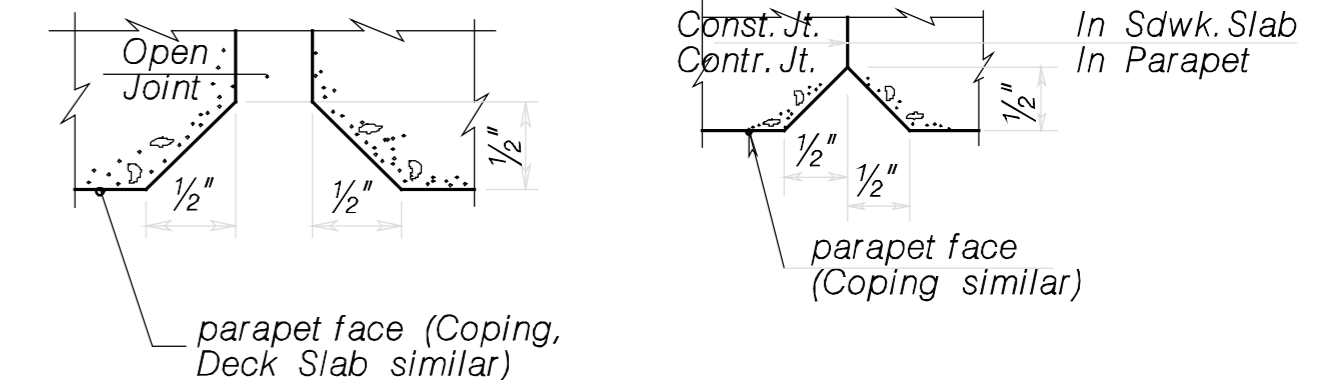


NOTES:
Date shall be year of completion of the structure.
Numerals proposed for use shall be approved by the Engineer.
Cost of the panel shall be included in the price bid for concrete containing the panel.



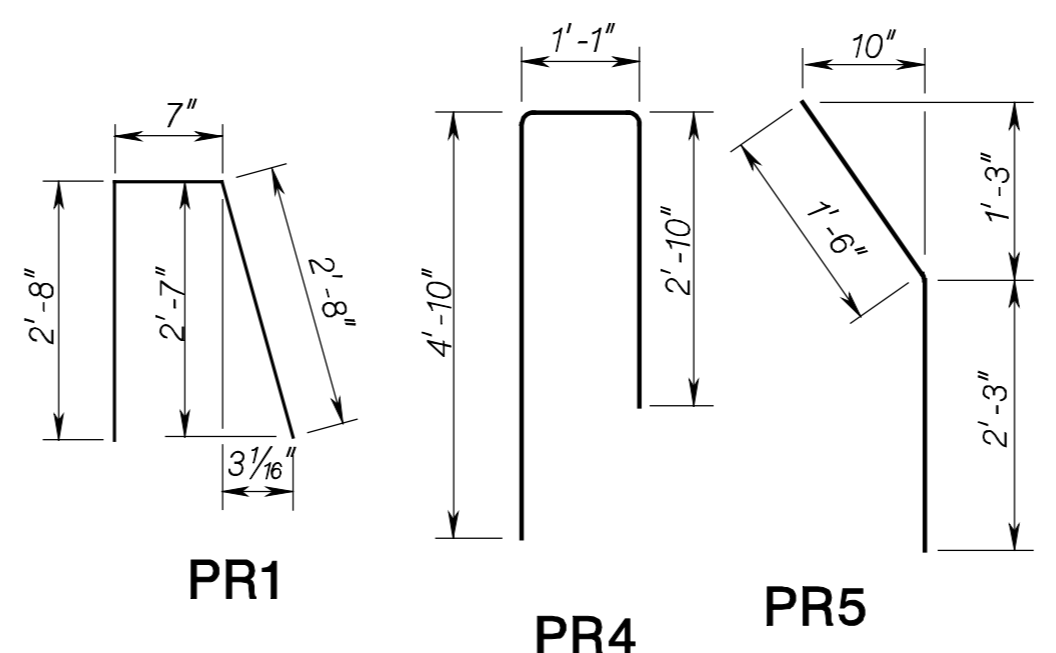
LONGITUDINAL SECTION THROUGH JOINT AT ABUTMENT SHOWING STEEL ARMOR PLATE AT JOINT FOR BARRIER PARAPET

Scale: 1 1/2" = 1'-0"



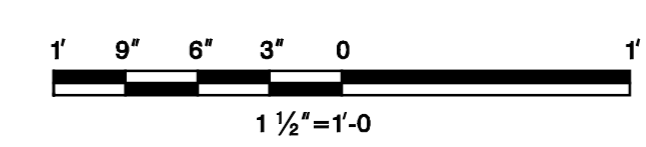
DETAILS OF PARAPET SCORING

BAR SCHEDULE				
MARK	SIZE	LENGTH	NO.	TYPE
PR1	#16	5'-11"	224	DETAILED
PR2	#13	7'-10"	96	STRAIGHT
PR3	#13	3'-2"	24	STRAIGHT
PR4	#19	8'-9"	28	DETAILED
PR5	#19	3'-9"	28	DETAILED

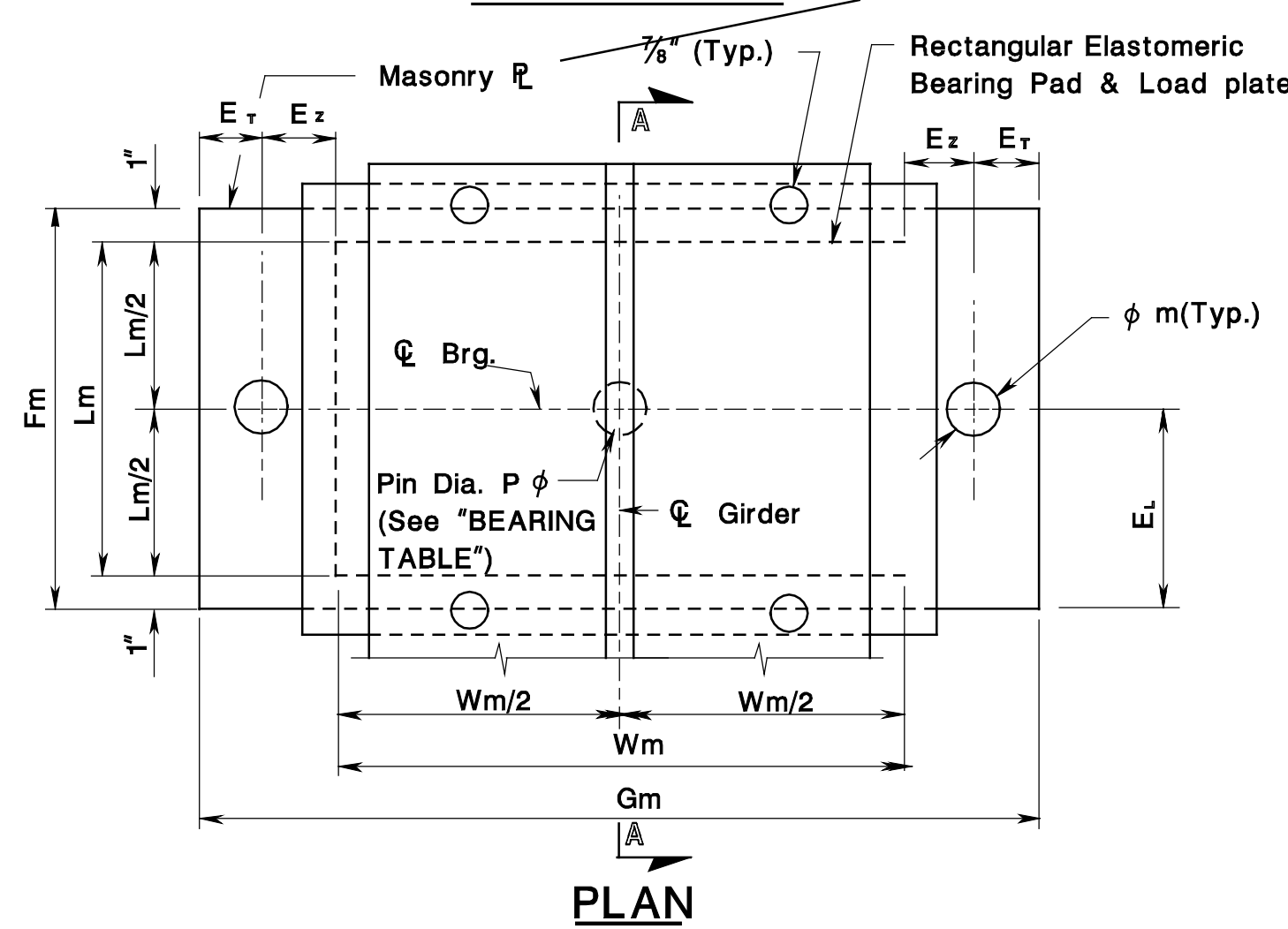
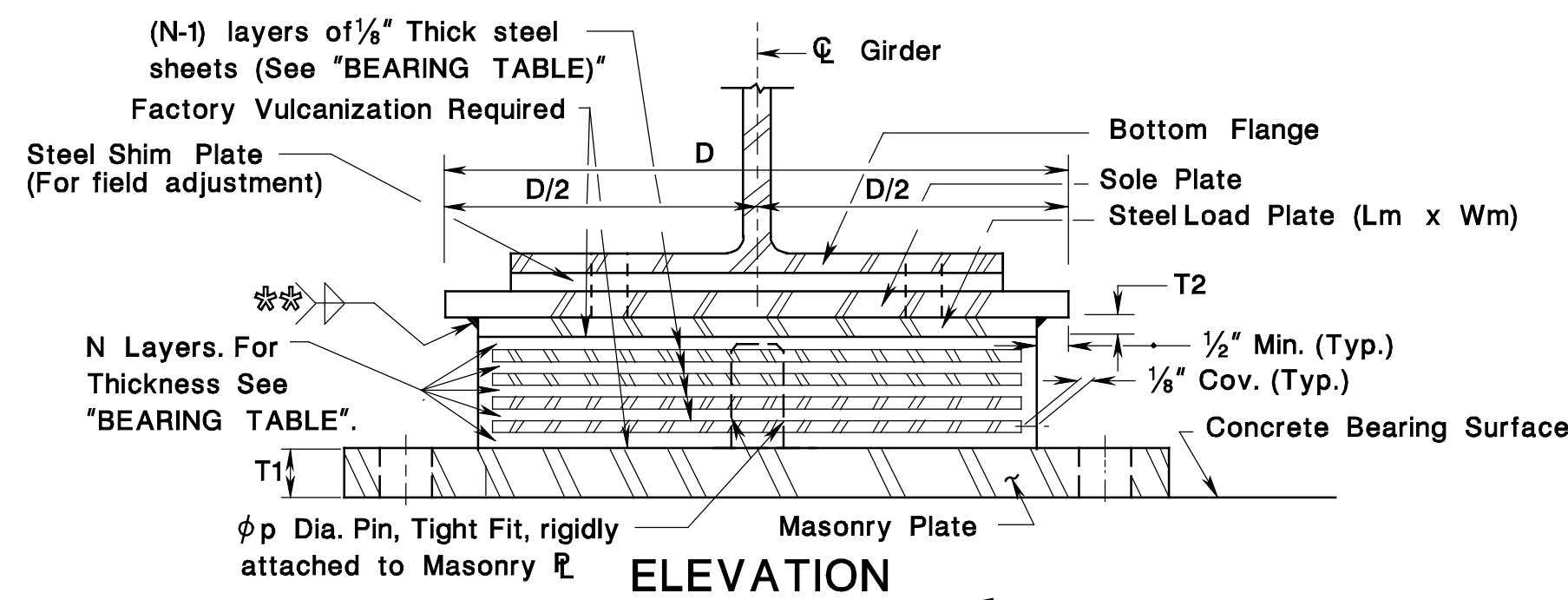


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NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

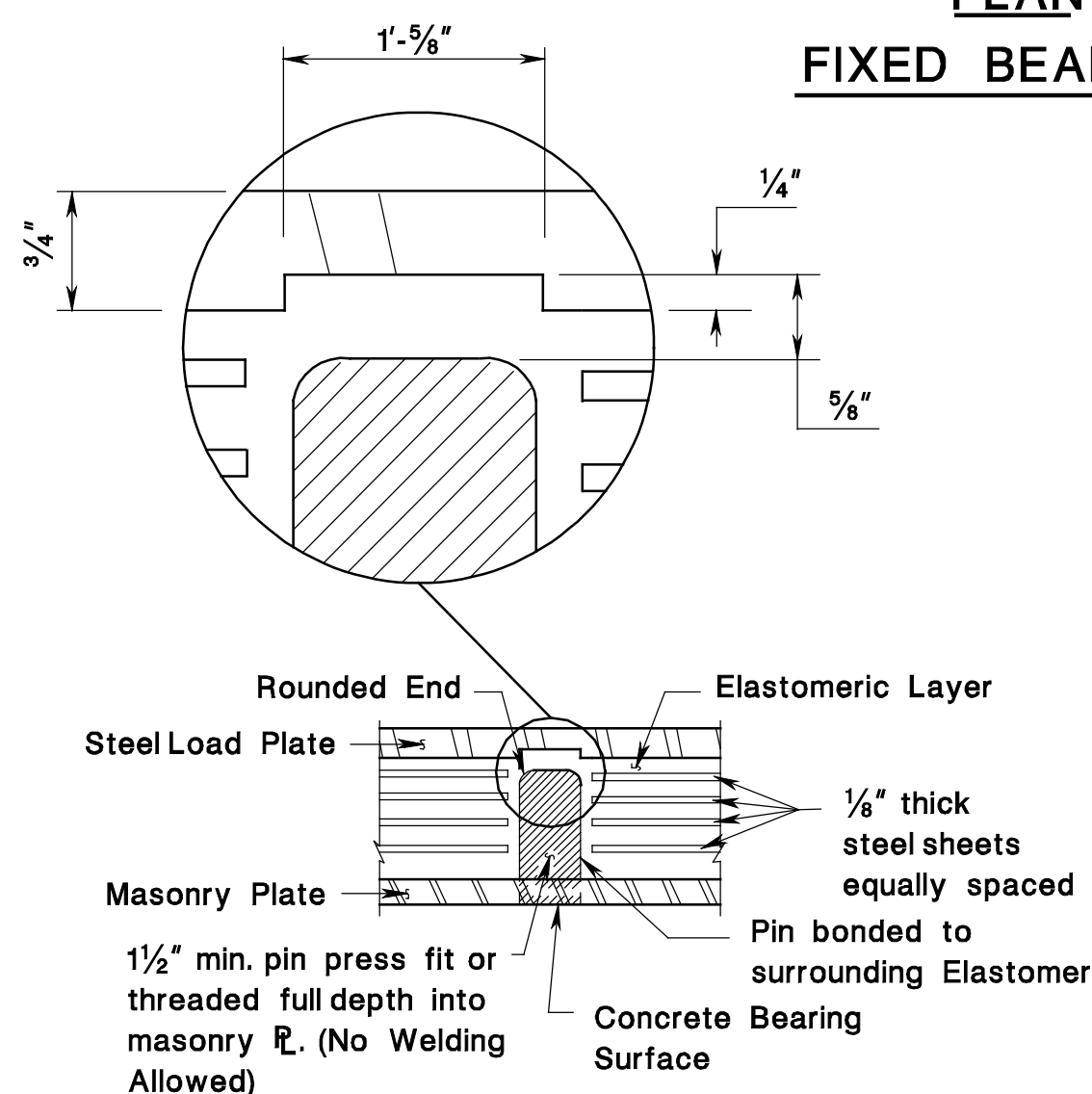
ARCHITECTURAL DETAILS NO. 4
(MULBERRY ST.)
ROUTE US 1 SECTION 1
CITY OF TRENTON
MUNICIPALITY COUNTY
BRIDGE SHEET NO. B 24 OF B27



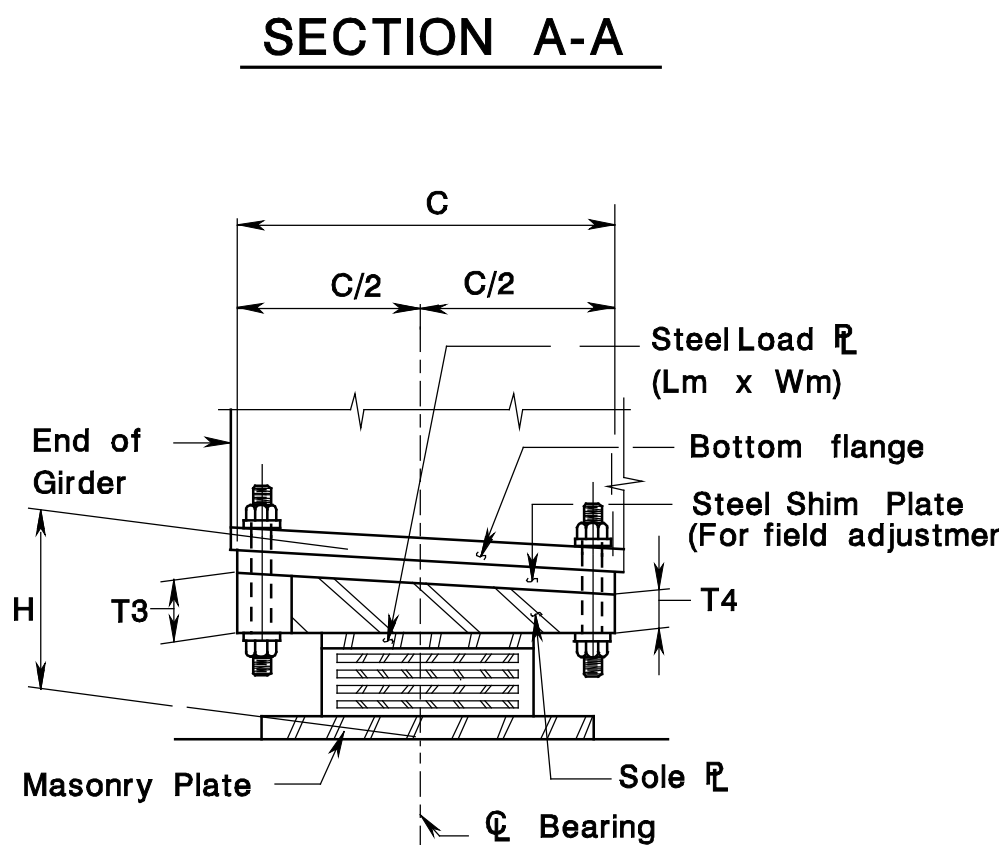
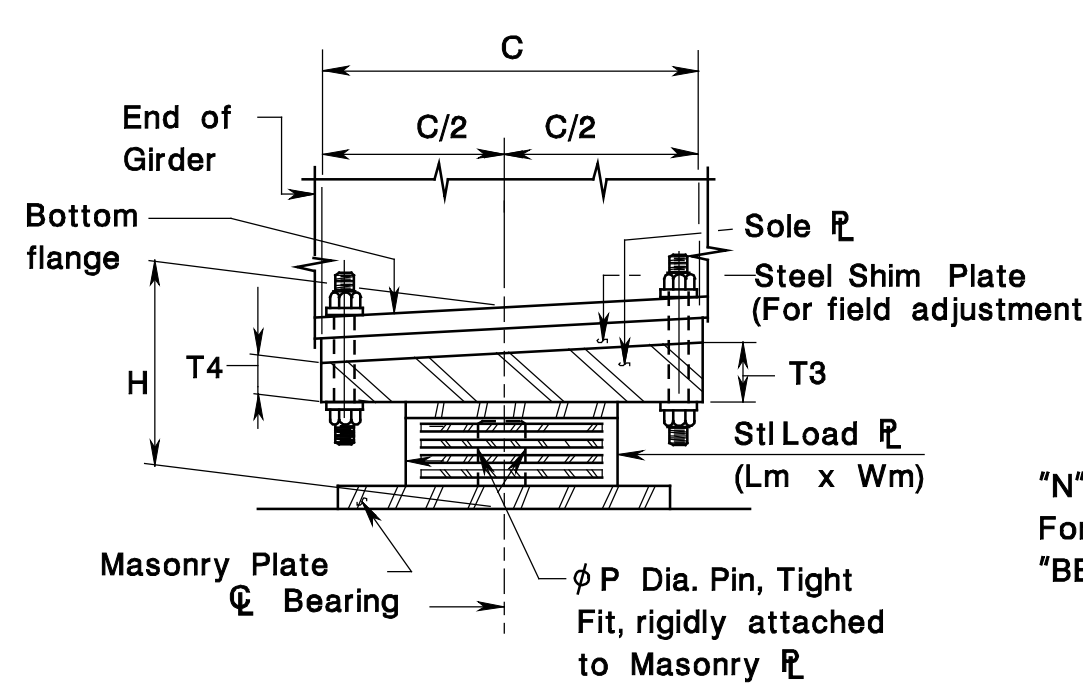
REVISION	BY	C'K'D	DATE



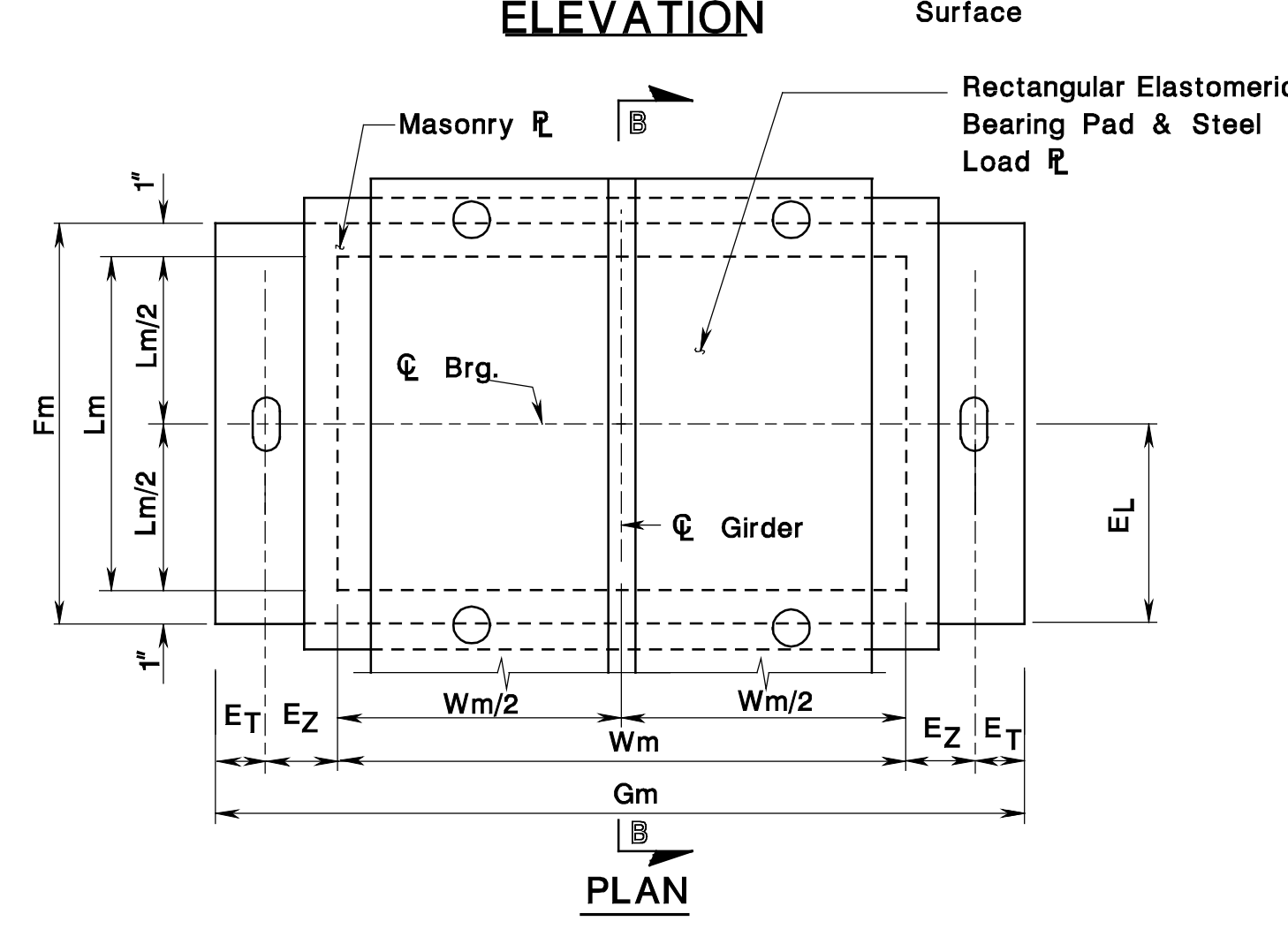
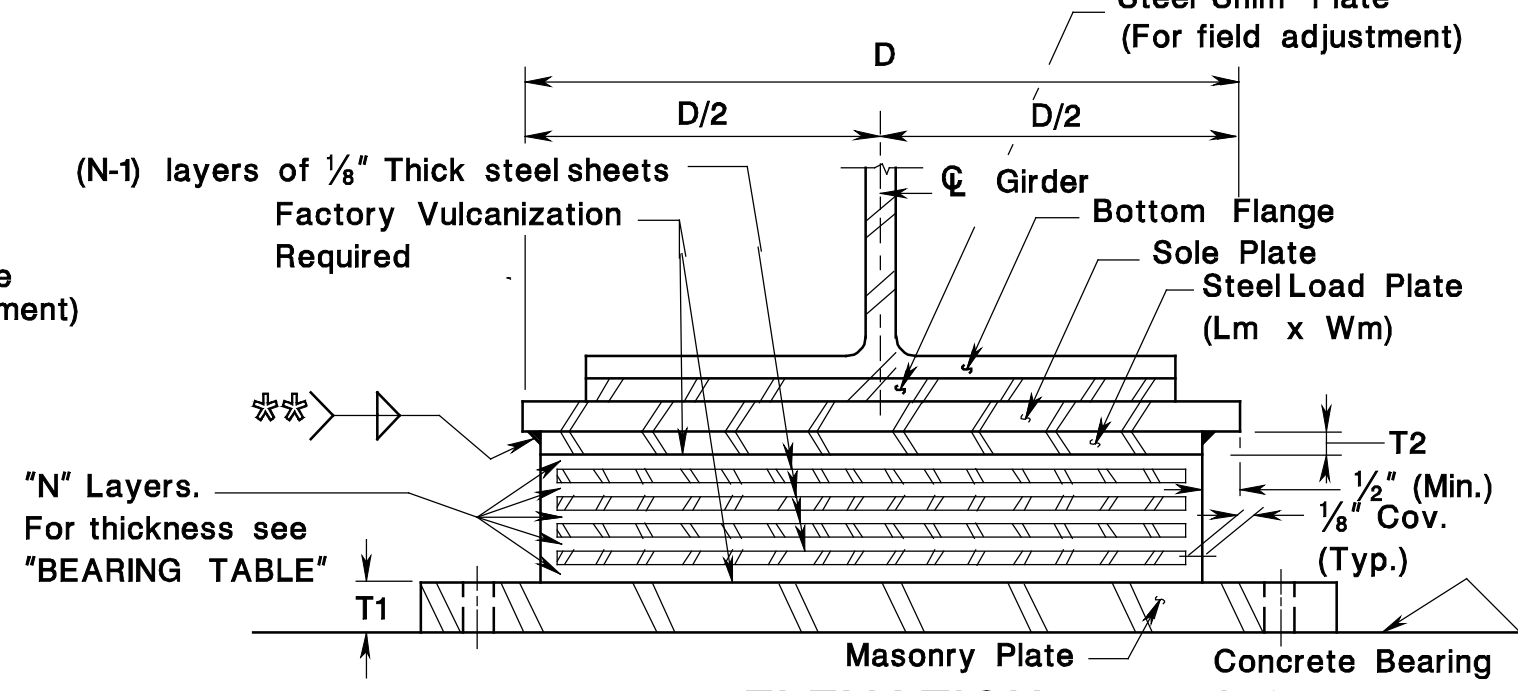
FIXED BEARINGS



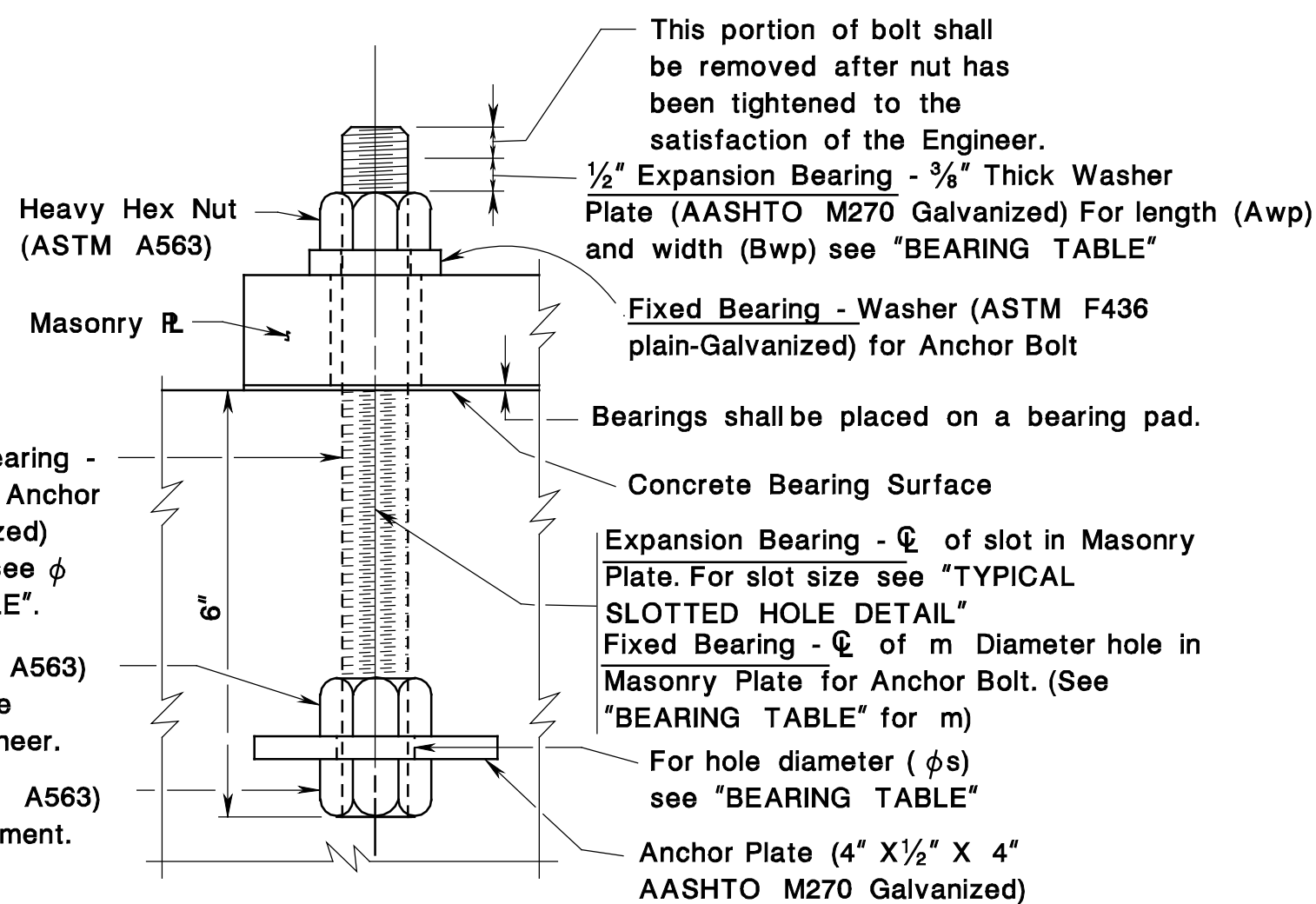
PIN DETAIL FOR FIXED BEARINGS



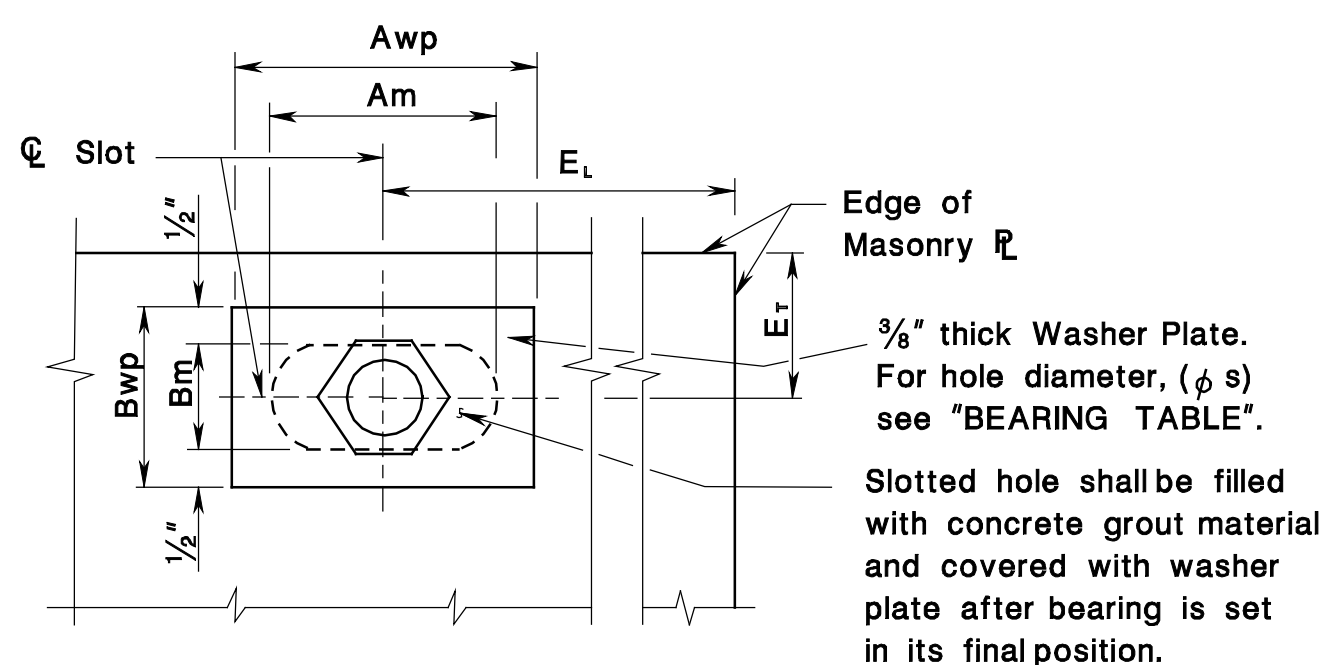
SECTION B-B



EXPANSION BEARINGS



ANCHOR BOLT DETAIL FOR MULBERRY



TYPICAL SLOTTED HOLE DETAIL MASONRY PLATE

(FOR EXPANSION BEARINGS ONLY)

GENERAL NOTES:

- Elastomeric Bearings shall be designed in conformance with the AASHTO LRFD Bridge Design Specifications 3rd edition-2004, with current interims, as modified by Section 3 of the NJDOT Design Manual for Bridges and Structures, and the NJDOT Standard Specifications for Road and Bridge Construction with current Supplemental Specifications, as modified by the Special Provisions.
- Tapered sole plates may be required when the bottom of the beam and the top of the bearings are not parallel to each other. A tapered sole plate shall be placed between the beam and the external load plate if either of the following conditions exist:
 - Longitudinal grade of the bottom flange is one percent or more.
 - The required taper is 1/8" or more.
- The top of pedestals/bearing concrete pad shall be level.
- The continuous weld connecting the load plate to the sole plate shall be allowed to cool after each pass. However the temperature of the steel adjacent to the elastomer shall not exceed 200° F. Temperature shall be controlled by the welding procedure.
- Anchor Bolt shall be threaded as shown in "ANCHOR BOLT DETAIL FOR ALL BEARINGS". The nut shall be tightened to the satisfaction of the Engineer and the Anchor Bolt tip shall be removed 1/2" above the top of the nut. Anchor Bolts, Plates, Washer Plates and Nuts shall conform to the requirements of NJDOT Standard Specifications for Road and Bridge Construction.
- All anchor bolts shall be cast-in-place.

*** Manufacturer shall provide the weld size (minimum size of weld shall be 5/16").

SUMMARY OF QUANTITIES

PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
92	5C41H	MULBERRY STREET STRUCTURAL BEARING ASSEMBLY	UNIT	40
106	5C41H	OLDEN AVENUE STRUCTURAL BEARING ASSEMBLY	UNIT	20

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STANDARD DRAWING PLATE 2.5-1

NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

ELASTOMERIC BEARING DETAILS

ROUTE US 1 SECTION 1

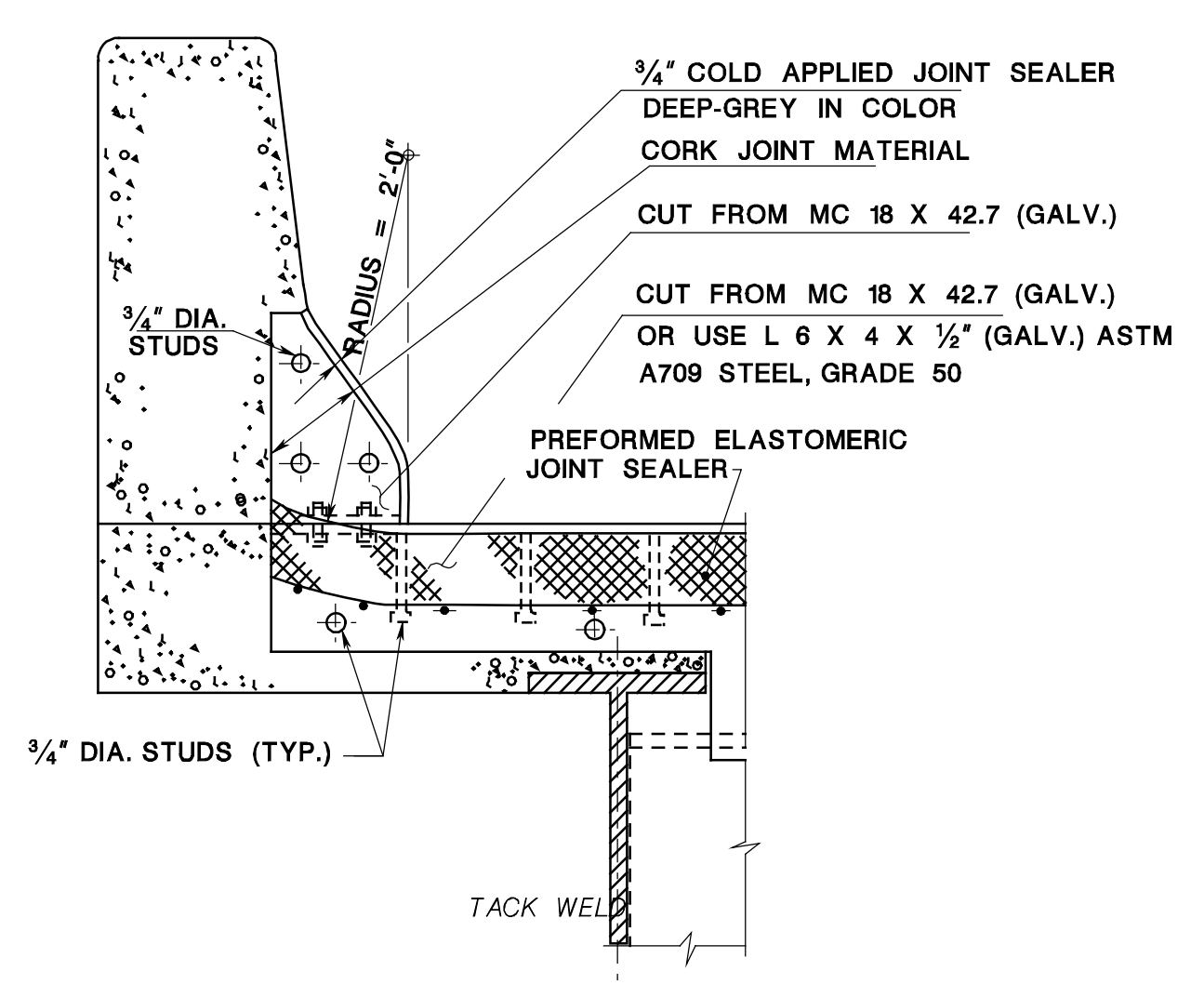
CITY OF TRENTON
MUNICIPALITY

BRIDGE SHEET NO. B 25 OF B 27

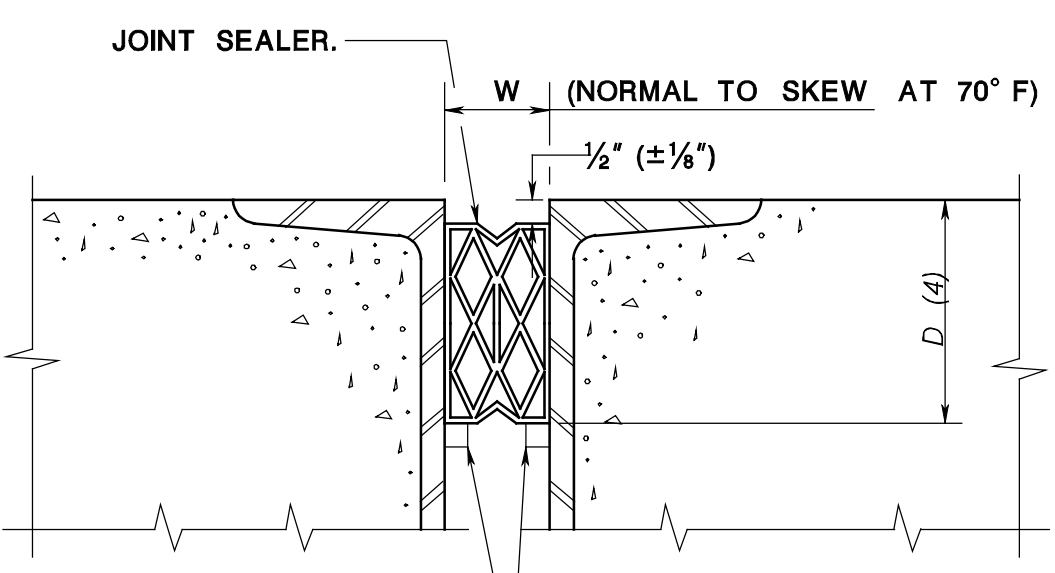
LOCATION	FIX / EXP	ITEM NO.	QUANTITY REQUIRED	MAX. DESIGN REACTION (KIPS)	SHAPE FACTOR	LOAD R THICKNESS T2 (IN)	ONE WAY LONG. MOVEMENT (IN)	ELASTOMER LAYERS												MASONRY												BRG. ANCHOR BOLTS				WELDED WASHERS				SOLE PLATE				LL W/O IMP (KIPS)	φs HOLE DIA. FOR PLATE (IN)	φP PIN DIA. (IN)								
								THICKNESS (IN)		N LAYERS		T1 (IN)		Fm (IN)		Gm (IN)		Am (IN)		Bm (IN)		Et (IN)		El (IN)		Ez (IN)		φm (IN)		H (IN)		φ (IN)		BOLTS PER BRG.		W (IN)		Awp (IN)		Bwp (IN)		C (IN)					D (IN)		T3 (IN)		T4 (IN)		DL+SDL (KIPS)	
								THICKNESS (IN)	N LAYERS	T1 (IN)	Fm (IN)	Gm (IN)	Am (IN)	Bm (IN)	Et (IN)	El (IN)	Ez (IN)	φm (IN)	H (IN)	φ (IN)	BOLTS PER BRG.	W (IN)	Awp (IN)	Bwp (IN)	C (IN)	D (IN)	T3 (IN)	T4 (IN)	DL+SDL (KIPS)																									
OLDEN	FIX	10	10	110	5.8	0.750	2.0	0.542	3	12.0	13.0	1.0	16.0	24.0	-	-	2.50	8.0	3.00	1.375	4.875	1.0	2	-	-	-	-	-	-	20.0	14.0	1.500	1.250	46	64	1.063	1.500																	
MULBERRY	EXP	10	10	110	5.8	0.750	2.0	0.542	3	12.0	13.0	1.0	16.0	24.0	2.5	1.375	2.50	8.0	3.00	1.375	4.875	1.0	2	-	-	5.0	2.375	20.0	14.0	1.500	1.250	46	64	1.063	-																			
MULBERRY	FIX	20	20	90.0	6.0	0.750	2.0	0.458	3	10.5	11.5	1.0	16.0	22.0	-	-	2.50	8.0	2.75	1.375	4.5	1.0	2	-	-	-	-	18.5	12.5	1.125	1.125	30.0	60.0	1.063	1.500																			
MULBERRY	EXP	20	20	90.0	6.0	0.750	2.0	0.458	3	10.5	11.5	1.0	16.0	22.0	2.5	1.375	2.50	8.0	2.75	1.375	4.5	1.0	2	-	-	5.0	2.375	18.5	12.5	1.125	1.125	30.0	60.0	1.063	-																			

* One way longitudinal movement is the maximum movement (Expansion or Contraction) of the Superstructure when bearings are set at 68° F. This includes 1" of tolerance. When the bearings are to be set at temperatures other than 68°, reference AASHTO LRFD Bridge Design Specifications, Articles 3.12.2.1 and 3.12.2.2 for guidance for setting temperatures and bearing movement.

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagracia	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahiekpor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sla Manager - Structural Engineering		



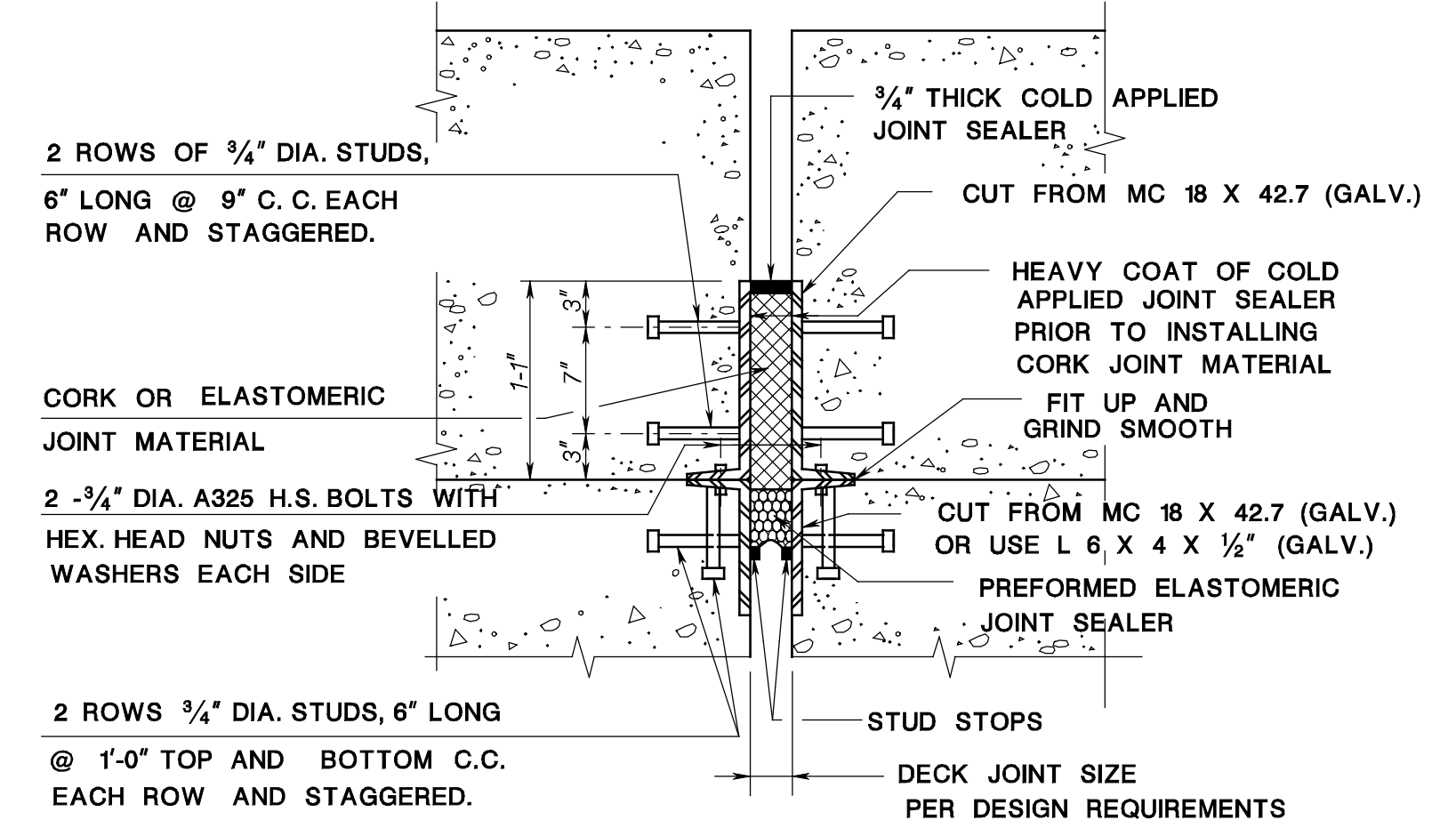
**LONGITUDINAL SECTION THROUGH JOINT AT ABUTMENT
SHOWING STEEL ARMOR PLATE AT JOINT
FOR BARRIER AT MEDIAN AND PARAPET**
N.T.S.



NOMINAL SEALER SIZE (2) (3)		W	D
WIDTH	HEIGHT (1)		
1 3/4"	1 3/4"	1"	(4)

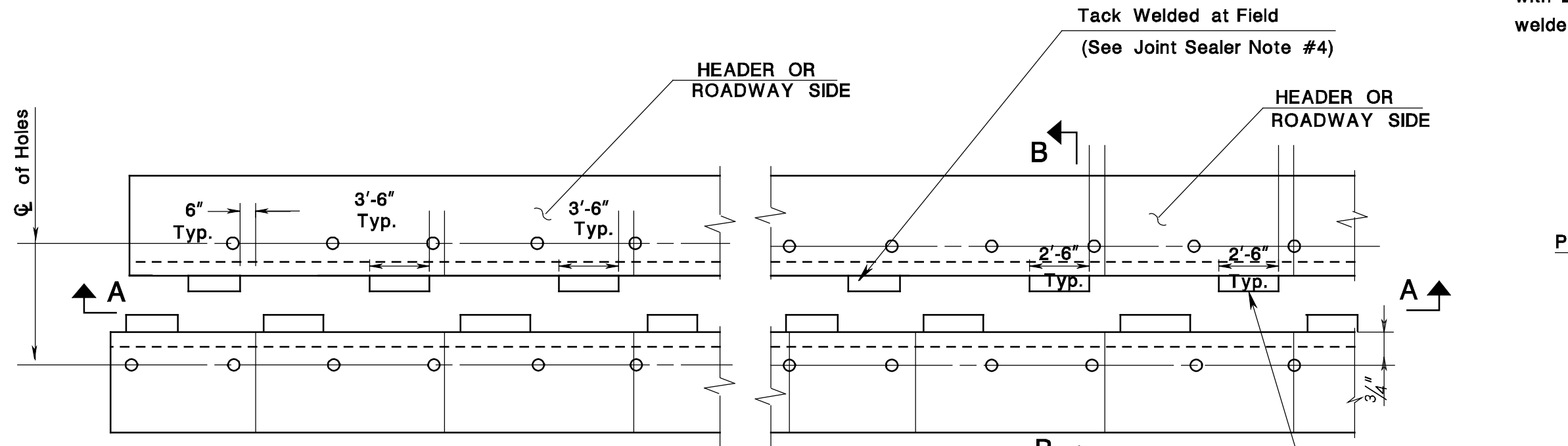
Tack Weld
1/2" x 1/2" SQUARE BAR

- NOTES:**
1. THE NOMINAL HEIGHT OF COMPRESSION SEALS MAY VARY BASED UPON MANUFACTURER'S SPECIFICATIONS.
 2. THE COMPRESSION SEAL HEIGHT TO WIDTH RATIO SHALL NOT BE LESS THAN 90 %.
 3. THE WIDTH OF SEALER SHALL NOT BE LESS THAN NOMINAL SIZE. THE HEIGHT MAY EXCEED THE NOMINAL MANUFACTURER'S SEALER HEIGHT BY NOT MORE THAN 1/4". REFERENCE SECTION 908.03 OF THE NJDOT STANDARD SPECIFICATIONS FOR MORE INFORMATION ON MATERIAL REQUIREMENTS.
 4. "D" DIMENSION IS EQUAL TO COMPRESSED SEAL HEIGHT PER MANUFACTURER'S SPECIFICATIONS PLUS 1/2" (±1/8"). DIMENSION "D" SHALL BE SET IN THE SHOP BY THE FABRICATOR, EXCEPT OLDEN EXISTING STEEL DECK JOINT WHICH SHALL BE DONE IN THE FIELD.

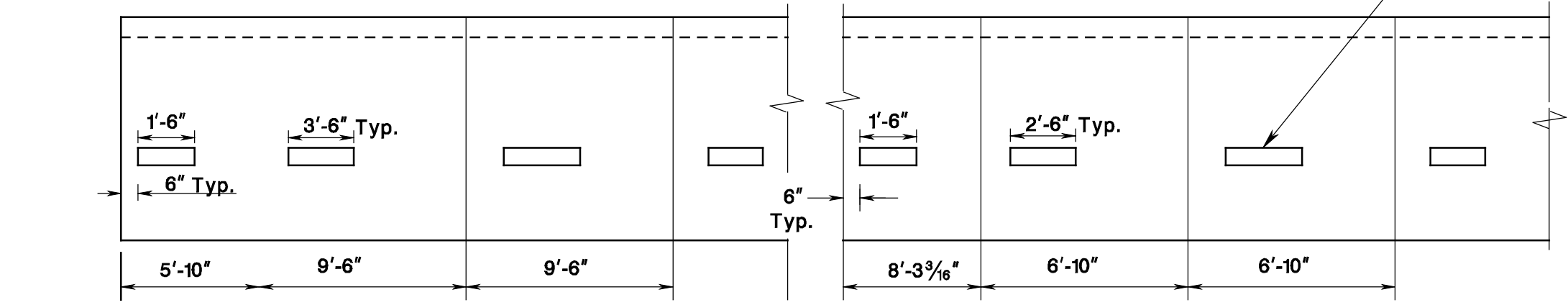


**SECTION THROUGH BARRIER
AT ABUTMENT**
N.T.S.

- NOTES:**
1. ALL BOLTS SHALL BE ASTM A325 GALVANIZED HIGH STRENGTH BOLTS.
 2. MATERIAL FOR STEEL ARMORING SHALL CONFORM TO AASHTO M270 (ASTM A709) AND SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.



PLAN

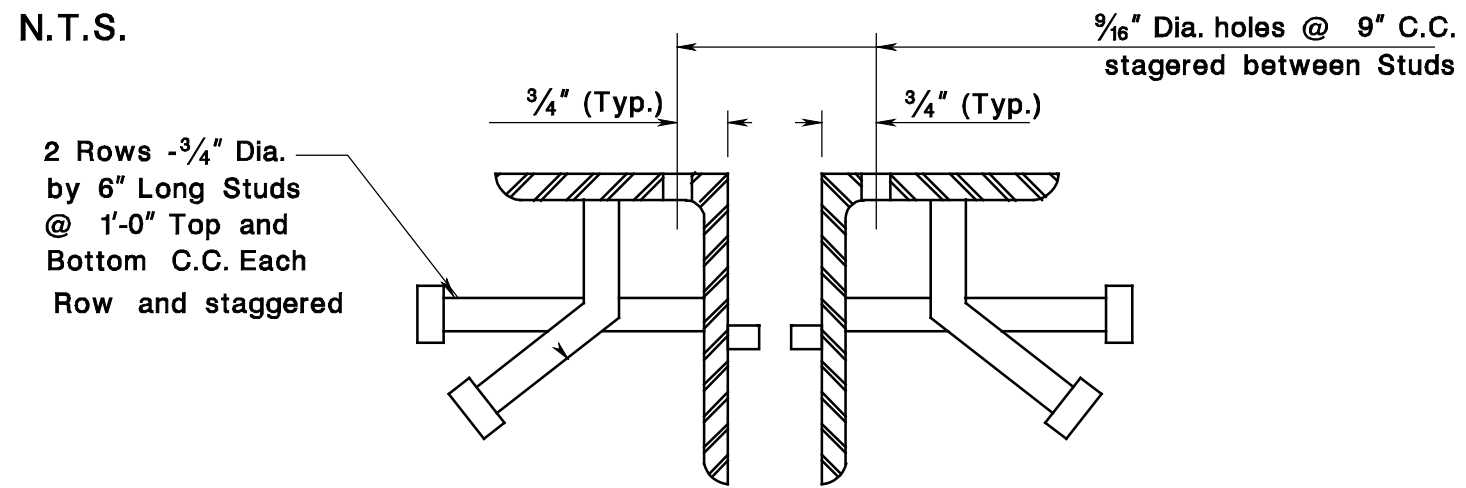


**MULBERRY STREET ONLY
DECK SIDE**

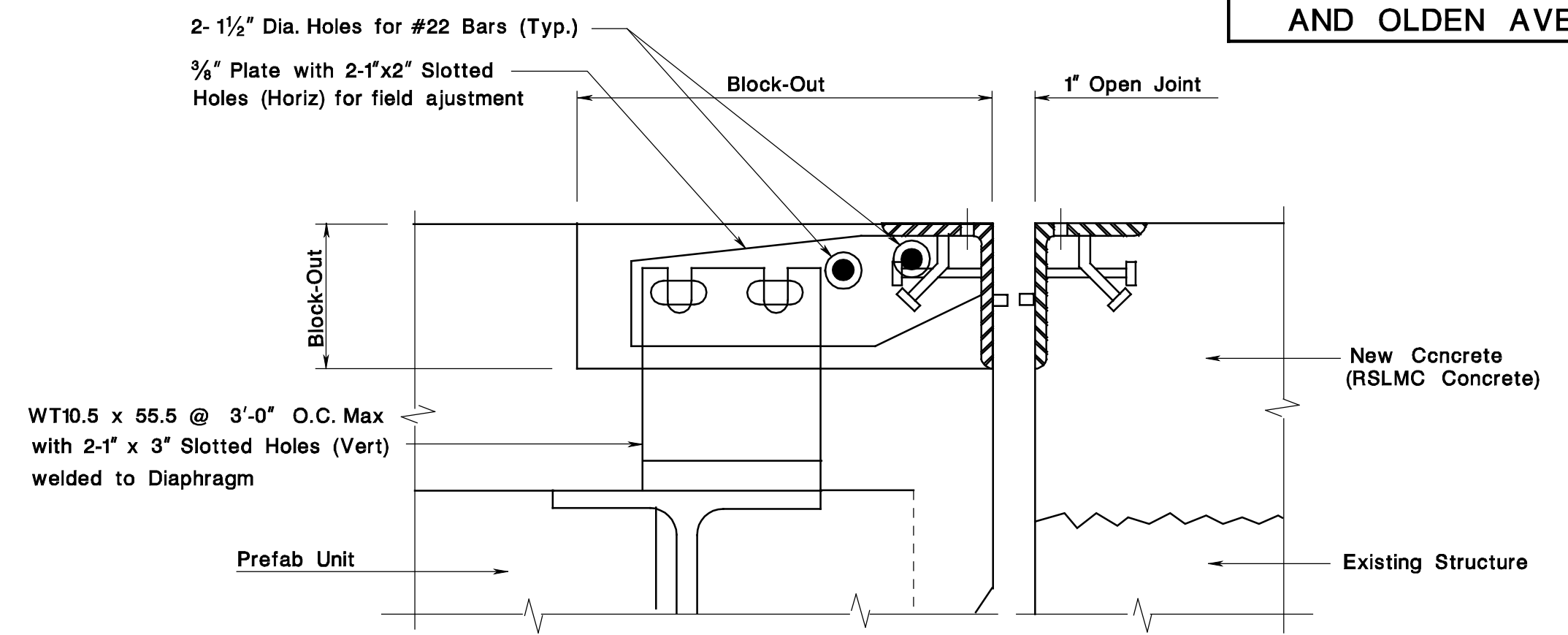
**OLDEN AVENUE ONLY
DECK SIDE**

SECTION A-A

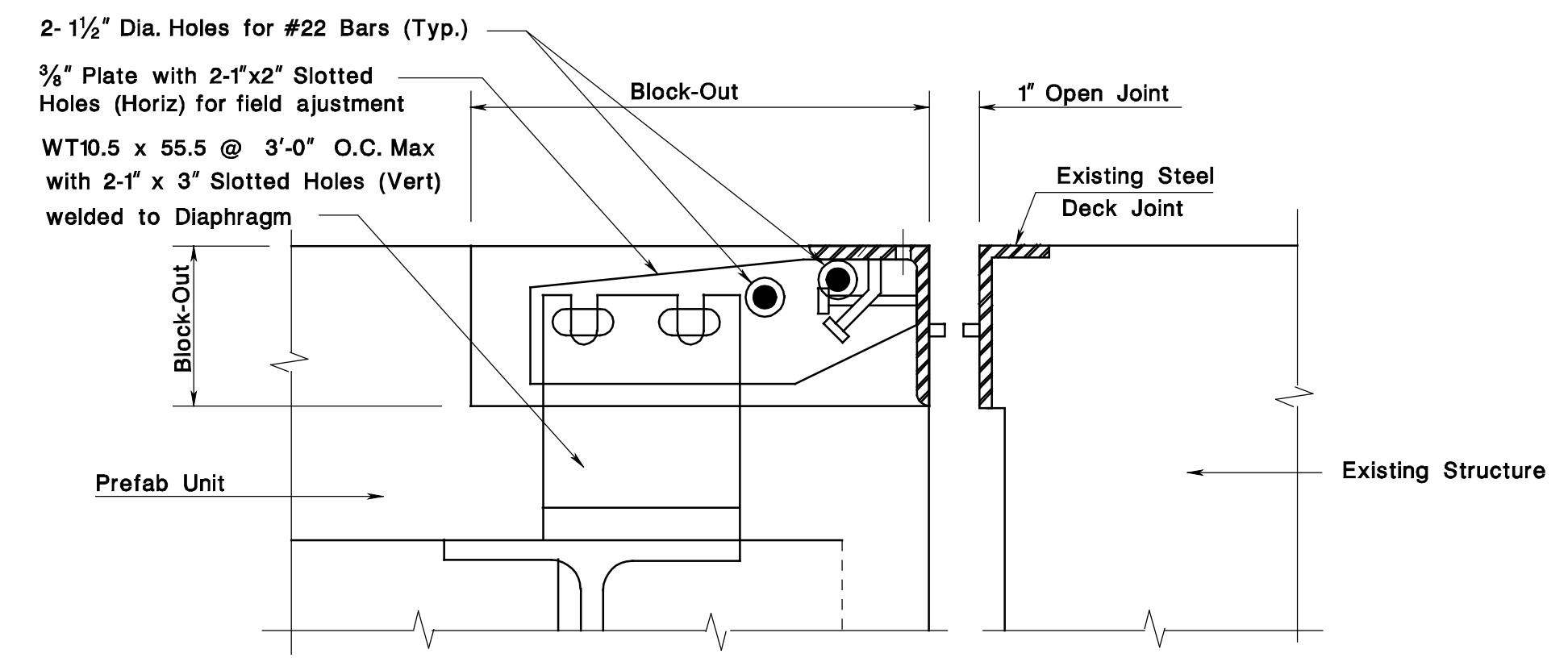
N.T.S.



SECTION B - B



DECK JOINT (MULBERRY ST.)
N.T.S.



DECK JOINT (OLDEN AVE.)
N.T.S.

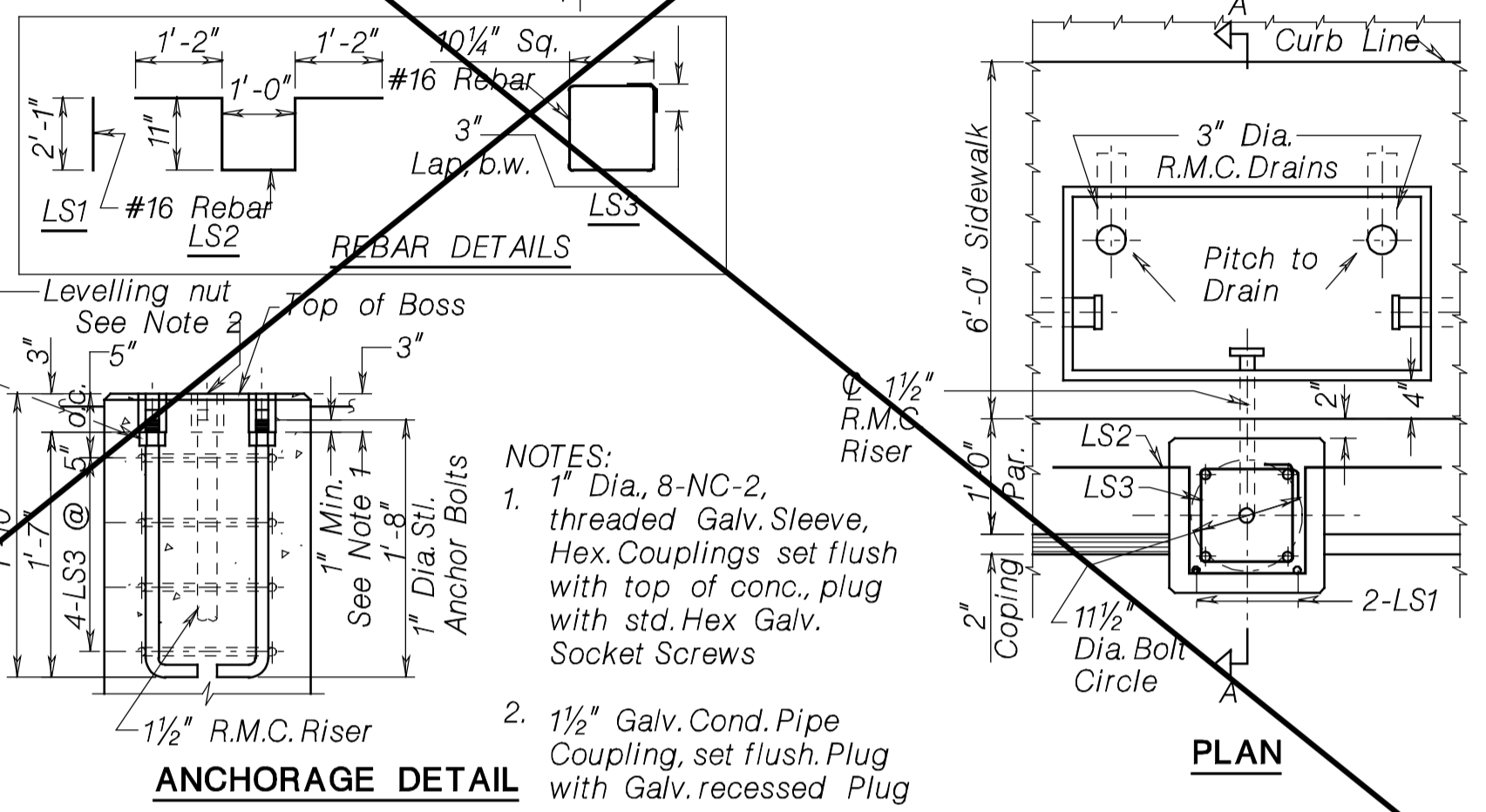
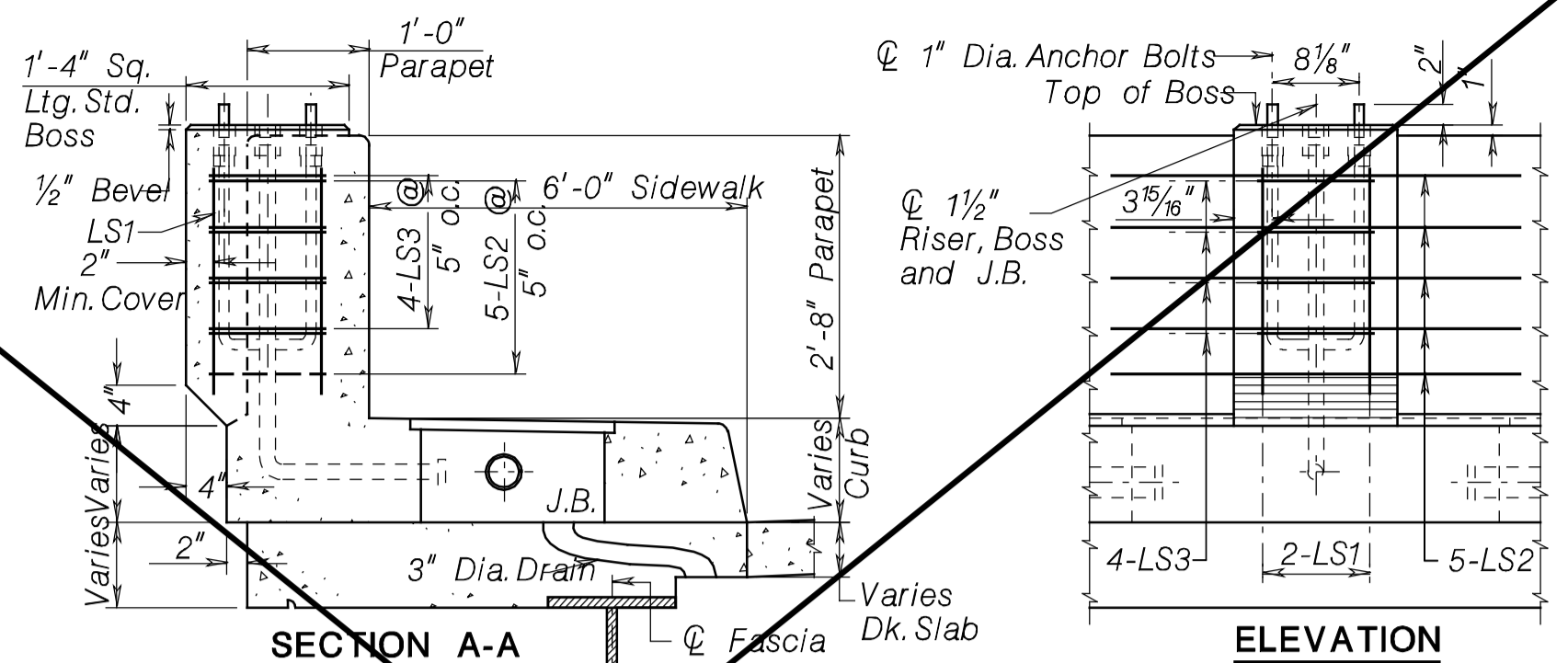
- NOTES**
1. Block - Out to be filled with RSLMC Concrete after installing Steel Deck Joint.
 2. For Mulberry Street; RSLMC concrete for block-out and additional header shall be included in the Pay Item "Concrete in Substructures, Abutment Walls - RSLMC"
 3. For Olden Avenue; RSLMC Concrete for block-out shall be included in Pay Item "Structural Bearing Assembly".

ALL DIMENSIONS SHOWN ARE IN US UNITS

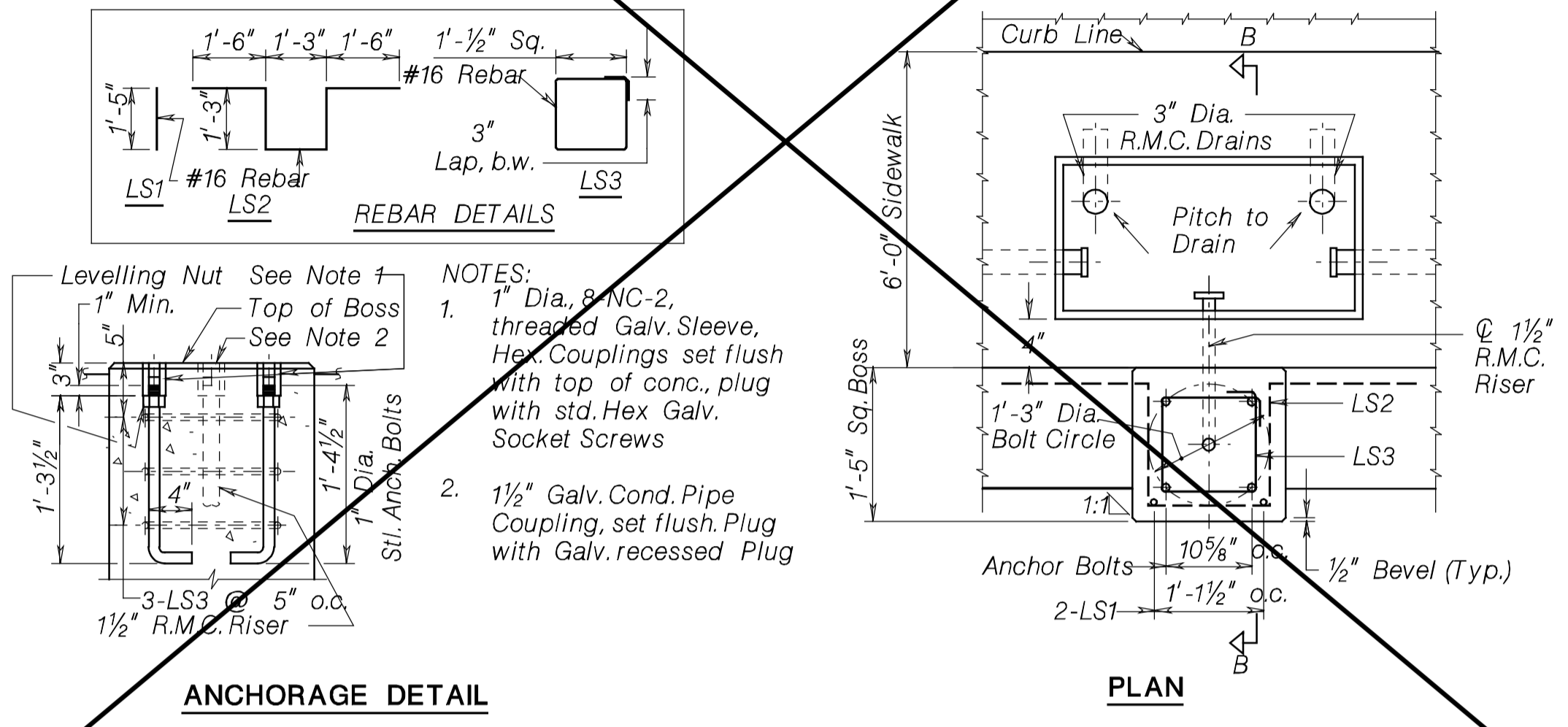
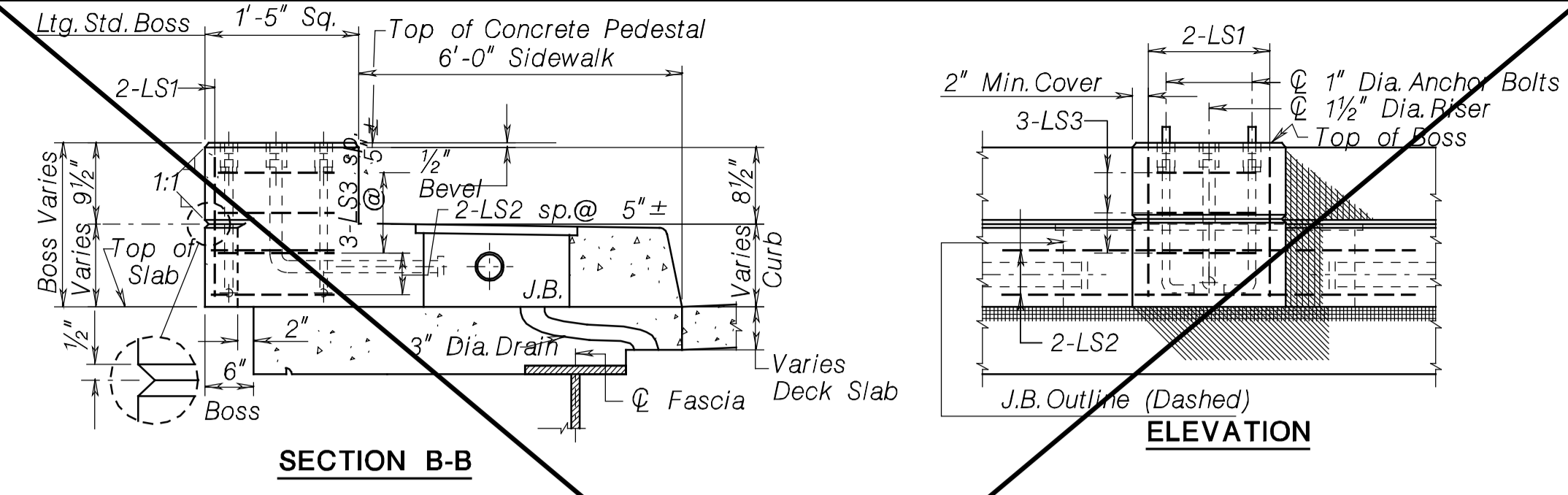
SUMMARY OF QUANTITIES				
PAY ITEM NO.	STANDARD ITEM NO.	DESCRIPTION	UNIT	CONTRACT QUANTITY
MULBERRY STREET				
88	5A20H	1 3/4" X 1 3/4" PREFORMED ELASTOMERIC JOINT SEALER	LF	165
90	5C22D	STRUCTURAL STEEL DECK JOINTS (14,300 LBS.)	LS	LUMP SUM
OLDEN AVENUE				
102	5A20H	1 3/4" X 1 3/4" PREFORMED ELASTOMERIC JOINT SEALER	LF	168
104	5C22D	STRUCTURAL STEEL DECK JOINTS (7,600 LBS)	LS	LUMP SUM

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagracia	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahlepoor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

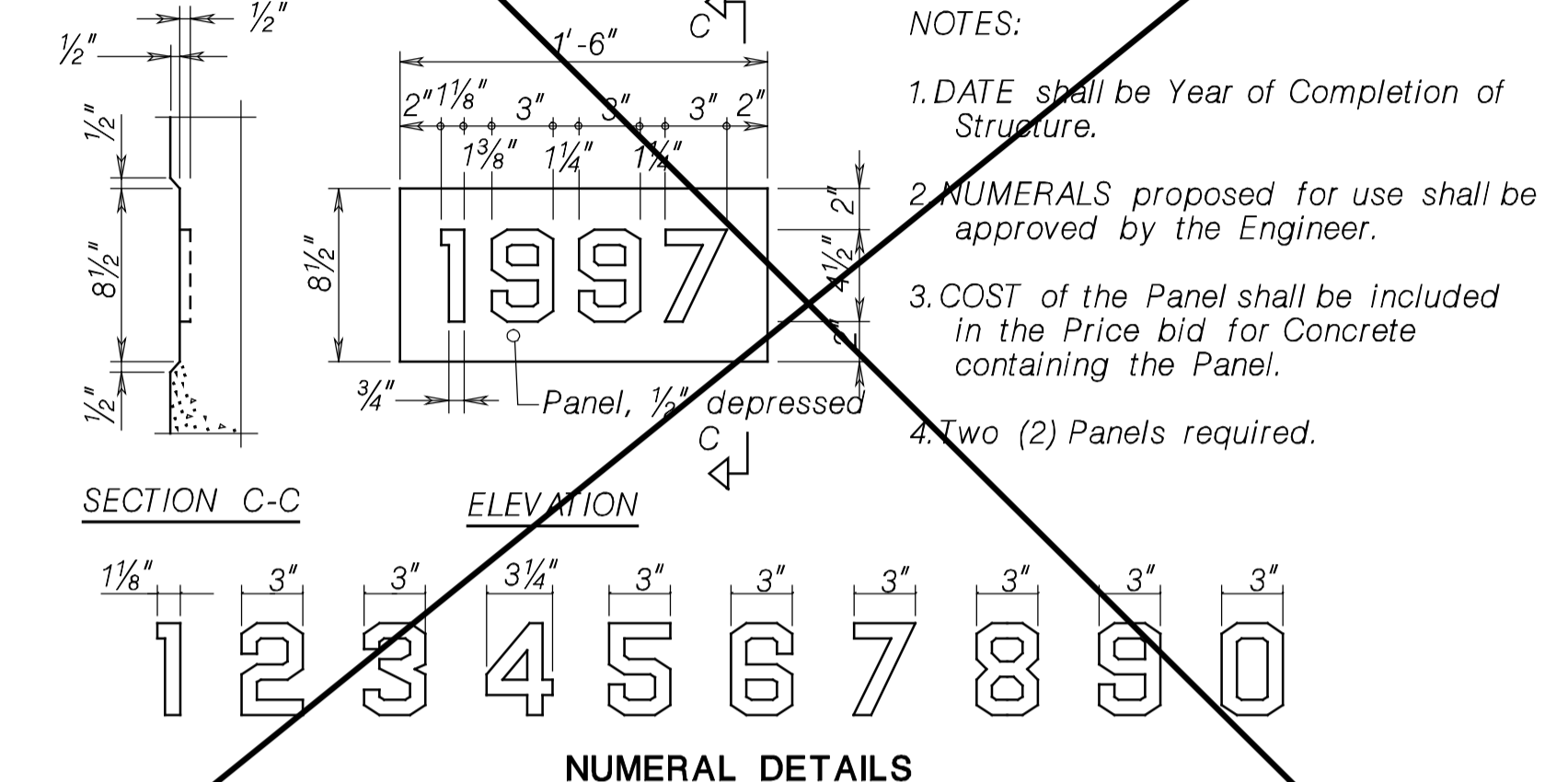
NEW JERSEY DEPARTMENT OF TRANSPORTATION BUREAU OF STRUCTURAL ENGINEERING	
DECK JOINT DETAILS	
ROUTE US 1	SECTION 1
CITE OF TRENTON	MERCER COUNTY
MUNICIPALITY	COUNTY
BRIDGE SHEET NO. B.26	OF B.27



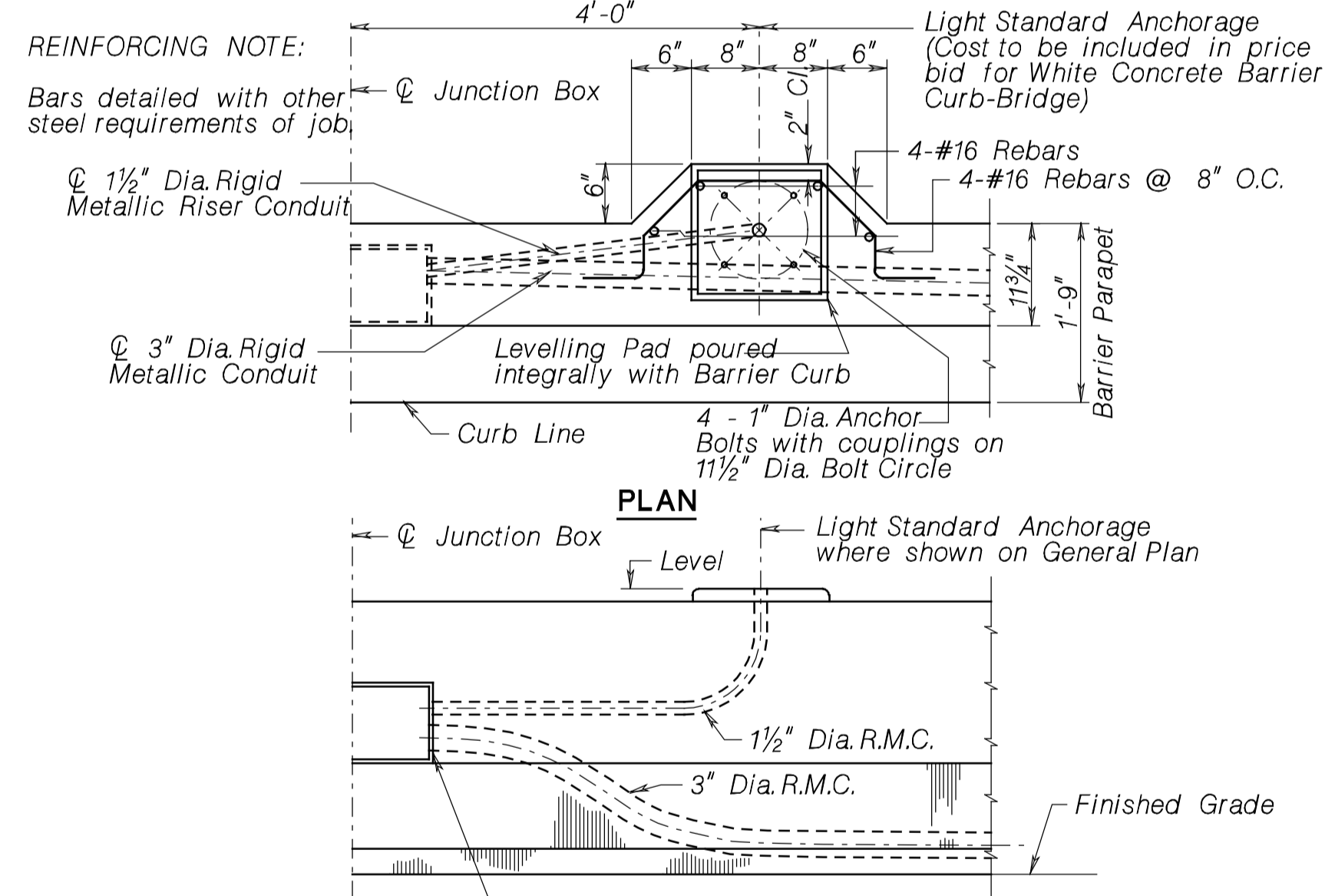
DETAILS OF LIGHTING STANDARD BOSS ON 2'-8" PARAPET



DETAILS OF LIGHTING STANDARD BOSS ON 8 1/2" PEDESTAL

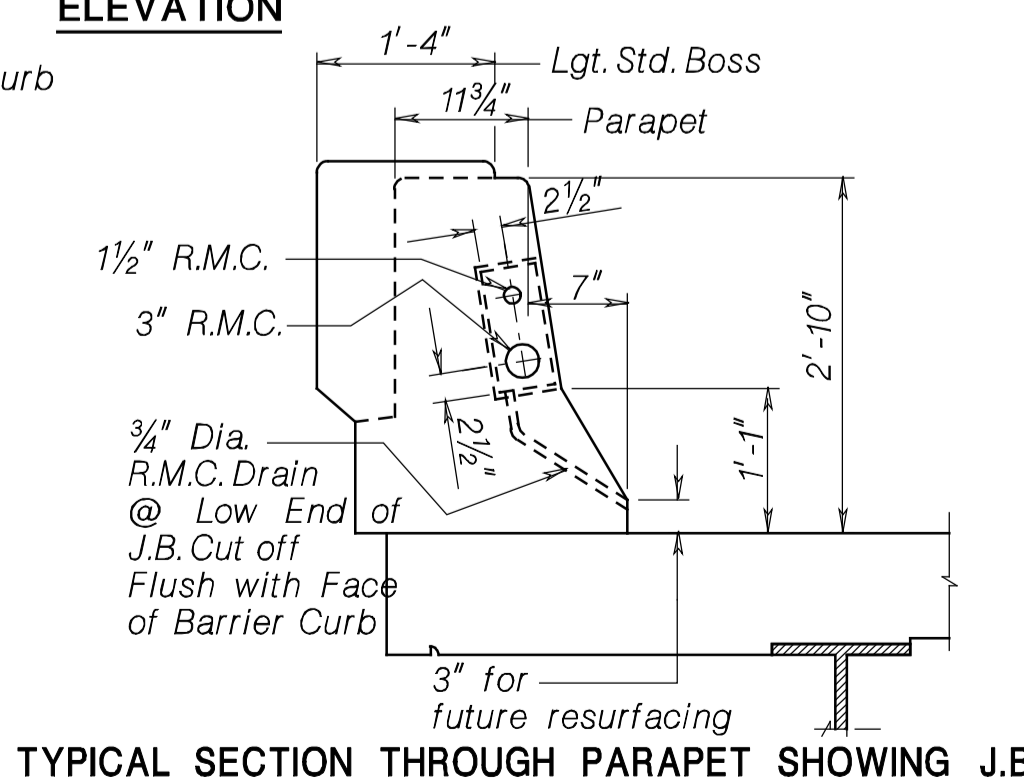


DETAILS OF NUMERAL PANEL

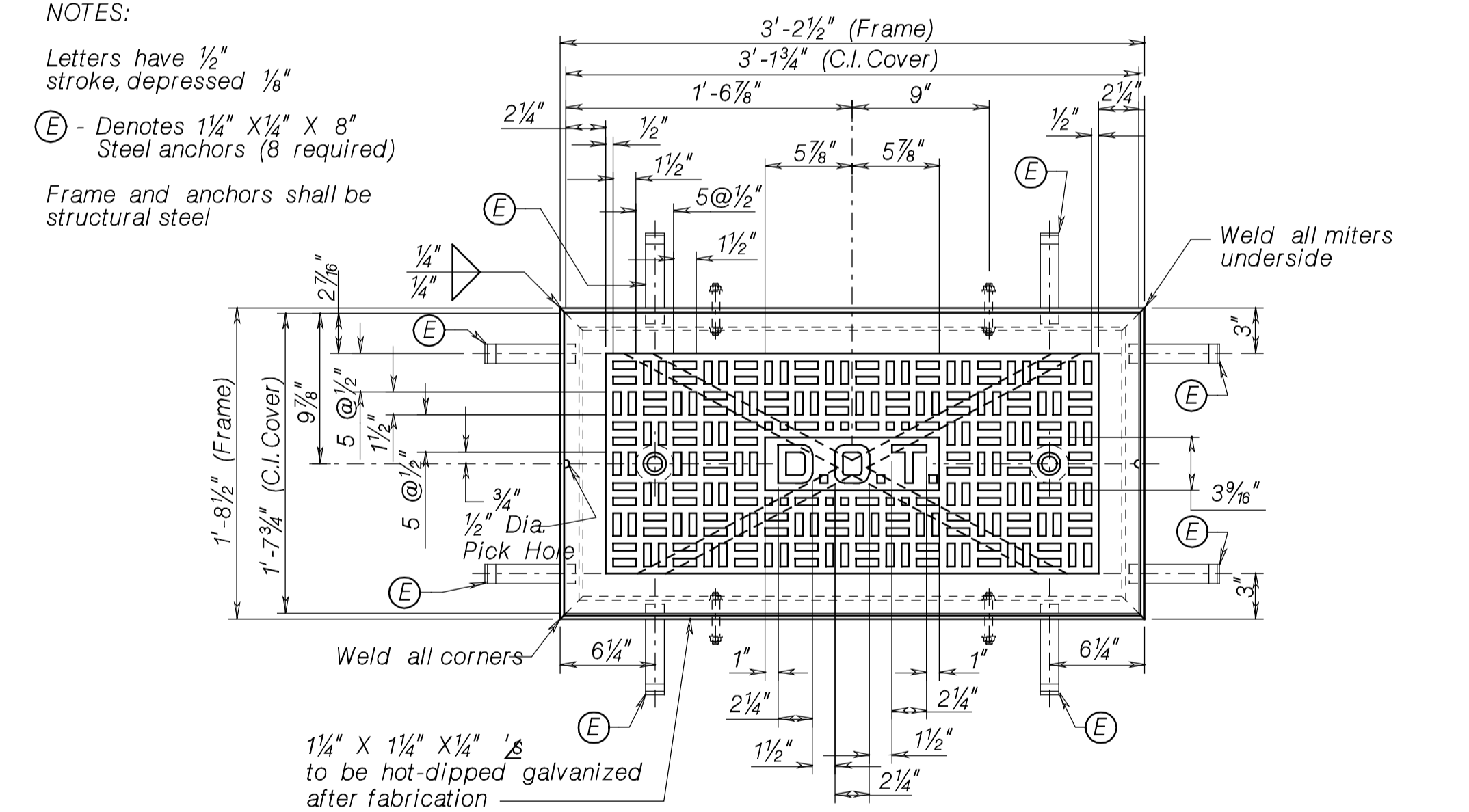


TYPICAL SECTION THROUGH PARAPET SHOWING J.BOX

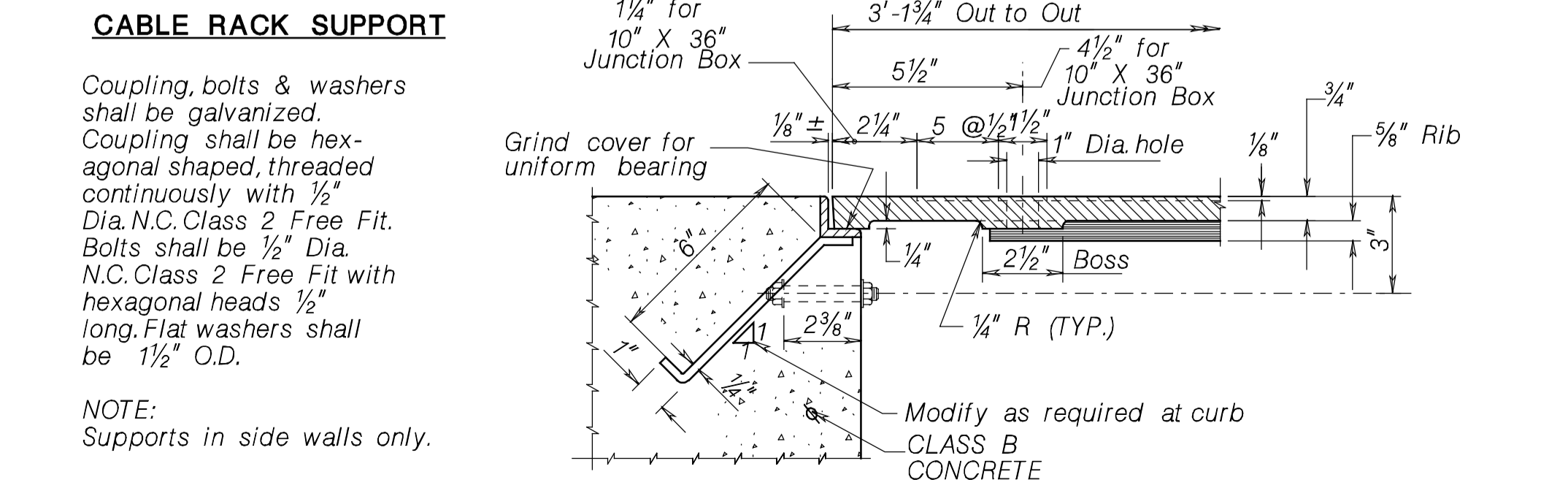
FOR MULBERRY ST. BRIDGE ONLY



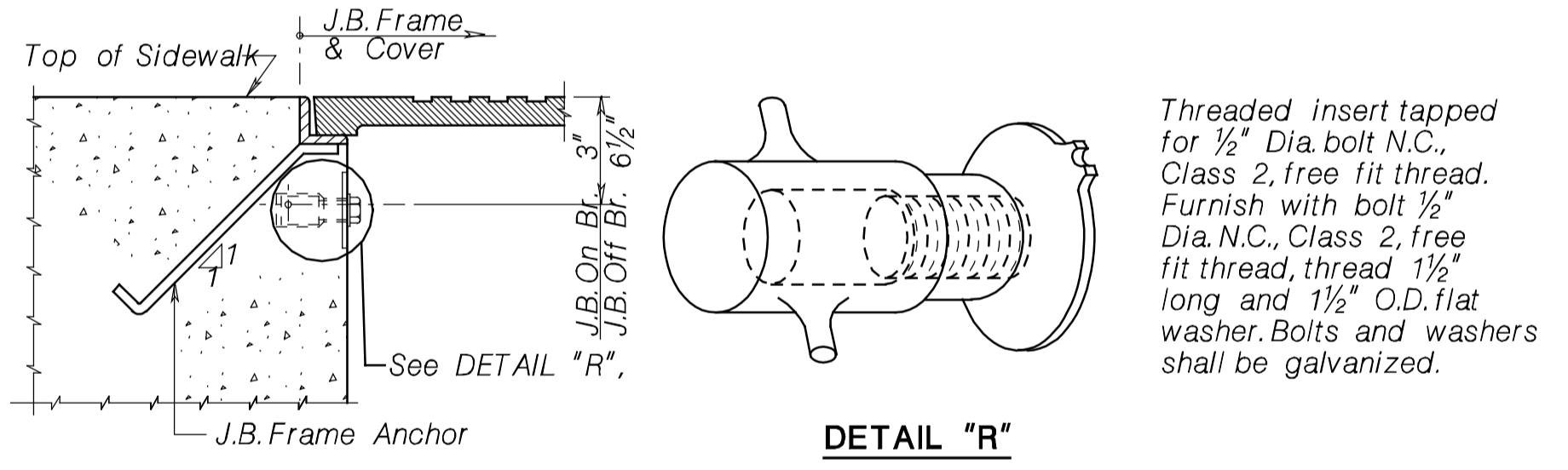
DETAIL OF LIGHTING STANDARD BOSS FOR 2'-10" BARRIER PARAPET



PLAN-FRAME AND COVER FOR 1'-6" X 3'-0" JUNCTION BOX



END SECTION THROUGH JUNCTION BOXES



DETAILS OF ALTERNATE CABLE RACK SUPPORT

ALL DIMENSIONS SHOWN ARE IN US UNITS

STANDARD DRAWING PLATE 2.6-2

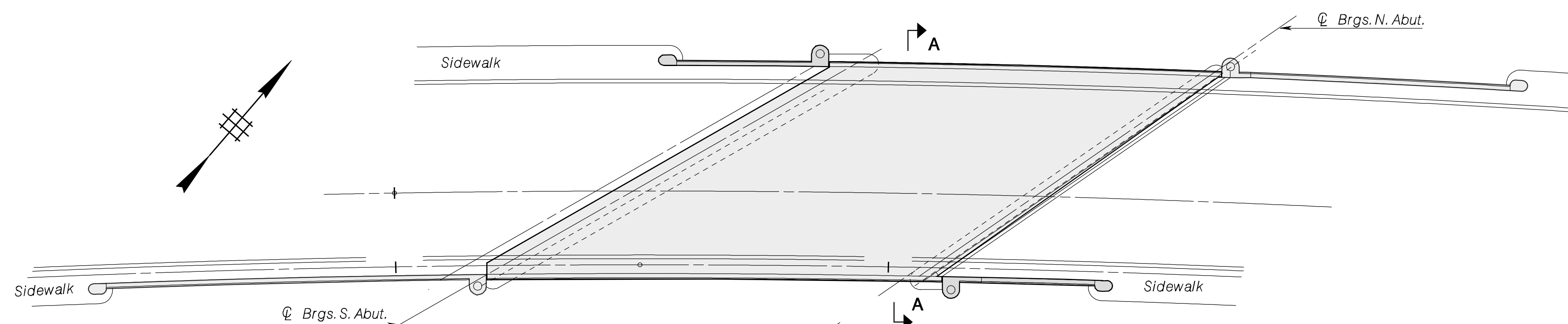
NEW JERSEY DEPARTMENT OF TRANSPORTATION
 BUREAU OF STRUCTURAL ENGINEERING

TYPICAL DETAILS NO. 2
 (MULBERRY ST. & OLDEN AVE.)

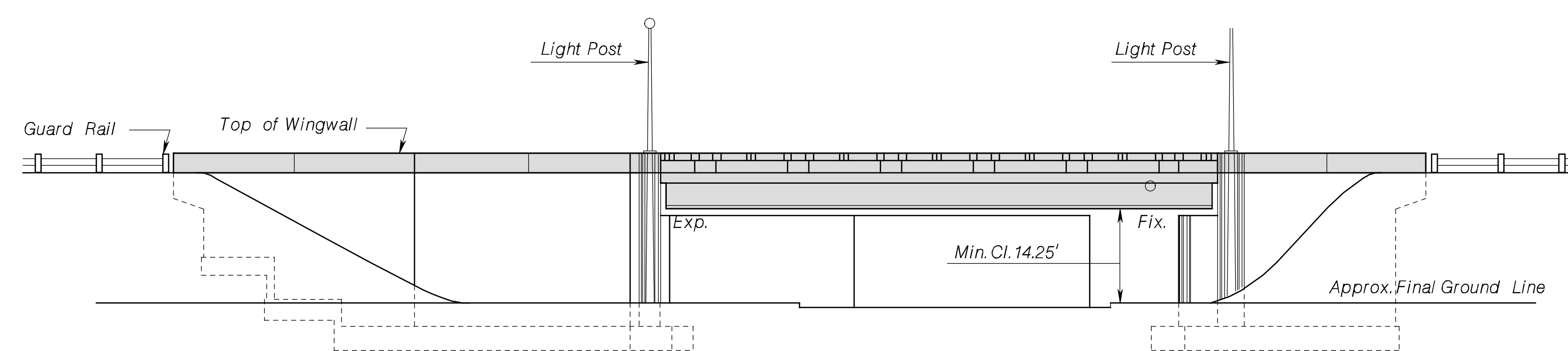
ROUTE: US 1 SECTION: 1

CONTROL SECTION	1101	JOB NO. 1101513
DES.	Jay Patel	CHK. Seth Ahiepor
DWN.	Jay Patel	
IN CHARGE	Seth Ahiepor Project Engineer - Structural Transportation	
SUBMITTED	Wilfredo Sia Manager - Structural Engineering	

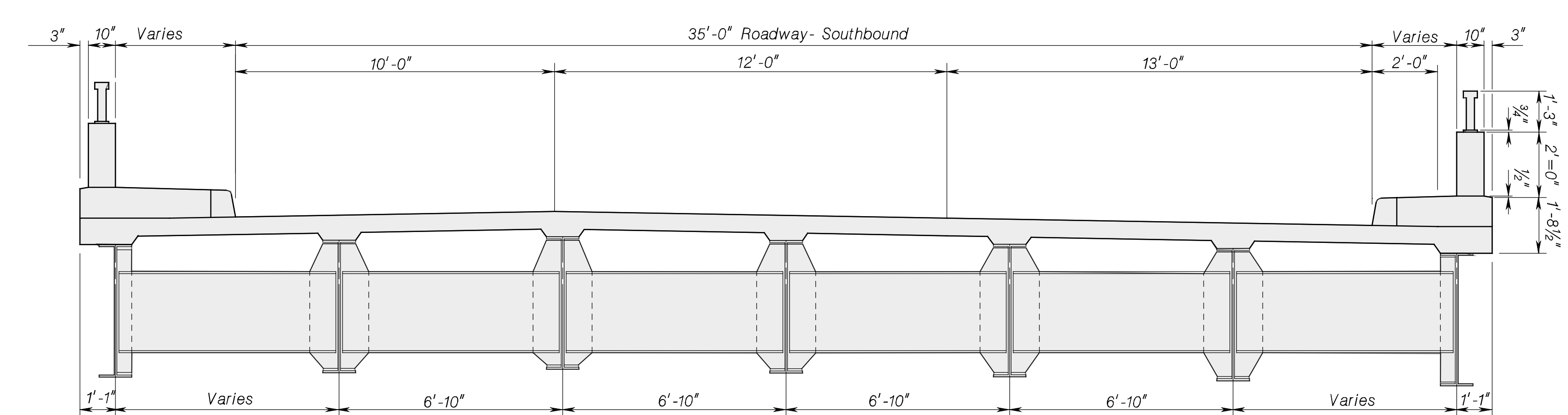
STATE	FEDERAL PROJECT NO.	SHEET	TOTAL SHEETS
N. J.			
STRUCTURE NO. 1101-159			
STRUCTURE NAME			
US ROUTE 1 OVER			
OLDEN AVE. CONNECTOR			



PLAN
Scale: 1/16" = 1'-0"



ELEVATION
Scale: 1/16" = 1'-0"

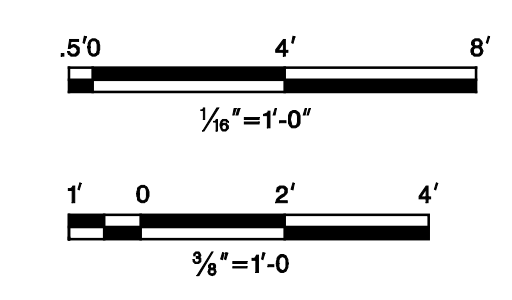


SECTION A-A
Scale: 3/8" = 1'-0"

DEMOLITION NOTES:

1. Contractor is responsible for the method and design of Superstructure removal and shall submit these to the Engineer for review prior to removal.
2. The Contractor shall prepare and submit all documents to obtain permits and approvals necessary to remove, transport and dispose demolished superstructure.
3. Disposal of materials and debris shall be in accordance with NJDOT Standard Specifications.
4. Contractor shall be aware that duration of work should be one (1) weekend from the start of demolition of existing superstructure to completion of proposed superstructure, see traffic control plans.
5. All works, equipment, transportation, and permits necessary to remove existing superstructure are included in Pay Item "Clearing Site, Bridge".

APPROXIMATE DEMOLITION QUANTITIES (For Information Only)		
ITEM	UNIT	QUANTITY
Concrete in Superstructure, Deck Slab	CY	120
Concrete in Superstructure, Parapet	LF	386
Reinforcement Steel in Structures	LB	24,000
Structural Steel	LB	215,000
Structural Bearing Assembly	Unit	14
Metal Railing	LF	171



ALL DIMENSIONS SHOWN ARE IN US UNITS
NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURAL ENGINEERING

DEMOLITION DETAILS
(OLDEN AVE.)

ROUTE US 1 SECTION 1

CITY OF TRENTON MERCER
MUNICIPALITY COUNTY

BRIDGE SHEET NO. B 5 OF B 27

CONTROL SECTION	1101	JOB NO.	1101-513
DES.	R. Villagracia	CHK.	D. Patel
DWN.	U. Wallace		
IN CHARGE	Seth Ahlepor Project Engineer - Structural Transportation		
SUBMITTED	Wilfredo Sia Manager - Structural Engineering		

REVISION	BY	C/K'D	DATE