

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	1
		ILLINOIS	CONTRACT NO. 78B86	

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEETS NO. 4-5

PROPOSED HIGHWAY PLANS

FAP ROUTE 889 (US 45)
SECTION 105BRR-1
BRIDGE REPAIRS
MASSAC COUNTY

C-99-129-25

TRAFFIC DATA

SN 064-0036
2026 ADT = 13190
(BOTH DIRECTIONS)
(SU 515, MU 285)

TOWNSHIP
METROPOLIS

POSTED SPEED: 45 MPH

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: EHREN KIRBY
PROJECT MANAGER: STEPHEN DILLARD

CONTRACT NO. 78B86

SN 064-0036
US 45 EB OVER MASSAC CREEK



GROSS LENGTH = 290.0 FT. = 0.055 MILE
NET LENGTH = 290.0 FT. = 0.055 MILE



LOCATION OF SECTION INDICATED THUS: - [thick black line] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Jan 7 20 26
Don S. Roman
REGIONAL ENGINEER

March 20 20 26
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

March 20 20 26
[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

MODEL: 02-Signature (Sheet)
FILE NAME: C:\w\work\illinois.gov\stephen.dillard\projects\p\vd11307660578B86-SHA-Cover.dwg

Prepared By: Susan Poe
DISTRICT STUDIES & PLANS ENGINEER

Examined By: Nancy Hee
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Car Mike
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: Z COO
DISTRICT OPERATIONS ENGINEER

Examined By: _____
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: B. Smith
DISTRICT CONSTRUCTION ENGINEER

Examined By: Aan Hays
DISTRICT MATERIALS ENGINEER

USER NAME	* stephen.dillard	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	* 1/2/2026	DATE	-	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGNATURES	
SCALE:	SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	2
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

1	COVER SHEET
2	SIGNATURE SHEET
3	INDEX OF SHEETS, STANDARDS, GENERAL NOTES
4-5	SUMMARY OF QUANTITIES
6	STAGING PLAN
7-15	STRUCTURE REPAIR PLANS
16-21	EXISTING STRUCTURE PLANS (FOR INFORMATION ONLY)

GENERAL NOTES

COMMITMENTS: NONE

STANDARDS

00001-09	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
515001-04	NAME PLATE FOR BRIDGES
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701423-10	LANE CLOSURE MULTILANE WITH BARRIER 45-55MPH
701426-09	LANE CLOSURE MULTILANE INTERMITTENT OR MOVING OPERATIONS 45MPH OR MORE
701901-11	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS

MODEL: Index Etc (Sheet)
 FILE NAME: c:\p\work\pvt\illinois.gov\stephen.dillard@illinois.gov\1307661D978B86-ShB_Index-GenNotes.dgn

USER NAME = stephen.dillard	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STANDARDS, GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -	REVISED -			889	105BRR-1	MASSAC	21	3
	CHECKED -	REVISED -			CONTRACT NO. 78B86				
PLOT DATE = 1/6/2026	DATE -	REVISED -			SCALE:	SHEET 1	OF 1	SHEETS	STA.

SUMMARY OF QUANTITIES

COUNTY: **MASSAC CO**
 ROUTE: **FAP 889**
 FUNDING: **100% STATE**
 LOCATION: **BRIDGE**
SN 064-0036
0013

CODE NUMBER	ITEM DESCRIPTION	UNIT	
50102400	CONCRETE REMOVAL	CU YD	7.2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	7.2
50300300	PROTECTIVE COAT	SQ YD	21
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	520
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,180
50800515	BAR SPLICERS	EACH	12
52000110	PREFORMED JOINT STRIP SEAL	FOOT	88
52100520	ANCHOR BOLTS, 1"	EACH	30
59000200	EPOXY CRACK INJECTION	FOOT	40
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4
67100100	MOBILIZATION	L SUM	1
70107005	PAVEMENT MARKING BLACKOUT TAPE, 5"	FOOT	1,130
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	14

MODEL: SQO_1 [Sheet]
 FILE NAME: c:\pw\work\pav\illinois.gov_stephen.dillard@illinois.gov\130766\0978886-ShtC-Soc.dgn

REV - MS

USER NAME = stephen.dillard	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE. 889	SECTION 105BRR-1	COUNTY MASSAC	TOTAL SHEETS 21	SHEET NO. 4	
	DRAWN -	REVISED -		SCALE:	SHEET 1	OF 2	SHEETS	STA.	TO STA.	CONTRACT NO. 78B86		
	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT								
PLOT DATE = 1/6/2026	DATE -	REVISED -										

SUMMARY OF QUANTITIES - CONT

COUNTY: **MASSAC CO**
 ROUTE: **FAP 889**
 FUNDING: **100% STATE**
 LOCATION: **BRIDGE**
SN 064-0036
0013

CODE NUMBER	ITEM DESCRIPTION	UNIT	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	471
70400100	TEMPORARY CONCRETE BARRIER	FOOT	500
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	500
70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1
70600352	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE,NARROW), TEST LEVEL 3	EACH	1
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1280
X0325748	ACRYLIC COATING	SQ YD	9
X0325749	FIBER WRAP	SQ FT	75
X7010035	TRAFFIC CONTROL AND PROTECTION, STANDARD 701423 (SPECIAL)	EACH	1
53212754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	4
53016000	DECK SLAB REPAIR (PARTIAL)	SQ YD	1
Z0043800	PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	32

* SPECIALTY ITEM

REV - MS

MODEL: SQO 2 [Sheet]
 FILE NAME: c:\p\work\pav\illinois.gov_stephen.dillard@illinois.gov\130766D978B86-ShtC-Sqo.dgn

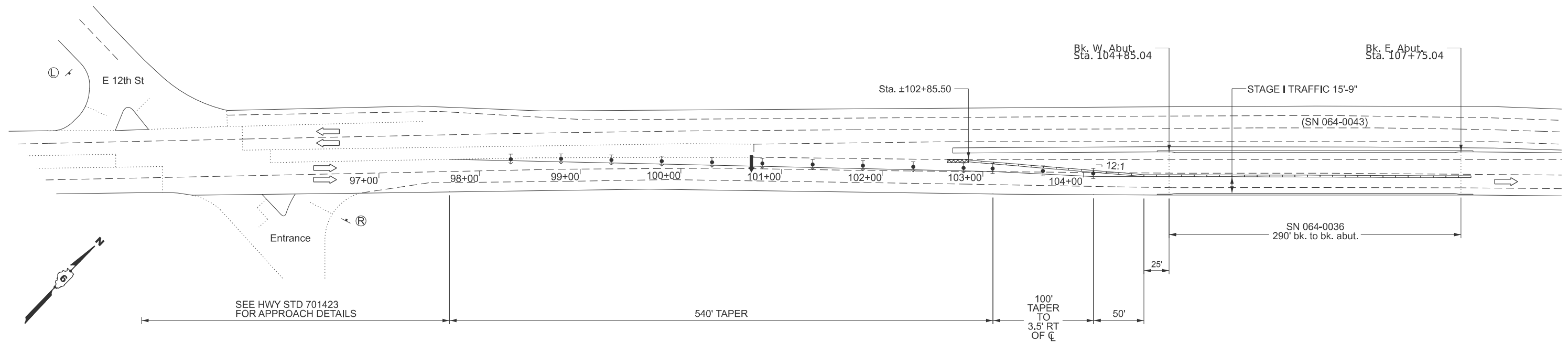
USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

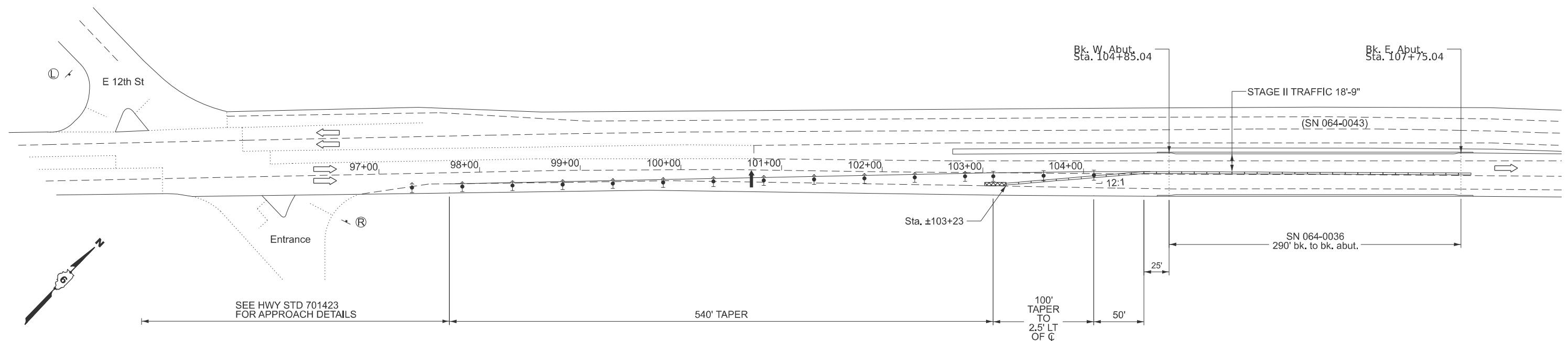
SUMMARY OF QUANTITIES

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

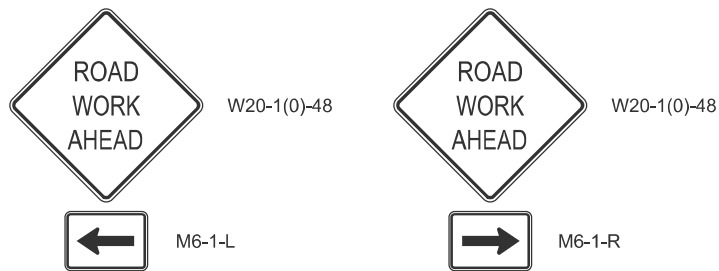
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	5
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				



STAGE I TRAFFIC



STAGE II TRAFFIC



- LEGEND (BOTH STAGES)**
- TEMP. CONCRETE BARRIER
 - IMPACT ATTENUATOR
 - ARROW BOARD
 - W20-1(0)-48 AND M6-1-L
 - W20-1(0)-48 AND M6-1-R
 - DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
 - TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT

MODEL: Twp 3 (Sheet)
 FILE NAME: c:\p\work\wv\illinois.gov\stephen.dillard\illinois.gov\d11307681D978B86-Design.dgn

USER NAME = stephen.dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/7/2026	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING PLAN SN 064-0036	
SCALE:	SHEET 1 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	6
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

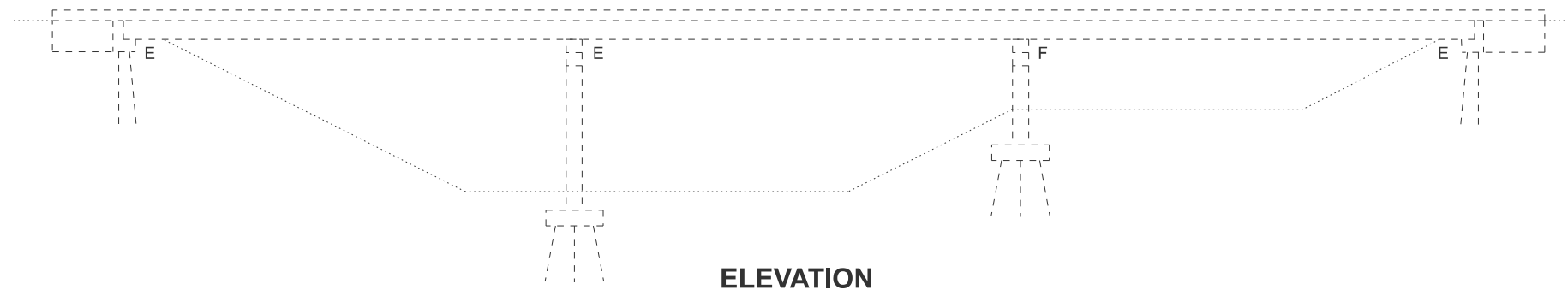
NOTES

1. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
2. PRIOR TO POURING THE NEW CONCRETE DECK SECTION, ALL HEAVY OR LOOSE RUST, LOOSE MILL SCALE, AND OTHER LOOSE OR POTENTIALLY DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE SURFACES IN CONTACT WITH CONCRETE ACCORDING TO SSPC-SP3. TIGHTLY ADHERED PAINT MAY REMAIN UNLESS OTHERWISE NOTED. REMOVAL SHALL BE ACCOMPLISHED BY METHODS THAT WILL NOT DAMAGE THE STEEL AND THE COST WILL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
3. PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER; THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
4. EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM AT THE CONTRACTOR'S EXPENSE.
5. JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STD. SPECS. WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50°F.
6. THE CONTRACTOR SHALL USE EXTREME CARE DURING CONCRETE REMOVAL SO AS NOT TO DAMAGE THE PPC I-BEAM.
7. EXPANSION JOINTS SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND AS APPROVED BY THE ENGINEER. THE REMOVAL OF THE EXISTING JOINT OR COMPONENTS SHALL BE INCIDENTAL TO THE PREFORMED JOINT SEAL.
8. PROTECTIVE COAT SHALL BE APPLIED TO THE TOP AND INSIDE FACES OF ALL NEW CONCRETE PARAPETS AND ALL NEW CONCRETE AT JOINTS ACCORDING TO ARTICLE 503.19 OF THE STD. SPECS.
9. ALL NEW STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED. SEE SPECIAL PROVISIONS FOR "HOT DIP GALVANIZING FOR STRUCTURAL STEEL."
10. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 36 UNLESS OTHERWISE NOTED.

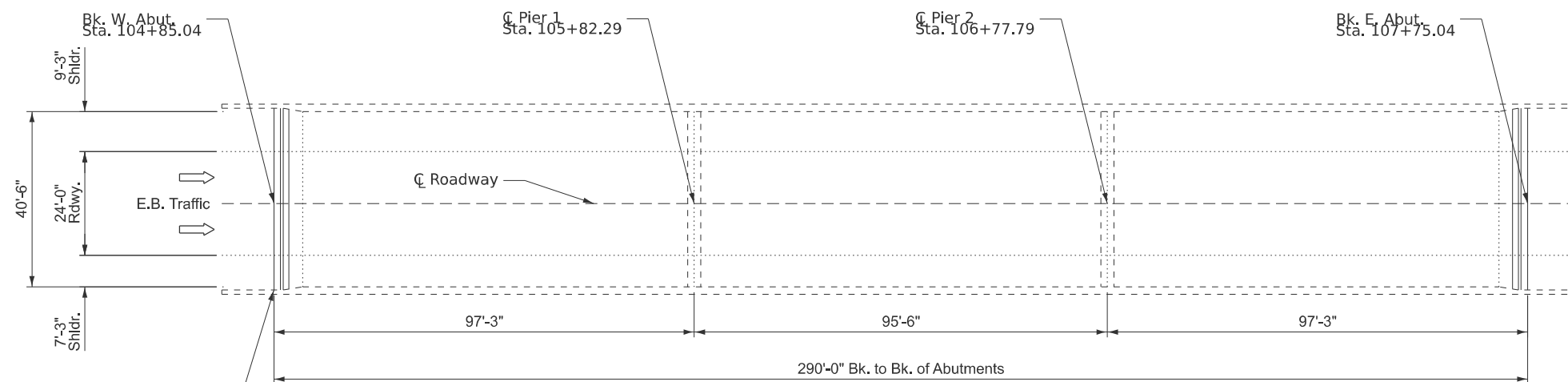
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
ACRYLIC COATING	SQ YD	9
ANCHOR BOLTS, 1"	EACH	30
BAR SPLICERS	EACH	12
CONCRETE REMOVAL	CU YD	7.2
CONCRETE SUPERSTRUCTURE	CU YD	7.2
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ YD	1
EPOXY CRACK INJECTION	FT	40
FIBER WRAP	SQ FT	75
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	520
PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	32
PREFORMED JOINT STRIP SEAL	FOOT	88
PROTECTIVE COAT	SQ YD	21
REINFORCEMENT BARS, EPOXY COATED	POUND	1180
STRUCTURAL REPAIR OF CONCRETE (DEPTH ≤ 5 INCHES)	SQ FT	4

**BRIDGE REPAIRS
US 45 E.B. OVER MASSAC CREEK
FAP ROUTE 889 - 105BRR-1
MASSAC COUNTY
STRUCTURE NO. 064-0036**



ELEVATION



PLAN

STRUCTURE NAME PLATE REMOVE AND REINSTALL. COST TO BE INCLUDED IN CONCRETE REMOVAL.

SCOPE OF WORK

- CONCRETE REMOVAL AND REPLACEMENT (SHALLOW)
- PREFORMED JOINT STRIP SEALS
- PROTECTIVE COAT
- CRACK SEAL
- CONCRETE SUBSTRUCTURE REPAIR
- BEAM SIDE RETAINER REPLACEMENT

DESIGN STRESSES

From Existing Plans:
 $f_c = 1200$ psi (Deck Slab)
 $f_c = 1400$ psi (Curb Parapet and Sub)
 $f_s = 20000$ psi (Reinforcement)

New:
 $f_c = 4000$ psi
 $f_y = 60000$ psi
 $f_y = 36000$ psi (struct. steel)



Expires November 30, 2026

Justin W. Mann

MODEL: Typ 1 (Sheet)
FILE NAME: c:\p\work\wv\illinois.gov_stephen.dillard\1307681\0978B86-Design.dgn

USER NAME = stephen.dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/17/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
SN 064-0036

SCALE: SHEET 2 OF 16 SHEETS STA. TO STA.

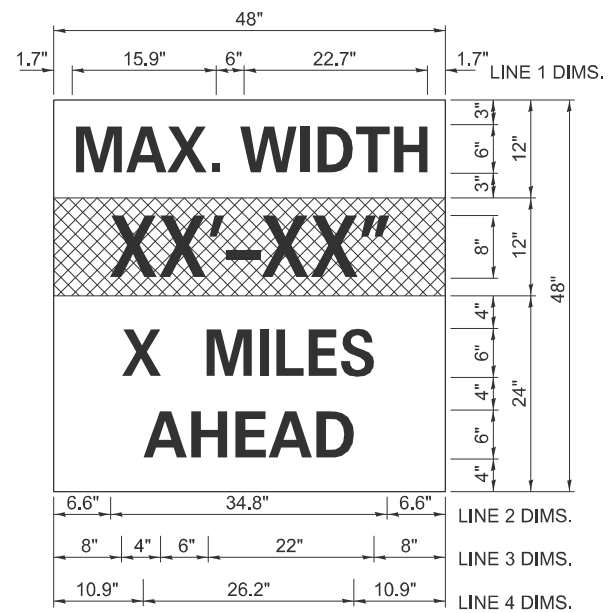
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	7
CONTRACT NO. 78B86			ILLINOIS FED. AID PROJECT	

NOTES

ALL SECTIONS LOOKING EAST

NOTES FOR MAX WIDTH SIGN

1. INSTALL A MAX WIDTH SIGN ON U.S. 45 TO GIVE TRAFFIC APPROACHING WORK ZONE ENOUGH ADVANCE NOTICE TO CHANGE ROUTES IF NEEDED. EXACT LOCATIONS AS DIRECTED BY ENGINEER.
2. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED.
3. THE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD. 701423 (SPECIAL). NO OTHER COMPENSATION WILL BE ALLOWED.
4. THE WIDTH SHOWN ON THE W12-I103 SIGN SHALL BE 18" LESS THAT WHAT IS SHOWN IN THE STAGED LANE WIDTHS TABLE OR AS DIRECTED BY THE ENGINEER.
5. THE 'X' MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.



W12-I103

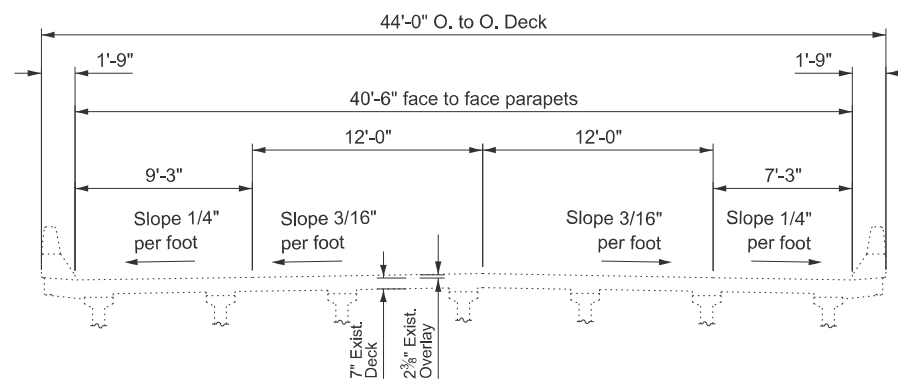
W12-I103, NO BORDER

"MAX WIDTH" 6D, NO BORDER, BLACK ON WHITE

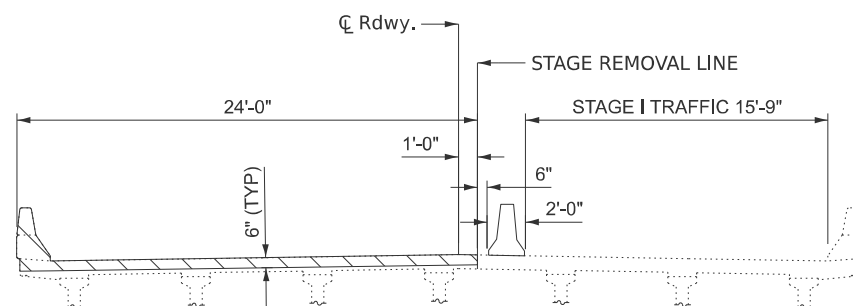
"XX'-XX" 8D, NO BORDER, BLACK ON ORANGE

"X MILES" 6D, NO BORDER, BLACK ON WHITE

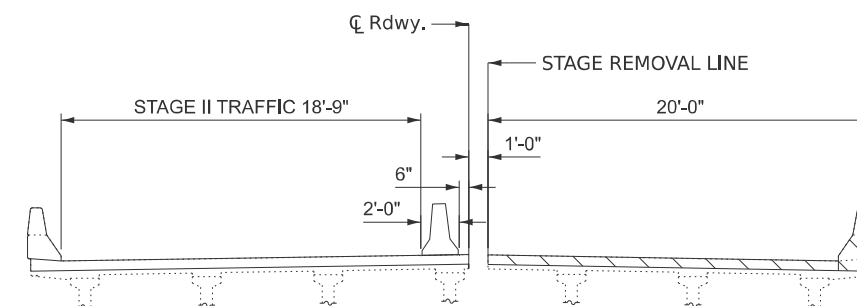
"AHEAD" 6D, NO BORDER, BLACK ON WHITE



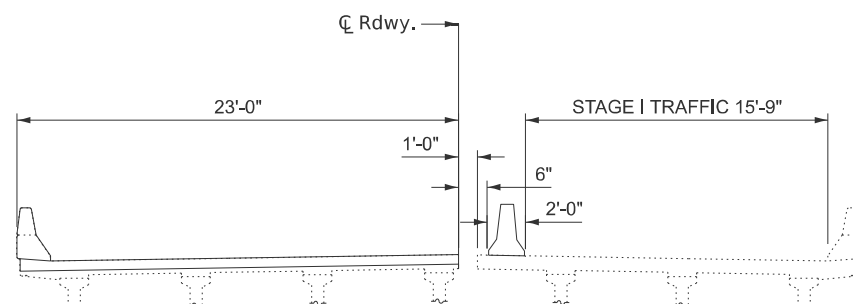
TYPICAL BRIDGE SECTION - EXISTING



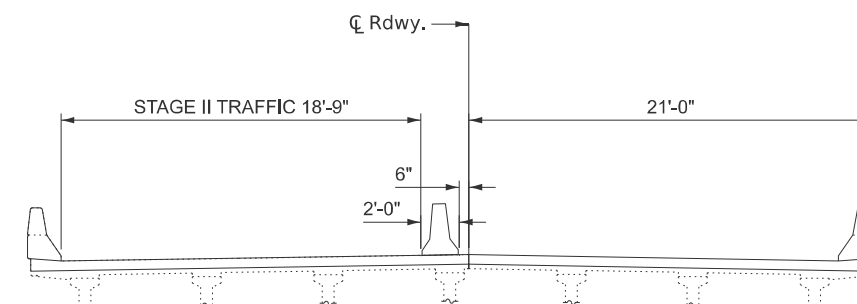
STAGE I REMOVAL
(AT JOINTS)



STAGE II REMOVAL
(AT JOINTS)



STAGE I CONSTRUCTION
(AT JOINTS)



STAGE II CONSTRUCTION
(AT JOINTS)

MODEL: Typ 2 (Sheet)
FILE NAME: c:\p\work\w12\illinois.gov_stephen.dillard\illinois.gov_stephen.dillard\130768\0978B86-Design.dgn

USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

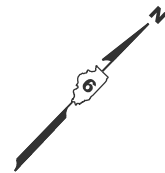
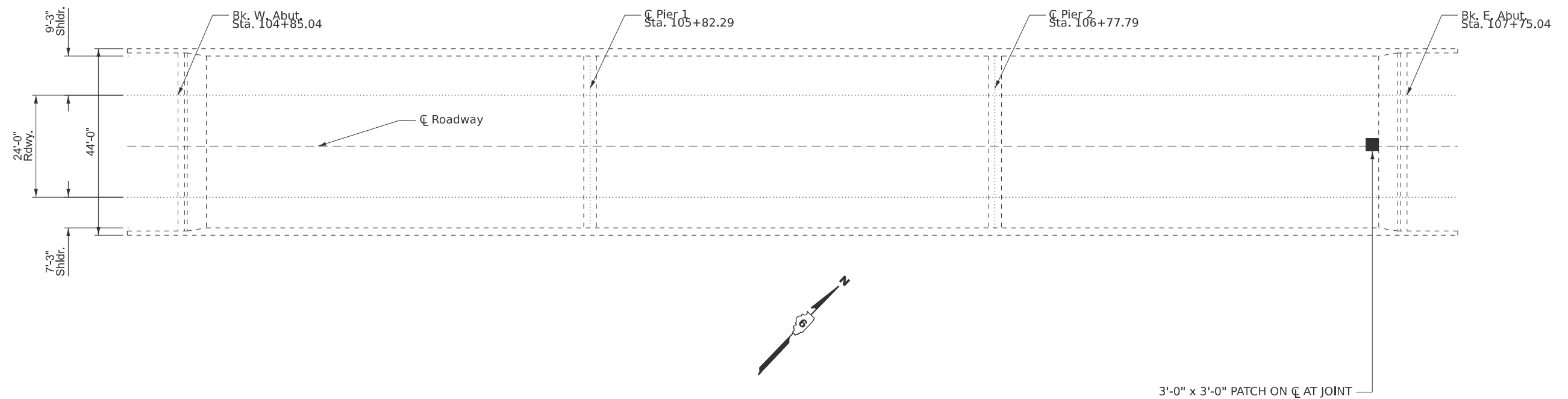
TYPICAL SECTION AND STAGING DETAILS
SN 064-0036

SCALE: SHEET 3 OF 16 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	8
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

NOTES

AREAS OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATION AND SIZE OF DECK REPAIRS ON AS-BUILT PLANS.



3'-0" x 3'-0" PATCH ON \bar{C} AT JOINT

BILL OF MATERIAL

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ YD	1

MODEL: Type 8 (Sheet)
 FILE NAME: c:\p\work\wis\illinois.gov\stephen.dillard@illinois.gov\d1130768\0978B86-Design.dgn

USER NAME = stephen.dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/6/2026	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

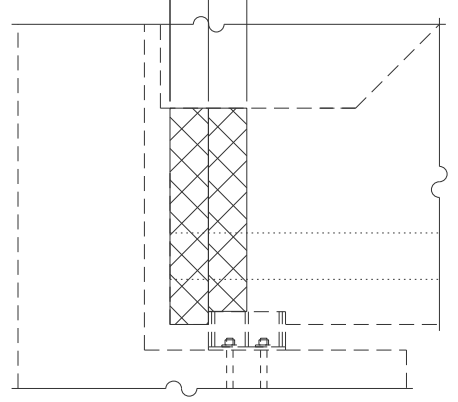
**DECK REPAIR
SN 064-0036**

SCALE: SHEET 5 OF 16 SHEETS STA. TO STA.

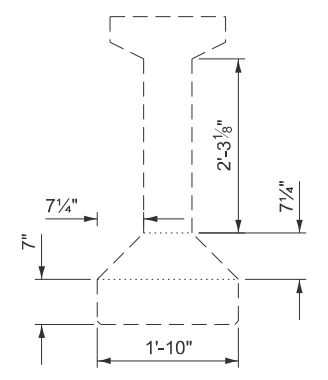
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	10
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

W Abut:
1'-0" at Beam 5
(N face only, damaged corner and leaching crack)

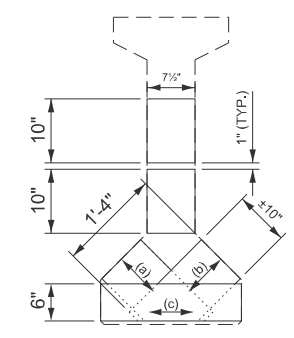
E Abut:
6" at Beams 1, 3, 4, 5, 6, 7
8" at Beam 2
(Both faces of all beams)



BEAMS AT ABUTMENTS (TYP)



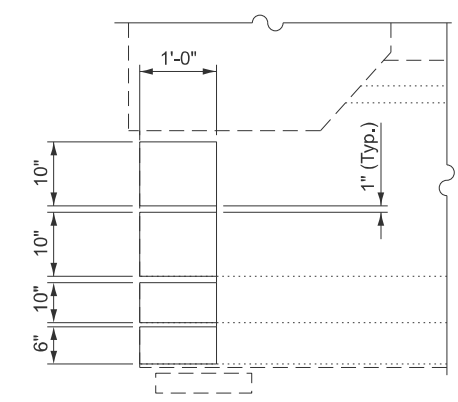
(BEAM CROSS SECTION)



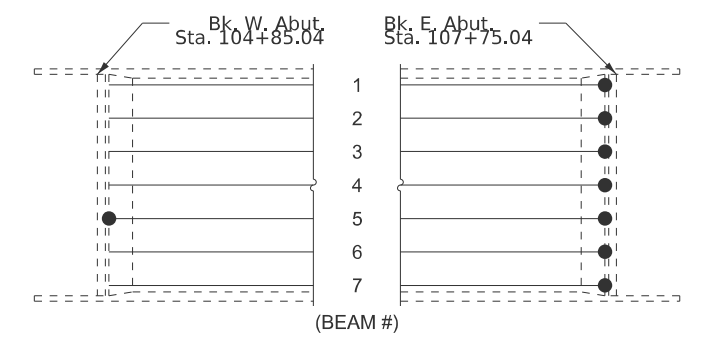
FRP TREATMENT AT END OF BEAM

direction
FRP

PLACE FRP IN THE FOLLOWING ORDER: (a), (b), (c)

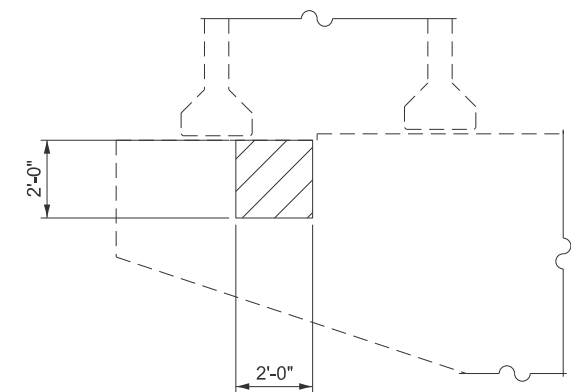


FRP REPAIR

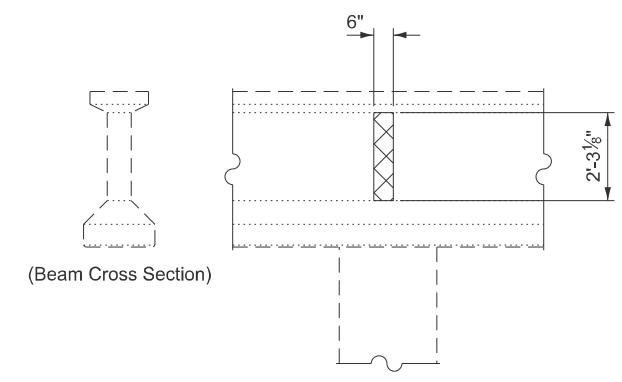


FRAMING PLAN

FRP TREATMENT REQUIRED: ●

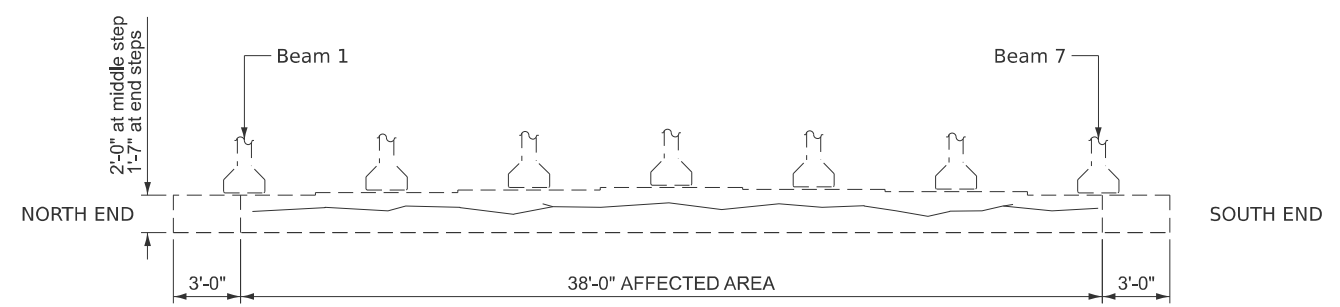


EAST FACE OF WEST PIER CAP



SOUTH FASCIA OVER EAST PIER

- Epoxy Crack Injection
- Structural Repair of Concrete ≤ 5"
- Precast Prestressed Concrete I-Beam Repair



EAST ABUTMENT CAP (LOOKING EAST)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
ACRYLIC COATING	SQ YD	9
STRUCTURAL REPAIR OF CONCRETE (DEPTH ≤ 5 INCHES)	SQ FT	4
PRECAST PRESTRESSED CONCRETE I-BEAM REPAIR	SQ FT	32
EPOXY CRACK INJECTION	FT	40
FIBER WRAP	SQ FT	75

MODEL: Typ 9 (Sheet)
FILE NAME: c:\p\work\1105\1105.dwg; stephen.dillard@illinois.gov; stephen.dillard@illinois.gov; 1307681D978B86-Design.dgn

USER NAME = stephen.dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/17/2026	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

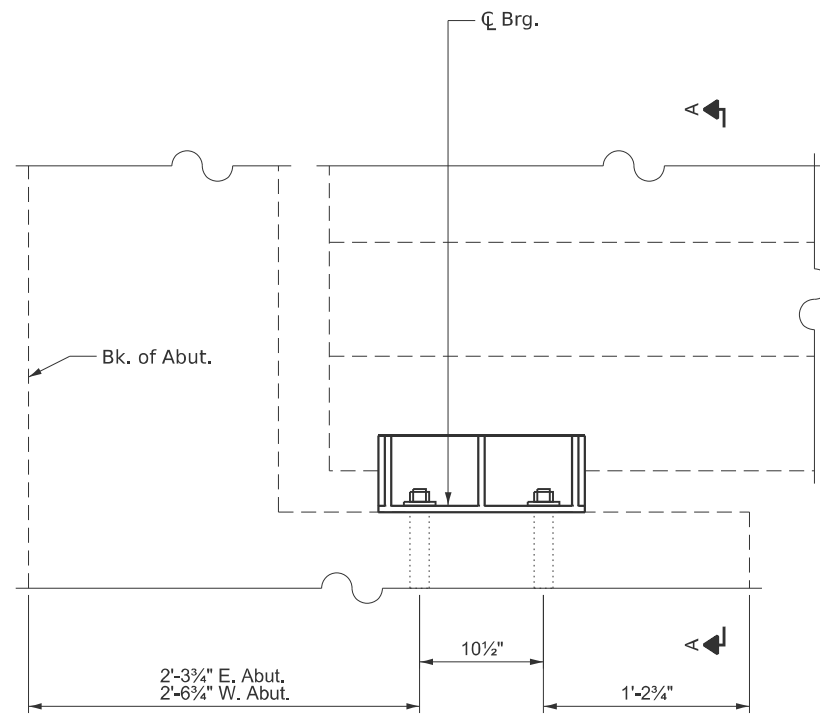
**STRUCTURAL CONCRETE REPAIR
SN 064-0036**

SCALE: SHEET 6 OF 16 SHEETS STA. TO STA.

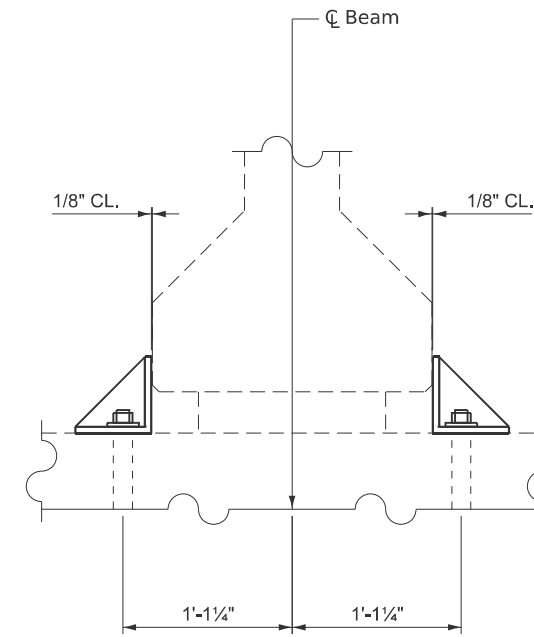
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	11
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

NOTES

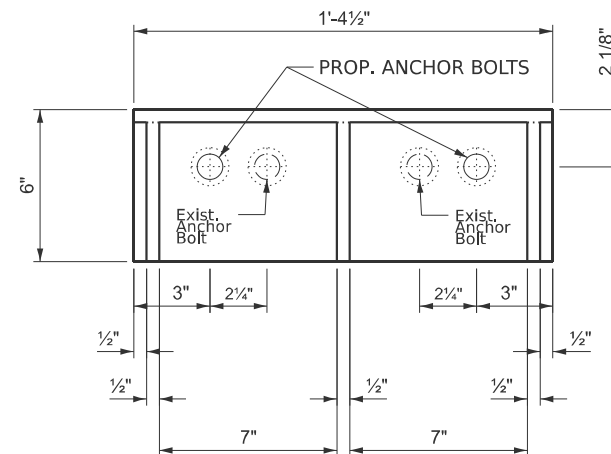
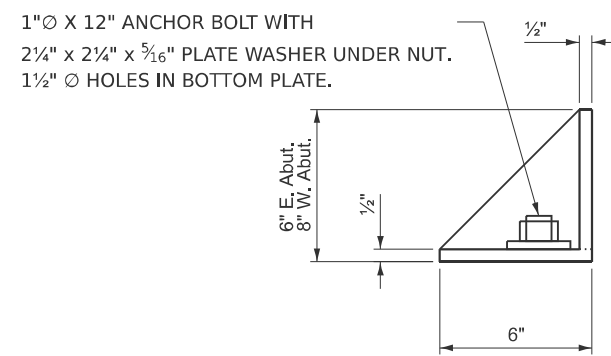
EXISTING ANCHOR BOLTS AT REPLACED RETAINERS SHALL BE BURNED FLUSH WITH EXISTING CONCRETE SURFACE, GROUND SMOOTH, AND SEALED WITH EPOXY. COST INCLUDED IN "FURNISHING AND ERECTING STRUCTURAL STEEL".



RETAINER DETAIL AT ABUTMENTS



SECTION A - A



SIDE RETAINERS

TO BE REPLACED:

EAST ABUTMENT: ALL RETAINERS EXCEPT OUTSIDE OF SOUTH FASCIA (13 OF 14 RETAINERS)

WEST ABUTMENT: MISSING RETAINER AT NORTH FASCIA AND DAMAGED RETAINER AT INSIDE OF SOUTH FASCIA (2 OF 14 RETAINERS)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
ANCHOR BOLTS, 1"	EACH	30
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	520

MODEL: Top 10 Sheet
FILE NAME: c:\p\work\wv\illinois.gov\stephen.dillard@illinois.gov\1307681D978B86-Design.dgn

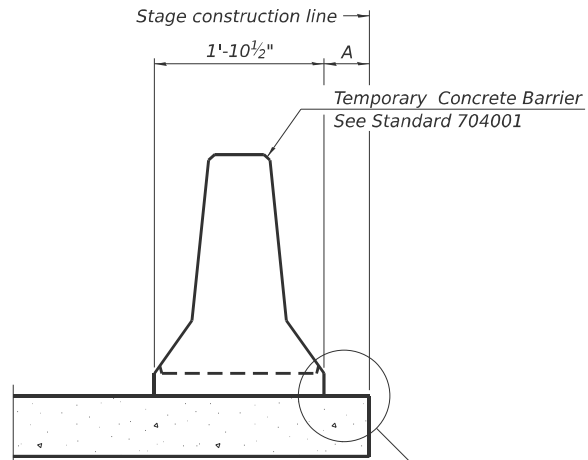
USER NAME = stephen.dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/7/2026	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RETAINER DETAILS
SN 064-0036**

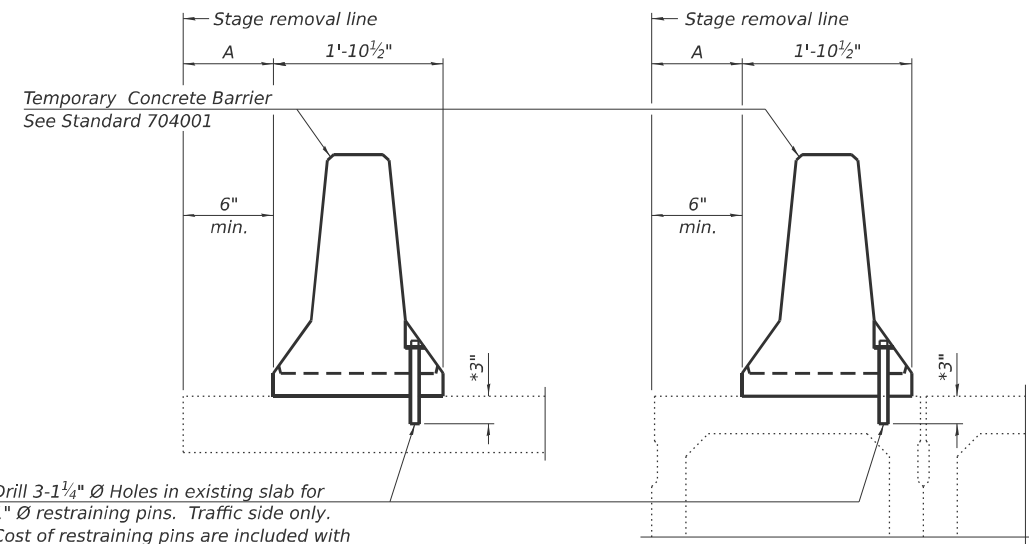
SCALE: SHEET 7 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	12
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1". See Detail I, II or III

NEW SLAB OR NEW DECK BEAM



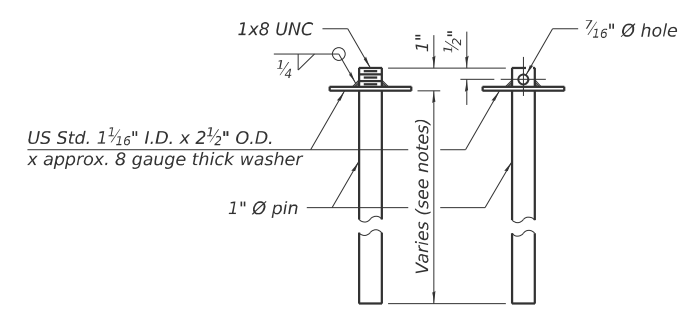
Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

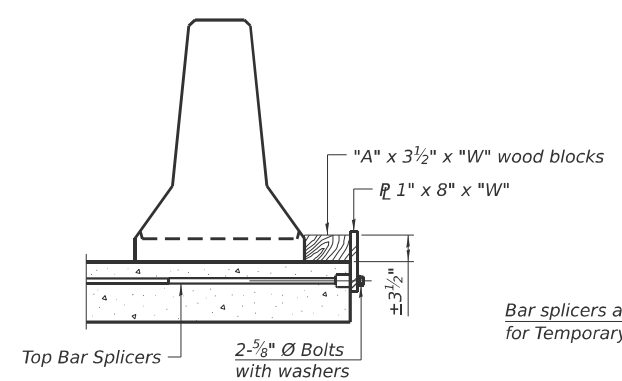
EXISTING DECK BEAM

* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

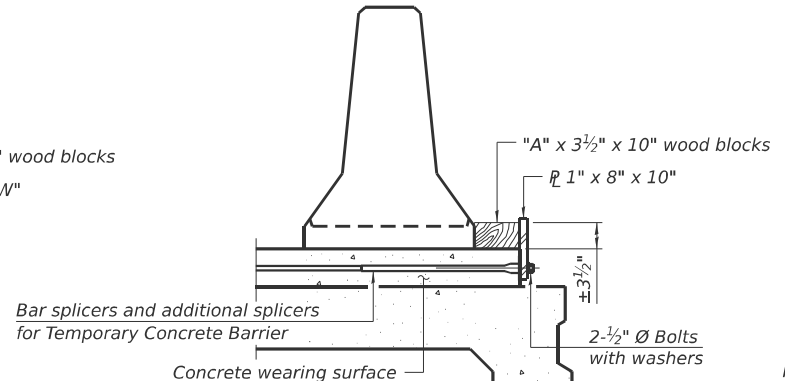
SECTIONS THRU SLAB OR DECK BEAM



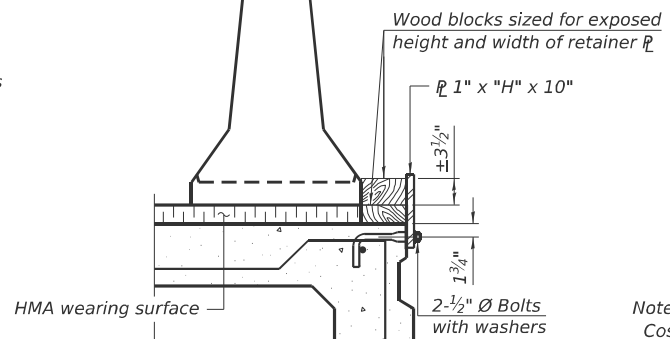
RESTRAINING PIN



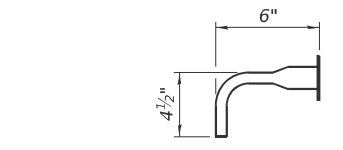
DETAIL I



DETAIL II



DETAIL III



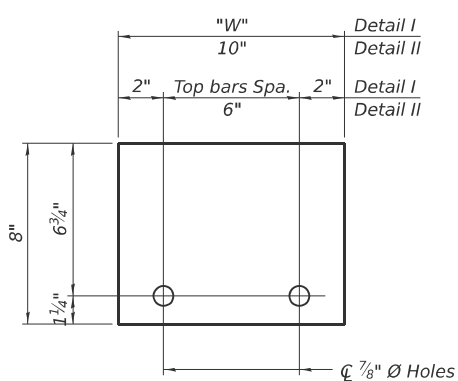
BAR SPLICER FOR #4 BAR - DETAIL III

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate center of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

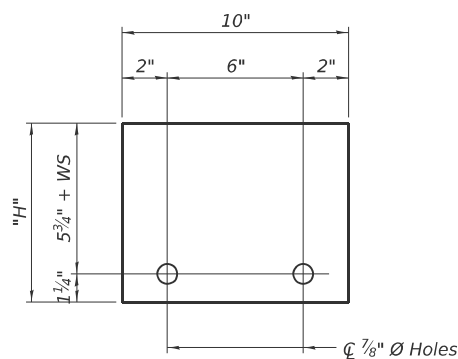
Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.



STEEL RETAINER 1" x 8" x "W" (Detail I and II)



STEEL RETAINER 1" x "H" x 10" (Detail III)

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27 5-15-2023

MODEL: Type 4 (Sheet) FILE NAME: c:\p\work\wv\illinois.gov_stephen.dillard\illinois.gov\11307681D978B86-Design.dgn

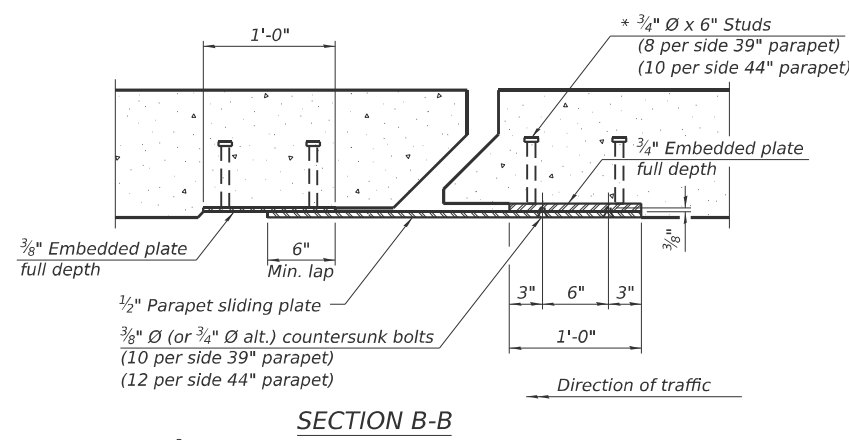
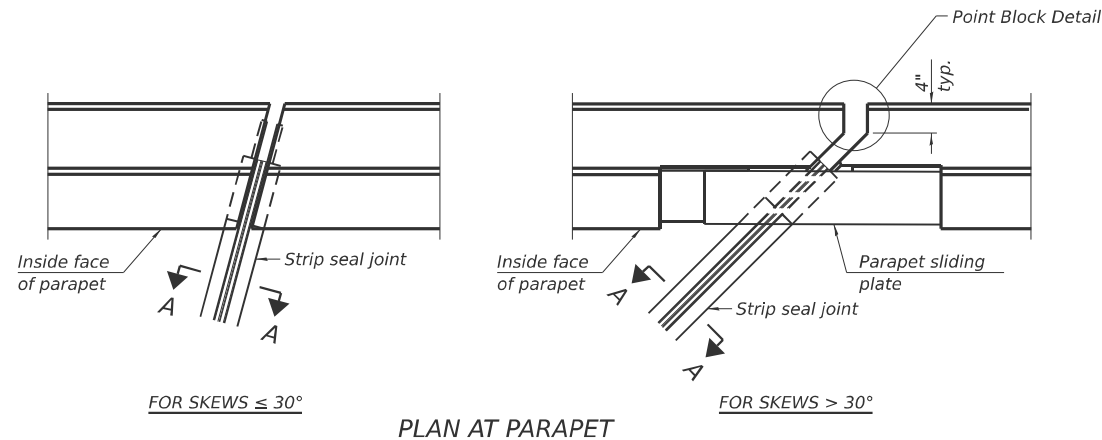
USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

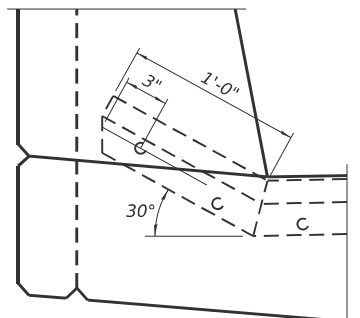
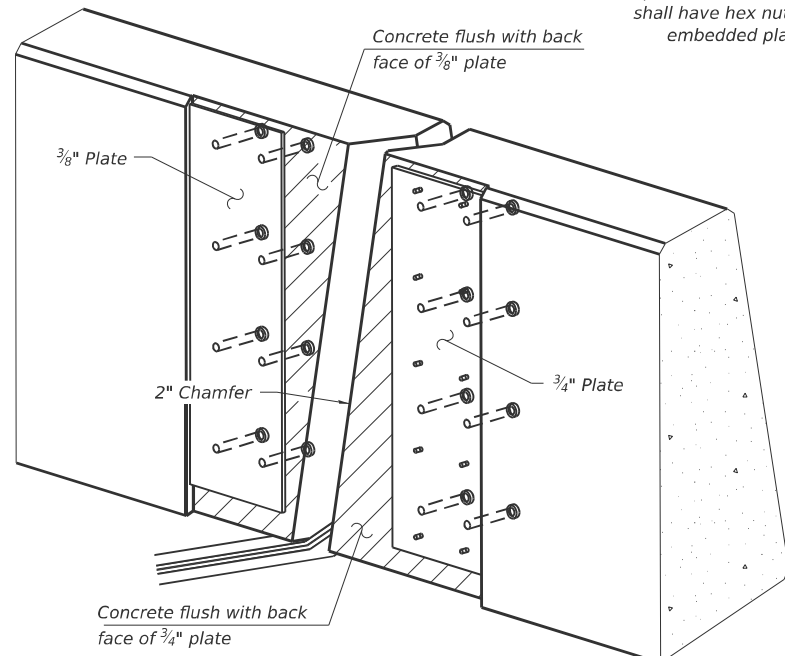
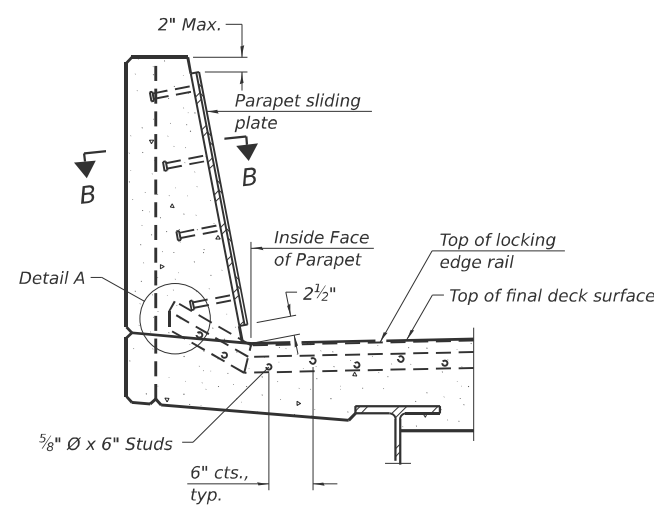
TEMPORARY CONCRETE BARRIER
SN 064-0036

SCALE: SHEET 8 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	13
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				



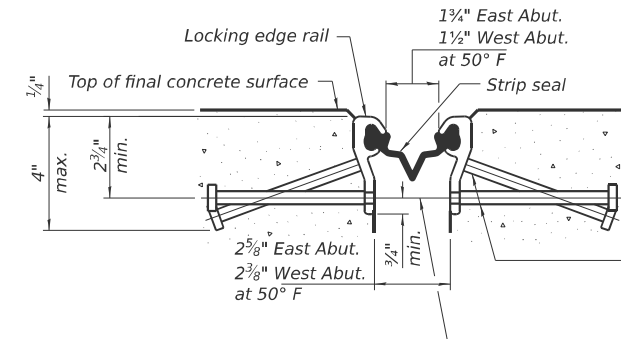
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.
 The manufacturer's recommended installation methods shall be followed.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.



SECTION AT PARAPET
 (Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)

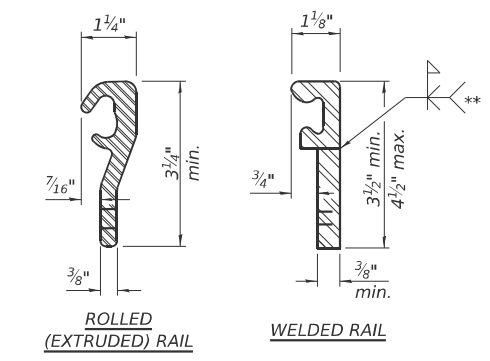
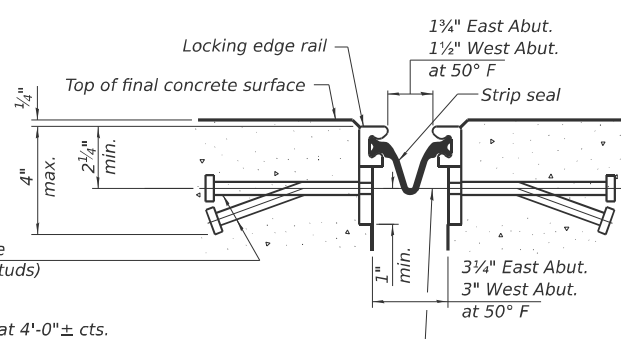
TRIMETRIC VIEW
 (Showing embedded plates only)

DETAIL A
 (Kick-up at parapet locations shown. See sheet of for kick-up at curb locations.)

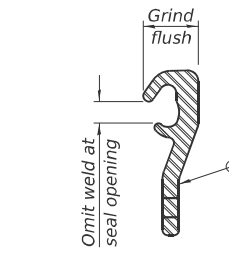


* 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8" Ø threaded rods in 7/16" Ø holes at 4'-0" ± cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.



LOCKING EDGE RAILS
 ** Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE
 The inside of the locking edge rail groove shall be free of weld residue.
 Rolled rail shown, welded rail similar.

EJ-SS 4-4-2025

SECTION A-A

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	88

MODEL: Typ 6 (Sheet) FILE NAME: c:\p\work\wv\illinois.gov\stephen.dillard\illinois.gov\d1130768\0978B86-Design.dgn

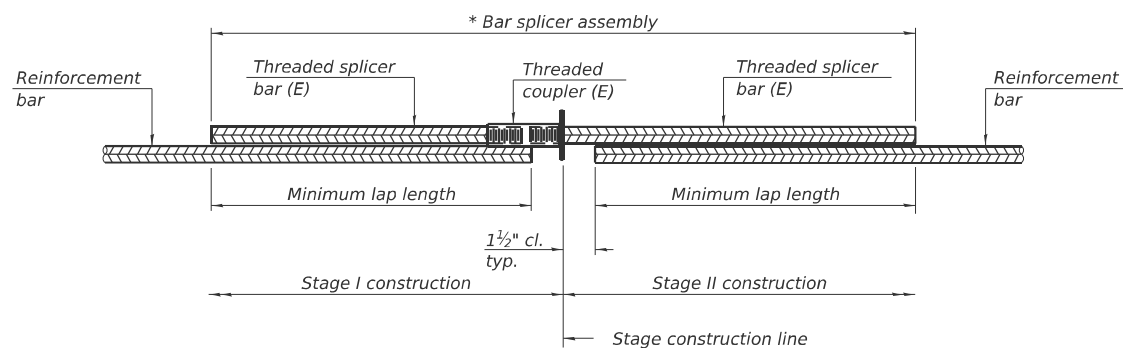
USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL DETAILS
 SN 064-0036**

SCALE: SHEET 9 OF 16 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	14
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				



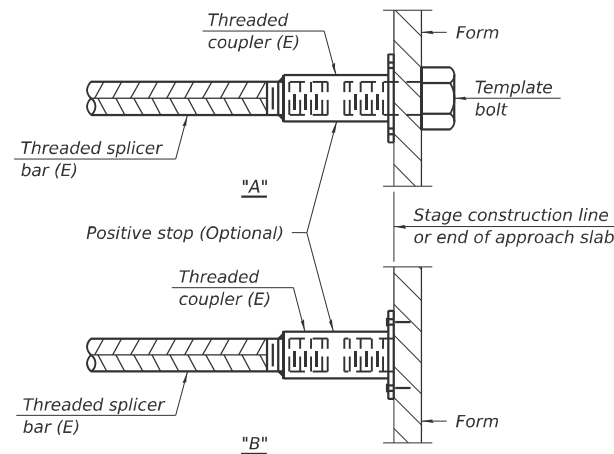
STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Hatchblock	#6	8	3'-7"
Deck	#7	4	4'-8"

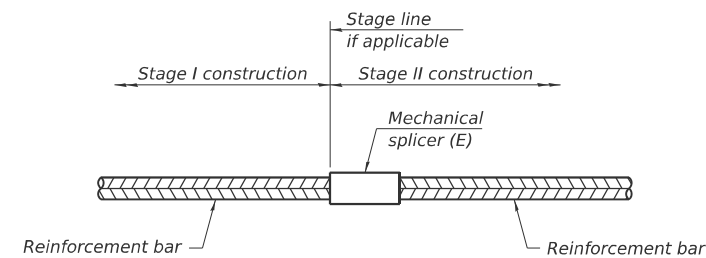


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

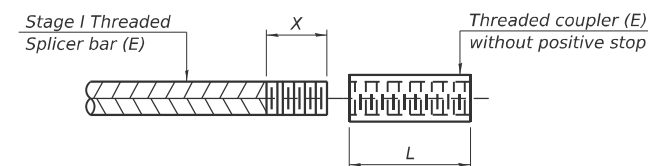
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



THREADING OF ASSEMBLIES

The threaded length "X" shall be no more than L/2. The bar should be tightened until 0-1 thread(s) is/are exposed.

Notes:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

MODEL: T:\7 (Sheet) FILE NAME: c:\p\work\pwr\illinois.gov_stephen.dillard\illinois.gov\1307681D978B86-Design.dgn

BSD-1

4-4-2025

USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 064-0036**

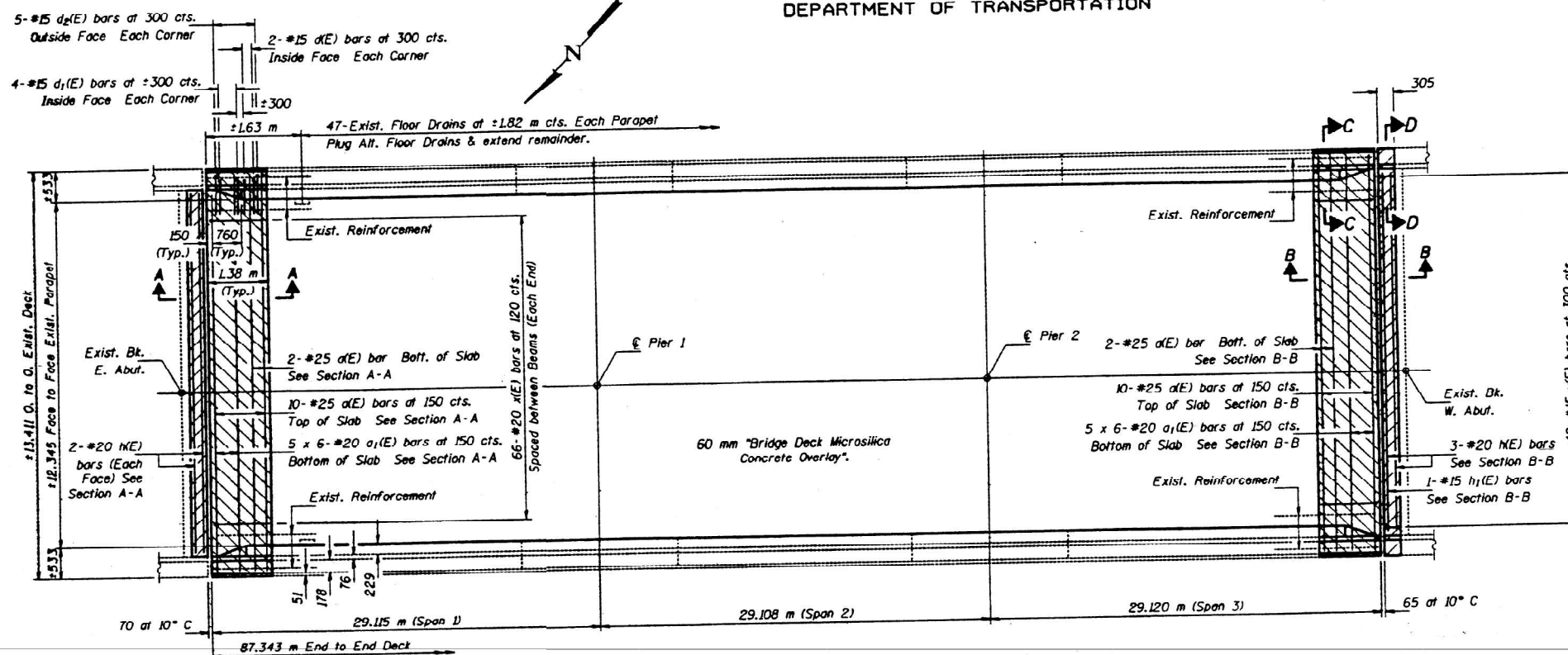
SCALE: SHEET 10 OF 16 SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	15
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

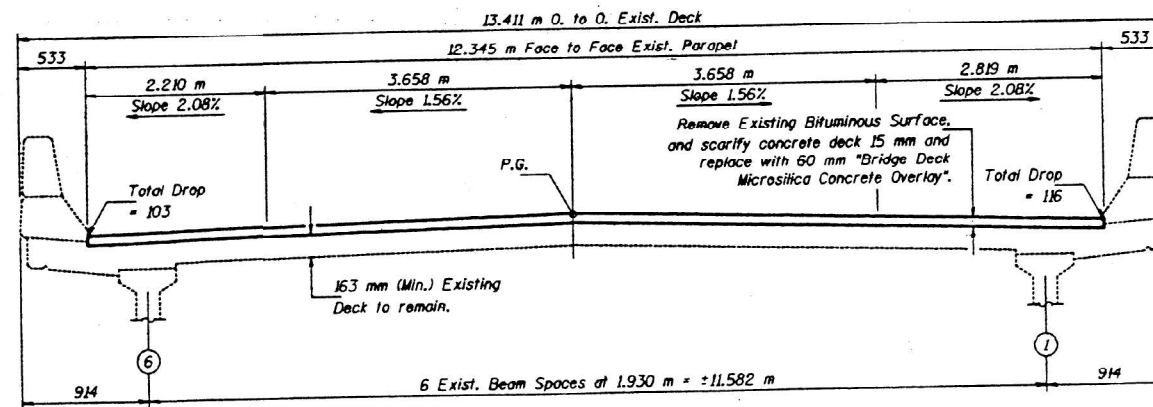
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	SHEET	NO.	SHEET NO. 2
F.A.P. 089	101B-DI	MASSAC	325	181	8 SHEETS
DATE: 1/5/2026					



PLAN



CROSS SECTION
(Looking West)

- Indicates Concrete Removal and Replacement for Slab.
- Indicates Concrete Removal and Replacement for Abutments.

Notes: See sheet 3 of 8 for Sections A-A, B-B, C-C & D-D.
 See sheet 4 of 8 for Drain Details, Bar Details, Preformed Joint Seal Details and Bill of Material.
 See sheet 5 of 8 for Neoprene Joint Details.
 Hatched area indicates "Concrete Removal".
 Reinforcement bars designated (E) shall be epoxy coated.
 Bars indicated thus 5 x 6-#20 etc. Indicates 5 lines of bars with 6 lengths per line.
 Existing reinforcement extending into new construction shall be cleaned, straightened and incorporated into the new construction. Cost included with "Concrete Superstructure".

DESIGNED	<i>Stephen Dillard</i>
CHECKED	<i>Patrick M. P...</i>
DRAWN	John F. Schollner Jr.
CHECKED	<i>SDV</i>

August 4 1997
 EXAMINED *Ralph E. Anderson*
 PASSED *Ralph E. Anderson*
 SUPERVISOR OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
 F.A.P. ROUTE 889 SECTION (101B-DI)
 MASSAC COUNTY
 STATION 11+360.70

MODEL: Typ 11 (Sheet)
 FILE NAME: c:\pwworking\illinois.gov\stephen.dillard\13076810978886-Design.dgn

USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS

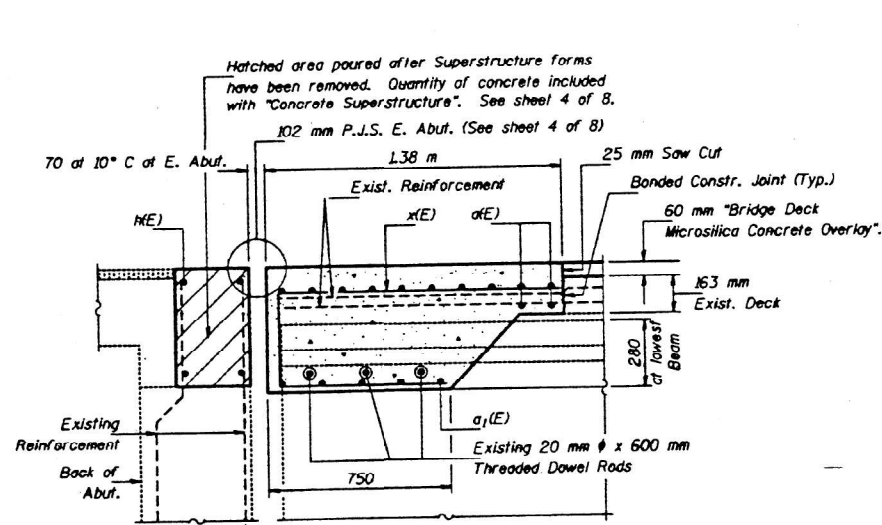
SCALE: SHEET 11 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	16
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

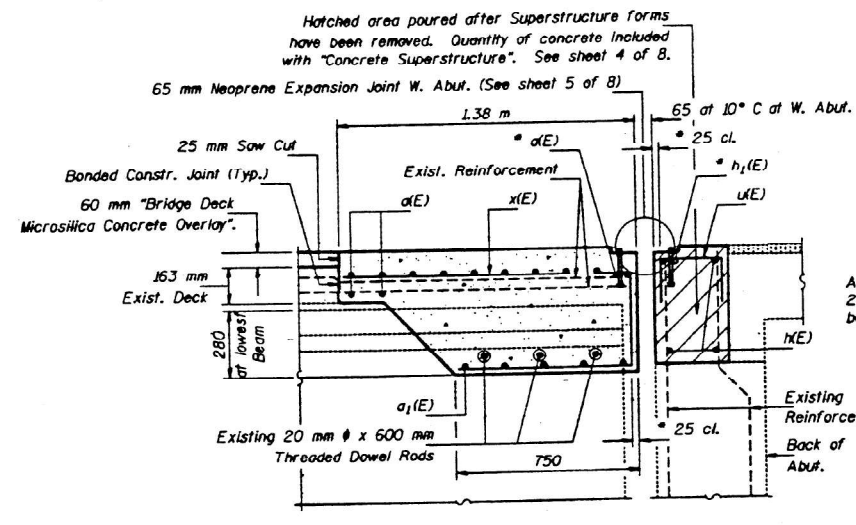
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	NO.	DESCRIPTION	BY	CHKD	SHEET NO. 3
F.A.P. 889/101B-1I	MASSAC	325	102		8 SHEETS

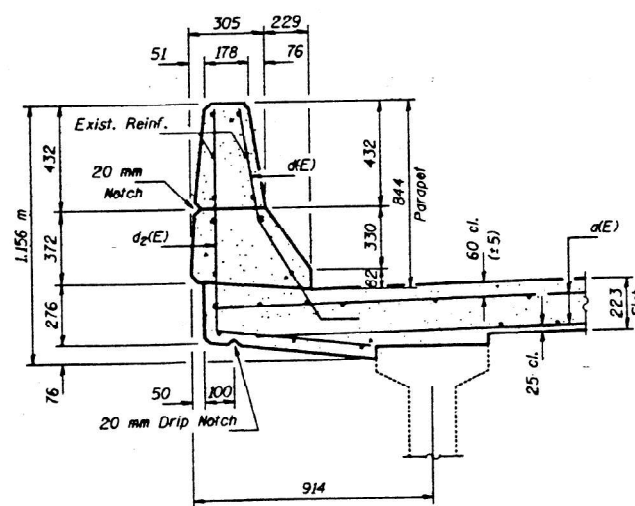


SECTION A-A

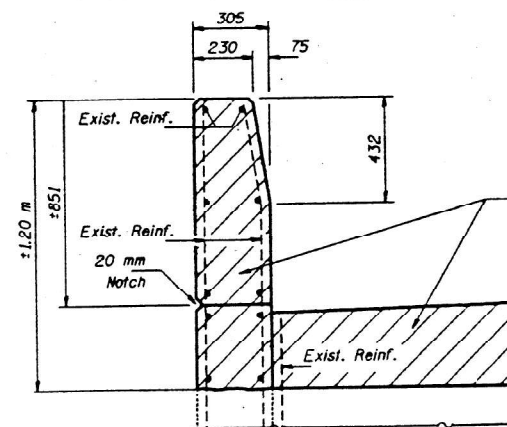


SECTION B-B

* Place $d(E)$ and $h_1(E)$ bars in back of Anchor Bolt as shown if required to maintain 25 mm cl. (-0-3 mm). Anchor Bolts should be tied to $d(E)$ and $h_1(E)$ bars.



SECTION C-C



SECTION D-D

DESIGNED	<i>Stephen Dillard</i>
CHECKED	<i>Patrick M. Petro</i>
DRAWN	<i>John F. Schaeffer Jr.</i>
CHECKED	<i>SDG dmp</i>

August 4, 2022
 EXAMINED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 889 SECTION (101B-1I)
MASSAC COUNTY
STATION 11+360.70

MODEL: Top 12 (Sheet)
 FILE NAME: c:\p\work\101B-1I\101B-1I.dwg

USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

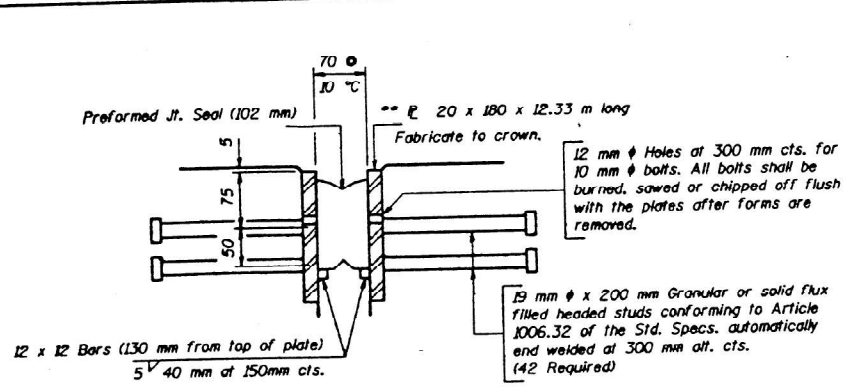
EXISTING PLANS

SCALE: SHEET 12 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	17
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

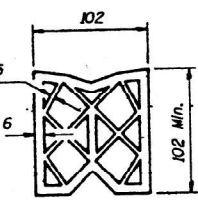
FOR INFORMATION ONLY

NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 889	101B-DI	MASSAC	925	183
				8 SHEETS

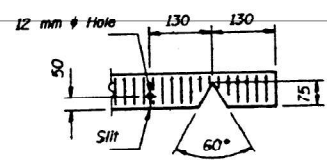


DETAIL "A"

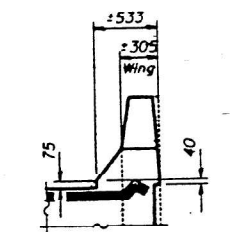
** Furnish in segments of 6 m maximum length. Maximum space between installed segments shall be 5 mm. Seal space with Silicone Sealant suitable for Structural Steel.



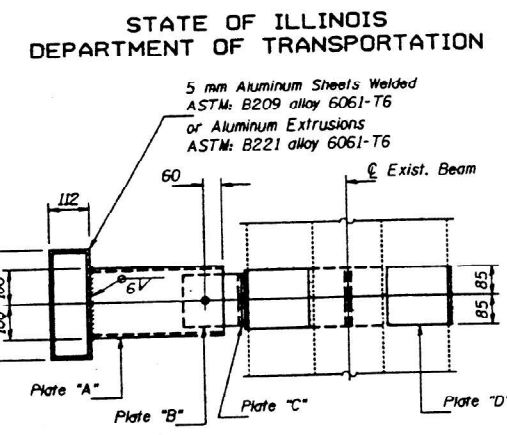
PREFORMED JOINT SEAL (102 mm)



SEAL CUT-OUT

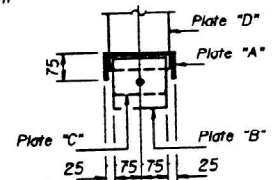


END TREATMENT

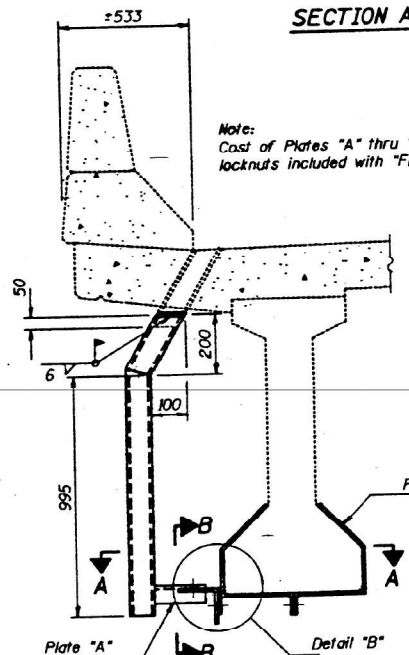


SECTION A-A

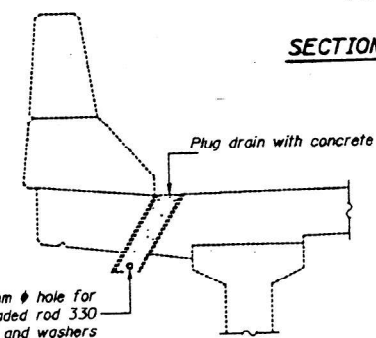
Note: Cost of Plates "A" thru "D", bolts, washers and locknuts included with "Floor Drain Extension".



SECTION B-B

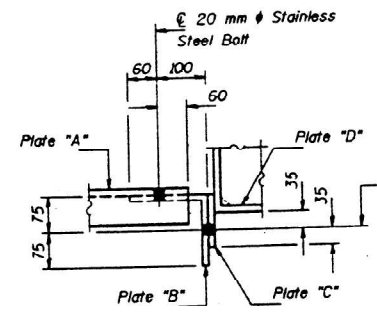


SECTION AT DRAIN



SECTION AT DRAIN

Field drill 9 mm diameter hole for 6 mm diameter threaded rod 330 mm long with nuts and washers



DETAIL "B"

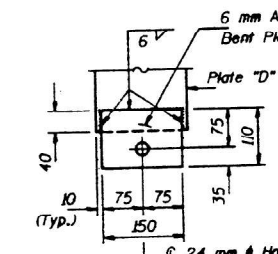


PLATE "C"
(48 Required)

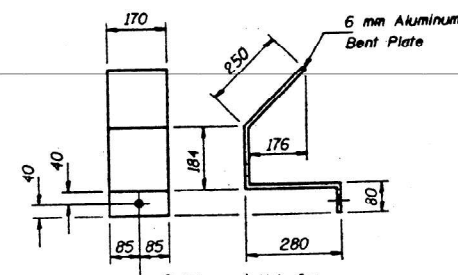


PLATE "D"
(96 Required)

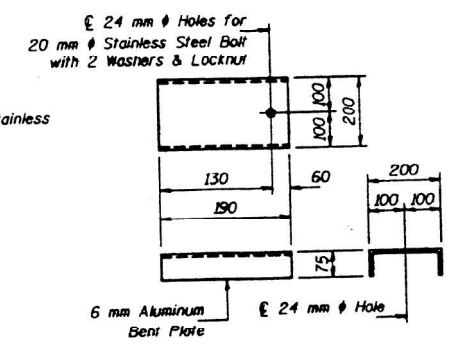


PLATE "A"
(48 Required)

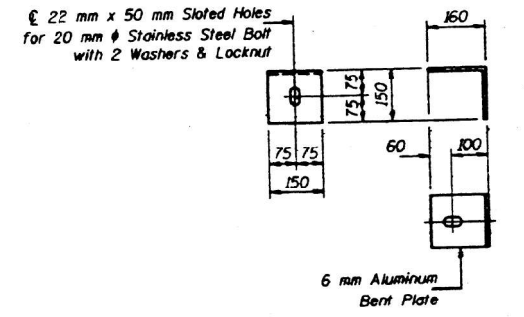
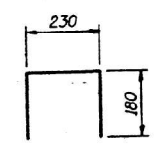


PLATE "B"
(48 Required)

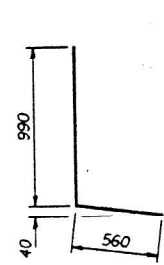
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
a(E)	24	#25	13.20	—
a1(E)	60	#20	1.65	—
d(E)	8	#15	1.20	L
d1(E)	16	#15	1.13	L
d2(E)	20	#15	1.55	L
h(E)	7	#20	12.25	—
h1(E)	1	#15	12.25	—
x(E)	42	#15	0.59	L
x1(E)	132	#20	2.25	L
Reinforcement Bars, Epoxy Coated		kg	2.530	
Concrete Superstructure		m ³	20.0	

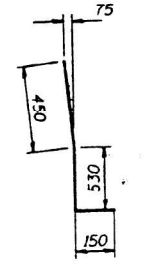
Reinforcement bars designated (E) shall be epoxy coated.



BAR x(E)



BAR d₂(E)



BAR d₁(E)

SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 889 SECTION (101B-DI)
MASSAC COUNTY
STATION 11+360.70

DESIGNED	Stephen Dillard
CHECKED	John F. Schaeffer Jr.
DRAWN	John F. Schaeffer Jr.
CHECKED	SDG

DESIGNED	August 4 1973
CHECKED	Ralph E. Anderson
DRAWN	Ralph E. Anderson
CHECKED	SDG

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING PLANS

SCALE: SHEET 13 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	18
				CONTRACT NO. 78B86
ILLINOIS FED. AID PROJECT				

MODEL: Typ 13 (Sheet)
FILE NAME: c:\p\work\wv\illinois.gov\stephen.dillard\illinois.gov\d11307681D978886-Design.dgn

PROJECT NO.	DISTRICT	SECTION	SHEET NO.	TOTAL SHEETS
F.A.P. 889(101B)-11	MASSAC	325	184	8 SHEETS

Joint Size	°C at 10 °C	"D" at 10 °C
50	50	40 Min.
65	65	45 Min.
100	75	65 Min.

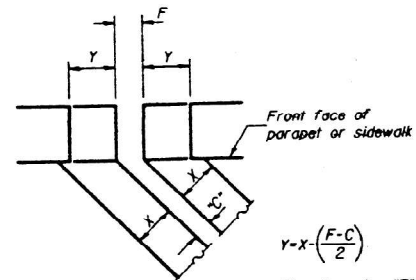
INSTALLATION NOTES

1. Install sponge mandrels into positions shown to form flap convolution.
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
3. Install continuous seal in roadway.
4. Install anchor blocks as indicated.

NOTE A: Maximum spacing of anchor bolts shall be 300 centers.

SKEW LIMITATIONS

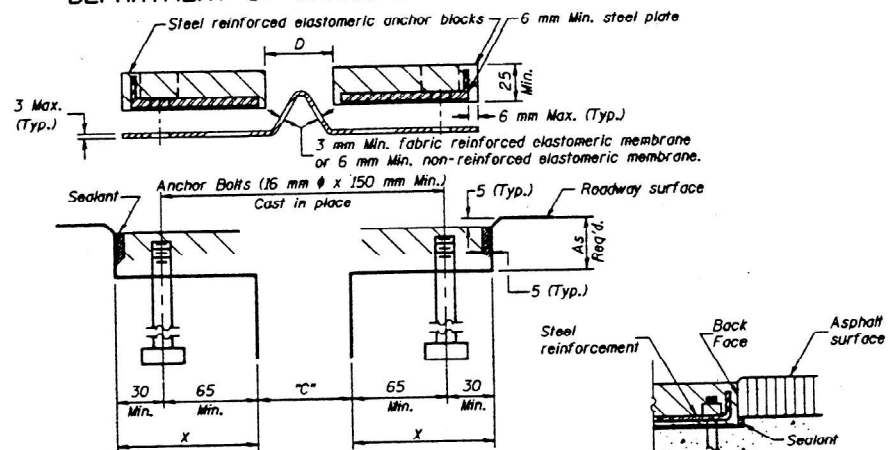
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 40 mm from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±300 cts.



FORMING BLOCKOUT SKETCH

For dimension "F" see Drawings E6, E7, E12 & E16.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

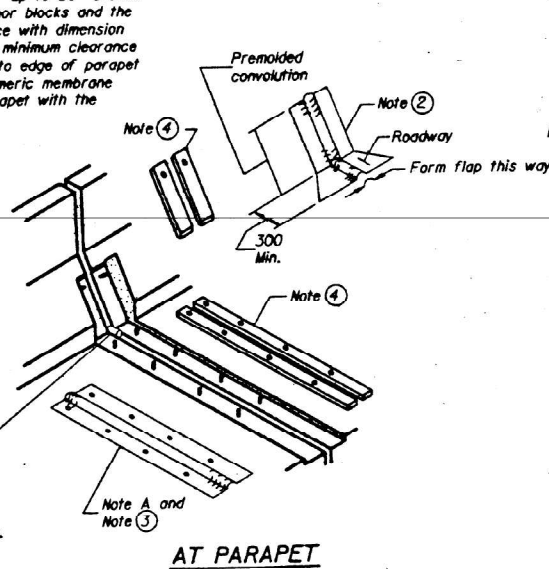


CROSS SECTION

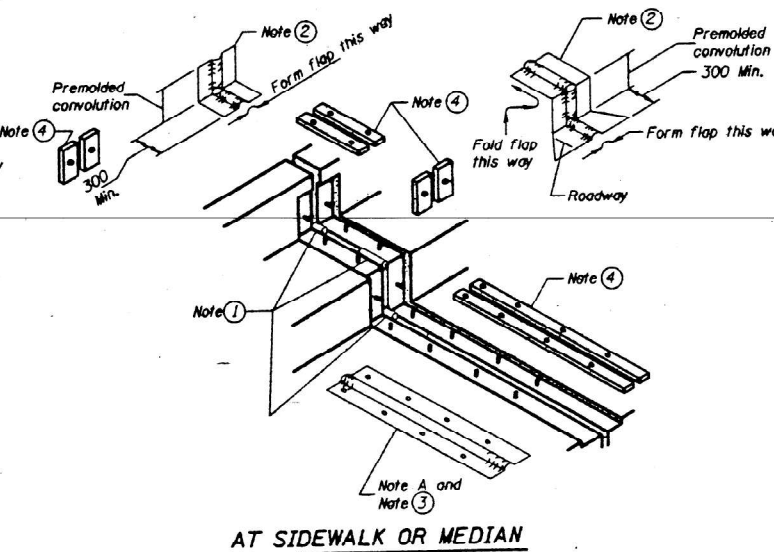
ANCHOR BLOCK REINFORCEMENT WITH ASPHALT SURFACE

GENERAL NOTES

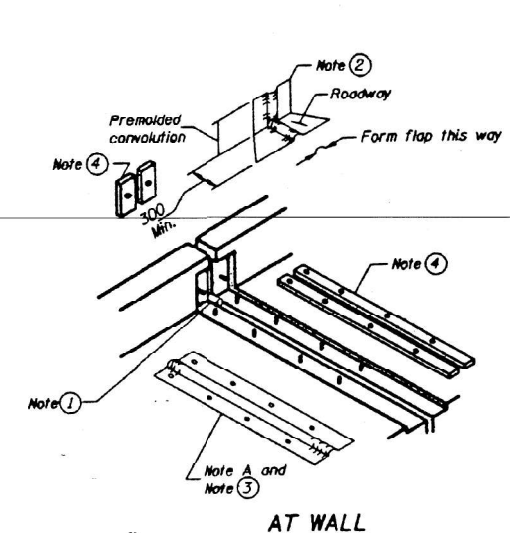
Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure. The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed. Joint openings shall be adjusted in accordance with Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 10 °C. The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.



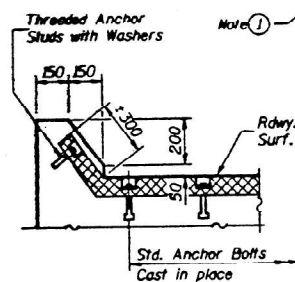
AT PARAPET



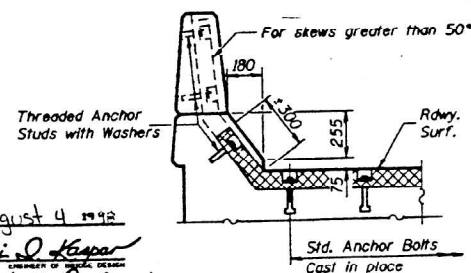
AT SIDEWALK OR MEDIAN



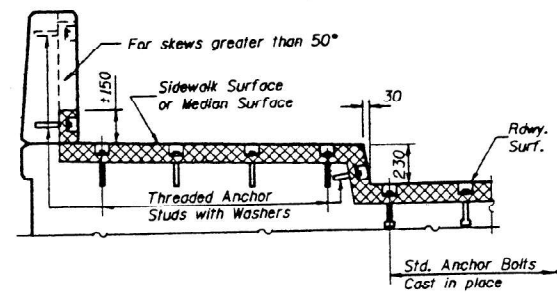
AT WALL



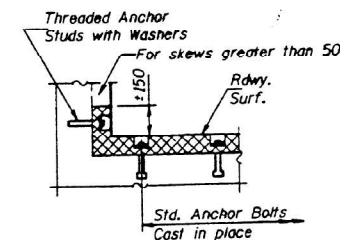
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS



AT WALL

DESIGNED: *Stephen Dillard*
 CHECKED: *Patricia M. Peters*
 DRAWN: *John F. Scheller Jr.*
 CHECKED: *SDG*

EXAMINED: *August 4 1992*
 PASSED: *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS
 For 50, 65 and 100 Movement
F.A.P. ROUTE 889 SEC. (101B-11)
MASSAC COUNTY
STATION 11+360.70

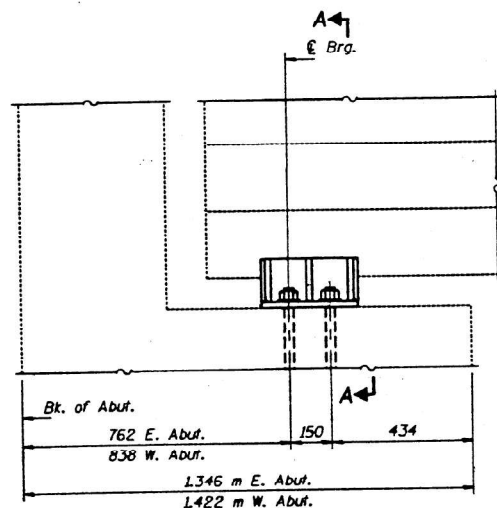
MODEL: Typ 14 (Sheet)
 FILE NAME: c:\paw\work\wv\illinois.gov\stephen.dillard\889(101B-11)\889-Design.dgn

USER NAME = Stephen.Dillard	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING PLANS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DESIGNED -	DRAWN -	REVISED -			889	105BRR-1	MASSAC	21	19
CHECKED -	CHECKED -	REVISED -			CONTRACT NO. 78B86				
DATE -	DATE -	REVISED -	SCALE:	SHEET 14 OF 16 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

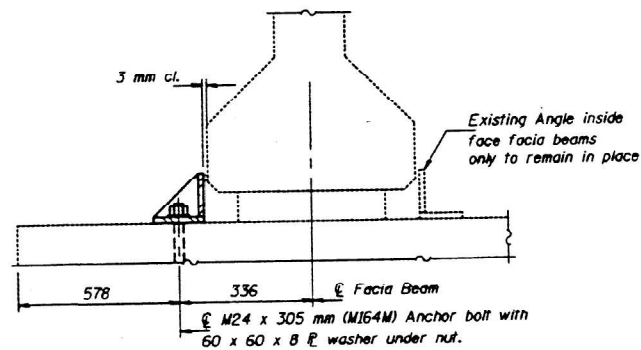
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

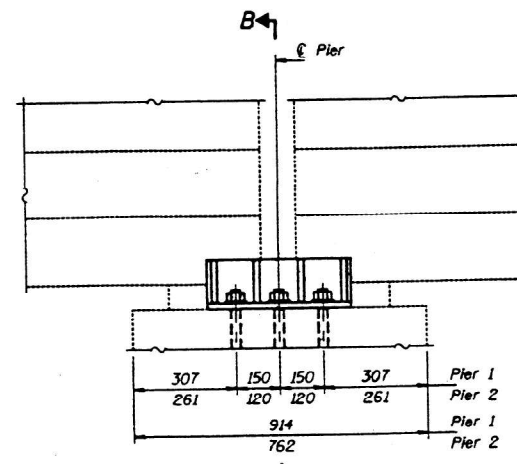
SHEET NO. 7		8 SHEETS	
F.A.P. 889 (101B-D1)	MASSAC	325	186



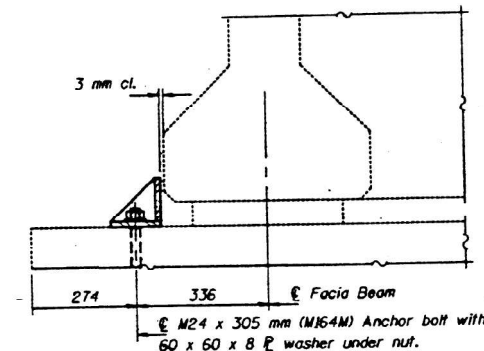
SECTION AT ABUTMENTS
(Looking South at East Abutment)
(Looking North at West Abutment)



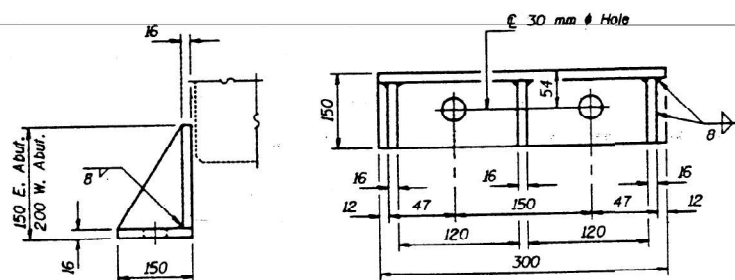
SECTION A-A
(Showing Exterior Beams.)
(Each side of Interior Beams.)



SECTION AT PIERS
(Showing Pier 1 looking South)
(Pier 2 looking South similar)

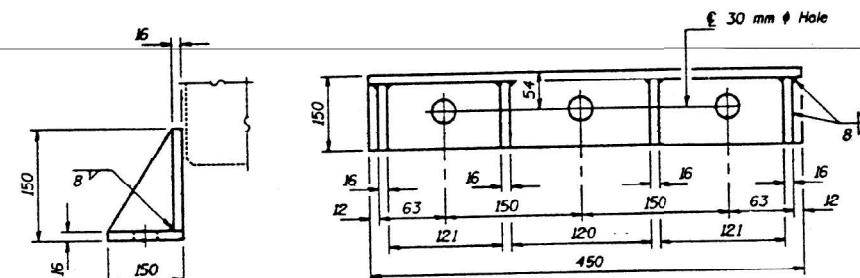


SECTION B-B
(Showing Pier 1)



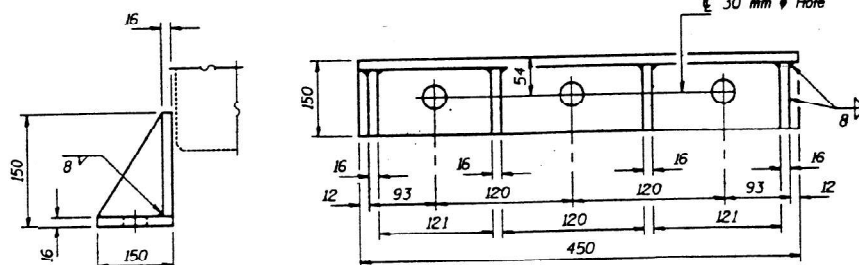
SIDE RETAINER - AT ABUTMENTS

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (No. Req'd. = 24)



SIDE RETAINER - AT PIER 1

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (No. Req'd. = 2)



SIDE RETAINER - AT PIER 2

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (No. Req'd. = 2)

Notes: See sheet 8 of 8 for Anchor Bolt Installation.

SEISMIC RETAINERS
F.A.P. ROUTE 889 SECTION (101B-D1)
MASSAC COUNTY
STATION 11+360.70

DESIGNED *Stephen Dillard*
CHECKED *Patricia M. Brown*
DRAWN *John F. Schweller Jr.*
CHECKED *SOG am*

August 4 2009
EXAMINED *Greg J. Kasper*
PASSED *Ralph E. Anderson*

MODEL: Typ 15 (Sheet)
FILE NAME: c:\p\work\wv\illinois.gov\stephen.dillard\illinois.gov\d113076810578886-Design.dgn

USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS

SCALE: SHEET 15 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	20
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				

PROJECT NO.	SECTION	COUNTY	STA.	SHEET NO.
F.A.P. 889 101B-11	MASSAC	325	187	8 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
The coil wire shall be made of any suitable soft steel wire.
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade I and of a Class suitable for the temperature at installation.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
The anchor bolts, furnished and installed including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

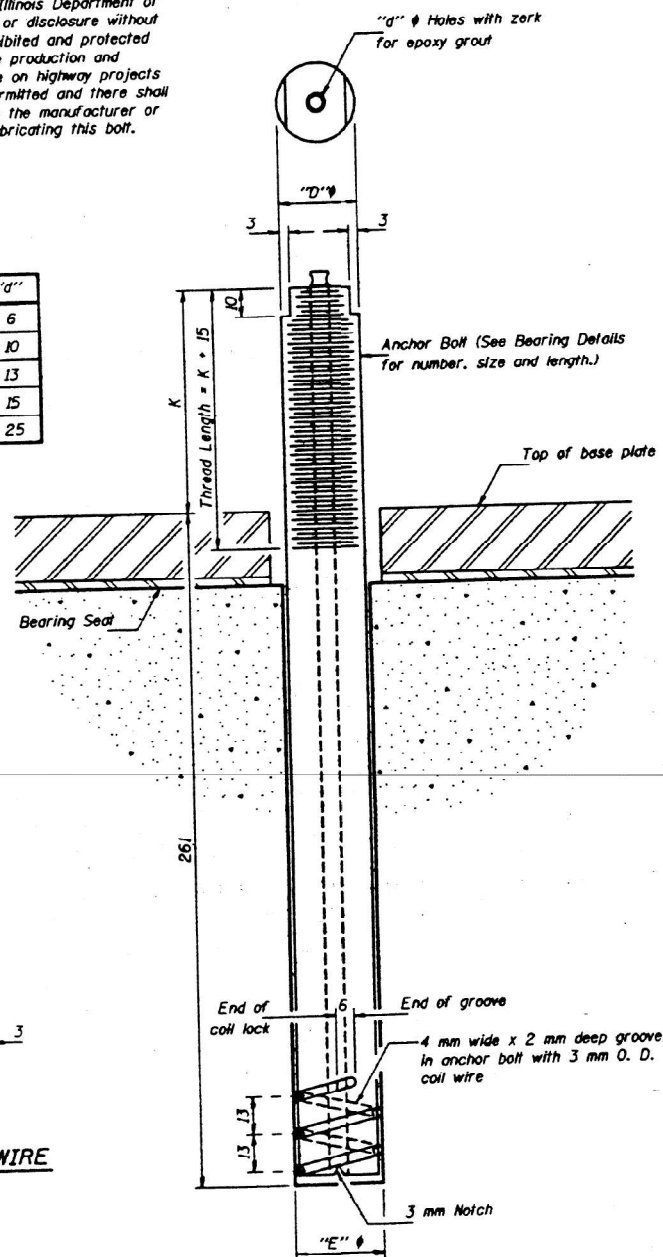
ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
East Abutment	AASHTO M164M
Pier 2	AASHTO M164M
Pier 1	AASHTO M164M
West Abutment	AASHTO M164M

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25



ILLINOIS COIL-LOCK ANCHOR BOLT

DESIGNED BY: *DeWitt M. ...*
 CHECKED: *Patricia M. ...*
 DRAWN: *John P. Schwallier Jr.*
 CHECKED: *SOV pmp*
 ABB-1 (M) 4-30-97

August 4, 1998
 EXAMINED BY: *Greg J. ...*
 PASSED BY: *Ralph E. ...*

ANCHOR BOLT DETAILS
 F.A.P. ROUTE 889 SECTION (101B-11)
 MASSAC COUNTY
 STATION 11+360.70

MODEL: Typ 16 (Sheet)
 FILE NAME: c:\p\work\wv\illinois.gov_stephen.dillard\illinois.gov\stephen.dillard\078886-Design.dgn

USER NAME = Stephen.Dillard	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 1/5/2026	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS

SCALE: SHEET 16 OF 16 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
889	105BRR-1	MASSAC	21	21
CONTRACT NO. 78B86				
ILLINOIS FED. AID PROJECT				