

- NOTES**
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  - LEVEL LIGHT POLE PLATES, USING THE FLANGE NUTS, PRIOR TO POURING THE PARAPET WALL. THE TOP OF THE PLATE SHALL BE AT THE SAME ELEVATION AS THE FINISHED CONCRETE PARAPET.
  - THE COST OF ANCHOR BOLTS, CONDUIT, LEVELLING PLATE AND FOUNDATION IS INCLUDED IN THE COST OF THE BRIDGE STRUCTURE.

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	CHECKED -	REVISED -	
	DATE -	REVISED -	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL  
15" (381 mm) BOLT CIRCLE**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-330			
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

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	DRAWN -	REVISED -
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PLOT DATE = 10/21/2021	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

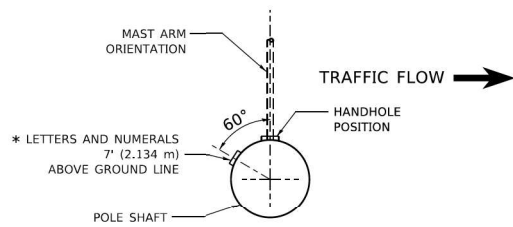
**LIGHTING DETAILS**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

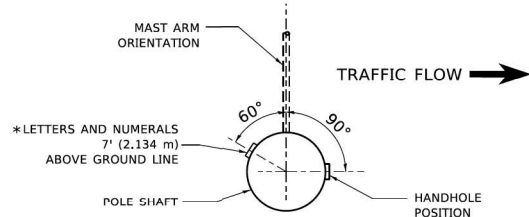
F.A. P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	101
CONTRACT NO. 62H49				
ILLINOIS FED. AID PROJECT				

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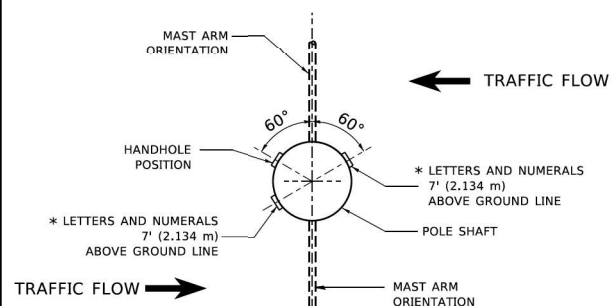




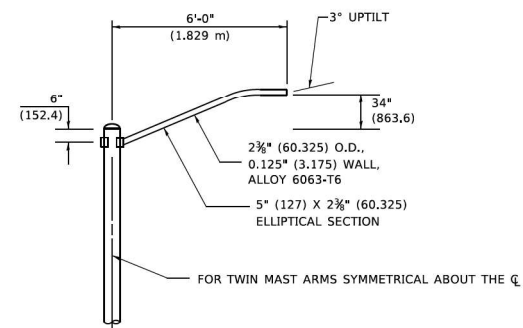
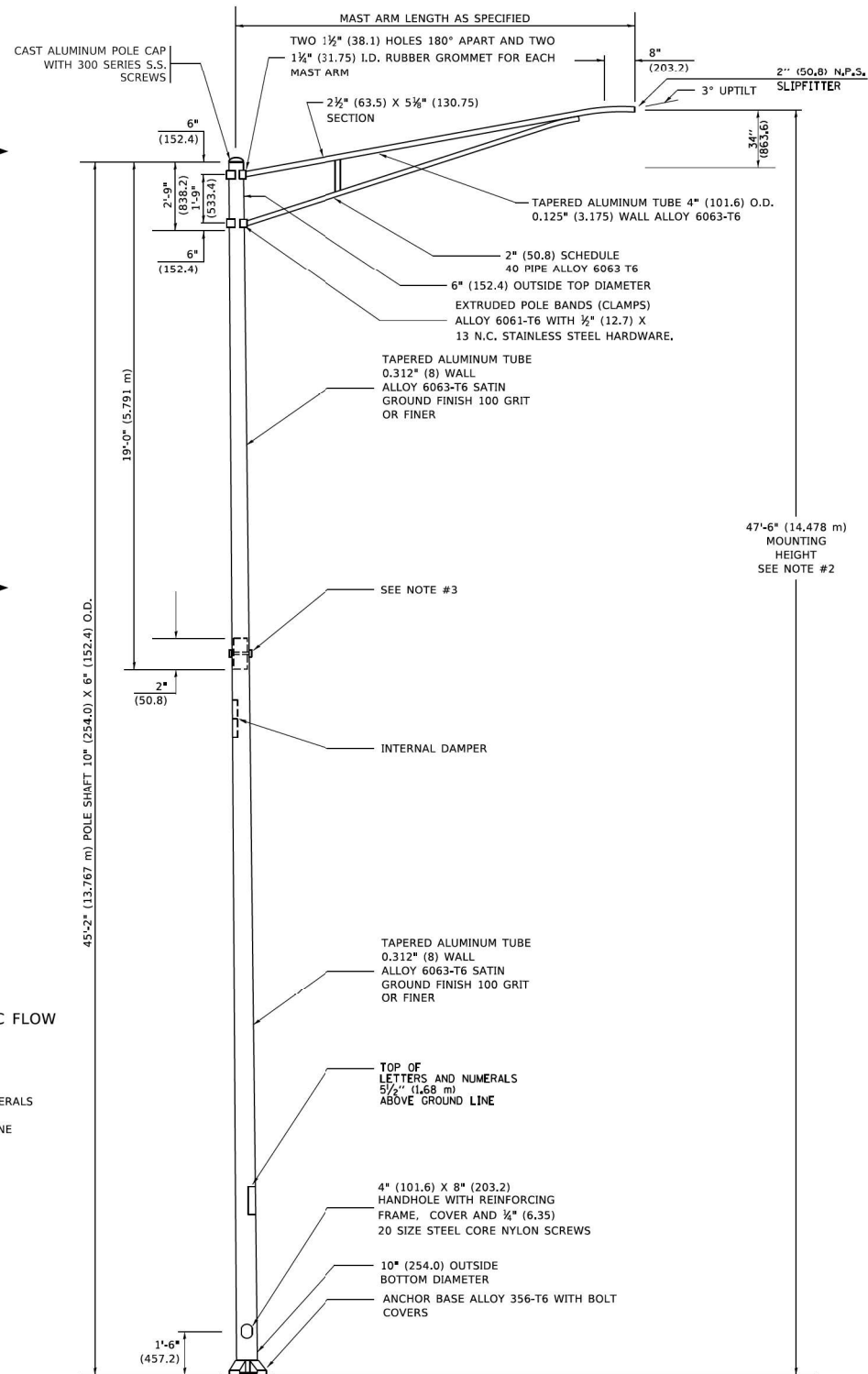
**POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL**



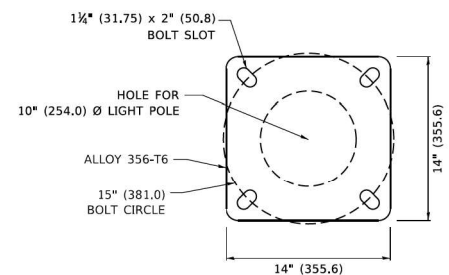
**POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES**



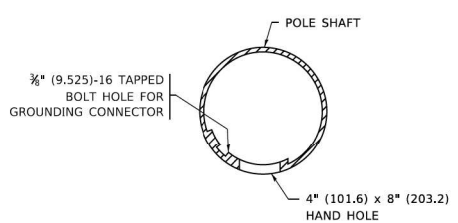
**POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES**



**6' (1.8 m) SINGLE MEMBER MAST ARM (N.T.S.)**



**LIGHT POLE BASE PLATE DETAIL 15 INCH (381.0) BOLT CIRCLE**



**HANDHOLE DETAIL (N.T.S.)**

**NOTES**

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
- TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
- THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
- THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
- LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
- LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
- LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.

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	DRAWN -	REVISED - R. TOMSONS 09-03-03
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PLOT DATE = 4/19/2019	DATE -	REVISED - R. TOMSONS 03-18-15

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>ALUMINUM LIGHT POLE</b>			
<b>47'-6" (14.478 m) MOUNTING HEIGHT</b>			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-400			
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

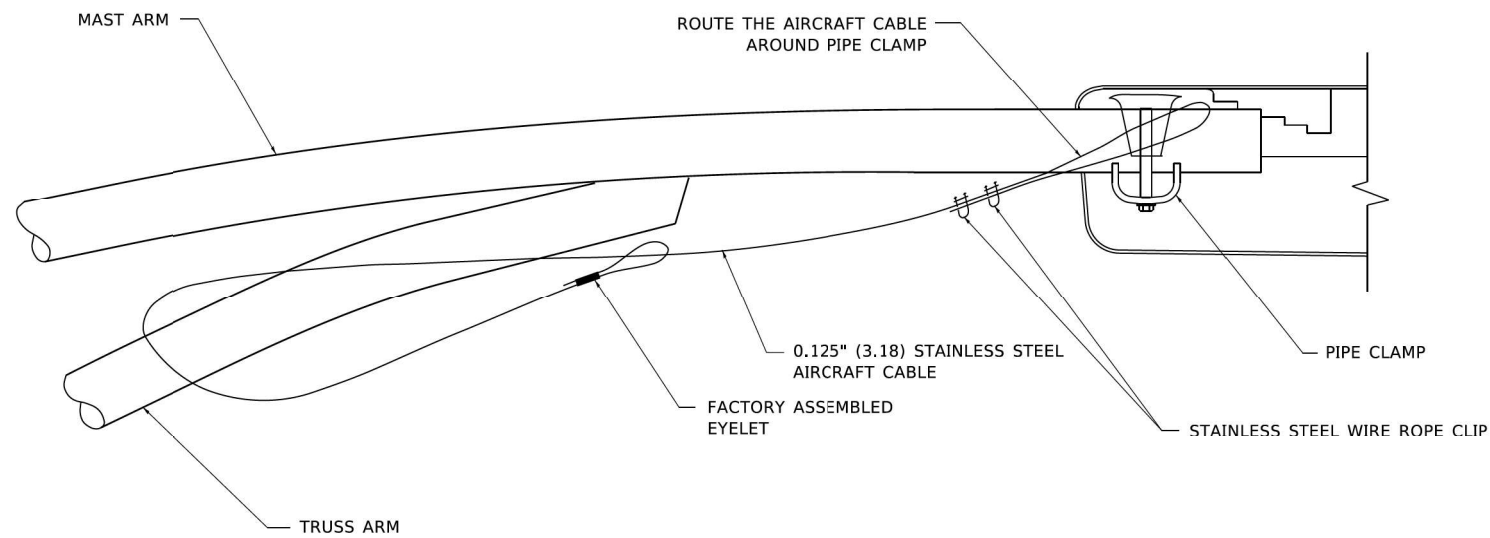


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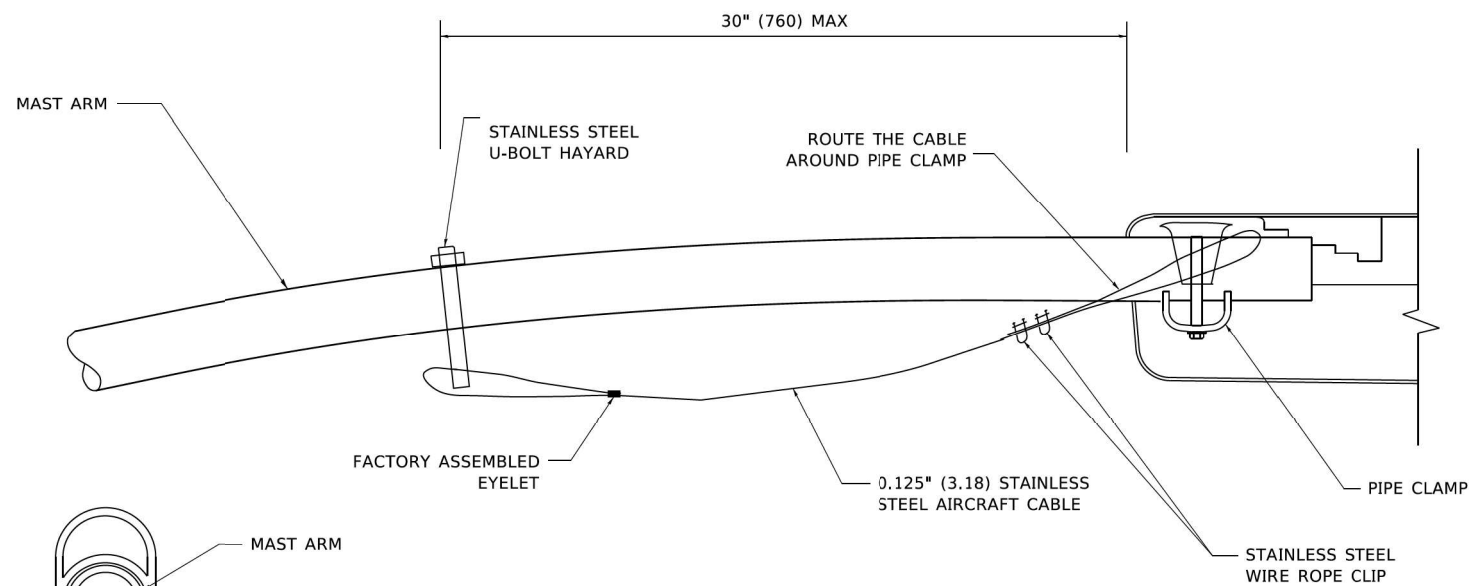
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>LIGHTING DETAILS</b>			
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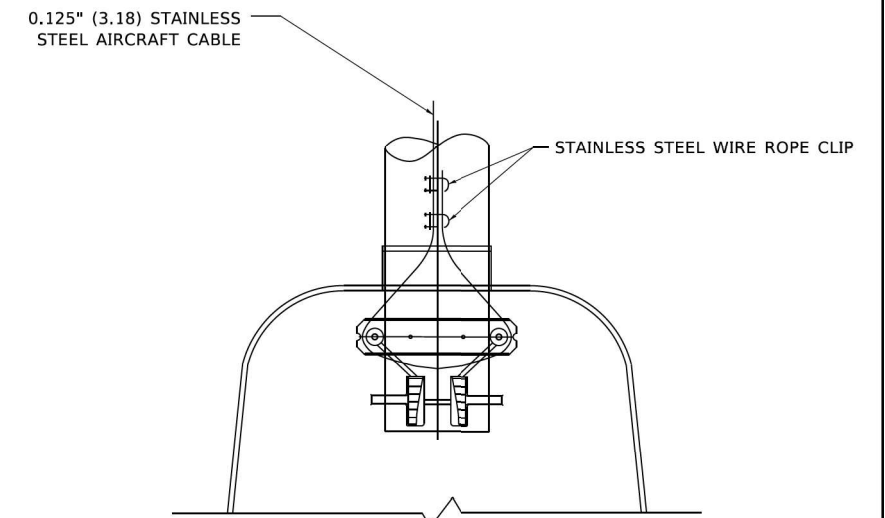
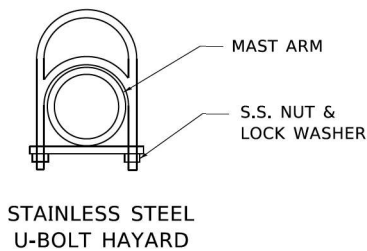
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	102
CONTRACT NO. 62H49				
ILLINOIS FED. AID PROJECT				



**SIDE VIEW (TRUSS ARM)**  
**N.T.S.**



**SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)**  
**N.T.S.**



**BOTTOM VIEW**  
**N.T.S.**

**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

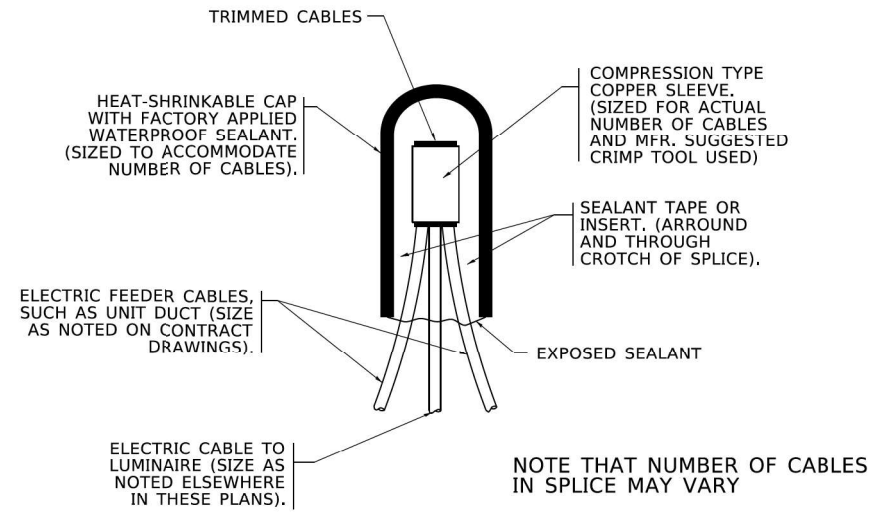
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 REVISIONS: -  
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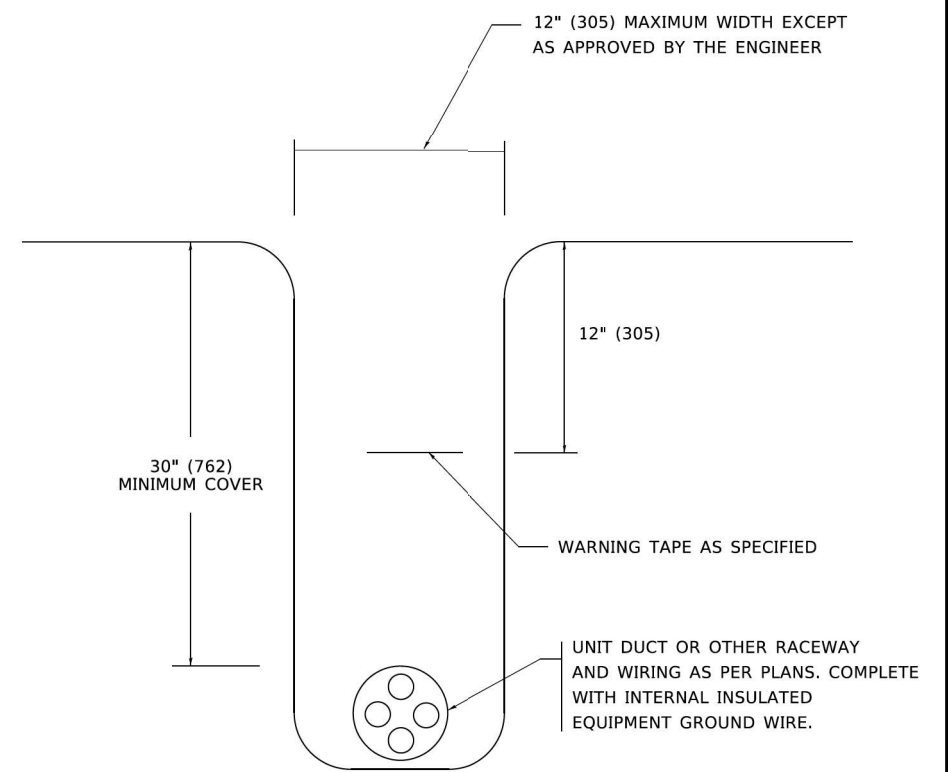


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SCALE:						SHEET 1 OF 1 SHEETS STA. TO STA.				330 2018-133-BR COOK 308 103 CONTRACT NO. 62H49 ILLINOIS FED. AID PROJECT			

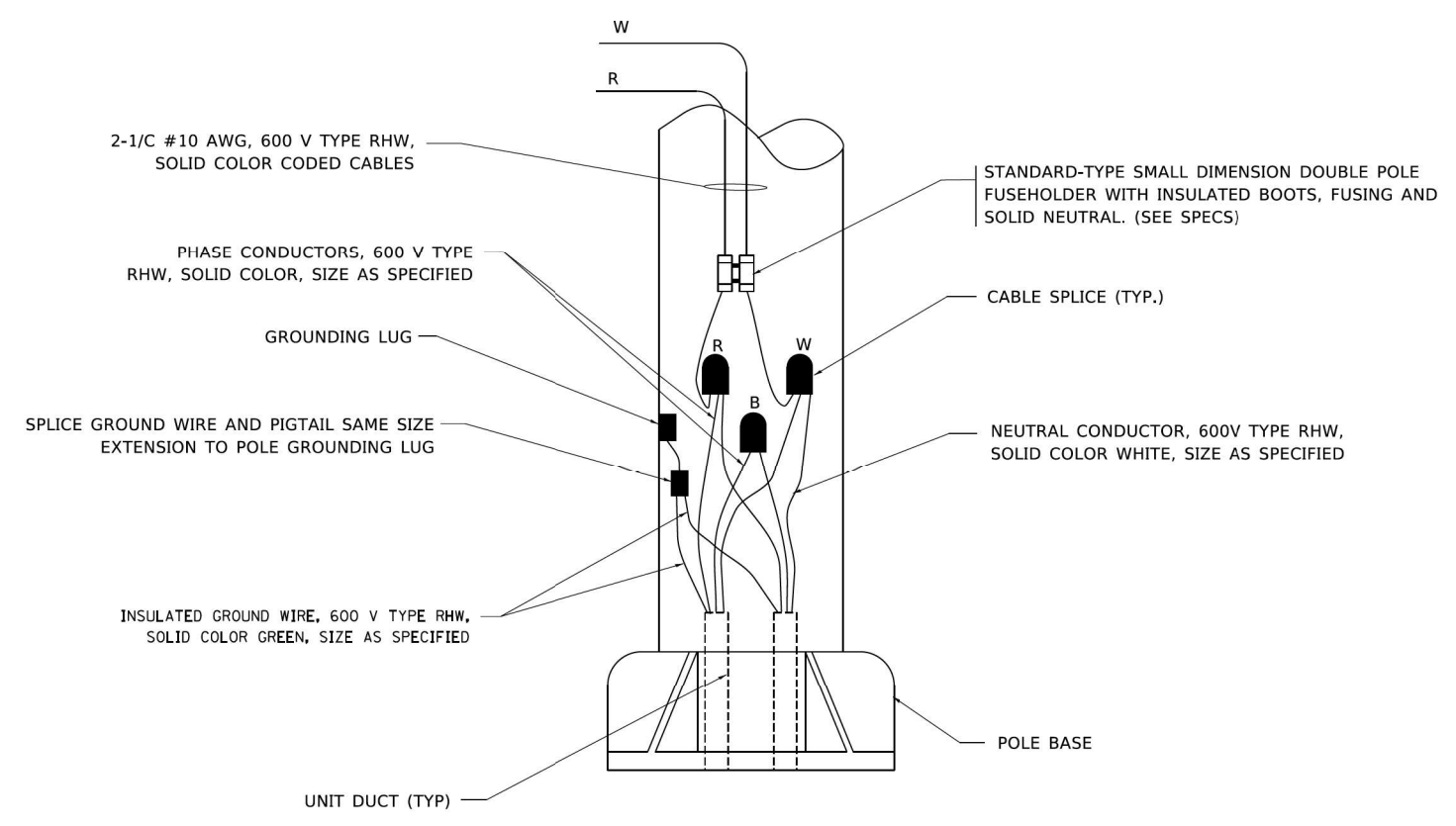
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SCALE:						SHEET 1 OF 1 SHEETS STA. TO STA.				330 2018-133-BR COOK 308 103 CONTRACT NO. 62H49 ILLINOIS FED. AID PROJECT			



**TYPICAL SPLICE DETAIL**  
**N.T.S.**



**TYPICAL WIRING IN TRENCH DETAIL**  
**N.T.S.**



**POLE WIRING DETAIL**  
**N.T.S.**

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	DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>MISC. ELECTRICAL DETAILS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>SHEET A</b>						
SCALE: NONE		SHEET 1 OF 1 SHEETS		STA.	TO STA.	
		BE-702		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT				



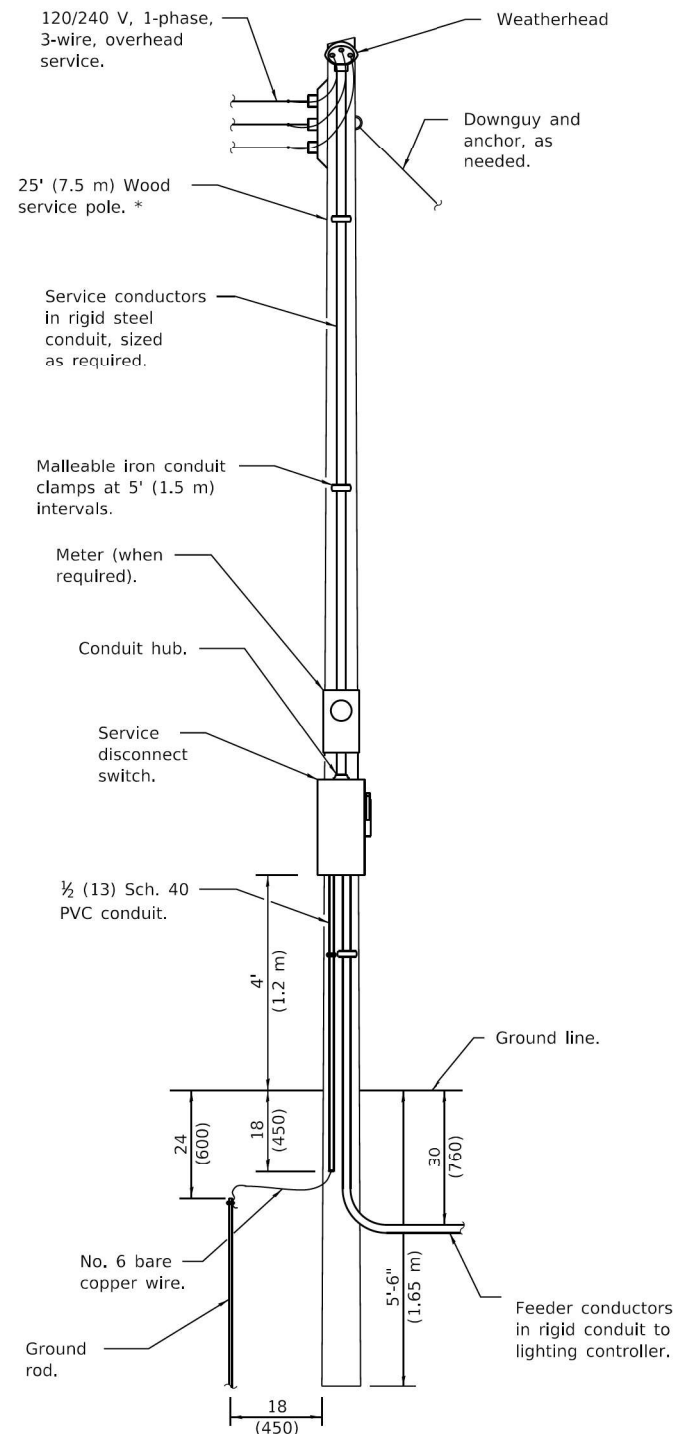
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>LIGHTING DETAILS</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE:		SHEET 1 OF 1 SHEETS		STA.	TO STA.	
		330		2018-133-BR		
		COOK		CONTRACT NO. 62H49		
		ILLINOIS FED. AID PROJECT				

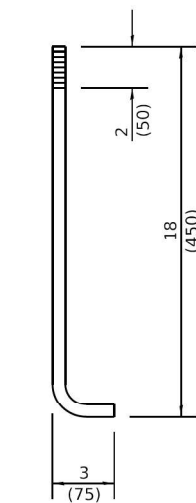
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		308		104
		CONTRACT NO. 62H49		
ILLINOIS FED. AID PROJECT				

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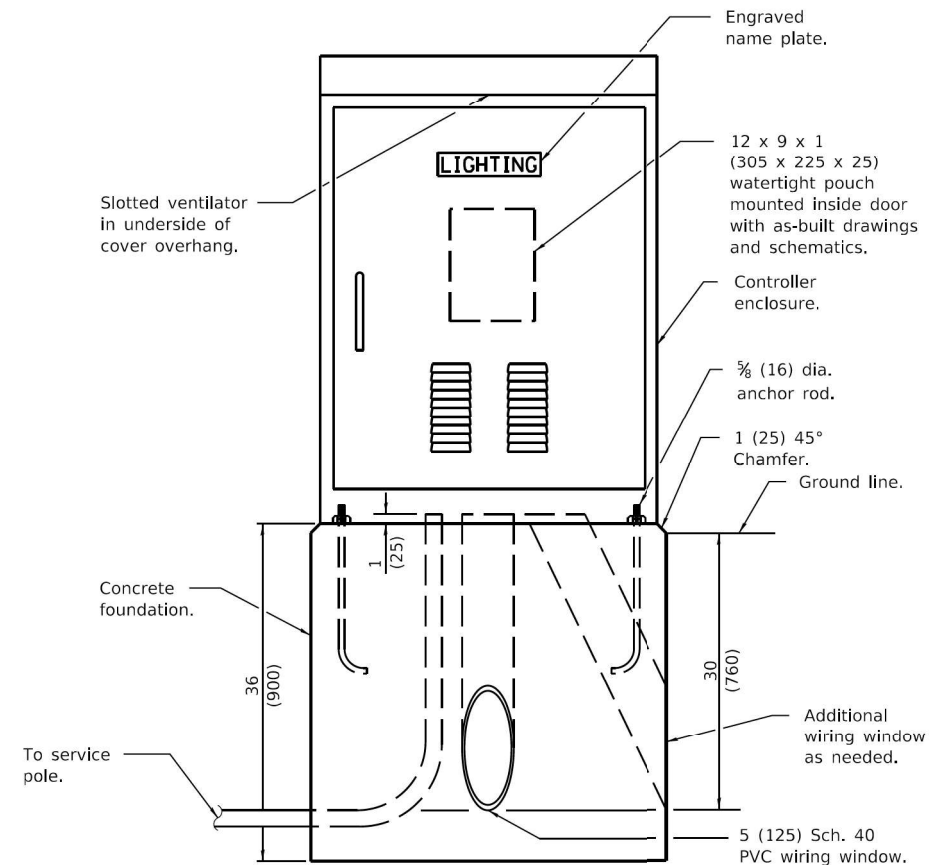


**ELECTRIC SERVICE INSTALLATION**

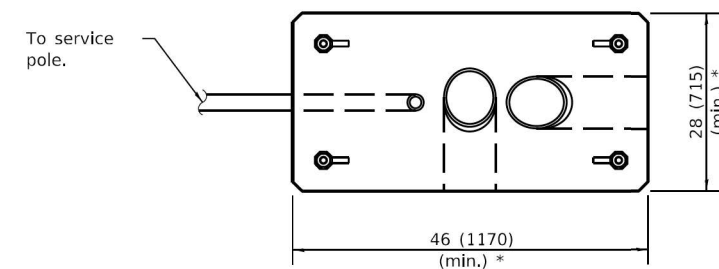
(Typical overhead service shown. Cut pole off for underground service and treat cut surface with preservative. Consult utility company standards for exact requirements.)  
 \* Size larger as needed.



**ANCHOR ROD DETAIL**



**LIGHTING CONTROLLER**



**FOUNDATION (PLAN)**

(Work pad not shown.)

\* Size larger as needed.

All dimensions are in inches (millimeters) unless otherwise shown.

PASSED	January 1, 2019
ELECTRICAL AND MECHANICAL UNIT CHIEF	
APPROVED	January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT	
ISSUED	1-1-12

DATE	REVISIONS
1-1-19	Replaced ** note with new note regarding consulting utility company standards for installation.
1-1-15	Added note (16).

**NAVIGATION OBSTRUCTION LIGHTING CONTROLLER, 240V**  
 (Sheet 1 of 2)

**STANDARD 826001-02**

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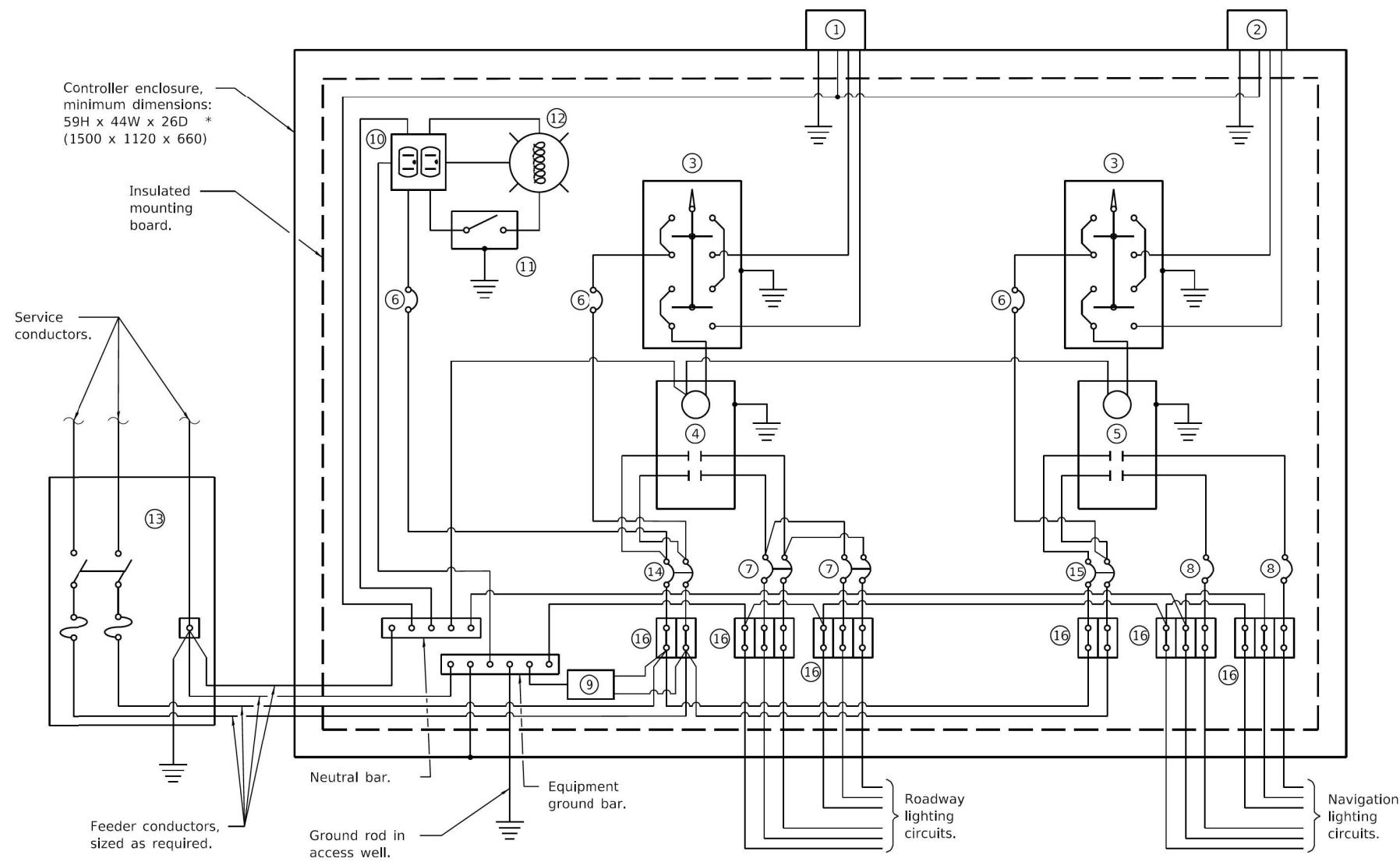
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**LIGHTING DETAILS**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	105
CONTRACT NO. 62H49				
ILLINOIS FED. AID PROJECT				



- ① Photocell with integral surge arrester for roadway lighting.
  - ② Photocell with integral surge arrester for navigation lighting.
  - ③ HAND-OFF-AUTO selector switch.
  - ④ 100 amp\*, electrically held contactor.
  - ⑤ 60 amp\*, electrically held contactor.
  - ⑥ 15 amp, 1-pole circuit breaker.
  - ⑦ 20 amp\*, 2-pole circuit breaker (two spares required but not shown).
  - ⑧ 20 amp\*, single-pole circuit breaker (two shown, quantity as required).
  - ⑨ Surge arrester.
  - ⑩ GFCI duplex receptacle.
  - ⑪ Single-pole, single-throw switch.
  - ⑫ Incandescent luminaire, enclosed and gasketed with 100 watt lamp.
  - ⑬ Service disconnect switch - 2-pole, 3-wire, 100 amp\*, fused at 100 amp\*, solid neutral in NEMA 4X enclosure having lockable external handle.
  - ⑭ 60 amp\*, 2-pole circuit breaker.
  - ⑮ 30 amp\*, 2-pole circuit breaker.
  - ⑯ Terminal block sized for conductors as shown on plans.
- \* Size larger as needed.

Controller enclosure, minimum dimensions: 59H x 44W x 26D \* (1500 x 1120 x 660)

Insulated mounting board.

Service conductors.

Feeder conductors, sized as required.

Neutral bar.

Ground rod in access well.

Equipment ground bar.

Roadway lighting circuits.

Navigation lighting circuits.

### CONTROL SCHEMATIC

Illinois Department of Transportation

PASSED January 1, 2019  
*ME [Signature]*  
 ELECTRICAL AND MECHANICAL UNIT CHIEF

APPROVED January 1, 2019  
*[Signature]*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

**NAVIGATION OBSTRUCTION LIGHTING CONTROLLER, 240V**  
 (Sheet 2 of 2)

**STANDARD 826001-02**

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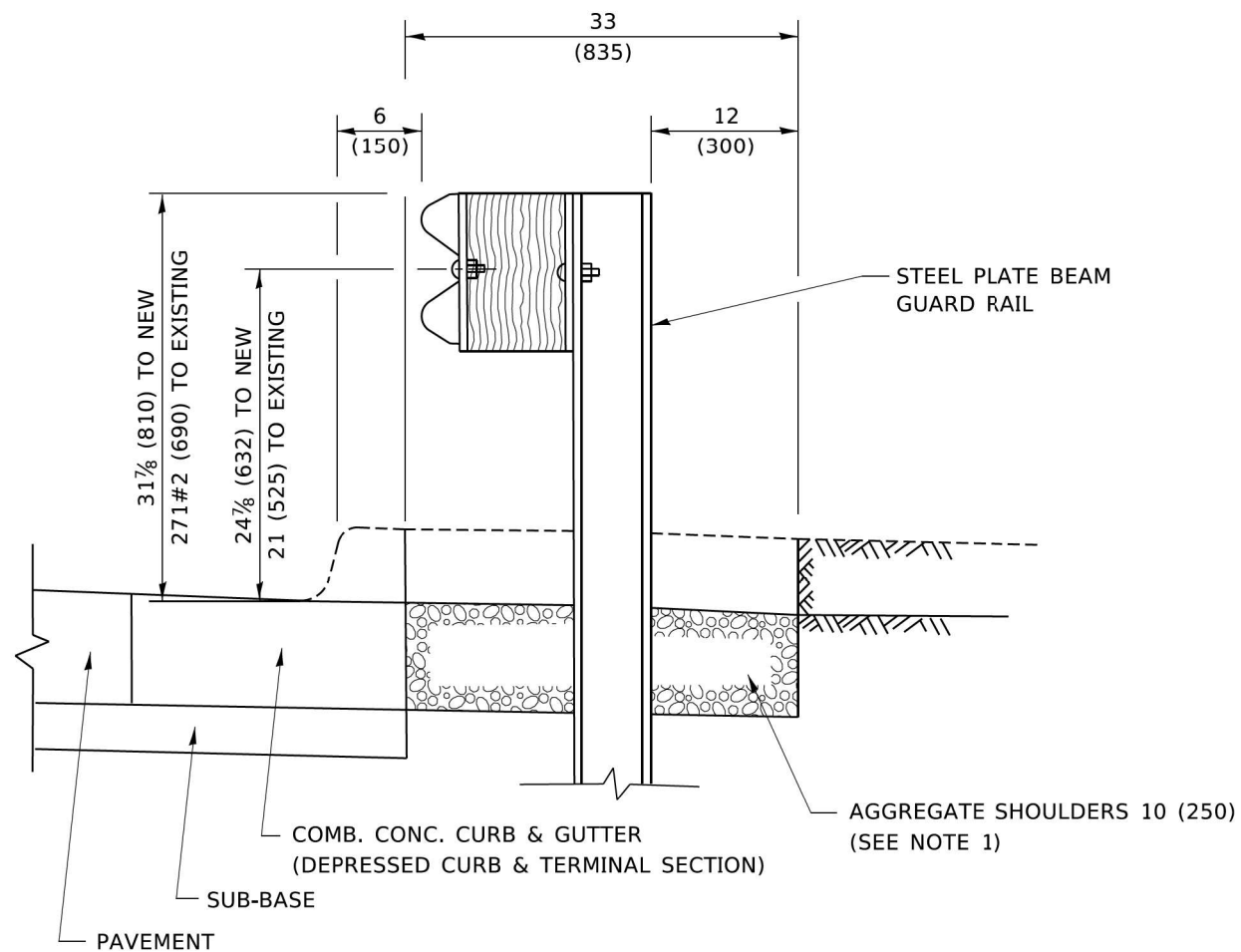
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	DATE - 10/21/2021	REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	106
				CONTRACT NO. 62H49
				ILLINOIS FED. AID PROJECT



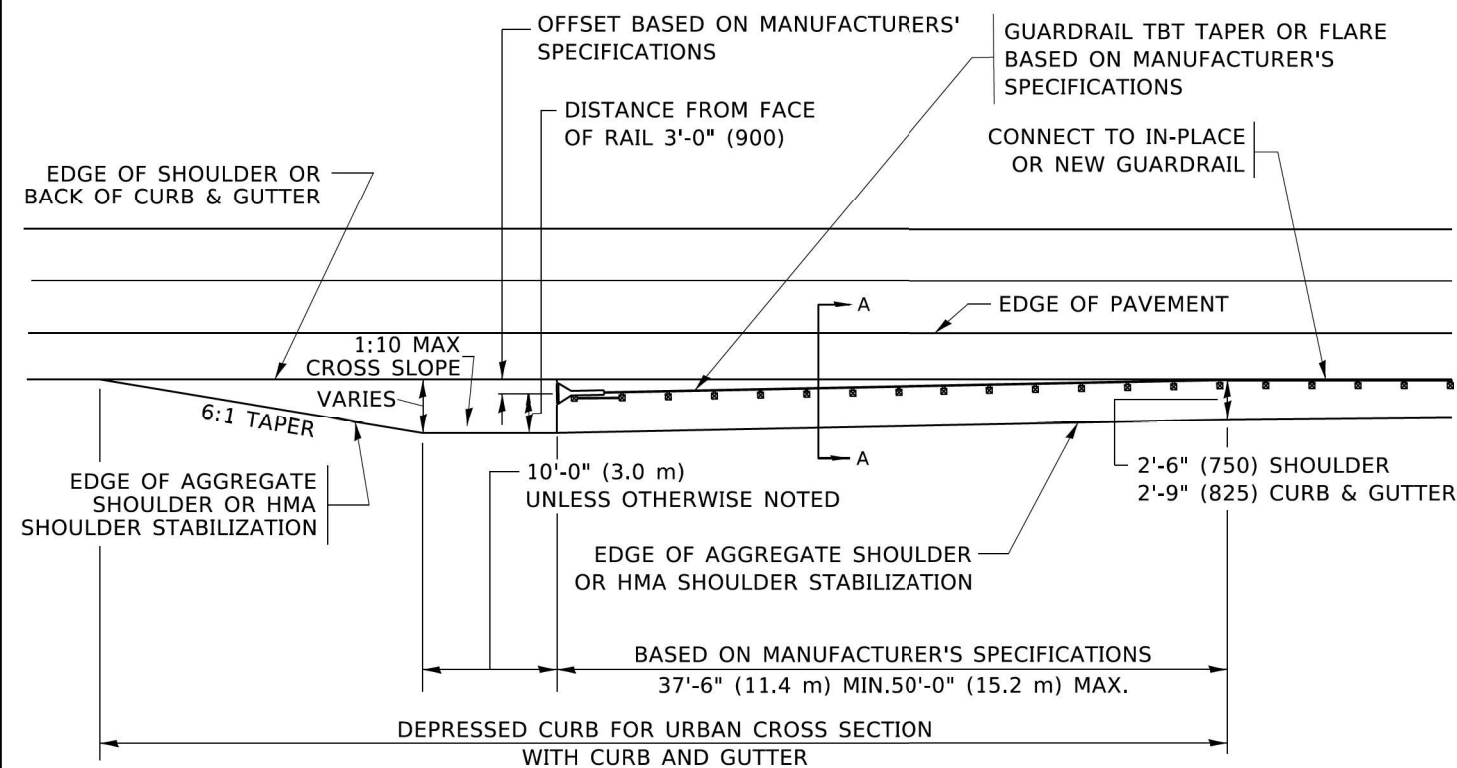
**SECTION A-A**

**NOTES:**

1. THE AGGREGATE SHOULDER, 10 (250) OR HMA SHOULDER, 6 (150) (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM  
GUARD RAIL ADJACENT TO CURB AND GUTTER**

**[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



**DEPRESSED CURB AND GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

AGGREGATE SHOULDER, 10 (250) WILL BE PAID ACCORDING TO SECTION 481.

HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID ACCORDING TO SECTION 482.

COMB. CONC. C&G, STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL  
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

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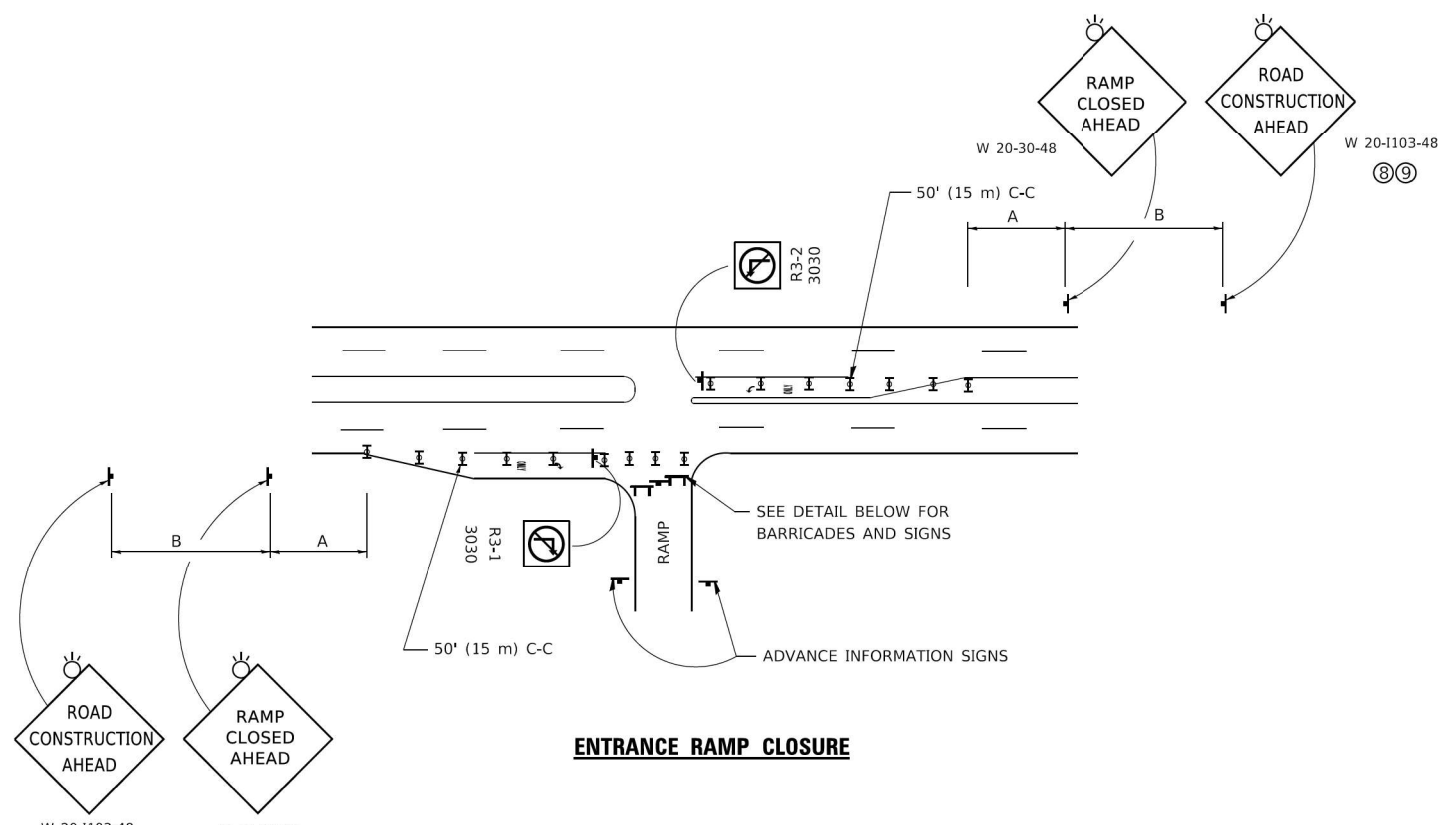
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR DEPRESSED CURB & GUTTER AND  
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 107
<b>BD600-10 (BD 34)</b>		CONTRACT NO. 62H49		
ILLINOIS FED. AID PROJECT				

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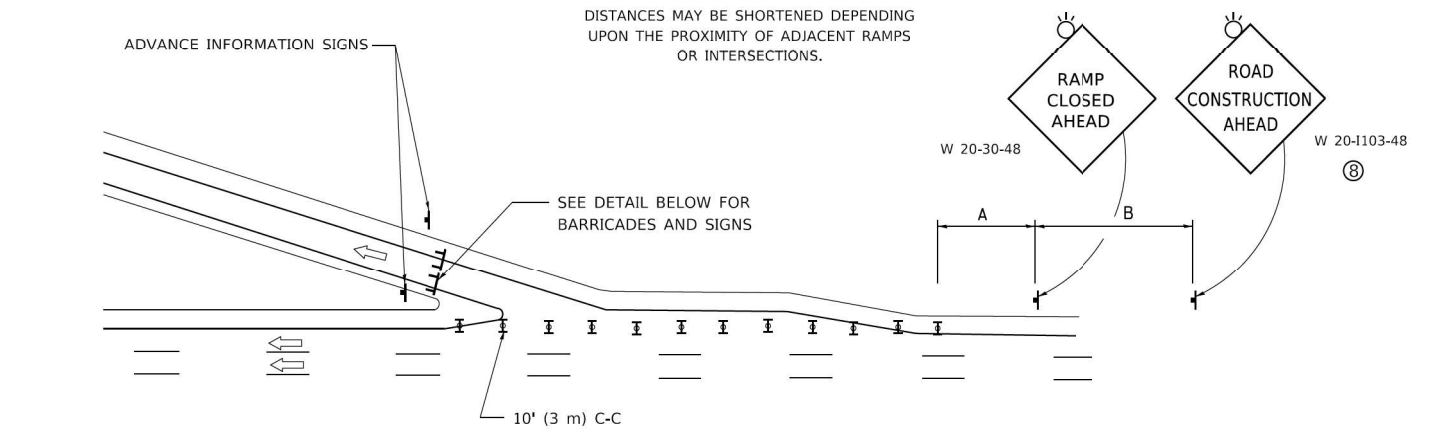


**ENTRANCE RAMP CLOSURE**

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

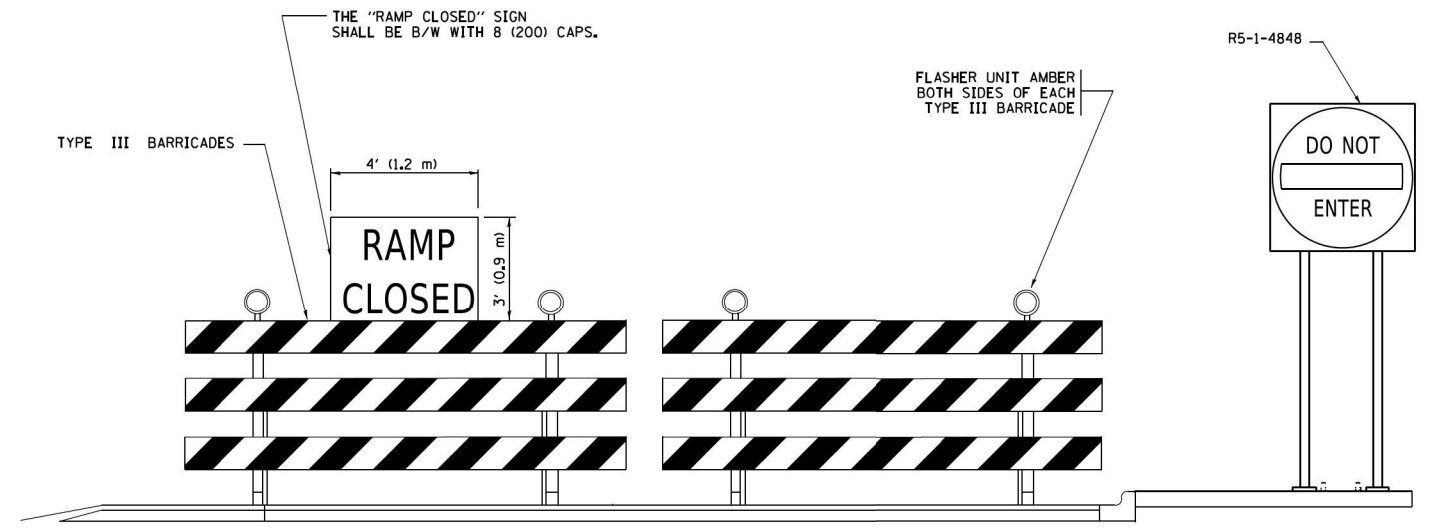
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



**EXIT RAMP CLOSURE**

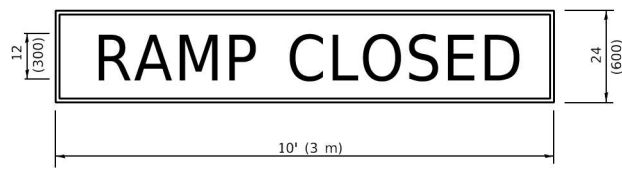
**SYMBOLS**

- ▬ TYPE II BARRICADE OR DRUM
- ▬ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



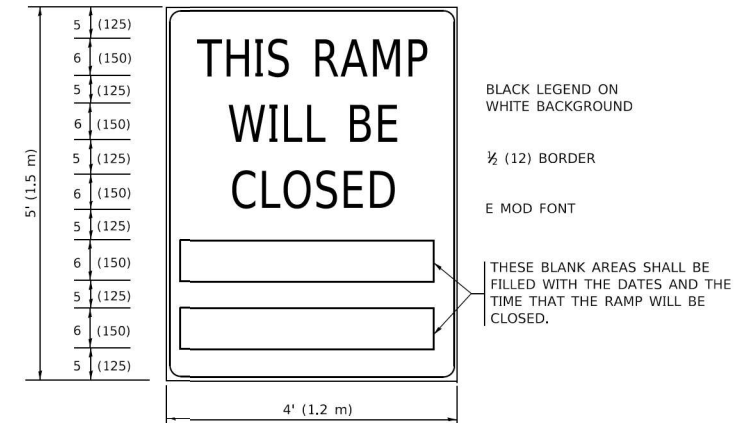
**DETAIL FOR REQUIRED BARRICADES & SIGNS**

**RAMP CLOSURE ADVANCE WARNING SIGN**



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY  
 E MOD FONT  
 1 (25) BORDER  
 THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

**RAMP CLOSURE ADVANCE INFORMATION SIGN**



BLACK LEGEND ON WHITE BACKGROUND  
 1/2 (12) BORDER  
 E MOD FONT  
 THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.  
 THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

**GENERAL NOTES:**

- 1 CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- 2 VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- 3 A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- 4 ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- 5 THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- 6 AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- 7 THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH.
- 8 ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- 9 ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = footemj	DESIGNED - D.W.S.	REVISED - S.P.B._01-07
	DRAWN -	REVISED - S.P.B._12-09
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PLOT DATE = 3/4/2019	DATE - 02-83	REVISED - M.D._01-18

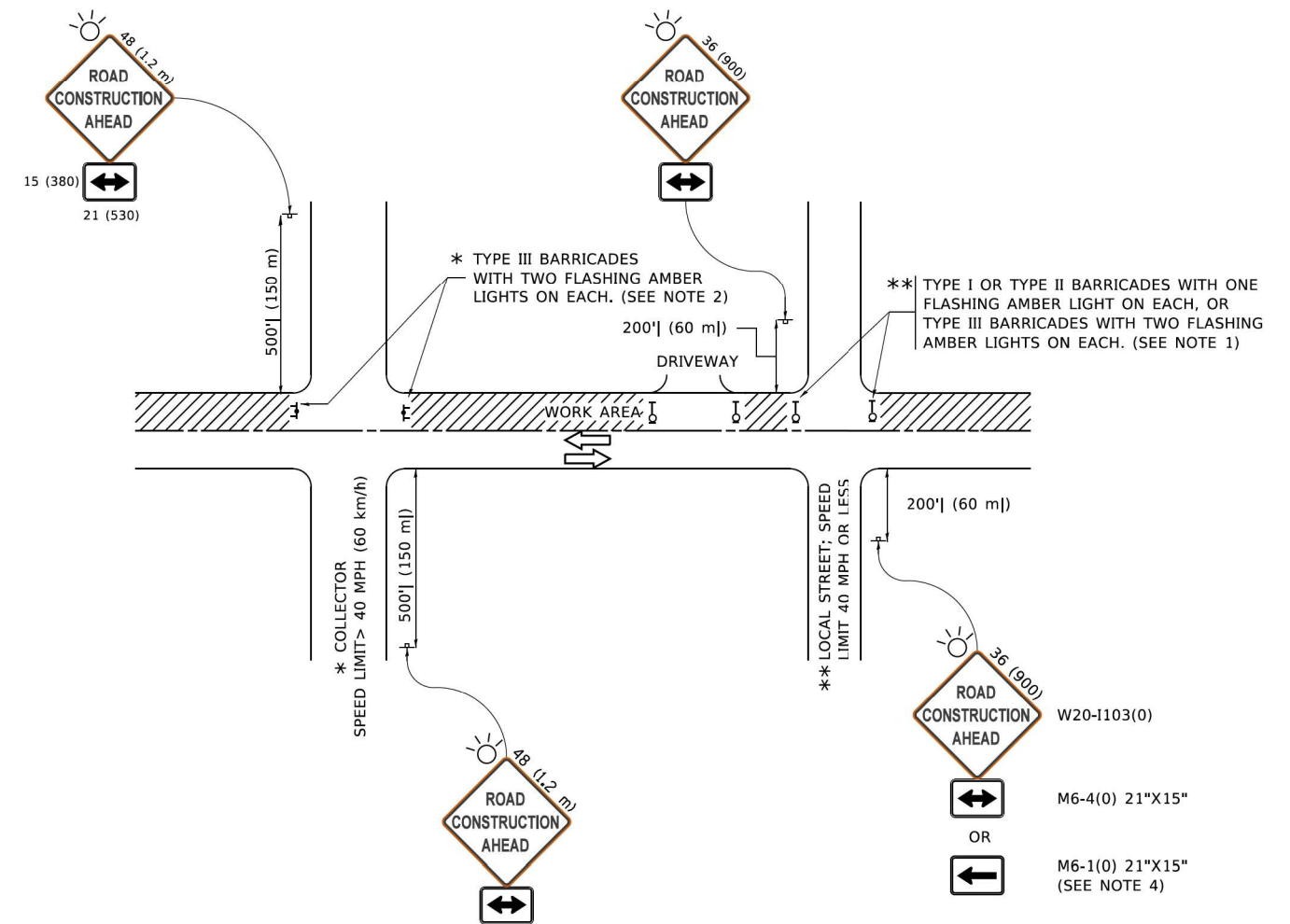
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**ENTRANCE AND EXIT RAMP  
 CLOSURE DETAILS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 108
<b>TC-08</b>			CONTRACT NO. 62H49	
ILLINOIS		FED. AID PROJECT		





**NOTES:**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

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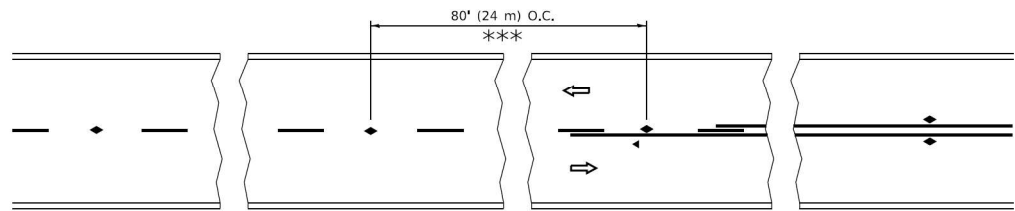
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PLOT DATE = 3/4/2019	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

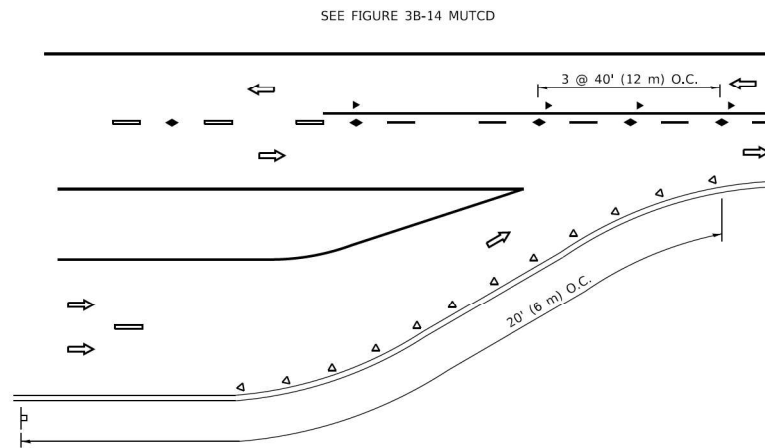
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>TC-10</b>			CONTRACT NO. 62H49	
ILLINOIS FED. AID PROJECT				

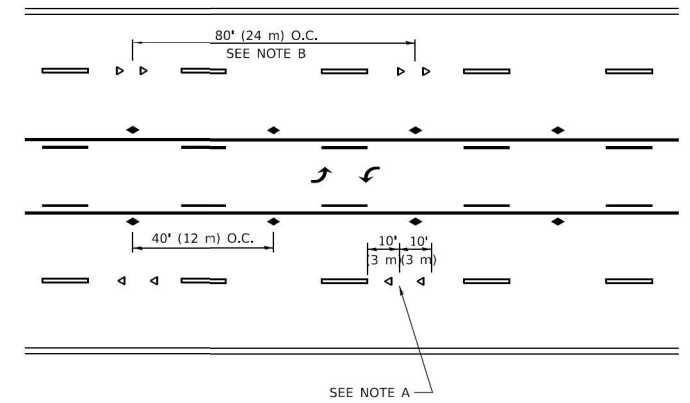


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

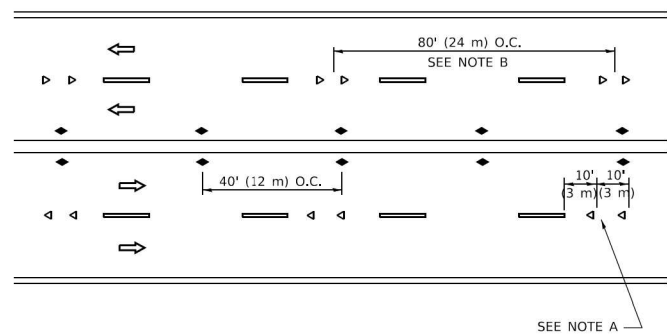
**TWO-LANE/TWO-WAY**



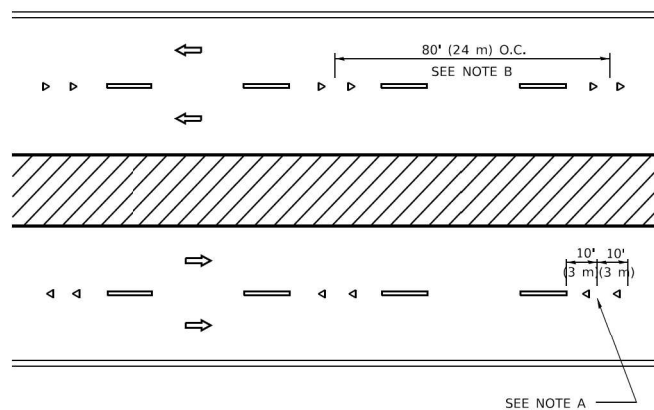
**LANE REDUCTION TRANSITION**



**TWO-WAY LEFT TURN**



**MULTI-LANE/UNDIVIDED**



**MULTI-LANE/DIVIDED**

**GENERAL NOTES**

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.
4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

**SYMBOLS**

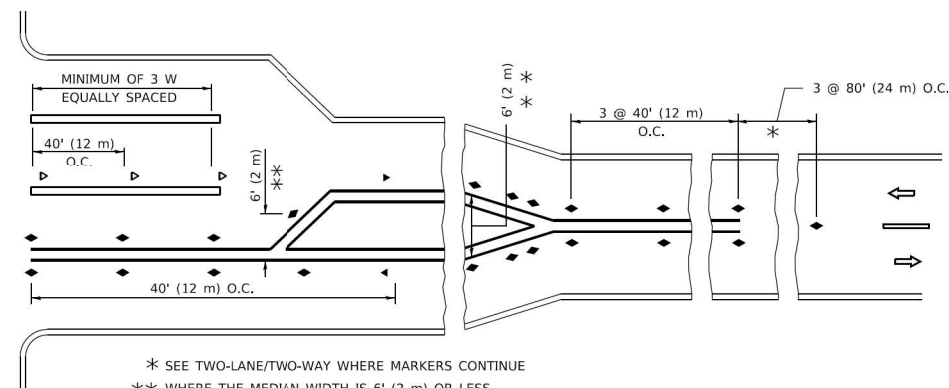
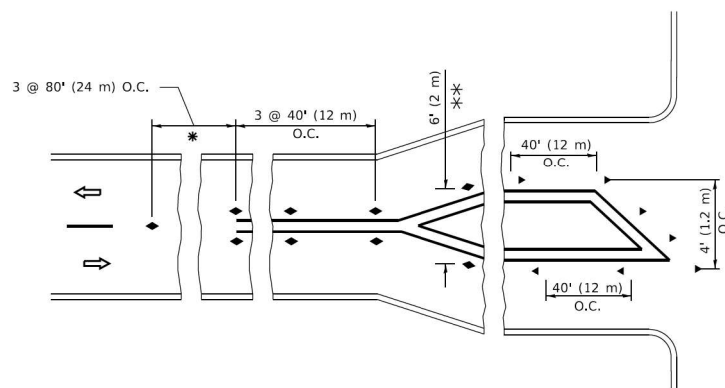
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

**LANE MARKER NOTES**

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

**DESIGN NOTES**

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



**TURN LANES**

All dimensions are in inches (millimeters) unless otherwise shown.

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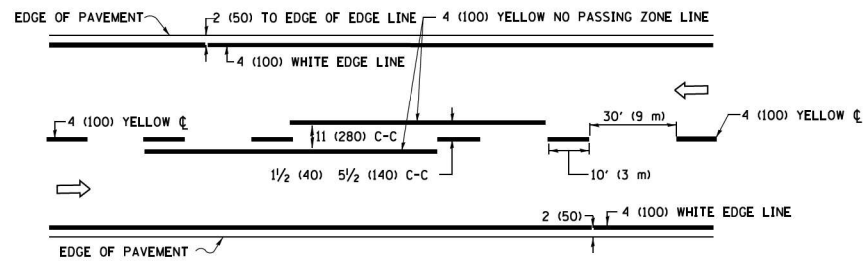
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

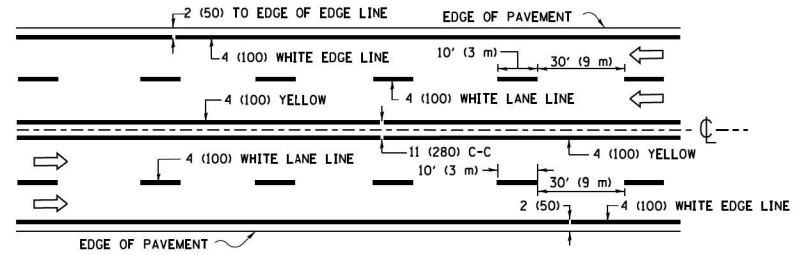
**TYPICAL APPLICATIONS  
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

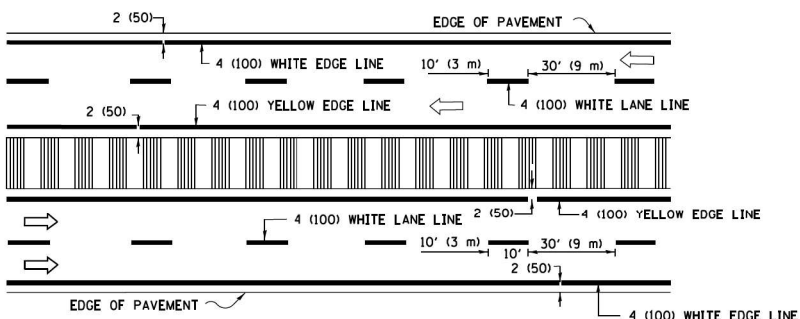
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	110
TC-11		CONTRACT NO. 62H49		
ILLINOIS		FED. AID PROJECT		



**2-LANE ROADWAY**

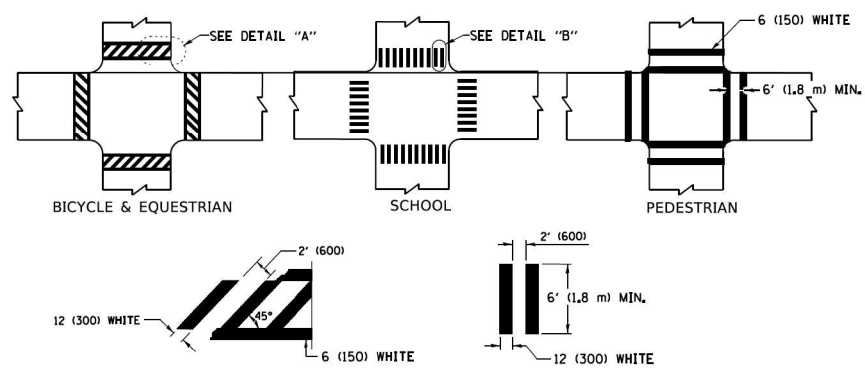


**MULTI-LANE UNDIVIDED**



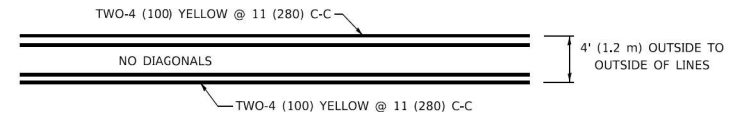
**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

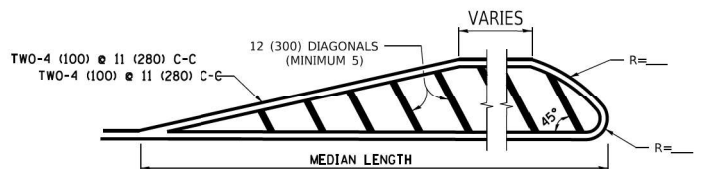


**TYPICAL CROSSWALK MARKING**

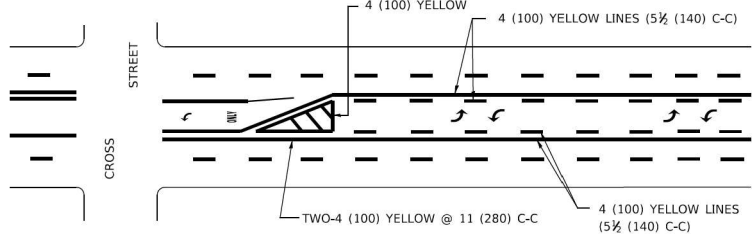
\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



**4' (1.2 m) WIDE MEDIANS ONLY**

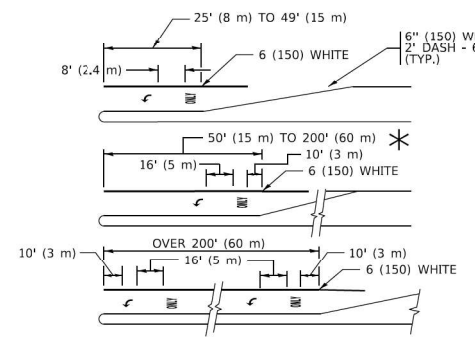


**MEDIANS OVER 4' (1.2 m) WIDE**



**MEDIAN WITH TWO-WAY LEFT TURN LANE**

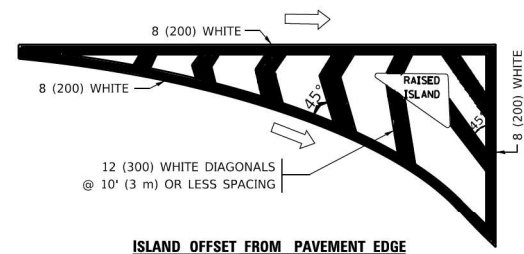
**TYPICAL PAINTED MEDIAN MARKING**



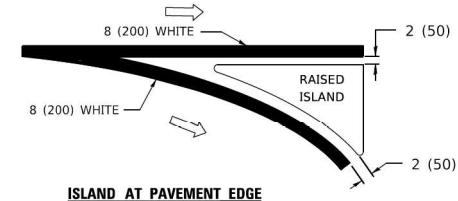
**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

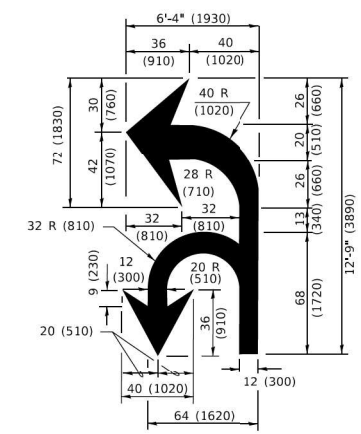


**ISLAND OFFSET FROM PAVEMENT EDGE**

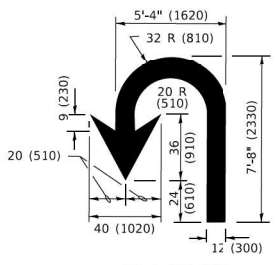


**ISLAND AT PAVEMENT EDGE**

**TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**  
 \* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH, 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 2 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: *R*=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH *X*=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

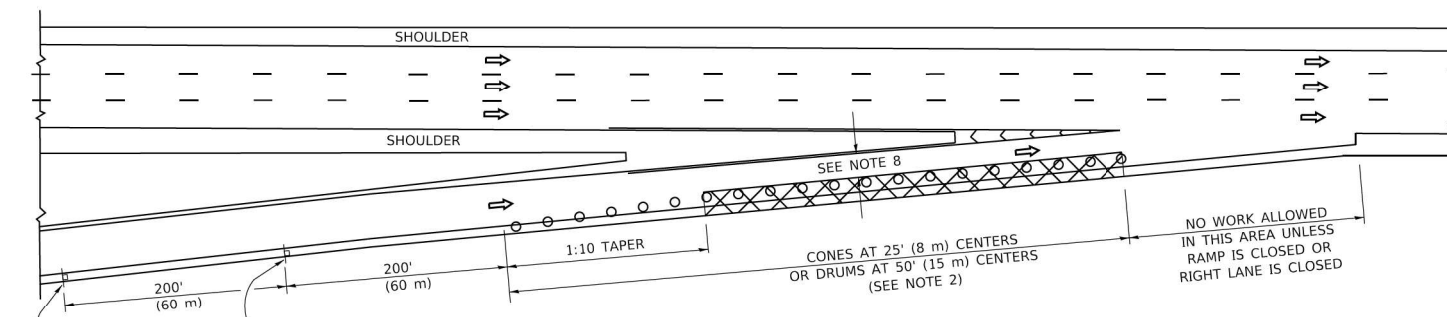
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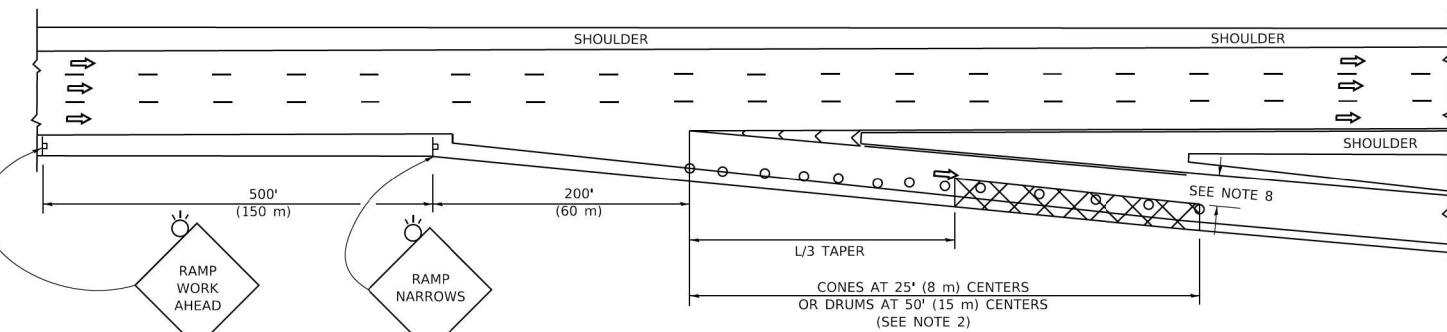
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>TYPICAL PAVEMENT MARKINGS</b>		330	2018-133-BR	COOK	308	111
SCALE: NONE	SHEET 1 OF 2 SHEETS	TC-13		CONTRACT NO. 62H49		
STA.	TO STA.	ILLINOIS		FED. AID PROJECT		

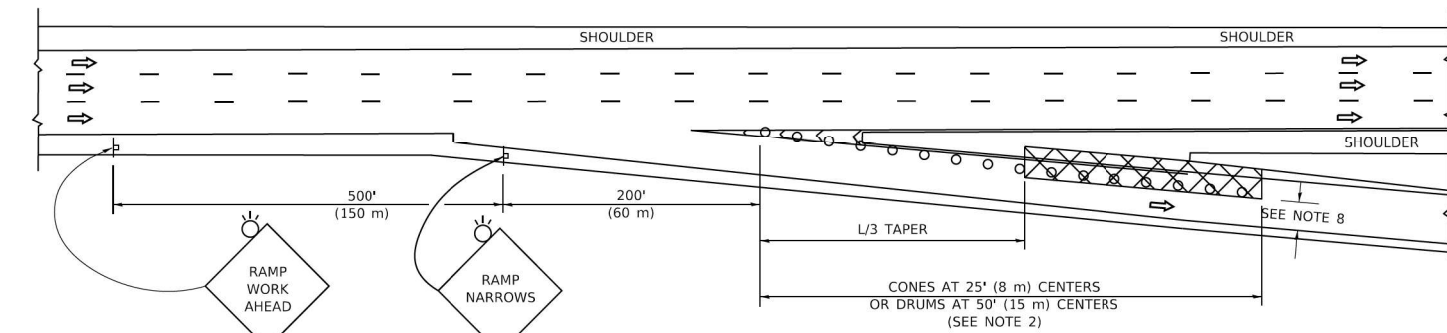
**PARTIAL RAMP CLOSURE DETAILS**



**TYPICAL ENTRANCE RAMP**



**TYPICAL EXIT RAMP**



**TYPICAL EXIT RAMP**

**SYMBOLS**

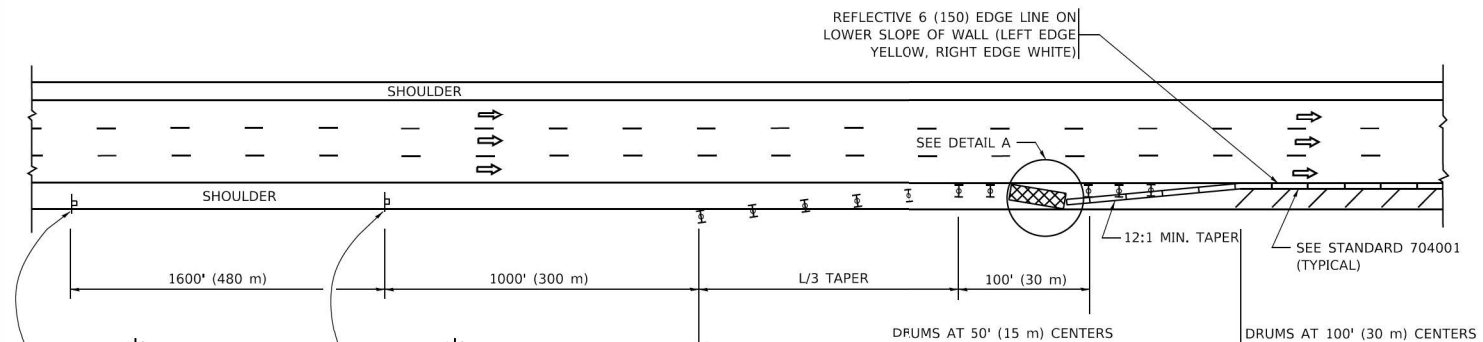
- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

**GENERAL NOTES:**

1. THE "L" DISTANCE EQUALS:
 

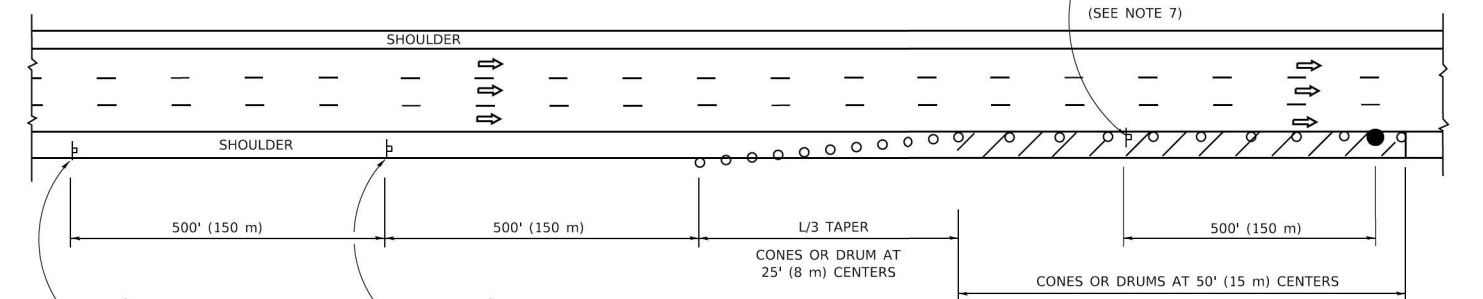
SPEED LIMIT	FORMULAS
45 mph (80 km/h)	METRIC ENGLISH
OR GREATER:	$L=0.65(W/S)$ $L=(W/S)$
	$W = \text{WIDTH OF OFFSET IN FEET (METERS)}$
	$S = \text{NORMAL POSTED SPEED MPH (KM/H)}$
2. TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

**SHOULDER CLOSURE DETAILS**



OR WHEN SPECIFIED INSTALL TEMPORARY CONCRETE BARRIER WALL WITH BARRIER WALL REFLECTORS PER TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)

**PERMANENT SHOULDER CLOSURE**



**DAYTIME SHOULDER CLOSURE**

THIS DETAIL IS USED WHERE:

1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350/MASH COMPLIANT.

DETAIL "A"  
IMPACT ATTENUATOR, TEMPORARY  
(SEE NOTE 5)

5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
  - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
  - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
8. 12' MIN. WIDTH TANGENT SECTION  
16' MIN. WIDTH CURVE SECTION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

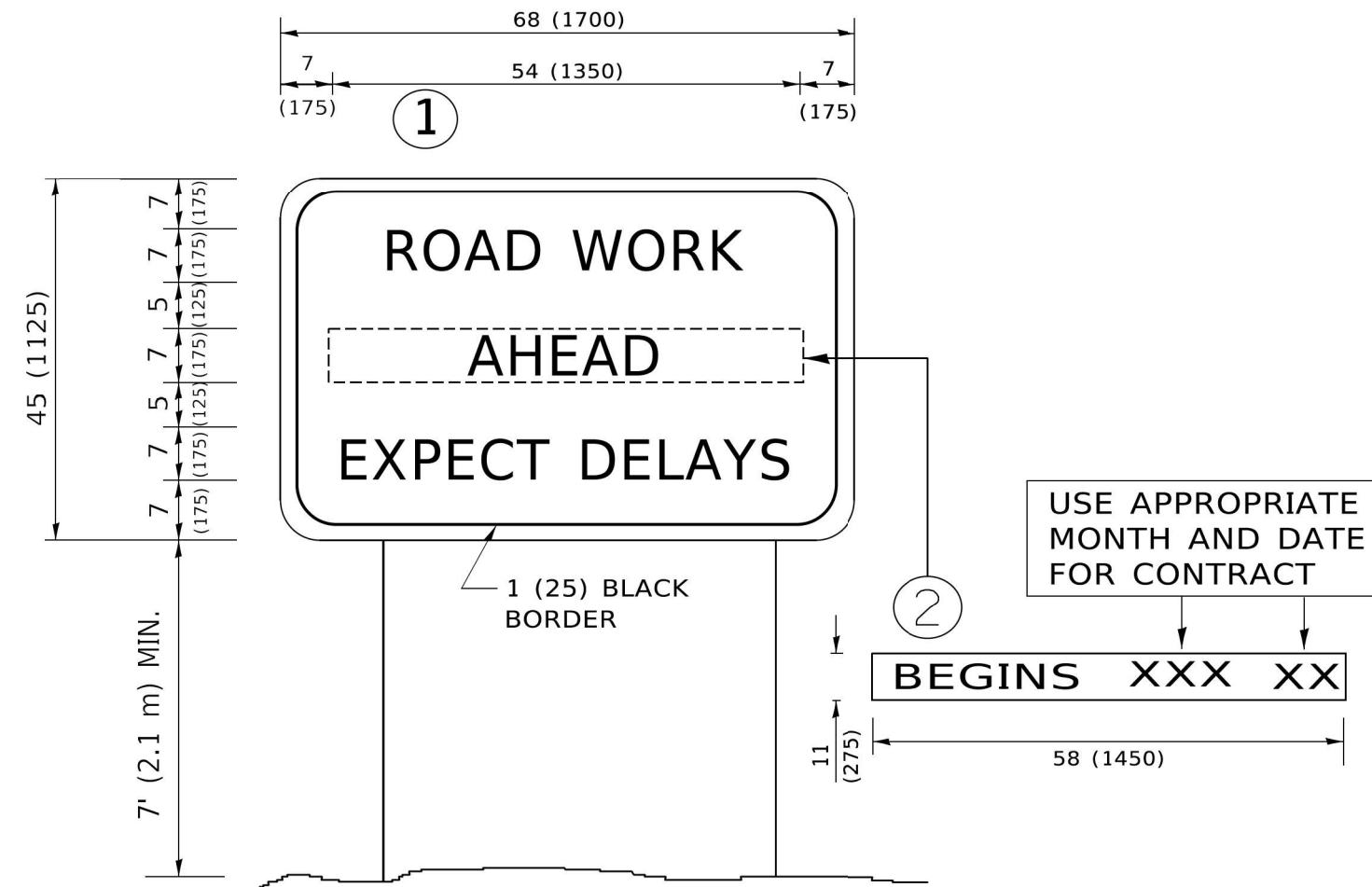
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PLOT SCALE = 50.0000" / in.	CHECKED -	REVISED - M.D. 06-13
PLOT DATE = 3/4/2019	DATE - 11-96	REVISED - M.D. 01-18

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	112
<b>TC-17</b>		CONTRACT NO. 62H49		
ILLINOIS FED. AID PROJECT				



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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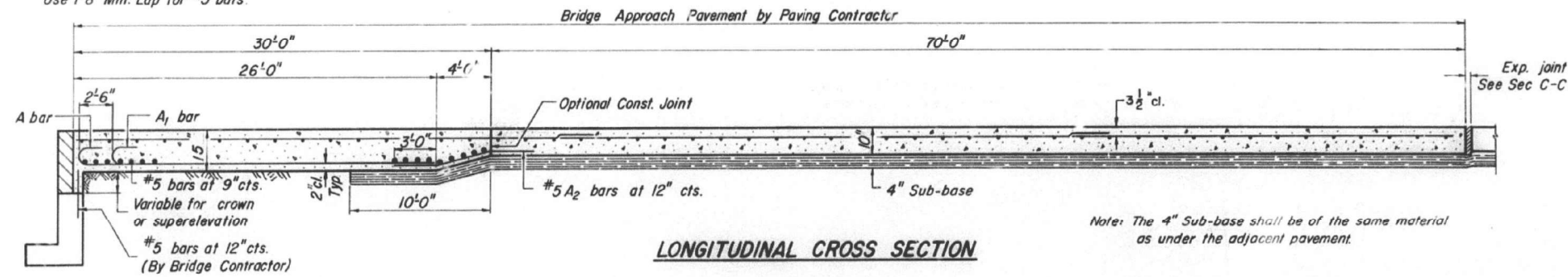
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PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

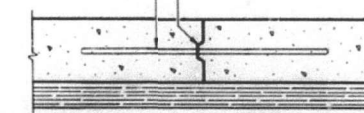
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	113
<b>TC-22</b>		CONTRACT NO. 62H49		
ILLINOIS FED. AID PROJECT				

Note: Tilt hook of #9 bars for min. 3 1/2' cl. Use 1'-4" Min. Lt. for #4 bars. Use 1'-8" Min. Lap for #5 bars.

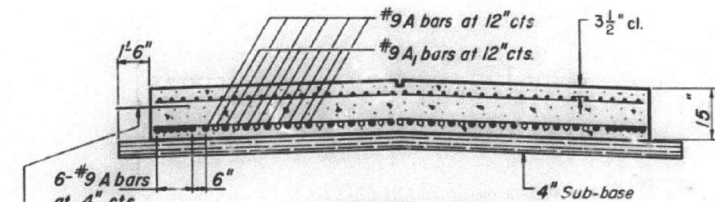
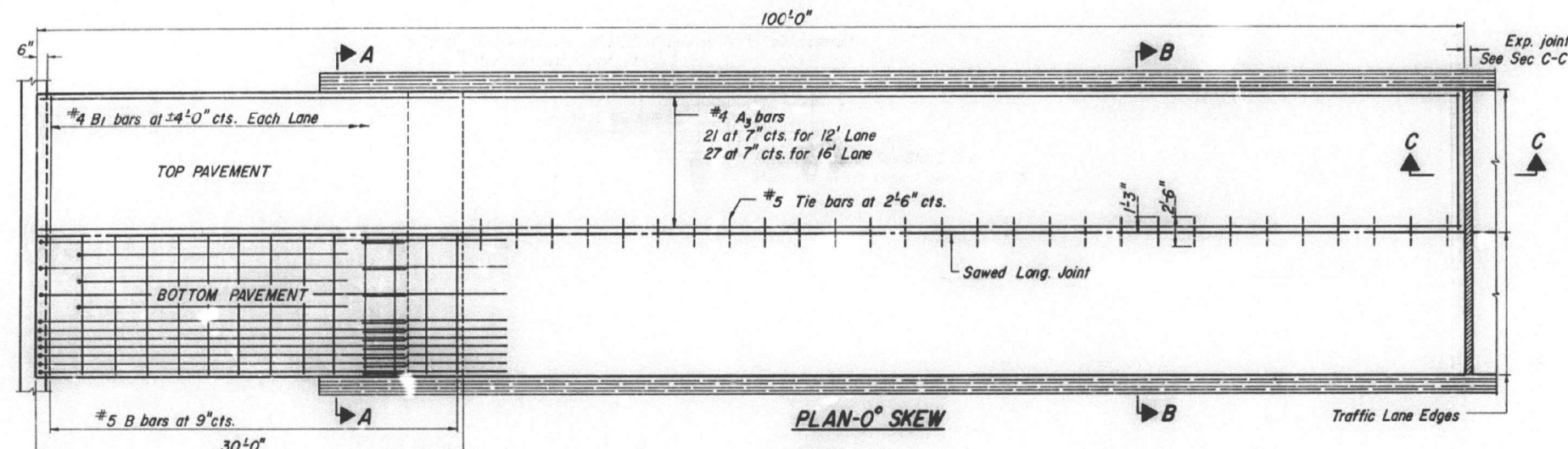


5/8" steel tie bars at 2'-6" cts. Keyed long const. jt. in accordance with details shown on Standard 2323

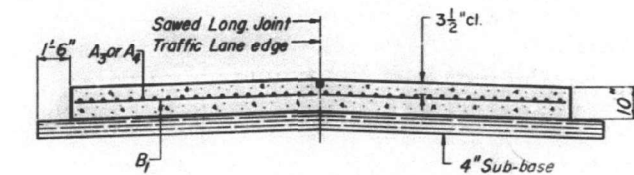
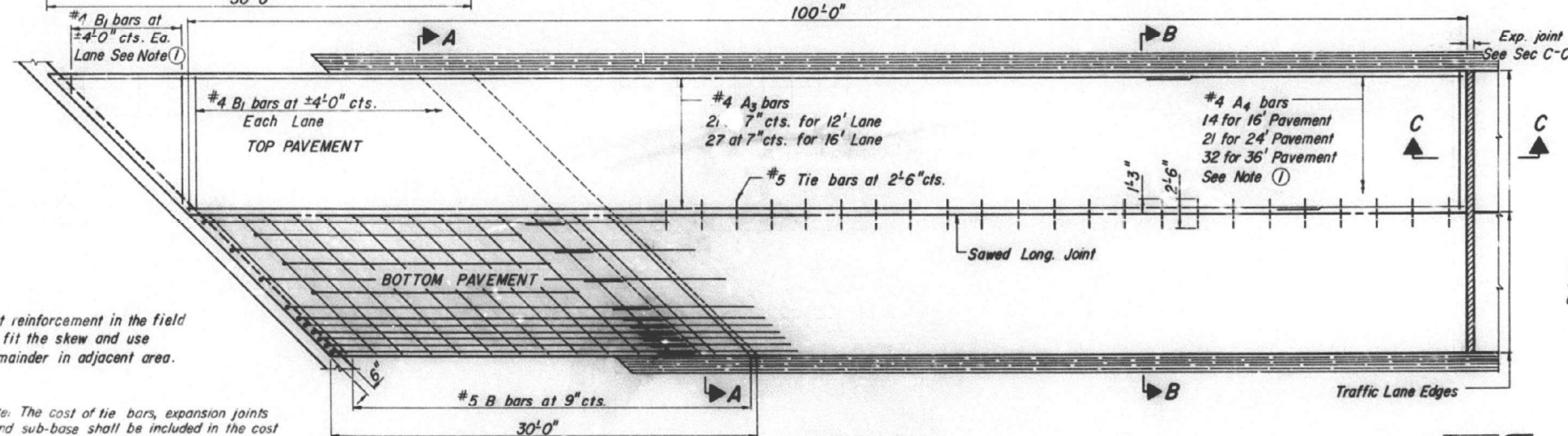


**OPTIONAL LONG. CONST. JOINT**

As approved by the Engineer, the contractor may elect to reduce the widths by use of the Optional Longitudinal Construction Joint shown. Joint shall be located at the edge of Traffic Lane.

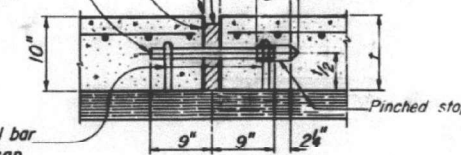


**SECTION A-A**



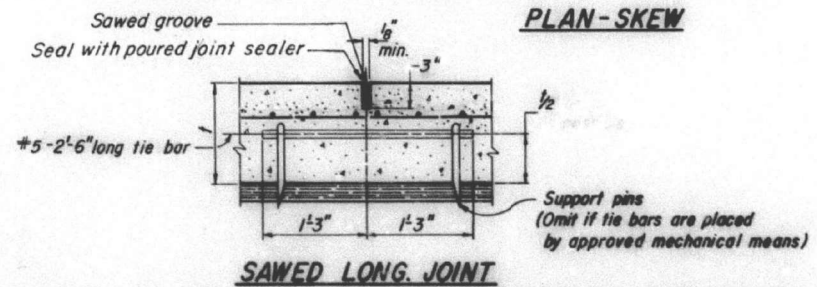
**SECTION B-B**

Finish corners with edge 2" preformed expansion joint filler. 1 1/4" dia x 18" long pre-coated smooth dowel bars at 12" cts. Fill with PAF 3 or 4 if joint filler conforms to Art. 715.05 or 715.06 of the Standard Specifications. 2" 4" or 1" min if tapered. Pinched stop. Approved dowel bar assembly with cap.

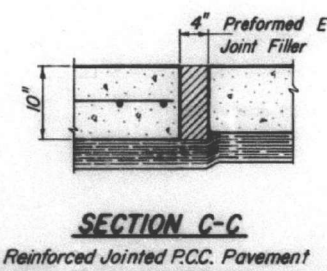


**SECTION C-C**

Continuous Reinforced P.C.C. Pavement

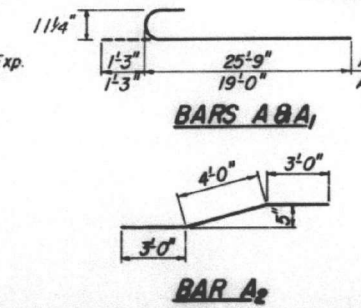


**SAWED LONG JOINT**



**SECTION C-C**

Reinforced Jointed P.C.C. Pavement



**BRIDGE APPROACH PAVEMENT**

(Sheet 1 of 2)

**STANDARD 2353-5**

Illinois Department of Transportation

PASSED May 20 1981

APPROVED May 20 1981

ISSUED 10-23-74

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE APPROACH PAVEMENTS  
FOR INFORMATION ONLY

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PLOT DATE = 10/21/2021	CHECKED -	REVISED -
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F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 114
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62H49	

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H 5.20 e

Benchmark: Magnetic nail,  $\phi$  existing NB pavement Sta. 31+44. Elev. 619.86

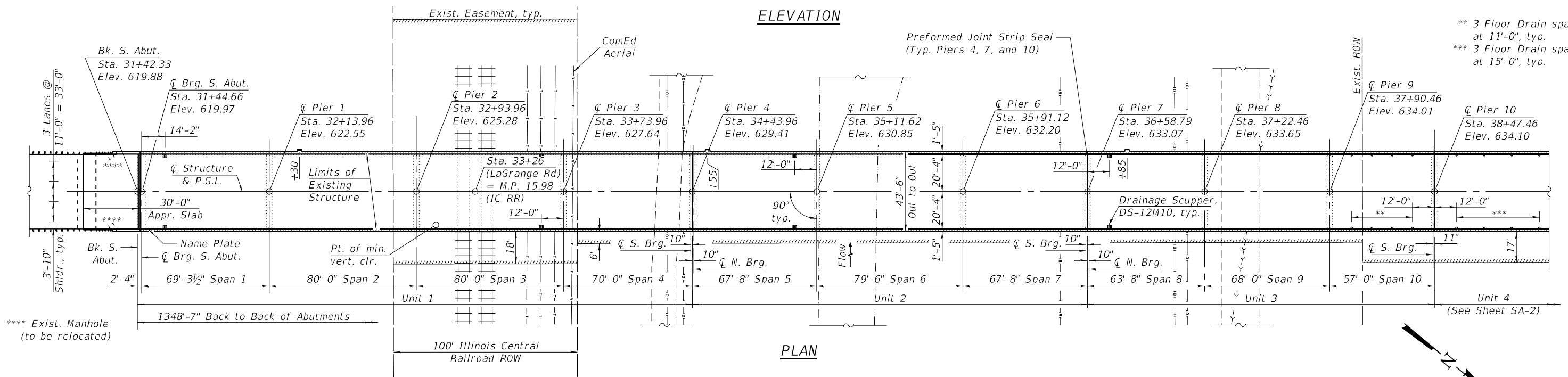
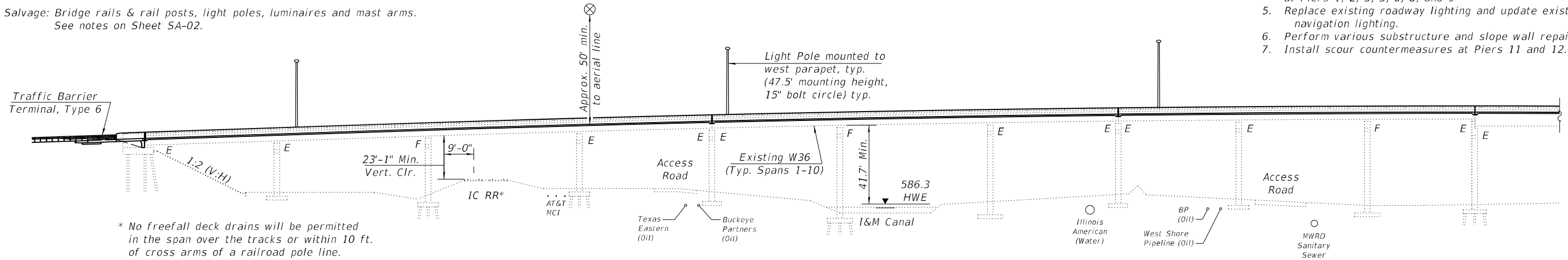
Existing Structure: S.N. 016-2468, built in 1975 as F.A. Route 45 / Section 462-X-B&R. 13-span steel superstructure consisting of 4 multi-span continuous units, composite in positive moment regions. W36 beams in Units 1-3, variable-depth (80"-120") plate girders in Unit 4. 1348'-7" back to back of abutment length, 42'-0" out to out width. Supported by reinforced concrete stub abutments and multi-column piers.

Bridge to be closed and traffic detoured to existing southbound structure during construction.

Salvage: Bridge rails & rail posts, light poles, luminaires and mast arms.  
See notes on Sheet SA-02.

**SCOPE OF WORK**

1. Remove and replace existing concrete deck (composite in positive moment regions only).
2. Reconstruct existing abutment back walls.
3. Remove and replace expansion bearings at Abutments and Piers 3, 4, 7, and 10.
4. Install bolted retrofit repairs at existing cover plates at Piers 1, 2, 3, 5, 6, 8, and 9.
5. Replace existing roadway lighting and update existing navigation lighting.
6. Perform various substructure and slope wall repairs.
7. Install scour countermeasures at Piers 11 and 12.

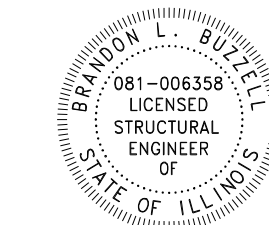
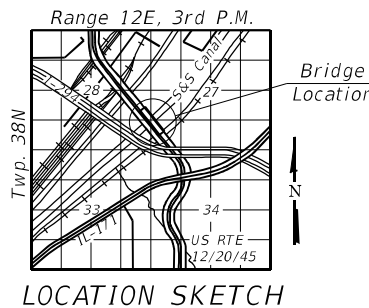


**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications  
For Highway Bridges, 17th Edition

**LOADING HS-20-44**  
Allow 25#/sq. ft. for future wearing surface.

**SEISMIC DATA**  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.038  
Site Coefficient (S) = 1

**DESIGN STRESSES**  
**FIELD UNITS (New Construction)**  
f'c = 3,500 psi  
f'c = 4,000 psi (Superstructure Concrete)  
fy = 60,000 psi (Reinforcement)  
fy = 36,000 psi (M270 Grade 36)  
**FIELD UNITS (Existing Construction)**  
f'c = 3,500 psi  
fy = 40,000 psi (Reinforcement)  
fy = 36,000 psi (Structural Steel)



Brandon Buzzell  
DATE: 10/20/2021  
LICENSE EXPIRES 11/30/22

**GENERAL PLAN & ELEVATION I**  
**N.B US RTE 12/20/45 (LAGRANGE ROAD) OVER**  
**ILLINOIS CENTRAL RR, I&M CANAL AND S&S CANAL**  
**PUBLIC WATER**  
**FAP 330, SECTION 2018-133-BR**  
**COOK COUNTY**  
**STATION 38+16.62**  
**STRUCTURE NO. 016-2468**

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	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION I  
STRUCTURE NO. 016-2468

SHEET SA-01 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	115
			CONTRACT NO. 62H49	
ILLINOIS				

**SALVAGE NOTES**

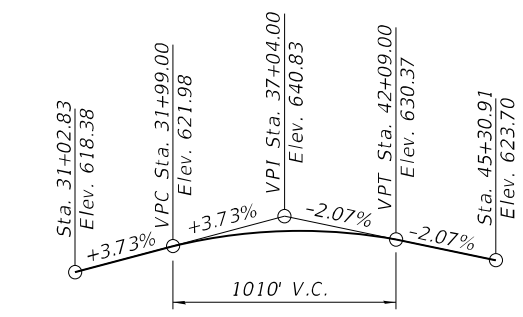
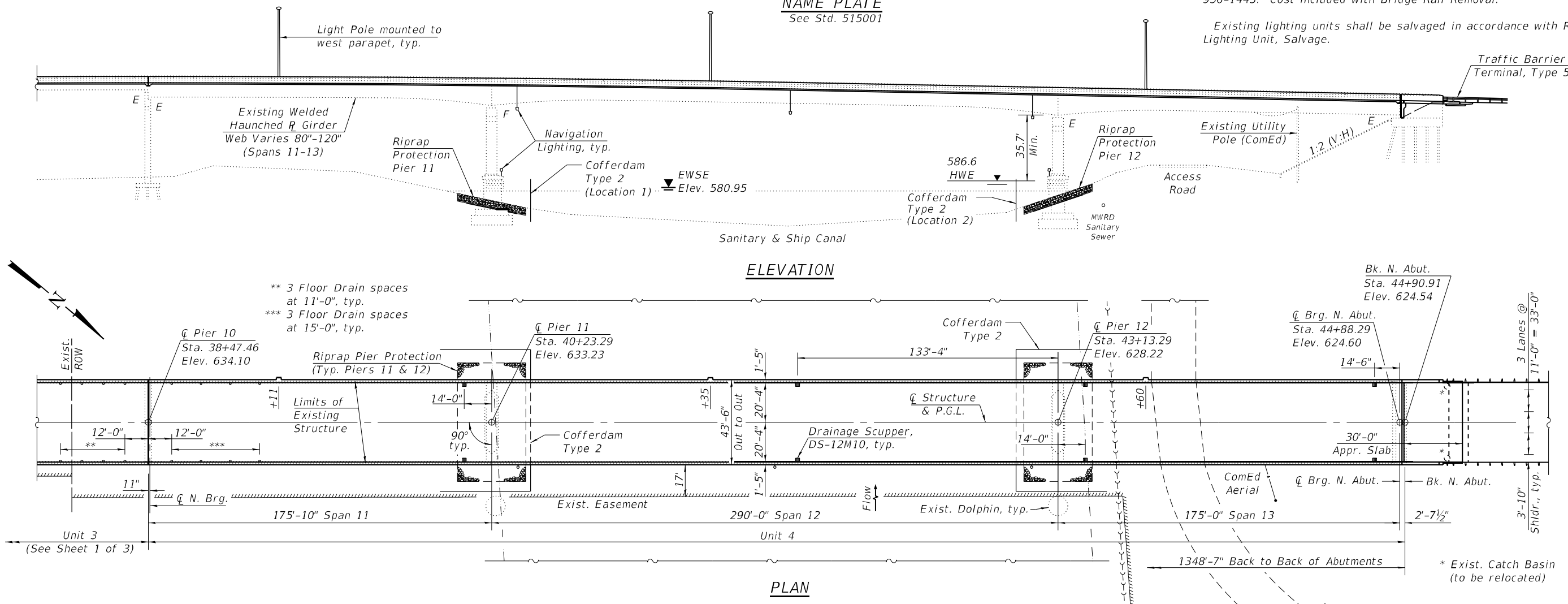
The contractor shall salvage the aluminum railing and posts from S.N. 016-2468. The aluminum posts shall be disassembled from the railings. The non-cut railings, posts, and attachments shall be transported and unloaded by the Contractor to the District Bridge Yard in Elk Grove at 1101 Biesterfield Road during the week days of Monday-Friday, and between the hours of 8am and 2pm. The Contractor shall notify the District Bridge Office 48 hours in advance of the delivery at (847) 956-1443. Cost included with Bridge Rail Removal.

Existing lighting units shall be salvaged in accordance with Removal of Lighting Unit, Salvage.

STATION 38+16.62  
REBUILT BY  
STATE OF ILLINOIS  
F.A. RT. 330 SEC. 2018-133-BR  
LOADING HS-20-44  
STR. NO. 016-2468

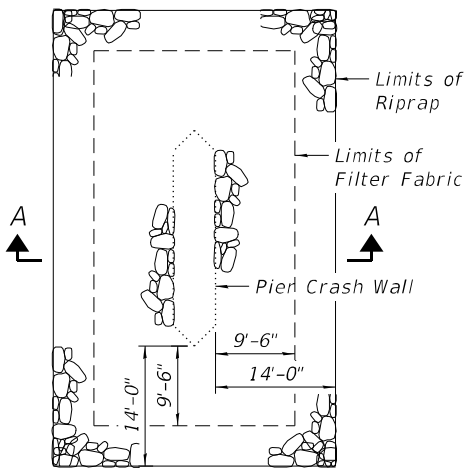
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

**NAME PLATE**  
See Std. 515001

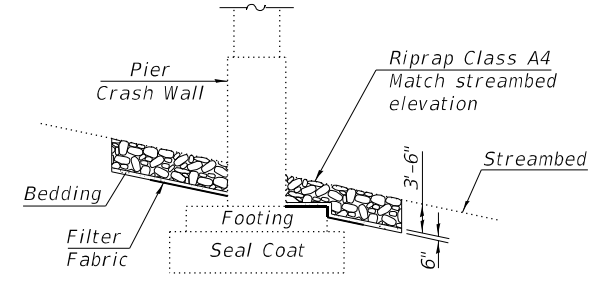


**PROFILE GRADE**  
US RTE. 12/20/45

Note:  
The profile grade shows the final elevations after grinding. Up to 1/4 inch may be ground off the bridge deck and the bridge approach slabs.



**PIER 11 & 12**  
RIPRAP PROTECTION



**SECTION A-A**  
Pier 11 shown, Pier 12 similar

**DESIGN SCOUR ELEVATION TABLE**

Event / Limit	Design Scour Elevations (ft.)			
	Pier 11	Pier 12	N. Abut.	Item 113
Q100	561.35	559.15	-	5
Q500	561.15	558.95	-	
Design	559.25	557.25	610.75	
Check	N/A	N/A	N/A	

**GENERAL PLAN & ELEVATION II**  
**N.B. US RTE 12/20/45 (LAGRANGE ROAD) OVER**  
**ILLINOIS CENTRAL RR, I&M CANAL AND S&S CANAL**  
**PUBLIC WATER**  
**FAP 330, SECTION 2018-133-BR**  
**COOK COUNTY**  
**STATION 38+16.62**  
**STRUCTURE NO. 016-2468**

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**GENERAL NOTES**

Fasteners shall be ASTM F3125 A325 Type 1, mechanically galvanized bolts. Bolts 7/8-in. Ø, holes 1 1/16-in. Ø, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck. Dye penetrant (PT), magnetic particle (MT), or other approved testing method shall be performed by qualified personnel approved by the Engineer. If cracks are found, report them to the Bureau of Bridges and Structures for disposition. The cost of testing is included in Removal of Existing Concrete Deck. The cost of crack repair, if necessary, will be paid for according to Article 109.04 of the Standard Specifications.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, 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. 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 included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer.

Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Plan dimensions and details relative to existing plans 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.

Concrete Sealer shall be applied to the designated areas of the abutment bearing seats and back walls (including abutment hatch block on back walls) and top of pier caps under expansion joints.

All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300, Type 1.

Cleaning and field painting of structural steel shall be done under a separate painting contract.

Up to 1/4" may be ground off the bridge deck and the bridge approach slabs.

Attention is called to ground wires connecting the existing pier caps to beam webs at Piers 2, 5, and 9. These shall be left undisturbed, and if damaged shall be repaired at the contractor's expense.

All existing drainage system components attached to the structure shall be removed and disposed of in accordance with the applicable portions of Section 501. Existing concrete anchors shall be cut flush with the concrete surface, and attachments to existing girders shall be cut 4 to 6 inches clear of the web. Cost included with Removal of Existing Concrete Deck No. 1.

This project requires a US Army Corps of Engineers (USACE) 404 permit that has been secured by IDOT. As a condition of this permit the contractor will need to submit an in-stream work plan to the Will/South Cook Soil and Water Conservation District (SWCD) for approval. Guidelines on acceptable in-stream work techniques can be found on the USACE website.

Work shall conform to all provisions of the Erosion Control Plan.

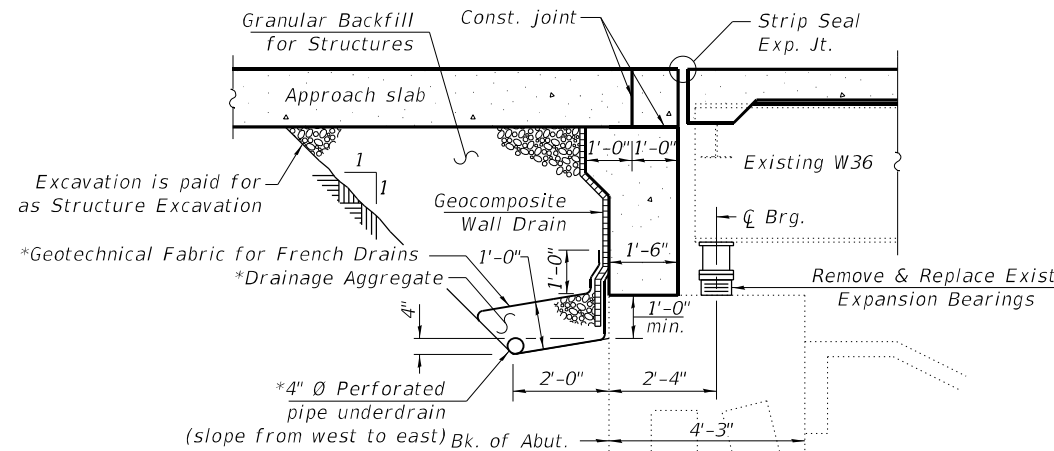
Haul Roads, In-Stream Work Pads and Causeways, if needed, shall be constructed in accordance with the Recurring Special Provision Check Sheet #8.

**INDEX OF SHEETS**

- SA-1. General Plan and Elevation I
- SA-2. General Plan and Elevation II
- SA-3. General Data
- SA-4. Top of Deck Elevations I (Unit 1)
- SA-5. Top of Deck Elevations II (Unit 1)
- SA-6. Top of Deck Elevations III (Unit 1)
- SA-7. Top of Deck Elevations IV (Unit 1)
- SA-8. Top of Deck Elevations I (Unit 2)
- SA-9. Top of Deck Elevations II (Unit 2)
- SA-10. Top of Deck Elevations I (Unit 3)
- SA-11. Top of Deck Elevations II (Unit 3)
- SA-12. Top of Deck Elevations I (Unit 4)
- SA-13. Top of Deck Elevations II (Unit 4)
- SA-14. Top of Deck Elevations III (Unit 4)
- SA-15. Top of Deck Elevations IV (Unit 4)
- SA-16. Top of Deck Elevations V (Unit 4)
- SA-17. Top of South Approach Slab Elevations
- SA-18. Top of North Approach Slab Elevations
- SA-19. Superstructure Plan I (Unit 1)
- SA-20. Superstructure Plan II (Unit 1)
- SA-21. Parapet Elevations (Unit 1)
- SA-22. Superstructure Details (Unit 1)
- SA-23. Superstructure Plan I (Unit 2)
- SA-24. Superstructure Plan II (Unit 2)
- SA-25. Parapet Elevations (Unit 2)
- SA-26. Superstructure Details (Unit 2)
- SA-27. Superstructure Plan I (Unit 3)
- SA-28. Superstructure Plan II (Unit 3)
- SA-29. Parapet Elevations (Unit 3)
- SA-30. Superstructure Details (Unit 3)
- SA-31. Superstructure Plan I (Unit 4)
- SA-32. Superstructure Plan II (Unit 4)
- SA-33. Parapet Elevations (Unit 4)
- SA-34. Superstructure Details (Unit 4)
- SA-35. Bridge Approach Slab Details (1 of 2)
- SA-36. Bridge Approach Slab Details (2 of 2)
- SA-37. Modified Preformed Joint Strip Seal
- SA-38. Modular Expansion Joint (1 of 2)
- SA-39. Modular Expansion Joint (2 of 2)
- SA-40. Unit 1 Framing Plan
- SA-41. Unit 2 Framing Plan
- SA-42. Unit 3 Framing Plan
- SA-43. Unit 4 Framing Plan - I
- SA-44. Unit 4 Framing Plan - II
- SA-45. Cover Plate Retrofit Details
- SA-46. Moment & Reaction Tables
- SA-47. Bearing Details - South Abutment
- SA-48. Bearing Details - Pier 3
- SA-49. Bearing Details - Pier 4 South, Pier 7 South & Pier 7 North
- SA-50. Bearing Details - Pier 4 North & Pier 10 South
- SA-51. Bearing Details - Pier 10 North
- SA-52. Bearing Details - North Abutment
- SA-53. South Abutment Removal Plan
- SA-54. South Abutment Details
- SA-55. North Abutment Removal Plan
- SA-56. North Abutment Details
- SA-57. South Abutment and Slop Wall Repair
- SA-58. Pier 1 Repair
- SA-59. Pier 2 Repair
- SA-60. Pier 3 Repair
- SA-61. Pier 4 Repair and Temporary Support System
- SA-62. Pier 5 Repair
- SA-63. Pier 6 Repair
- SA-64. Pier 7 Repair
- SA-65. Pier 8 Repair
- SA-66. Pier 9 Repair
- SA-67. Pier 10 Repair
- SA-68. Pier 11 Repair
- SA-69. Pier 12 Repair
- SA-70. North Abutment Repair
- SA-71. Drainage Scupper, DS-12M10
- SA-72. Bar Splicer Assembly and Mechanical Splicer Details
- SA-73. Concrete Parapet Slipforming Option

**TOTAL BILL OF MATERIAL**

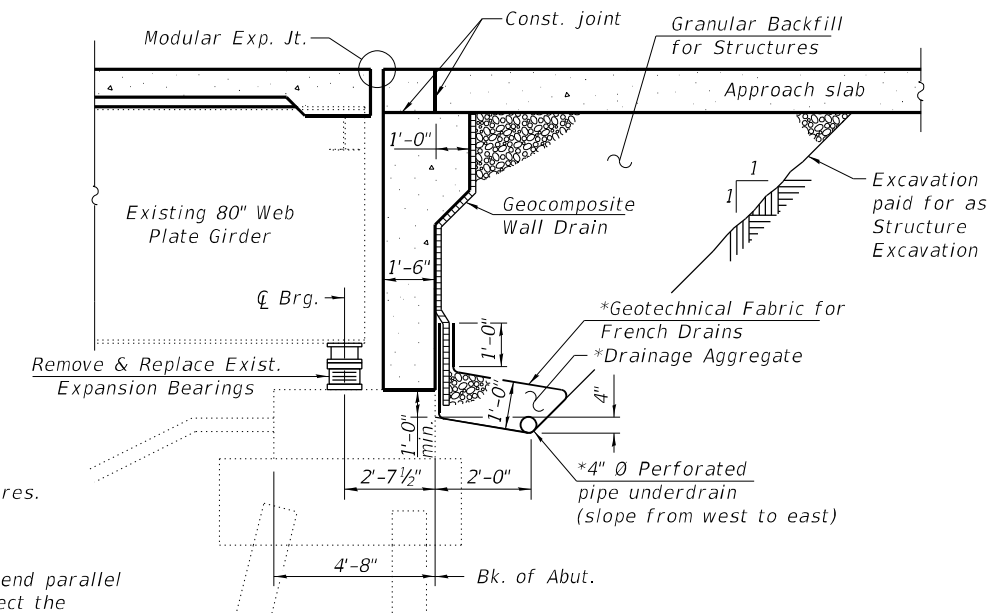
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Stone Riprap, Class A4	Ton		1011	1011
Filter Fabric	Sq Yd		254	254
Concrete Removal	Cu Yd		42.5	42.5
Bridge Rail Removal	Foot	2751		2751
Removal of Existing Concrete Deck No. 1	Each	1		1
Protective Shield	Sq Yd	2658		2658
Structure Excavation	Cu Yd		126	126
Cofferdam (Type 2) (Location - 1)	Each		1	1
Cofferdam (Type 2) (Location - 2)	Each		1	1
Floor Drains	Each	16		16
Concrete Structures	Cu yd		58.8	58.8
Concrete Superstructure	Cu Yd	2177.2		2177.2
Protective Coat	Sq Yd	7720		7720
Concrete Superstructure (Approach Slab)	Cu Yd	121.6		121.6
Furnishing and Erecting Structural Steel	Pound	10410		10410
Stud Shear Connectors	Each	13830		13830
Reinforcement Bars, Epoxy Coated	Pound	548,590	10450	559,040
Bar Splicers	Each		88	88
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	171		171
Elastomeric Bearing Assembly, Type I	Each	48		48
Elastomeric Bearing Assembly, Type III	Each	6		6
Anchor Bolts, 3/8"	Each		72	72
Anchor Bolts, 1"	Each		36	36
Granular Backfill for Structures	Cu Yd		116	116
Concrete Sealer	Sq Ft		1106	1106
Epoxy Crack Injection	Foot		129	129
Geocomposite Wall Drain	Sq Yd		64	64
Bridge Deck Grooving (Longitudinal)	Sq Yd	5166		5166
Jack and Remove Existing Bearings	Each	54		54
Structural Steel Repair	Pound	73840		73840
Structural Repair of Concrete (Depth Equal to or less than 5 Inches)	Sq Ft		350	350
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq Ft		220	220
Drainage Scuppers, DS-12M10	Each	16		16
Diamond Grinding (Bridge Section)	Sq Yd	5822		5822
Modular Expansion Joint 6"	Foot	41		41
Pipe Underdrains for Structures 4"	Foot		110	110
Slope Wall Repair	Sq Yd		300	300
Temporary Support System, Location 1	Each		1	1



**SECTION THRU SOUTH ABUTMENT**

\*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:  
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend through the east wingwall, through a newly cored hole if necessary, until intersecting the side slopes. Cost included with Pipe Underdrains for Structures. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



**SECTION THRU NORTH ABUTMENT**

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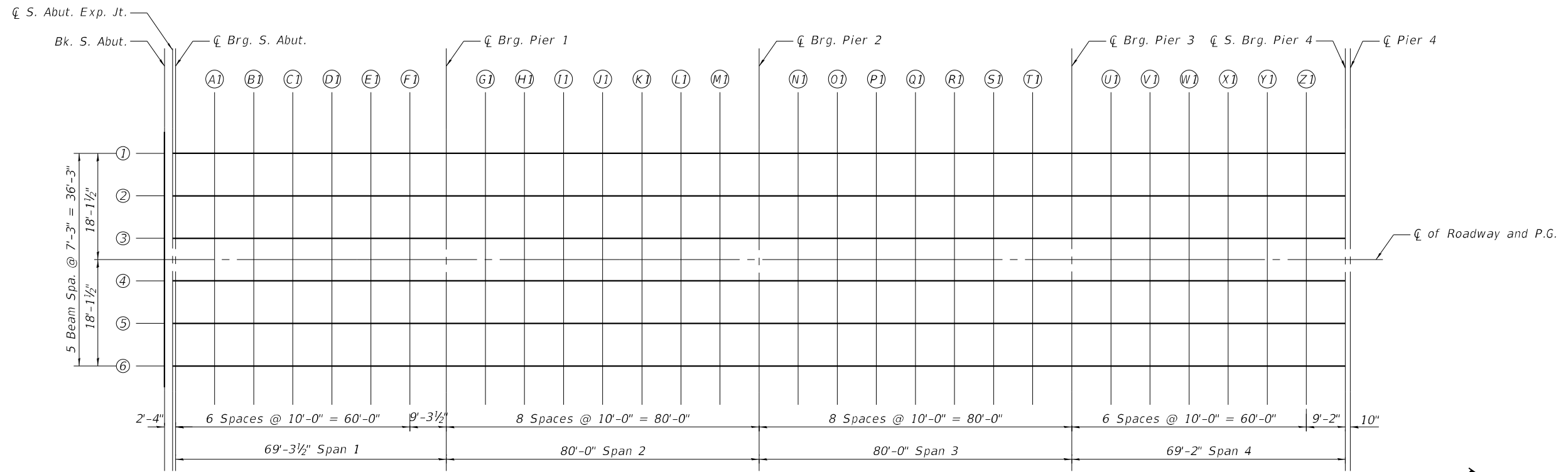
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

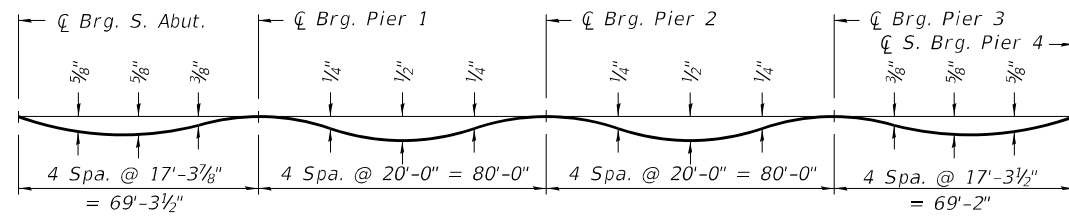
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**STRUCTURE NO. 016-2468**

SHEET SA-03 OF SA-73 SHEETS

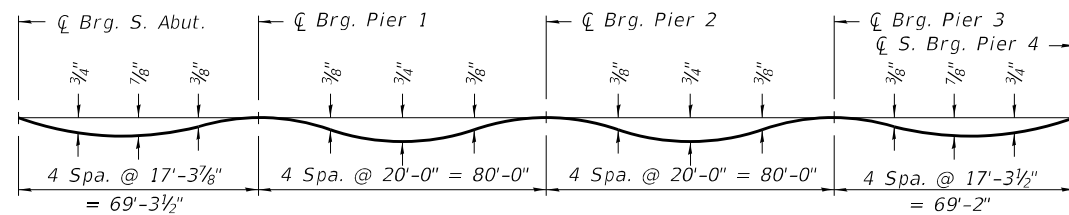
F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 117
ILLINOIS			CONTRACT NO. 62H49	



UNIT 1 PLAN

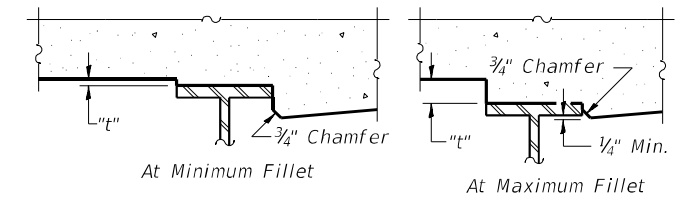


INTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM  
(Includes weight of concrete only.)



EXTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM  
(Includes weight of concrete only.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on sheets SA-5 to SA-7 of SA-77.



To determine "t": Elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets SA-5 to SA-7, minus 8 1/4" deck thickness, equals the fillet heights "t" above top flange of beams.  
The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets SA-5 to SA-7. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

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	CHECKED - BAB	REVISED -
PLOT SCALE =	DRAWN - LJK	REVISED -
PLOT DATE = 10/21/2021	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS I (UNIT 1)  
STRUCTURE NO. 016-2468

SHEET SA-04 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	118
ILLINOIS			CONTRACT NO. 62H49	

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	31+42.33	-18.13	619.51	619.53
CL S. Abut. Exp. Jt.	31+43.89	-18.13	619.57	619.59
CL Brg. S. Abut.	31+44.66	-18.13	619.60	619.62
A1	31+54.66	-18.13	619.97	620.03
B1	31+64.66	-18.13	620.35	620.43
C1	31+74.66	-18.13	620.72	620.82
D1	31+84.66	-18.13	621.09	621.18
E1	31+94.66	-18.13	621.46	621.53
F1	32+04.66	-18.13	621.92	621.96
CL Brg. Pier 1	32+13.96	-18.13	622.27	622.29
G1	32+23.96	-18.13	622.63	622.66
H1	32+33.96	-18.13	622.98	623.03
I1	32+43.96	-18.13	623.33	623.40
J1	32+53.96	-18.13	623.68	623.76
K1	32+63.96	-18.13	624.02	624.09
L1	32+73.96	-18.13	624.35	624.40
M1	32+83.96	-18.13	624.68	624.71
CL Brg. Pier 2	32+93.96	-18.13	625.00	625.02
N1	33+03.96	-18.13	625.31	625.34
O1	33+13.96	-18.13	625.62	625.68
P1	33+23.96	-18.13	625.93	626.00
Q1	33+33.96	-18.13	626.22	626.31
R1	33+43.96	-18.13	626.52	626.59
S1	33+53.96	-18.13	626.80	626.86
T1	33+63.96	-18.13	627.09	627.11
CL Brg. Pier 3	33+73.96	-18.13	627.36	627.38
U1	33+83.96	-18.13	627.63	627.67
V1	33+93.96	-18.13	627.89	627.96
W1	34+03.96	-18.13	628.15	628.24
X1	34+13.96	-18.13	628.40	628.50
Y1	34+23.96	-18.13	628.65	628.74
Z1	34+33.96	-18.13	628.89	628.95
CL S. Brg. Pier 4	34+43.13	-18.13	629.11	629.13
CL Pier 4	34+43.96	-18.13	629.13	628.82

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	31+42.33	-10.88	619.63	619.65
CL S. Abut. Exp. Jt.	31+43.89	-10.88	619.69	619.71
CL Brg. S. Abut.	31+44.66	-10.88	619.72	619.74
A1	31+54.66	-10.88	620.09	620.14
B1	31+64.66	-10.88	620.46	620.53
C1	31+74.66	-10.88	620.83	620.91
D1	31+84.66	-10.88	621.21	621.28
E1	31+94.66	-10.88	621.58	621.63
F1	32+04.66	-10.88	622.04	622.07
CL Brg. Pier 1	32+13.96	-10.88	622.38	622.40
G1	32+23.96	-10.88	622.74	622.77
H1	32+33.96	-10.88	623.10	623.14
I1	32+43.96	-10.88	623.45	623.51
J1	32+53.96	-10.88	623.79	623.86
K1	32+63.96	-10.88	624.13	624.19
L1	32+73.96	-10.88	624.47	624.51
M1	32+83.96	-10.88	624.79	624.82
CL Brg. Pier 2	32+93.96	-10.88	625.11	625.13
N1	33+03.96	-10.88	625.43	625.46
O1	33+13.96	-10.88	625.74	625.79
P1	33+23.96	-10.88	626.04	626.10
Q1	33+33.96	-10.88	626.34	626.41
R1	33+43.96	-10.88	626.63	626.69
S1	33+53.96	-10.88	626.92	626.97
T1	33+63.96	-10.88	627.20	627.23
CL Brg. Pier 3	33+73.96	-10.88	627.48	627.50
U1	33+83.96	-10.88	627.75	627.78
V1	33+93.96	-10.88	628.01	628.07
W1	34+03.96	-10.88	628.27	628.34
X1	34+13.96	-10.88	628.52	628.60
Y1	34+23.96	-10.88	628.77	628.84
Z1	34+33.96	-10.88	629.01	629.06
CL S. Brg. Pier 4	34+43.13	-10.88	629.23	629.25
CL Pier 4	34+43.96	-10.88	629.24	629.02

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	31+42.33	-3.63	619.74	619.76
CL S. Abut. Exp. Jt.	31+43.89	-3.63	619.80	619.82
CL Brg. S. Abut.	31+44.66	-3.63	619.82	619.85
A1	31+54.66	-3.63	620.20	620.25
B1	31+64.66	-3.63	620.57	620.64
C1	31+74.66	-3.63	620.94	621.02
D1	31+84.66	-3.63	621.32	621.39
E1	31+94.66	-3.63	621.69	621.74
F1	32+04.66	-3.63	622.15	622.18
CL Brg. Pier 1	32+13.96	-3.63	622.49	622.51
G1	32+23.96	-3.63	622.85	622.88
H1	32+33.96	-3.63	623.21	623.25
I1	32+43.96	-3.63	623.56	623.62
J1	32+53.96	-3.63	623.90	623.97
K1	32+63.96	-3.63	624.24	624.30
L1	32+73.96	-3.63	624.57	624.62
M1	32+83.96	-3.63	624.90	624.93
CL Brg. Pier 2	32+93.96	-3.63	625.22	625.24
N1	33+03.96	-3.63	625.54	625.57
O1	33+13.96	-3.63	625.85	625.89
P1	33+23.96	-3.63	626.15	626.21
Q1	33+33.96	-3.63	626.45	626.52
R1	33+43.96	-3.63	626.74	626.80
S1	33+53.96	-3.63	627.03	627.07
T1	33+63.96	-3.63	627.31	627.34
CL Brg. Pier 3	33+73.96	-3.63	627.59	627.61
U1	33+83.96	-3.63	627.86	627.89
V1	33+93.96	-3.63	628.12	628.17
W1	34+03.96	-3.63	628.38	628.45
X1	34+13.96	-3.63	628.63	628.71
Y1	34+23.96	-3.63	628.88	628.95
Z1	34+33.96	-3.63	629.12	629.17
CL S. Brg. Pier 4	34+43.13	-3.63	629.33	629.35
CL Pier 4	34+43.96	-3.63	629.35	629.12

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS II (UNIT 1)  
STRUCTURE NO. 016-2468**

SHEET SA-05 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	119
ILLINOIS			CONTRACT NO. 62H49	

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BEAM 4

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	31+42.33	0.00	619.79	619.81
CL S. Abut. Exp. Jt.	31+43.89	0.00	619.85	619.87
CL Brg. S. Abut.	31+44.66	0.00	619.88	619.90
A1	31+54.66	0.00	620.25	620.30
B1	31+61.66	0.00	620.63	620.70
C1	31+74.66	0.00	621.00	621.08
D1	31+84.66	0.00	621.37	621.44
E1	31+94.66	0.00	621.74	621.80
F1	32+04.66	0.00	622.20	622.24
CL Brg. Pier 1	32+13.96	0.00	622.55	622.57
G1	32+23.96	0.00	622.91	622.93
H1	32+33.96	0.00	623.26	623.31
I1	32+43.96	0.00	623.61	623.67
J1	32+53.96	0.00	623.96	624.02
K1	32+63.96	0.00	624.30	624.36
L1	32+73.96	0.00	624.63	624.67
M1	32+83.96	0.00	624.96	624.98
CL Brg. Pier 2	32+93.96	0.00	625.28	625.30
N1	33+03.96	0.00	625.59	625.62
O1	33+13.96	0.00	625.90	625.95
P1	33+23.96	0.00	626.21	626.27
Q1	33+33.96	0.00	626.50	626.57
R1	33+43.96	0.00	626.80	626.86
S1	33+53.96	0.00	627.08	627.13
T1	33+63.96	0.00	627.37	627.39
CL Brg. Pier 3	33+73.96	0.00	627.64	627.66
U1	33+83.96	0.00	627.91	627.94
V1	33+93.96	0.00	628.17	628.23
W1	34+03.96	0.00	628.43	628.50
X1	34+13.96	0.00	628.68	628.76
Y1	34+23.96	0.00	628.93	629.00
Z1	34+33.96	0.00	629.17	629.22
CL S. Brg. Pier 4	34+43.13	0.00	629.39	629.41
CL Pier 4	34+43.96	0.00	629.41	629.18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	31+42.33	3.63	619.74	619.76
CL S. Abut. Exp. Jt.	31+43.89	3.63	619.80	619.82
CL Brg. S. Abut.	31+44.66	3.63	619.82	619.85
A1	31+54.66	3.63	620.20	620.25
B1	31+64.66	3.63	620.57	620.64
C1	31+74.66	3.63	620.94	621.02
D1	31+84.66	3.63	621.32	621.39
E1	31+94.66	3.63	621.69	621.74
F1	32+04.66	3.63	622.15	622.18
CL Brg. Pier 1	32+13.96	3.63	622.49	622.51
G1	32+23.96	3.63	622.85	622.88
H1	32+33.96	3.63	623.21	623.25
I1	32+43.96	3.63	623.56	623.62
J1	32+53.96	3.63	623.90	623.97
K1	32+63.96	3.63	624.24	624.30
L1	32+73.96	3.63	624.57	624.62
M1	32+83.96	3.63	624.90	624.93
CL Brg. Pier 2	32+93.96	3.63	625.22	625.24
N1	33+03.96	3.63	625.54	625.57
O1	33+13.96	3.63	625.85	625.89
P1	33+23.96	3.63	626.15	626.21
Q1	33+33.96	3.63	626.45	626.52
R1	33+43.96	3.63	626.74	626.80
S1	33+53.96	3.63	627.03	627.07
T1	33+63.96	3.63	627.31	627.34
CL Brg. Pier 3	33+73.96	3.63	627.59	627.61
U1	33+83.96	3.63	627.86	627.89
V1	33+93.96	3.63	628.12	628.17
W1	34+03.96	3.63	628.38	628.45
X1	34+13.96	3.63	628.63	628.71
Y1	34+23.96	3.63	628.88	628.95
Z1	34+33.96	3.63	629.12	629.17
CL S. Brg. Pier 4	34+43.13	3.63	629.33	629.35
CL Pier 4	34+43.96	3.63	629.35	629.12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	31+42.33	10.88	619.63	619.65
CL S. Abut. Exp. Jt.	31+43.89	10.88	619.69	619.71
CL Brg. S. Abut.	31+44.66	10.88	619.72	619.74
A1	31+54.66	10.88	620.09	620.14
B1	31+64.66	10.88	620.46	620.53
C1	31+74.66	10.88	620.83	620.91
D1	31+84.66	10.88	621.21	621.28
E1	31+94.66	10.88	621.58	621.63
F1	32+04.66	10.88	622.04	622.07
CL Brg. Pier 1	32+13.96	10.88	622.38	622.40
G1	32+23.96	10.88	622.74	622.77
H1	32+33.96	10.88	623.10	623.14
I1	32+43.96	10.88	623.45	623.51
J1	32+53.96	10.88	623.79	623.86
K1	32+63.96	10.88	624.13	624.19
L1	32+73.96	10.88	624.47	624.51
M1	32+83.96	10.88	624.79	624.82
CL Brg. Pier 2	32+93.96	10.88	625.11	625.13
N1	33+03.96	10.88	625.43	625.46
O1	33+13.96	10.88	625.74	625.79
P1	33+23.96	10.88	626.04	626.10
Q1	33+33.96	10.88	626.34	626.41
R1	33+43.96	10.88	626.63	626.69
S1	33+53.96	10.88	626.92	626.97
T1	33+63.96	10.88	627.20	627.23
CL Brg. Pier 3	33+73.96	10.88	627.48	627.50
U1	33+83.96	10.88	627.75	627.78
V1	33+93.96	10.88	628.01	628.07
W1	34+03.96	10.88	628.27	628.34
X1	34+13.96	10.88	628.52	628.60
Y1	34+23.96	10.88	628.77	628.84
Z1	34+33.96	10.88	629.01	629.06
CL S. Brg. Pier 4	34+43.13	10.88	629.23	629.25
CL Pier 4	34+43.96	10.88	629.24	629.02

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS III (UNIT 1)  
STRUCTURE NO. 016-2468**

SHEET SA-06 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	120
ILLINOIS			CONTRACT NO. 62H49	

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	31+42.33	18.13	619.51	619.53
CL S. Abut. Exp. Jt.	31+43.89	18.13	619.57	619.59
CL Brg. S. Abut.	31+44.66	18.13	619.60	619.62
A1	31+54.66	18.13	619.97	620.03
B1	31+61.66	18.13	620.35	620.43
C1	31+74.66	18.13	620.72	620.82
D1	31+84.66	18.13	621.09	621.18
E1	31+94.66	18.13	621.46	621.53
F1	32+04.66	18.13	621.92	621.96
CL Brg. Pier 1	32+13.96	18.13	622.27	622.29
G1	32+23.96	18.13	622.63	622.66
H1	32+33.96	18.13	622.98	623.03
I1	32+43.96	18.13	623.33	623.40
J1	32+53.96	18.13	623.68	623.76
K1	32+63.96	18.13	624.02	624.09
L1	32+73.96	18.13	624.35	624.40
M1	32+83.96	18.13	624.68	624.71
CL Brg. Pier 2	32+93.96	18.13	625.00	625.02
N1	33+03.96	18.13	625.31	625.34
O1	33+13.96	18.13	625.62	625.68
P1	33+23.96	18.13	625.93	626.00
Q1	33+33.96	18.13	626.22	626.31
R1	33+43.96	18.13	626.52	626.59
S1	33+53.96	18.13	626.80	626.86
T1	33+63.96	18.13	627.09	627.11
CL Brg. Pier 3	33+73.96	18.13	627.36	627.38
U1	33+83.96	18.13	627.63	627.67
V1	33+93.96	18.13	627.89	627.96
W1	34+03.96	18.13	628.15	628.24
X1	34+13.96	18.13	628.40	628.50
Y1	34+23.96	18.13	628.65	628.74
Z1	34+33.96	18.13	628.89	628.95
CL S. Brg. Pier 4	34+43.13	18.13	629.11	629.13
CL Pier 4	34+43.96	18.13	629.13	628.82

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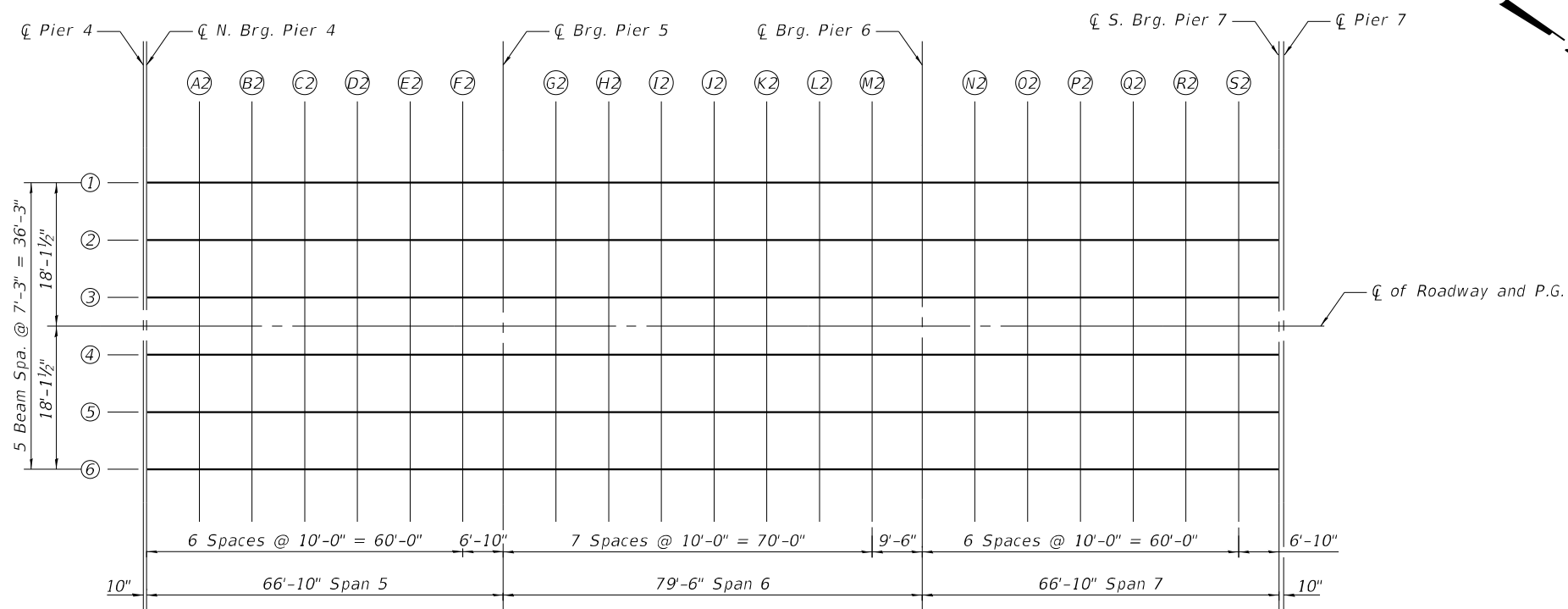
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	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

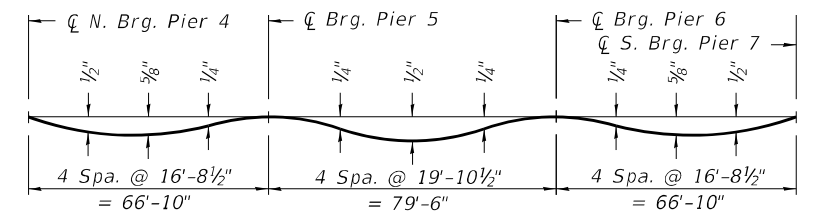
**TOP OF DECK ELEVATIONS IV (UNIT 1)  
STRUCTURE NO. 016-2468**

SHEET SA-07 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	121
			CONTRACT NO. 62H49	
			ILLINOIS	

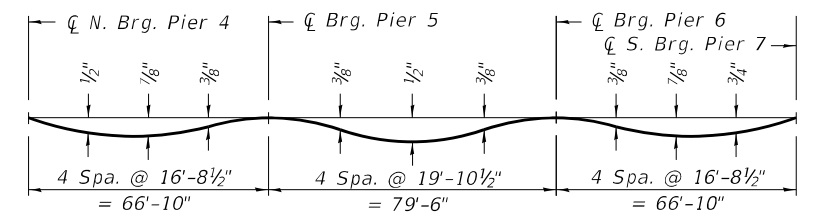


UNIT 2 PLAN



INTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)



EXTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown below and on sheet SA-9.

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 4	34+44.79	-18.13	629.15	629.17
A2	34+54.79	-18.13	629.38	629.43
B2	34+64.79	-18.13	629.60	629.68
C2	34+74.79	-18.13	629.82	629.91
D2	34+84.79	-18.13	630.03	630.11
E2	34+94.79	-18.13	630.23	630.29
F2	35+04.79	-18.13	630.43	630.46
CL Brg. Pier 5	35+11.62	-18.13	630.57	630.59
G2	35+21.62	-18.13	630.76	630.79
H2	35+31.62	-18.13	630.94	630.99
I2	35+41.62	-18.13	631.12	631.19
J2	35+51.62	-18.13	631.30	631.37
K2	35+61.62	-18.13	631.46	631.53
L2	35+71.62	-18.13	631.63	631.67
M2	35+81.62	-18.13	631.78	631.81
CL Brg. Pier 6	35+91.12	-18.13	631.92	631.95
N2	36+01.12	-18.13	632.07	632.11
O2	36+11.12	-18.13	632.21	632.27
P2	36+21.12	-18.13	632.34	632.43
Q2	36+31.12	-18.13	632.47	632.56
R2	36+41.12	-18.13	632.59	632.67
S2	36+51.12	-18.13	632.71	632.76
CL S. Brg. Pier 7	36+57.96	-18.13	632.78	632.81
CL Pier 7	36+58.79	-18.13	632.79	632.67

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 4	34+44.79	-10.88	629.26	629.28
A2	34+54.79	-10.88	629.49	629.54
B2	34+64.79	-10.88	629.72	629.79
C2	34+74.79	-10.88	629.93	630.01
D2	34+84.79	-10.88	630.15	630.21
E2	34+94.79	-10.88	630.35	630.40
F2	35+04.79	-10.88	630.55	630.58
CL Brg. Pier 5	35+11.62	-10.88	630.68	630.71
G2	35+21.62	-10.88	630.88	630.90
H2	35+31.62	-10.88	631.06	631.10
I2	35+41.62	-10.88	631.24	631.30
J2	35+51.62	-10.88	631.41	631.48
K2	35+61.62	-10.88	631.58	631.64
L2	35+71.62	-10.88	631.74	631.78
M2	35+81.62	-10.88	631.90	631.93
CL Brg. Pier 6	35+91.12	-10.88	632.04	632.06
N2	36+01.12	-10.88	632.19	632.22
O2	36+11.12	-10.88	632.33	632.38
P2	36+21.12	-10.88	632.46	632.53
Q2	36+31.12	-10.88	632.59	632.66
R2	36+41.12	-10.88	632.71	632.77
S2	36+51.12	-10.88	632.83	632.87
CL S. Brg. Pier 7	36+57.96	10.88	632.90	632.92
CL Pier 7	36+58.79	-10.88	632.91	632.84

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 4	34+44.79	-3.63	629.37	629.39
A2	34+54.79	-3.63	629.60	629.65
B2	34+64.79	-3.63	629.82	629.89
C2	34+74.79	-3.63	630.04	630.12
D2	34+84.79	-3.63	630.25	630.32
E2	34+94.79	-3.63	630.46	630.51
F2	35+04.79	-3.63	630.66	630.69
CL Brg. Pier 5	35+11.62	-3.63	630.79	630.81
G2	35+21.62	-3.63	630.98	631.01
H2	35+31.62	-3.63	631.17	631.21
I2	35+41.62	-3.63	631.35	631.41
J2	35+51.62	-3.63	631.52	631.59
K2	35+61.62	-3.63	631.69	631.75
L2	35+71.62	-3.63	631.85	631.89
M2	35+81.62	-3.63	632.01	632.04
CL Brg. Pier 6	35+91.12	-3.63	632.15	632.17
N2	36+01.12	-3.63	632.30	632.33
O2	36+11.12	-3.63	632.43	632.49
P2	36+21.12	-3.63	632.57	632.64
Q2	36+31.12	-3.63	632.70	632.77
R2	36+41.12	-3.63	632.82	632.88
S2	36+51.12	-3.63	632.93	632.98
CL S. Brg. Pier 7	36+57.96	-3.63	633.01	633.03
CL Pier 7	36+58.79	-3.63	633.02	632.95

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	CHECKED - BAB	REVISIONS -
PLOT SCALE =	DRAWN - LJK	REVISIONS -
PLOT DATE = 10/21/2021	DATE - 10/21/2021	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS I (UNIT 2)  
STRUCTURE NO. 016-2468

SHEET SA-08 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	122
CONTRACT NO. 62H49			ILLINOIS	

CL OF ROADWAY AND P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 4	34+44.79	0.00	629.43	629.45
A2	34+54.79	0.00	629.66	629.71
B2	34+64.79	0.00	629.88	629.95
C2	34+74.79	0.00	630.10	630.17
D2	34+84.79	0.00	630.31	630.37
E2	34+94.79	0.00	630.51	630.56
F2	35+04.79	0.00	630.71	630.74
CL Brg. Pier 5	35+11.62	0.00	630.85	630.87
G2	35+21.62	0.00	631.04	631.07
H2	35+31.62	0.00	631.22	631.27
I2	35+41.62	0.00	631.40	631.46
J2	35+51.62	0.00	631.58	631.64
K2	35+61.62	0.00	631.74	631.80
L2	35+71.62	0.00	631.91	631.95
M2	35+81.62	0.00	632.06	632.09
CL Brg. Pier 6	35+91.12	0.00	632.20	632.23
N2	36+01.12	0.00	632.35	632.38
O2	36+11.12	0.00	632.49	632.54
P2	36+21.12	0.00	632.62	632.69
Q2	36+31.12	0.00	632.75	632.83
R2	36+41.12	0.00	632.87	632.94
S2	36+51.12	0.00	632.99	633.03
CL S. Brg. Pier 7	36+57.96	0.00	633.06	633.09
CL Pier 7	36+58.79	0.00	633.07	633.00

BEAM 4

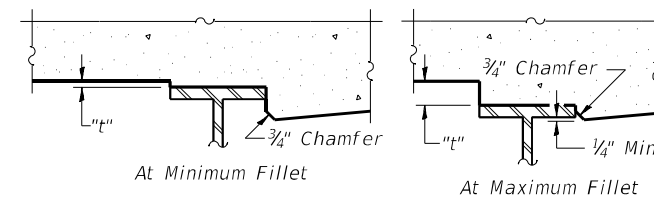
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 4	34+44.79	3.63	629.37	629.39
A2	34+54.79	3.63	629.60	629.65
B2	34+64.79	3.63	629.82	629.89
C2	34+74.79	3.63	630.04	630.12
D2	34+84.79	3.63	630.25	630.32
E2	34+94.79	3.63	630.46	630.51
F2	35+04.79	3.63	630.66	630.69
CL Brg. Pier 5	35+11.62	3.63	630.79	630.81
G2	35+21.62	3.63	630.98	631.01
H2	35+31.62	3.63	631.17	631.21
I2	35+41.62	3.63	631.35	631.41
J2	35+51.62	3.63	631.52	631.59
K2	35+61.62	3.63	631.69	631.75
L2	35+71.62	3.63	631.85	631.89
M2	35+81.62	3.63	632.01	632.04
CL Brg. Pier 6	35+91.12	3.63	632.15	632.17
N2	36+01.12	3.63	632.30	632.33
O2	36+11.12	3.63	632.43	632.49
P2	36+21.12	3.63	632.57	632.64
Q2	36+31.12	3.63	632.70	632.77
R2	36+41.12	3.63	632.82	632.88
S2	36+51.12	3.63	632.93	632.98
CL S. Brg. Pier 7	36+57.96	3.63	633.01	633.03
CL Pier 7	36+58.79	3.63	633.02	632.95

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 4	34+44.79	10.88	629.26	629.28
A2	34+54.79	10.88	629.49	629.54
B2	34+64.79	10.88	629.72	629.79
C2	34+74.79	10.88	629.93	630.01
D2	34+84.79	10.88	630.15	630.21
E2	34+94.79	10.88	630.35	630.40
F2	35+04.79	10.88	630.55	630.58
CL Brg. Pier 5	35+11.62	10.88	630.68	630.71
G2	35+21.62	10.88	630.88	630.90
H2	35+31.62	10.88	631.06	631.10
I2	35+41.62	10.88	631.24	631.30
J2	35+51.62	10.88	631.41	631.48
K2	35+61.62	10.88	631.58	631.64
L2	35+71.62	10.88	631.74	631.78
M2	35+81.62	10.88	631.90	631.93
CL Brg. Pier 6	35+91.12	10.88	632.04	632.06
N2	36+01.12	10.88	632.19	632.22
O2	36+11.12	10.88	632.33	632.38
P2	36+21.12	10.88	632.46	632.53
Q2	36+31.12	10.88	632.59	632.66
R2	36+41.12	10.88	632.71	632.77
S2	36+51.12	10.88	632.83	632.87
CL S. Brg. Pier 7	36+57.96	10.88	632.90	632.92
CL Pier 7	36+58.79	10.88	632.91	632.84

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 4	34+44.79	18.13	629.15	629.17
A2	34+54.79	18.13	629.38	629.43
B2	34+64.79	18.13	629.60	629.68
C2	34+74.79	18.13	629.82	629.91
D2	34+84.79	18.13	630.03	630.11
E2	34+94.79	18.13	630.23	630.29
F2	35+04.79	18.13	630.43	630.46
CL Brg. Pier 5	35+11.62	18.13	630.57	630.59
G2	35+21.62	18.13	630.76	630.79
H2	35+31.62	18.13	630.94	630.99
I2	35+41.62	18.13	631.12	631.19
J2	35+51.62	18.13	631.30	631.37
K2	35+61.62	18.13	631.46	631.53
L2	35+71.62	18.13	631.63	631.67
M2	35+81.62	18.13	631.78	631.81
CL Brg. Pier 6	35+91.12	18.13	631.92	631.95
N2	36+01.12	18.13	632.07	632.11
O2	36+11.12	18.13	632.21	632.27
P2	36+21.12	18.13	632.34	632.43
Q2	36+31.12	18.13	632.47	632.56
R2	36+41.12	18.13	632.59	632.67
S2	36+51.12	18.13	632.71	632.76
CL S. Brg. Pier 7	36+57.96	18.13	632.78	632.81
CL Pier 7	36+58.79	18.13	632.79	632.67

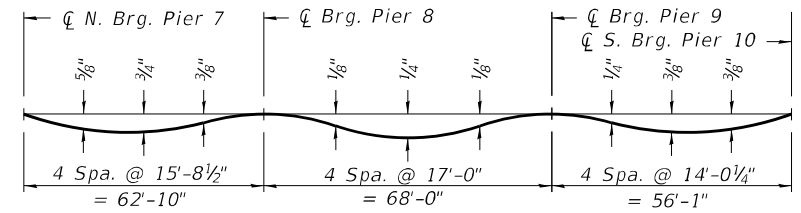
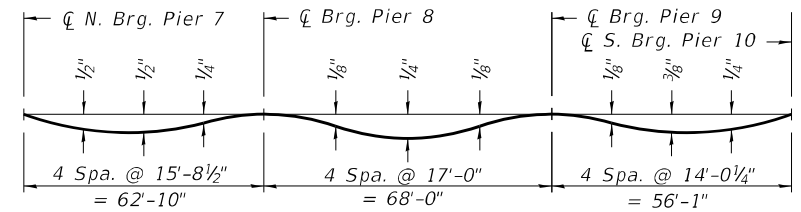
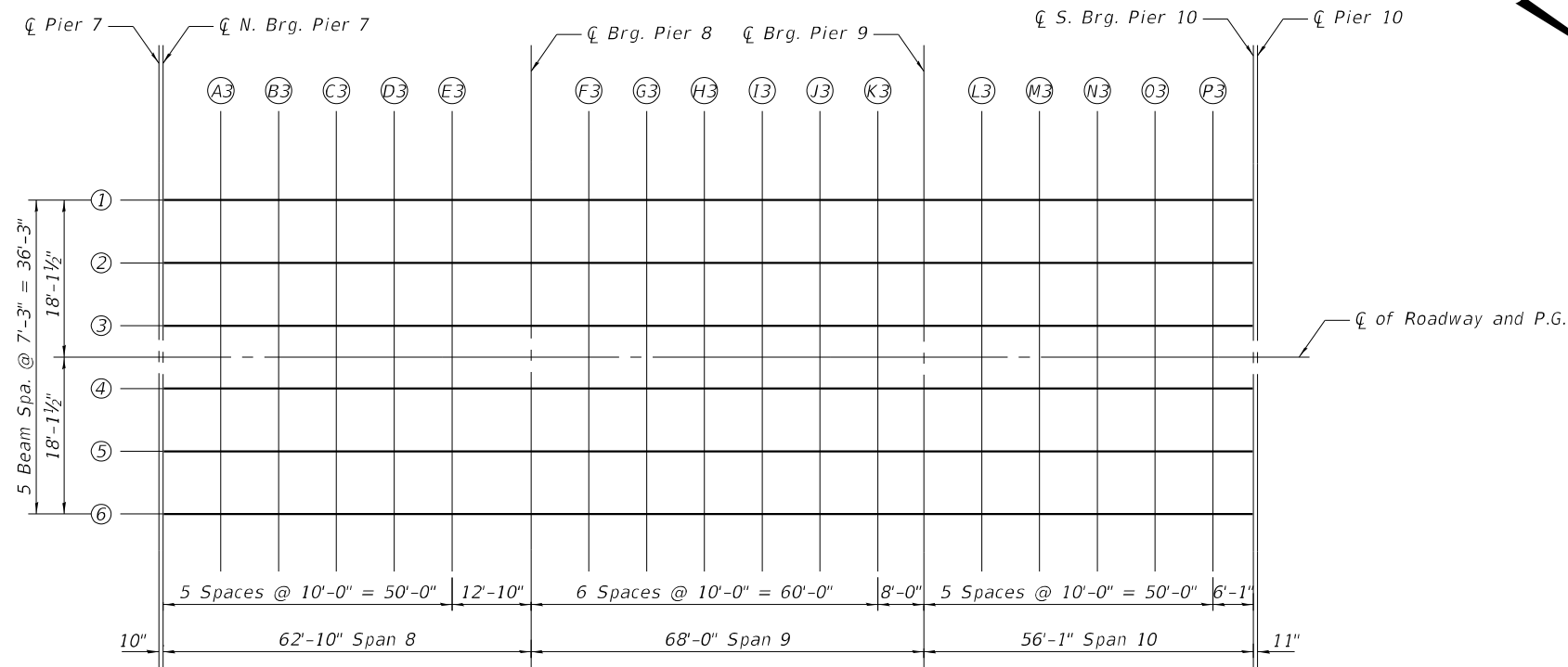


To determine "t": Elevations of the top flanges of the beams shall be taken at intervals shown on sheet SA-8. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets SA-8 & SA-9, minus 8 1/4" deck thickness, equals the fillet heights "t" above top flange of beams.  
 The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets SA-8 & SA-9. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

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	USER NAME = mic	DESIGNED - BLB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF DECK ELEVATIONS II (UNIT 2) STRUCTURE NO. 016-2468	F.A.P. RTE. = 330	SECTION = 2018-133-BR	COUNTY = COOK	TOTAL SHEETS = 308	SHEET NO. = 123
	PLOT SCALE =	DRAWN - LJK	REVISED -			SHEET SA-09 OF SA-73 SHEETS	ILLINOIS	CONTRACT NO. 62H49		
PLOT DATE = 10/21/2021		DATE = 10/21/2021	REVISED -							



Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown below and on sheet SA-11.

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 7	36+59.62	-18.13	632.80	632.82
A3	36+69.62	-18.13	632.91	632.96
B3	36+79.62	-18.13	633.01	633.08
C3	36+89.62	-18.13	633.10	633.18
D3	36+99.62	-18.13	633.19	633.26
E3	37+09.62	-18.13	633.27	633.32
CL Brg. Pier 8	37+22.46	-18.13	633.37	633.39
F3	37+32.46	-18.13	633.44	633.46
G3	37+42.46	-18.13	633.50	633.54
H3	37+52.46	-18.13	633.56	633.61
I3	37+62.46	-18.13	633.61	633.66
J3	37+72.46	-18.13	633.66	633.70
K3	37+82.46	-18.13	633.70	633.73
CL Brg. Pier 9	37+90.46	-18.13	633.73	633.75
L3	38+00.46	-18.13	633.76	633.79
M3	38+10.46	-18.13	633.79	633.83
N3	38+20.46	-18.13	633.80	633.86
O3	38+30.46	-18.13	633.82	633.87
P3	38+40.46	-18.13	633.83	633.86
CL S. Brg. Pier 10	38+46.54	-18.13	633.83	633.85
CL Pier 10	38+47.46	-18.13	633.83	633.78

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 7	36+59.62	-10.88	632.92	632.94
A3	36+69.62	-10.88	633.03	633.07
B3	36+79.62	-10.88	633.12	633.19
C3	36+89.62	-10.88	633.22	633.29
D3	36+99.62	-10.88	633.31	633.36
E3	37+09.62	-10.88	633.39	633.43
CL Brg. Pier 8	37+22.46	-10.88	633.49	633.51
F3	37+32.46	-10.88	633.56	633.58
G3	37+42.46	-10.88	633.62	633.65
H3	37+52.46	-10.88	633.68	633.72
I3	37+62.46	-10.88	633.73	633.77
J3	37+72.46	-10.88	633.78	633.81
K3	37+82.46	-10.88	633.82	633.84
CL Brg. Pier 9	37+90.46	-10.88	633.85	633.87
L3	38+00.46	-10.88	633.88	633.91
M3	38+10.46	-10.88	633.90	633.94
N3	38+20.46	-10.88	633.92	633.97
O3	38+30.46	-10.88	633.93	633.98
P3	38+40.46	-10.88	633.94	633.97
CL S. Brg. Pier 10	38+46.54	-10.88	633.94	633.96
CL Pier 10	38+47.46	-10.88	633.94	633.91

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 7	36+59.62	-3.63	633.03	633.05
A3	36+69.62	-3.63	633.13	633.18
B3	36+79.62	-3.63	633.23	633.30
C3	36+89.62	-3.63	633.33	633.39
D3	36+99.62	-3.63	633.42	633.47
E3	37+09.62	-3.63	633.50	633.54
CL Brg. Pier 8	37+22.46	-3.63	633.60	633.62
F3	37+32.46	-3.63	633.67	633.69
G3	37+42.46	-3.63	633.73	633.76
H3	37+52.46	-3.63	633.79	633.83
I3	37+62.46	-3.63	633.84	633.88
J3	37+72.46	-3.63	633.89	633.92
K3	37+82.46	-3.63	633.93	633.95
CL Brg. Pier 9	37+90.46	-3.63	633.96	633.98
L3	38+00.46	-3.63	633.99	634.02
M3	38+10.46	-3.63	634.01	634.05
N3	38+20.46	-3.63	634.03	634.08
O3	38+30.46	-3.63	634.04	634.09
P3	38+40.46	-3.63	634.05	634.08
CL S. Brg. Pier 10	38+46.54	-3.63	634.05	634.07
CL Pier 10	38+47.46	-3.63	634.05	634.02

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	CHECKED - BAB	REVISED -
PLOT SCALE =	DRAWN - LJK	REVISED -
PLOT DATE = 10/21/2021	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS I (UNIT 3)  
STRUCTURE NO. 016-2468

SHEET SA-10 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	124
CONTRACT NO. 62H49			ILLINOIS	



CL OF ROADWAY AND P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 7	36+59.62	0.00	633.08	633.10
A3	36+69.62	0.00	633.19	633.23
B3	36+79.62	0.00	633.29	633.35
C3	36+89.62	0.00	633.38	633.45
D3	36+99.62	0.00	633.47	633.53
E3	37+09.62	0.00	633.55	633.59
CL Brg. Pier 8	37+22.46	0.00	633.65	633.67
F3	37+32.46	0.00	633.72	633.74
G3	37+42.46	0.00	633.78	633.82
H3	37+52.46	0.00	633.84	633.88
I3	37+62.46	0.00	633.89	633.93
J3	37+72.46	0.00	633.94	633.97
K3	37+82.46	0.00	633.98	634.01
CL Brg. Pier 9	37+90.46	0.00	634.01	634.03
L3	38+00.46	0.00	634.04	634.07
M3	38+10.46	0.00	634.07	634.11
N3	38+20.46	0.00	634.08	634.13
O3	38+30.46	0.00	634.10	634.14
P3	38+40.46	0.00	634.11	634.14
CL S. Brg. Pier 10	38+46.54	0.00	634.11	634.13
CL Pier 10	38+47.46	0.00	634.11	634.08

BEAM 4

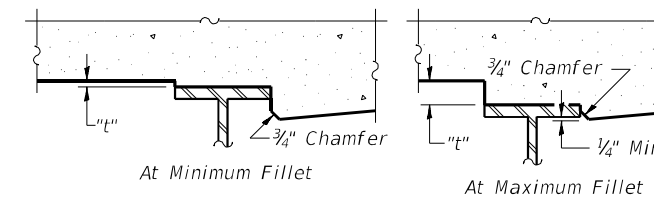
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 7	36+59.62	3.63	633.03	633.05
A3	36+69.62	3.63	633.13	633.18
B3	36+79.62	3.63	633.23	633.30
C3	36+89.62	3.63	633.33	633.39
D3	36+99.62	3.63	633.42	633.47
E3	37+09.62	3.63	633.50	633.54
CL Brg. Pier 8	37+22.46	3.63	633.60	633.62
F3	37+32.46	3.63	633.67	633.69
G3	37+42.46	3.63	633.73	633.76
H3	37+52.46	3.63	633.79	633.83
I3	37+62.46	3.63	633.84	633.88
J3	37+72.46	3.63	633.89	633.92
K3	37+82.46	3.63	633.93	633.95
CL Brg. Pier 9	37+90.46	3.63	633.96	633.98
L3	38+00.46	3.63	633.99	634.02
M3	38+10.46	3.63	634.01	634.05
N3	38+20.46	3.63	634.03	634.08
O3	38+30.46	3.63	634.04	634.09
P3	38+40.46	3.63	634.05	634.08
CL S. Brg. Pier 10	38+46.54	3.63	634.05	634.07
CL Pier 10	38+47.46	3.63	634.05	634.02

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 7	36+59.62	10.88	632.92	632.94
A3	36+69.62	10.88	633.03	633.07
B3	36+79.62	10.88	633.12	633.19
C3	36+89.62	10.88	633.22	633.29
D3	36+99.62	10.88	633.31	633.36
E3	37+09.62	10.88	633.39	633.43
CL Brg. Pier 8	37+22.46	10.88	633.49	633.51
F3	37+32.46	10.88	633.56	633.58
G3	37+42.46	10.88	633.62	633.65
H3	37+52.46	10.88	633.68	633.72
I3	37+62.46	10.88	633.73	633.77
J3	37+72.46	10.88	633.78	633.81
K3	37+82.46	10.88	633.82	633.84
CL Brg. Pier 9	37+90.46	10.88	633.85	633.87
L3	38+00.46	10.88	633.88	633.91
M3	38+10.46	10.88	633.90	633.94
N3	38+20.46	10.88	633.92	633.97
O3	38+30.46	10.88	633.93	633.98
P3	38+40.46	10.88	633.94	633.97
CL S. Brg. Pier 10	38+46.54	10.88	633.94	633.96
CL Pier 10	38+47.46	10.88	633.94	633.91

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 7	36+59.62	18.13	632.80	632.82
A3	36+69.62	18.13	632.91	632.96
B3	36+79.62	18.13	633.01	633.08
C3	36+89.62	18.13	633.10	633.18
D3	36+99.62	18.13	633.19	633.26
E3	37+09.62	18.13	633.27	633.32
CL Brg. Pier 8	37+22.46	18.13	633.37	633.39
F3	37+32.46	18.13	633.44	633.46
G3	37+42.46	18.13	633.50	633.54
H3	37+52.46	18.13	633.56	633.61
I3	37+62.46	18.13	633.61	633.66
J3	37+72.46	18.13	633.66	633.70
K3	37+82.46	18.13	633.70	633.73
CL Brg. Pier 9	37+90.46	18.13	633.73	633.75
L3	38+00.46	18.13	633.76	633.79
M3	38+10.46	18.13	633.79	633.83
N3	38+20.46	18.13	633.80	633.86
O3	38+30.46	18.13	633.82	633.87
P3	38+40.46	18.13	633.83	633.86
CL S. Brg. Pier 10	38+46.54	18.13	633.83	633.85
CL Pier 10	38+47.46	18.13	633.83	633.78

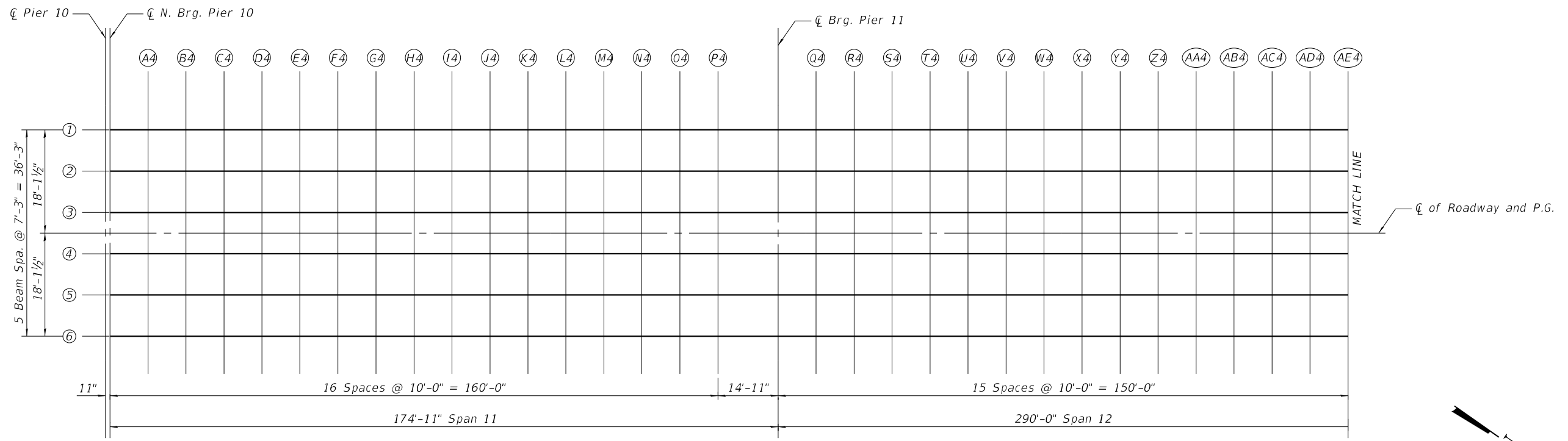


To determine "t": Elevations of the top flanges of the beams shall be taken at intervals shown on sheet SA-10. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets SA-10 & SA-11, minus 8 1/4" deck thickness, equals the fillet heights "t" above top flange of beams.  
 The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets SA-10 & SA-11. For grinding the deck, see Special Provisions.

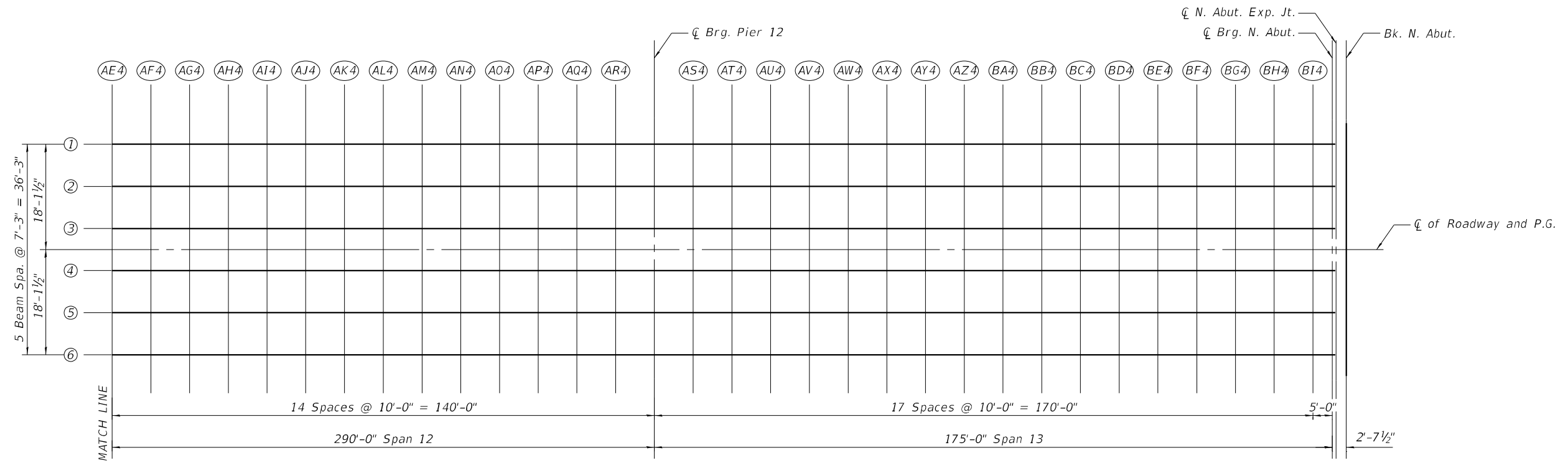
FILLET HEIGHTS

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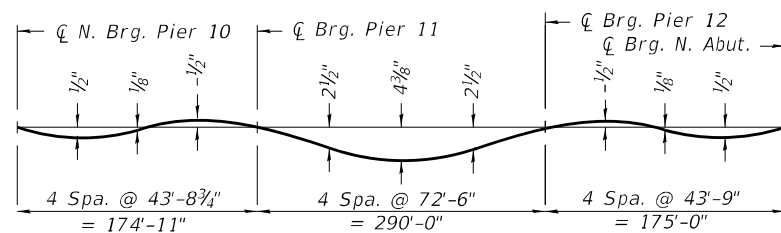
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PLOT DATE = 10/21/2021		DATE = 10/21/2021	REVISED -							



UNIT 4 PLAN

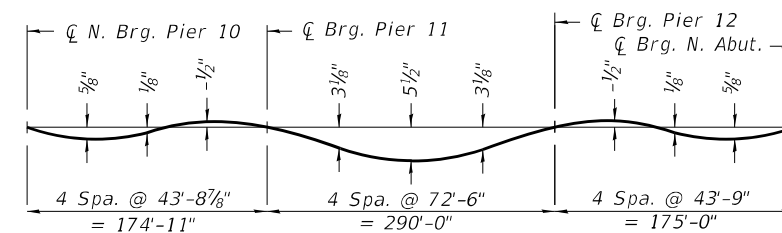


UNIT 4 PLAN



INTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM  
(Includes weight of concrete only.)

Note:  
The deflections shown in diagrams are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on sheets SA-13 to SA-16.



EXTERIOR BEAM DEAD LOAD DEFLECTION DIAGRAM  
(Includes weight of concrete only.)

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USER NAME = mrc	DESIGNED - BLB	REVISED -
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PLOT DATE = 10/21/2021	DRAWN - LJK	REVISED -
	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS I (UNIT 4)  
STRUCTURE NO. 016-2468

SHEET SA-12 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 126
ILLINOIS			CONTRACT NO. 62H49	



GIRDER 3

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, and Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding. Includes data for CL N. Brg. Pier 10, CL Brg. Pier 11, and various pier points (A4 to AR4).

GIRDER 3 (CONT.)

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, and Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding. Includes data for CL Brg. Pier 12, CL Brg. N. Abut., CL N. Abut. Exp. Jt., and Bk. N. Abut.

☐ OF ROADWAY AND P.G. (CONT.)

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, and Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding. Includes data for CL Brg. Pier 11, CL Brg. Pier 12, CL Brg. N. Abut., CL N. Abut. Exp. Jt., and Bk. N. Abut.

☐ OF ROADWAY AND P.G.

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations, and Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding. Includes data for CL N. Brg. Pier 10 and various pier points (A4 to P4).

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Table with 4 columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and DATE. Includes design details for BLB, BAB, LJK, and dates.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS III (UNIT 4) STRUCTURE NO. 016-2468

SHEET SA-14 OF SA-73 SHEETS

Table with 5 columns: F.A.P. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. Includes values like 330, 2018-133-BR, COOK, 308, 128, and 62H49.

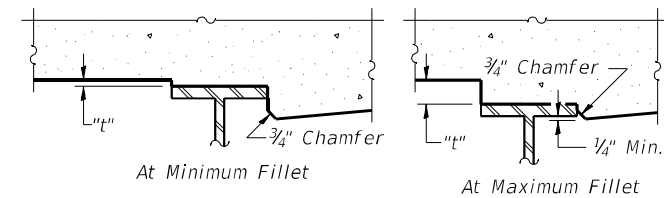


**GIRDER 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL N. Brg. Pier 10	38+48.38	18.13	633.82	633.84
A4	38+58.38	18.13	633.81	633.85
B4	38+68.38	18.13	633.80	633.86
C4	38+78.38	18.13	633.79	633.86
D4	38+88.38	18.13	633.77	633.85
E4	38+98.38	18.13	633.74	633.82
F4	39+08.38	18.13	633.71	633.79
G4	39+18.38	18.13	633.68	633.74
H4	39+28.38	18.13	633.63	633.68
I4	39+38.38	18.13	633.58	633.61
J4	39+48.38	18.13	633.53	633.54
K4	39+58.38	18.13	633.47	633.46
L4	39+68.38	18.13	633.40	633.38
M4	39+78.38	18.13	633.33	633.31
N4	39+88.38	18.13	633.25	633.23
O4	39+98.38	18.13	633.17	633.15
P4	40+08.38	18.13	633.08	633.08
CL Brg. Pier 11	40+23.29	18.13	632.94	632.96
Q4	40+33.29	18.13	632.84	632.88
R4	40+43.29	18.13	632.73	632.80
S4	40+53.29	18.13	632.61	632.72
T4	40+63.29	18.13	632.49	632.64
U4	40+73.29	18.13	632.37	632.55
V4	40+83.29	18.13	632.23	632.46
W4	40+93.29	18.13	632.10	632.37
X4	41+03.29	18.13	631.95	632.27
Y4	41+13.29	18.13	631.80	632.16
Z4	41+23.29	18.13	631.65	632.04
AA4	41+33.29	18.13	631.49	631.91
AB4	41+43.29	18.13	631.32	631.77
AC4	41+53.29	18.13	631.15	631.61
AD4	41+63.29	18.13	630.97	631.44
AE4	41+73.29	18.13	630.79	631.26
AF4	41+83.29	18.13	630.60	631.06
AG4	41+93.29	18.13	630.40	630.85
AH4	42+03.29	18.13	630.20	630.62
AI4	42+13.29	18.13	629.97	630.36
AJ4	42+23.29	18.13	629.76	630.12
AK4	42+33.29	18.13	629.55	629.87
AL4	42+43.29	18.13	629.35	629.62
AM4	42+53.29	18.13	629.14	629.37
AN4	42+63.29	18.13	628.93	629.12
AO4	42+73.29	18.13	628.73	628.87
AP4	42+83.29	18.13	628.52	628.62
AQ4	42+93.29	18.13	628.31	628.39
AR4	43+03.29	18.13	628.10	628.15

**GIRDER 6 (CONT.)**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
CL Brg. Pier 12	43+13.29	18.13	627.90	627.92
AS4	43+23.29	18.13	627.69	627.69
AT4	43+33.29	18.13	627.48	627.47
AU4	43+43.29	18.13	627.28	627.26
AV4	43+53.29	18.13	627.07	627.04
AW4	43+63.29	18.13	626.86	626.84
AX4	43+73.29	18.13	626.66	626.64
AY4	43+83.29	18.13	626.45	626.45
AZ4	43+93.29	18.13	626.24	626.26
BA4	44+03.29	18.13	626.03	626.07
BB4	44+13.29	18.13	625.83	625.88
BC4	44+23.29	18.13	625.62	625.69
BD4	44+33.29	18.13	625.41	625.49
BE4	44+43.29	18.13	625.21	625.28
BF4	44+53.29	18.13	625.00	625.08
BG4	44+63.29	18.13	624.79	624.86
BH4	44+73.29	18.13	624.59	624.64
BI4	44+83.29	18.13	624.38	624.41
CL Brg. N. Abut.	44+88.29	18.13	624.28	624.30
CL N. Abut. Exp. Jt.	44+89.20	18.13	624.26	624.28
Bk. N. Abut.	44+90.91	18.13	624.22	624.24



To determine "t": Elevations of the top flanges of the girders shall be taken at intervals shown on sheet SA-12. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on sheets SA-13 to SA-16, minus 8 1/4" deck thickness, equals the fillet heights "t" above top flange of girders.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets SA-13 to SA-16. For grinding the deck, see Special Provisions.

**FILLET HEIGHTS**

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	PLOT DATE = 10/21/2021	DATE = 10/21/2021	REVISED -			ILLINOIS				

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End S. Appr. Slab	31+12.83	-20.33	618.44	618.46
A	31+22.83	-20.33	618.81	619.83
B	31+32.83	-20.33	619.19	619.21
N. End S. Appr. Slab	31+42.83	-20.33	619.56	619.58

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End S. Appr. Slab	31+12.83	-16.50	618.52	618.54
A	31+22.83	-16.50	618.89	619.91
B	31+32.83	-16.50	618.27	619.29
N. End S. Appr. Slab	31+42.83	-16.50	619.64	619.66

CL ROADWAY & P.G.

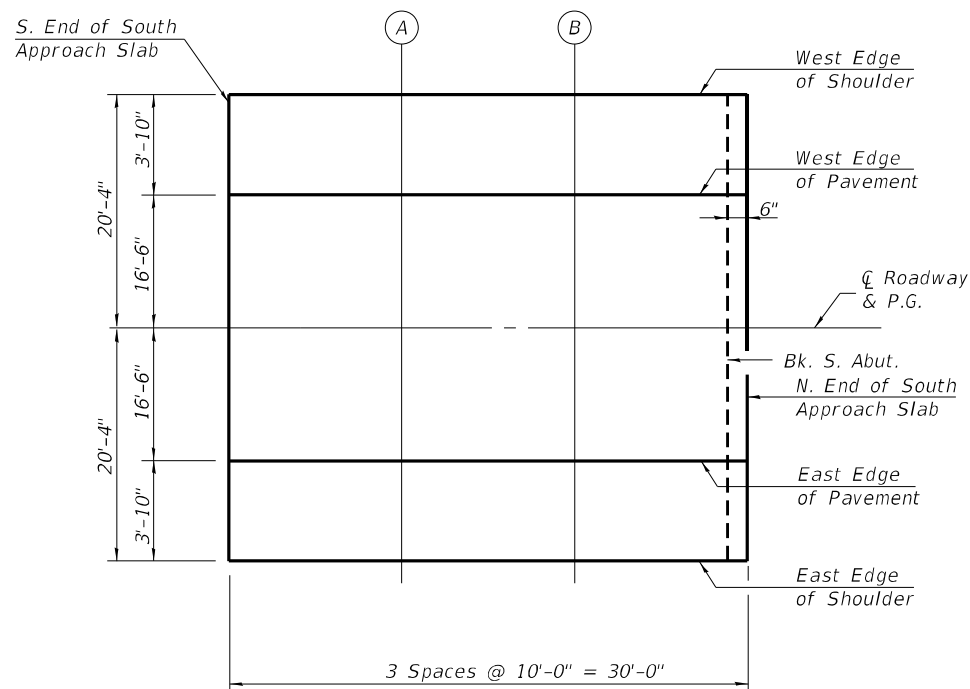
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End S. Appr. Slab	31+12.83	0.00	618.78	619.80
A	31+22.83	0.00	619.15	619.17
B	31+32.83	0.00	619.53	619.55
N. End S. Appr. Slab	31+42.83	0.00	619.90	619.92

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End S. Appr. Slab	31+12.83	16.50	618.52	618.54
A	31+22.83	16.50	618.89	619.91
B	31+32.83	16.50	618.27	619.29
N. End S. Appr. Slab	31+42.83	16.50	619.64	619.66

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End S. Appr. Slab	31+12.83	20.33	618.44	618.46
A	31+22.83	20.33	618.81	619.83
B	31+32.83	20.33	619.19	619.21
N. End S. Appr. Slab	31+42.83	20.33	619.56	619.58



PLAN  
South Approach

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PLOT DATE = 10/21/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SOUTH APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-2468**

SHEET SA-17 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 131
			CONTRACT NO. 62H49	
			ILLINOIS	

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End N. Appr. Slab	44+90.91	-20.33	624.20	624.22
C	45+00.91	-20.33	624.00	624.02
D	45+10.91	-20.33	623.79	624.81
N. End N. Appr. Slab	45.20.91	-20.33	623.58	623.60

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End N. Appr. Slab	44+90.91	-16.50	624.28	624.30
C	45+00.91	-16.50	624.08	624.10
D	45+10.91	-16.50	623.87	624.89
N. End N. Appr. Slab	45.20.91	-16.50	623.66	623.68

CL ROADWAY & P.G.

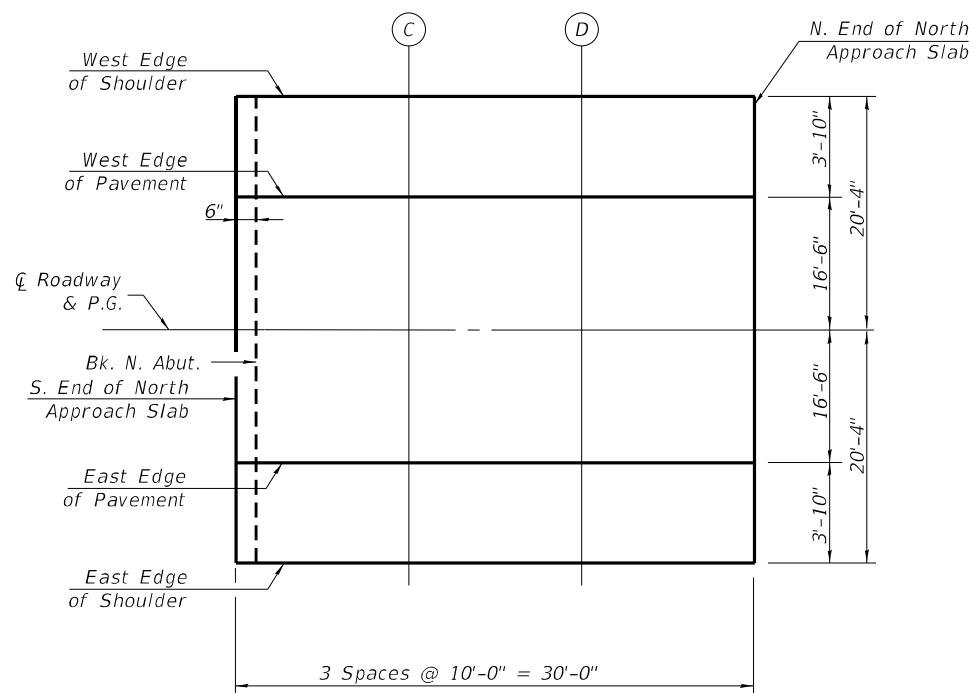
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S. End N. Appr. Slab	44+90.91	0.00	624.54	624.56
C	45+00.91	0.00	624.33	624.35
D	45+10.91	0.00	624.13	624.15
N. End N. Appr. Slab	45.20.91	0.00	623.92	624.94

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End N. Appr. Slab	44+90.91	16.50	624.28	624.30
C	45+00.91	16.50	624.08	624.10
D	45+10.91	16.50	623.87	624.89
N. End N. Appr. Slab	45.20.91	16.50	623.66	623.68

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
S. End N. Appr. Slab	44+90.91	20.33	624.20	624.22
C	45+00.91	20.33	624.00	624.02
D	45+10.91	20.33	623.79	624.81
N. End N. Appr. Slab	45.20.91	20.33	623.58	623.60



PLAN  
North Approach

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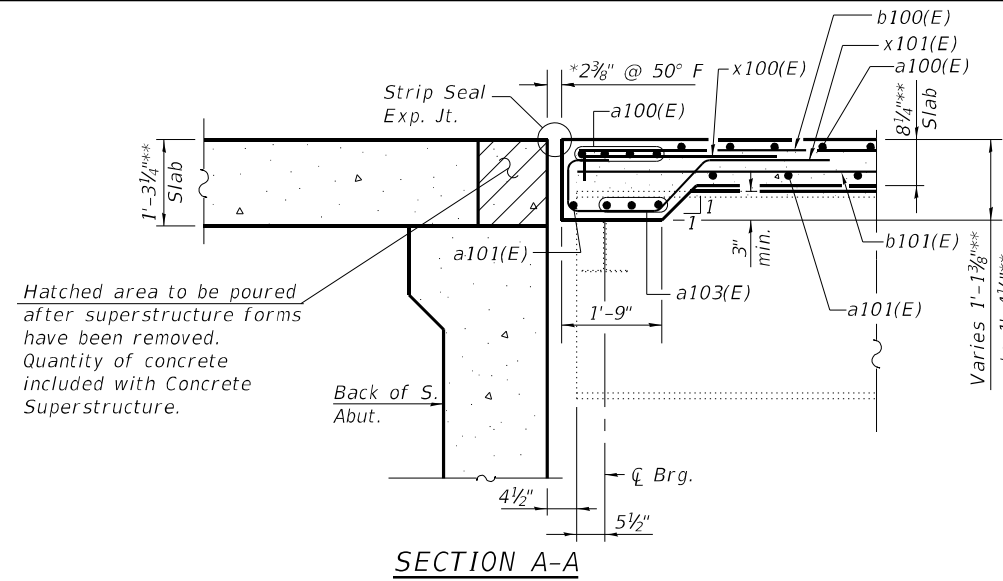
**STATE OF ILLINOIS  
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**TOP OF NORTH APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 016-2468**

SHEET SA-18 OF SA-73 SHEETS

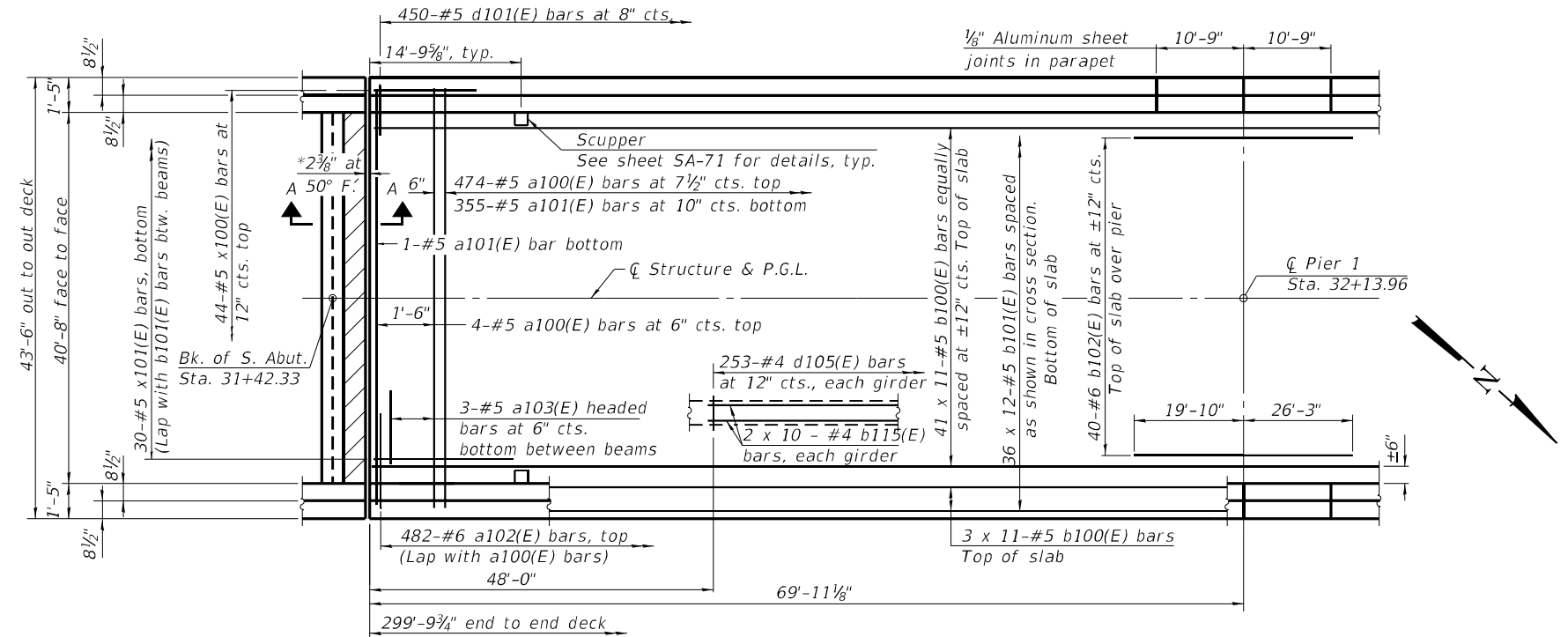
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ILLINOIS			CONTRACT NO. 62H49	





Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.

SECTION A-A



SPAN 1 PLAN

**MINIMUM BAR LAP**

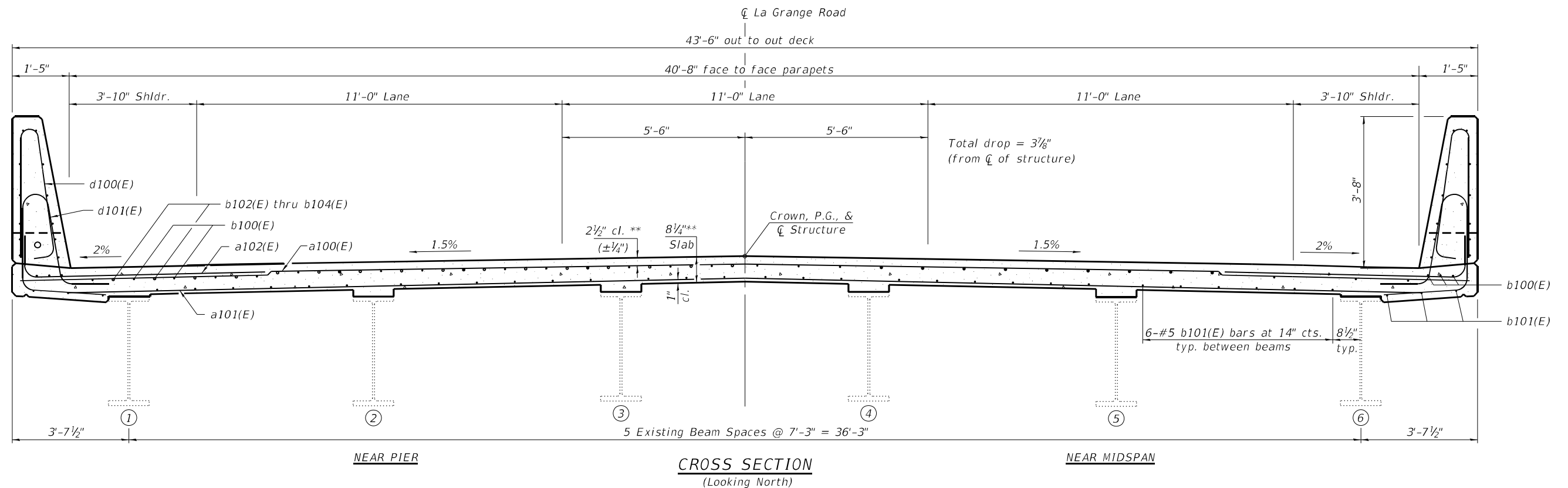
- #4 bar = 2'-5"
- #5 bar = 3'-6"

\* Dimension showing concrete opening. For joint opening see sheet SA-37.

\*\* Prior to grinding

**Notes:**

See sheet SA-22 for superstructure details and Bill of Material.  
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



CROSS SECTION  
(Looking North)

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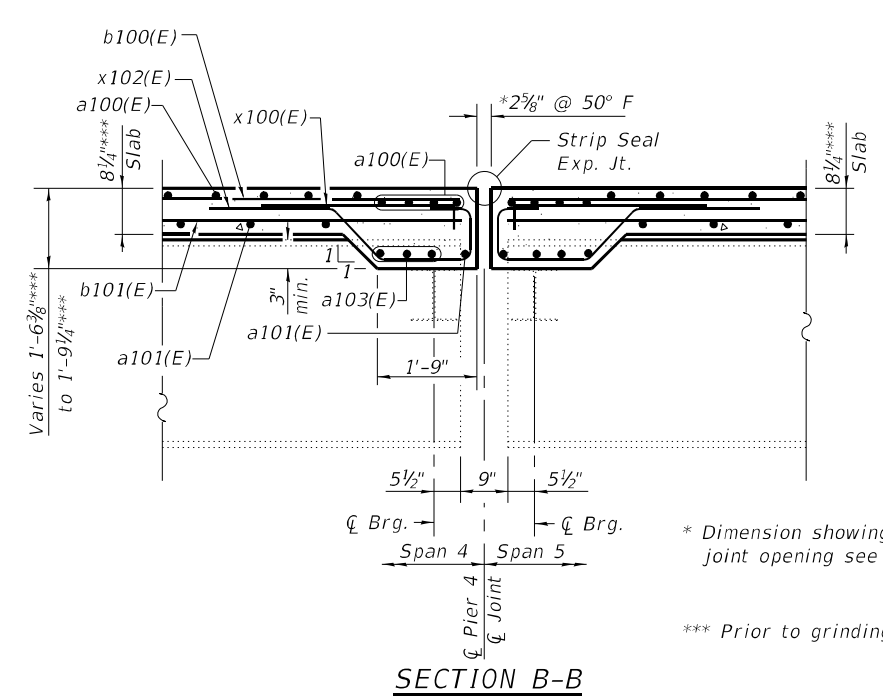
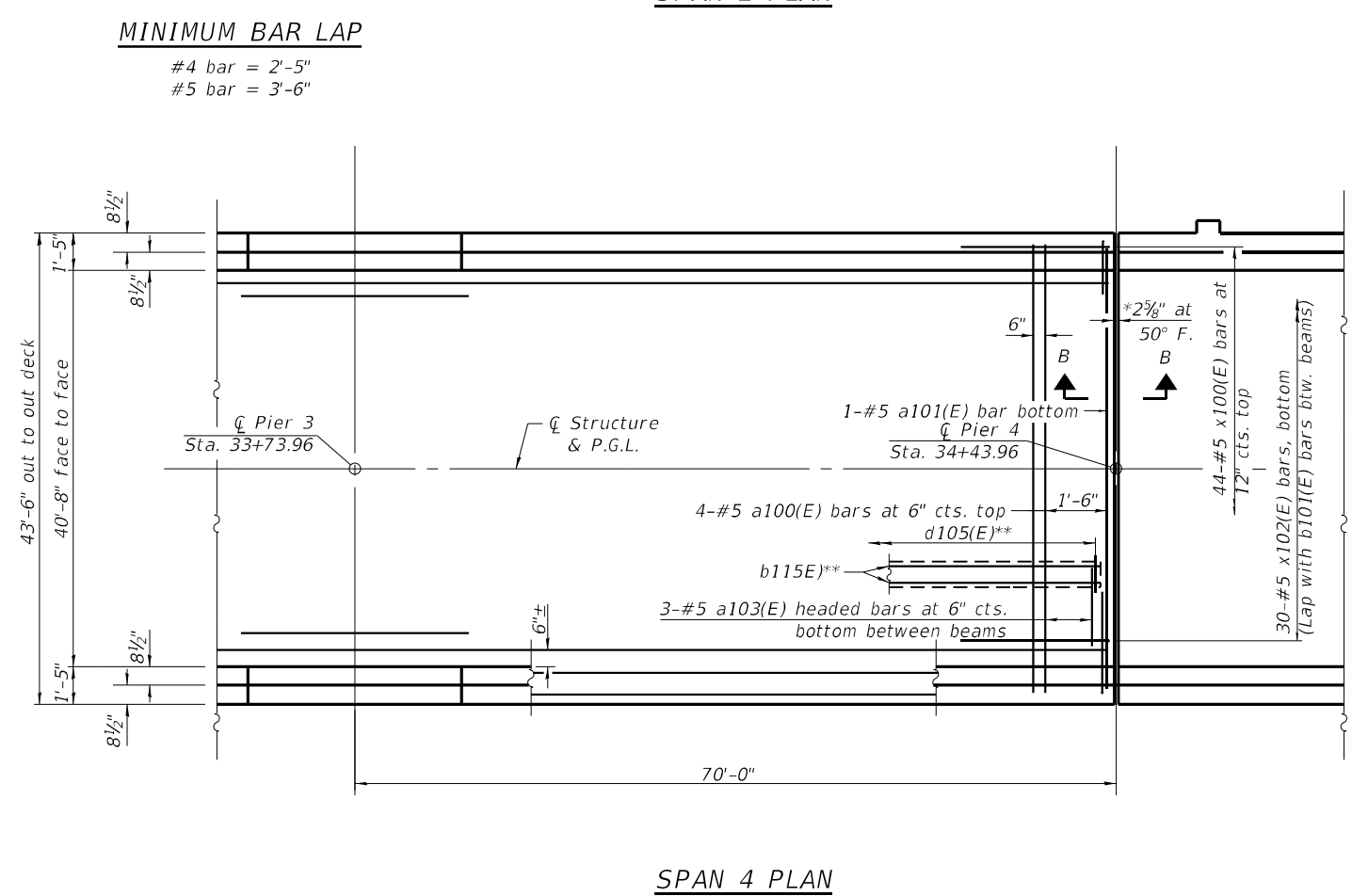
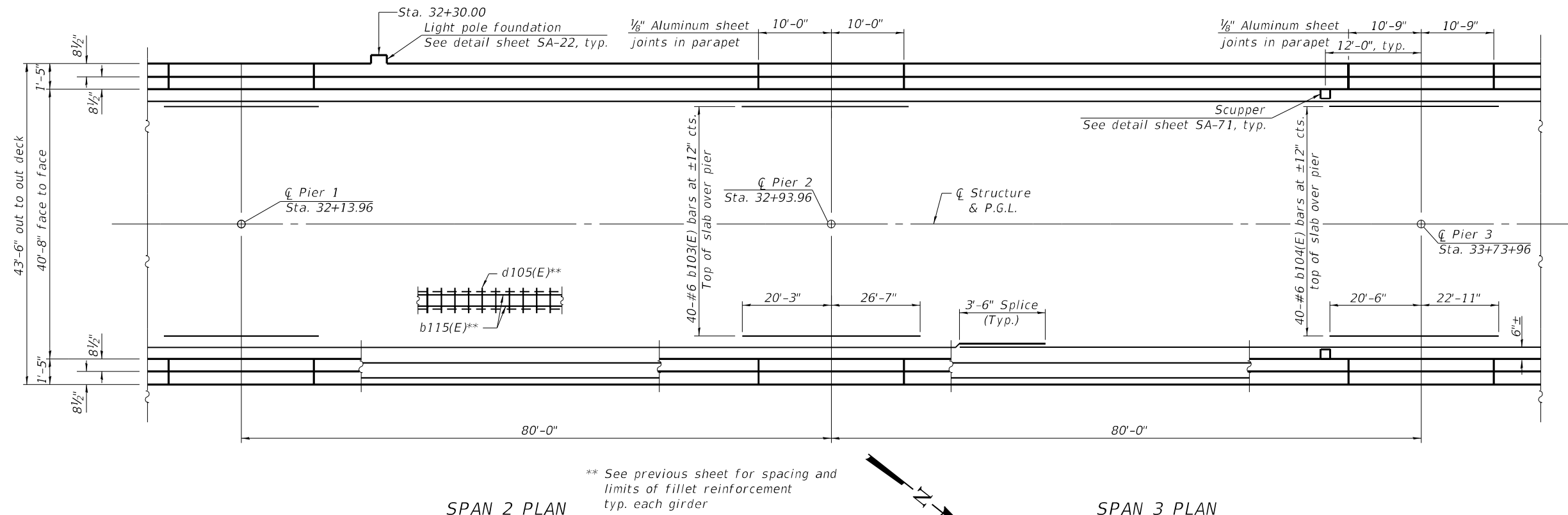
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PLOT SCALE =	CHECKED - BLB	REVISED -
PLOT DATE = 10/21/2021	DRAWN - LJK	REVISED -
	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE PLAN I (UNIT 1)  
STRUCTURE NO. 016-2468

SHEET SA-19 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 133
ILLINOIS			CONTRACT NO. 62H49	



Notes:  
See sheet SA-22 for superstructure details and Bill of Material.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

\* Dimension showing concrete opening. For joint opening see sheet SA-37.  
\*\*\* Prior to grinding.

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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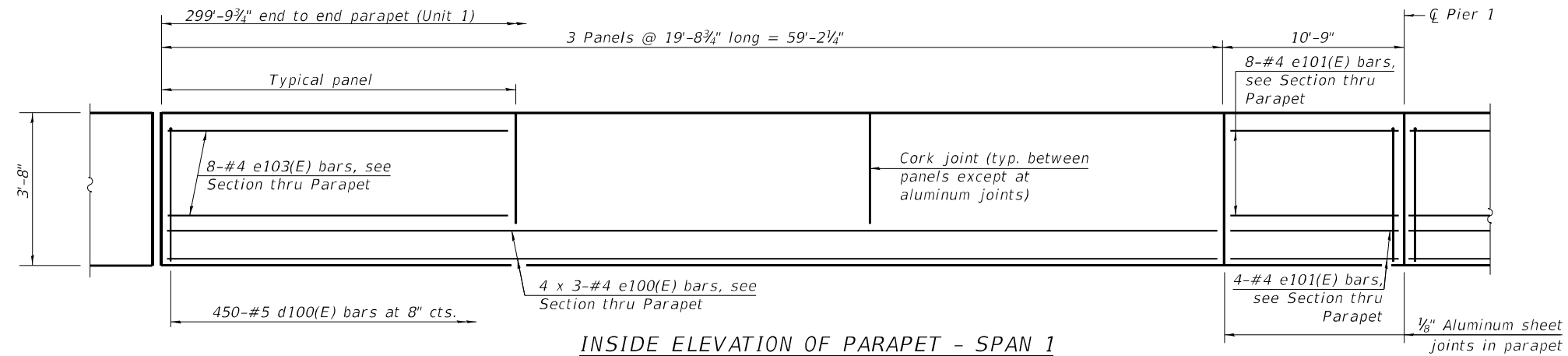
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	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

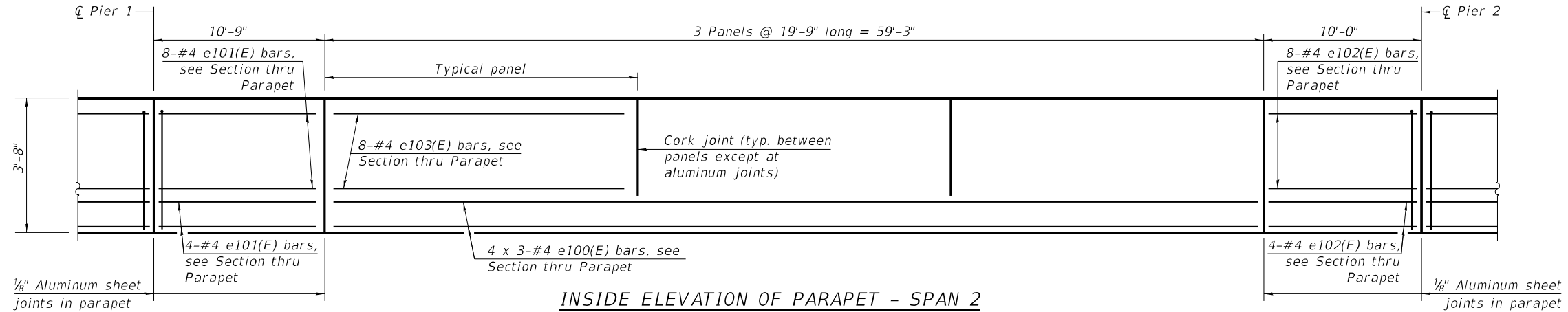
**SUPERSTRUCTURE PLAN II (UNIT 1)  
STRUCTURE NO. 016-2468**

SHEET SA-20 OF SA-73 SHEETS

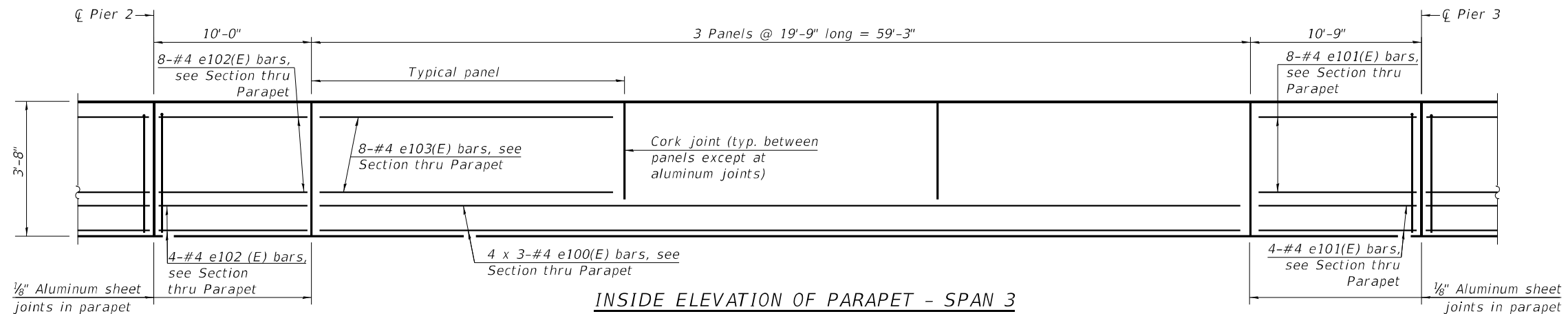
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ILLINOIS			CONTRACT NO. 62H49	



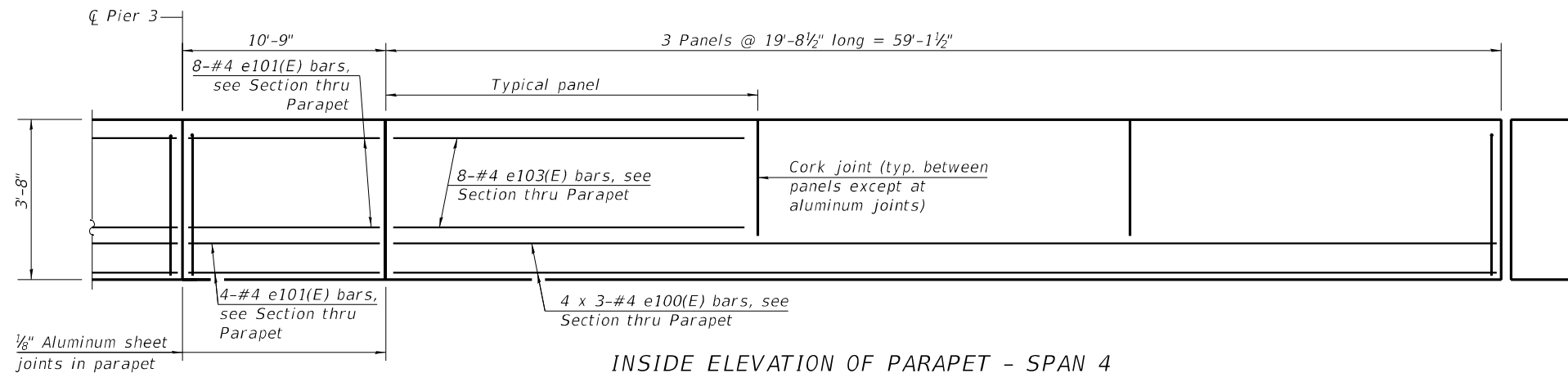
**INSIDE ELEVATION OF PARAPET - SPAN 1**



**INSIDE ELEVATION OF PARAPET - SPAN 2**



**INSIDE ELEVATION OF PARAPET - SPAN 3**



**INSIDE ELEVATION OF PARAPET - SPAN 4**

**MINIMUM BAR LAP**  
#4 bar = 2'-5"

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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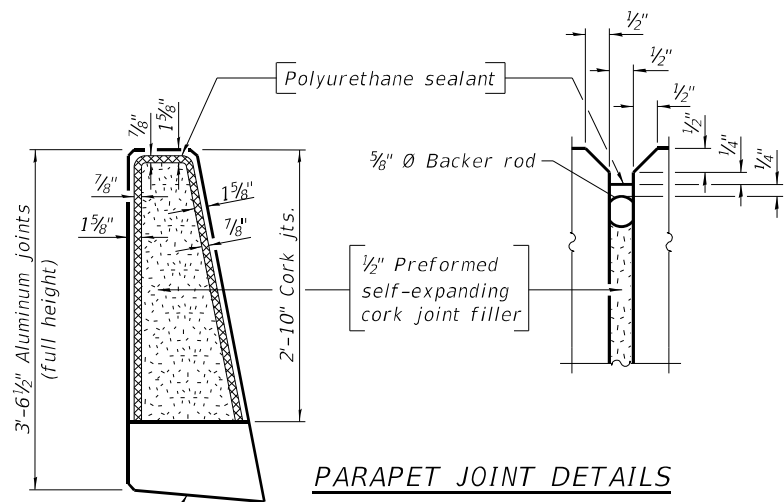
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

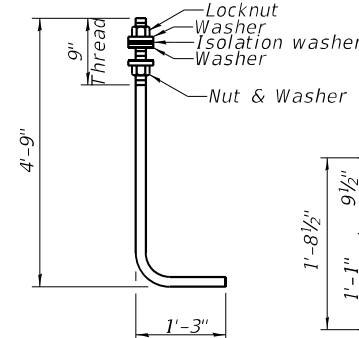
**PARAPET ELEVATIONS (UNIT 1)**  
**STRUCTURE NO. 016-2468**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62H49			ILLINOIS	

SHEET SA-21 OF SA-73 SHEETS

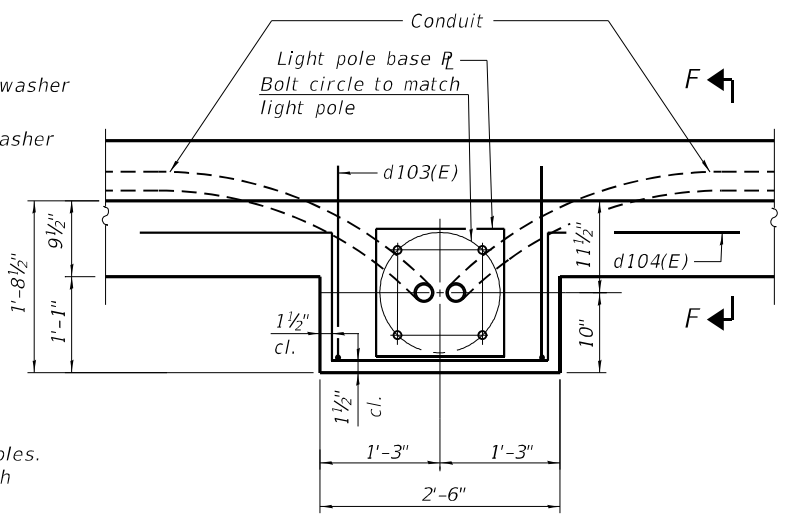


**PARAPET JOINT DETAILS**

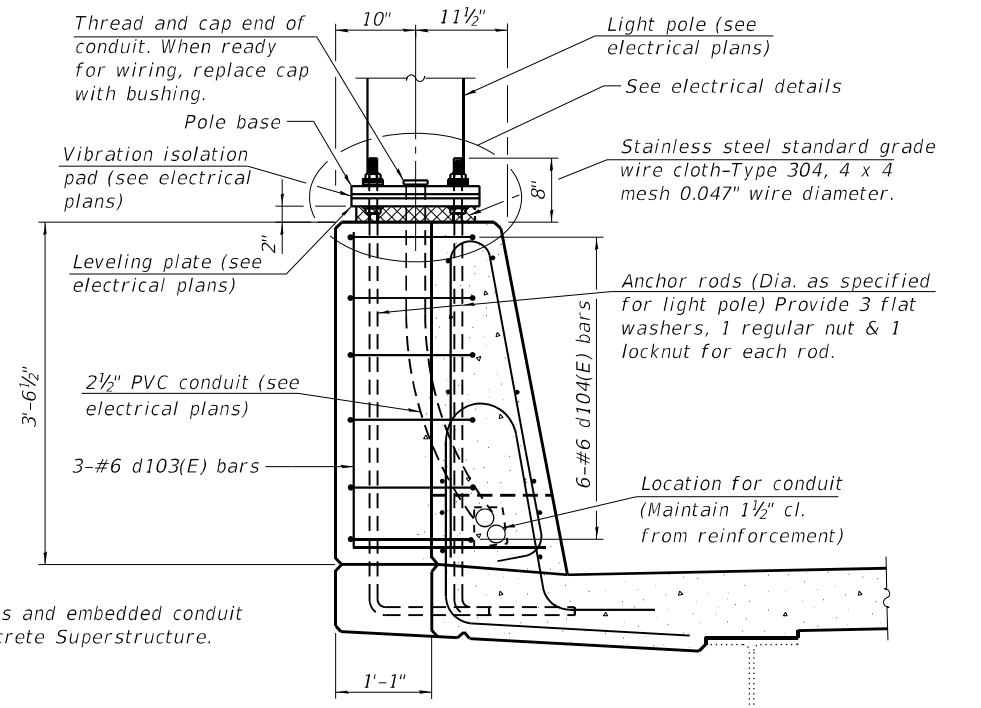


**ANCHOR ROD**

Diameter as specified for light poles.  
(ASTM F 1554 Grade 105) Full length hot dipped galvanized

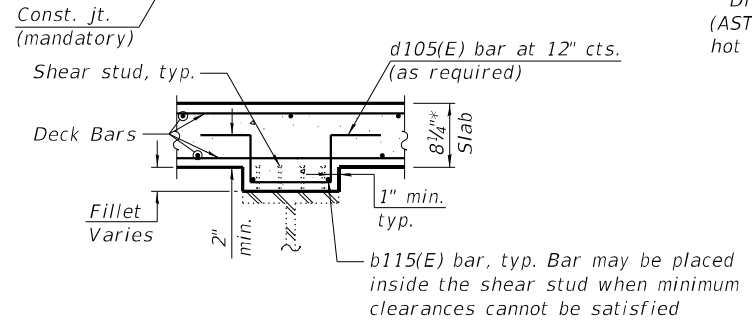


**PLAN**

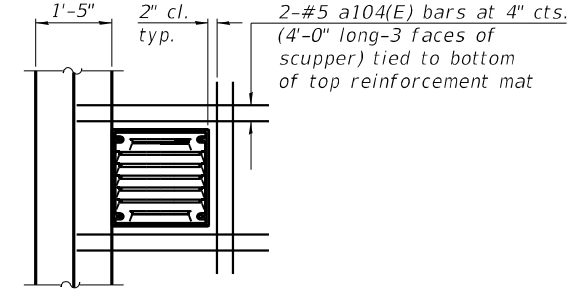


**SECTION F-F**

Note:  
Cost of anchor rods and embedded conduit is included with Concrete Superstructure.

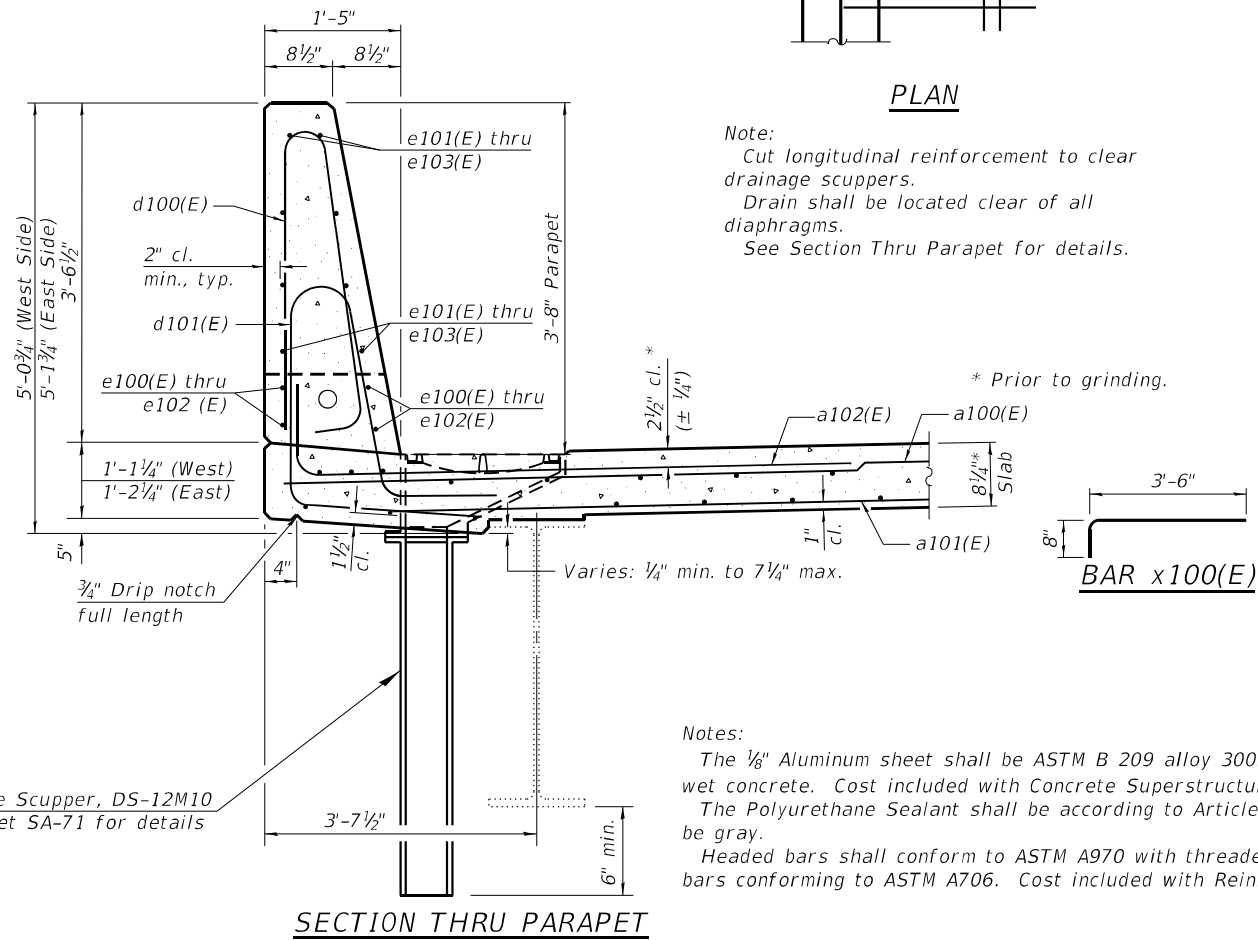


**FILLET REINFORCEMENT DETAIL**  
(When fillet height exceeds 6 inches)



**PLAN**

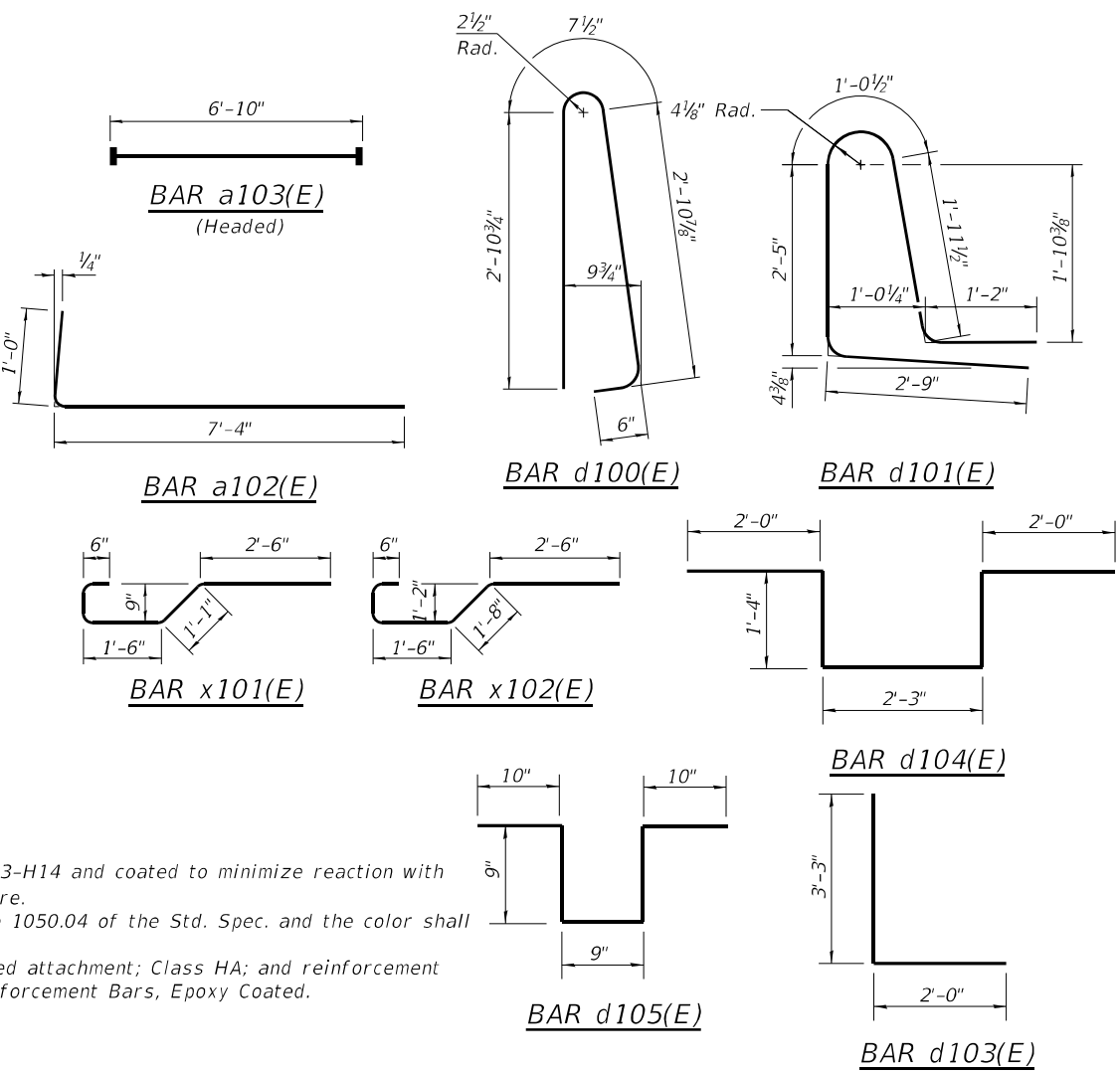
Note:  
Cut longitudinal reinforcement to clear drainage scuppers.  
Drain shall be located clear of all diaphragms.  
See Section Thru Parapet for details.



**SECTION THRU PARAPET**

Notes:  
The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.  
The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.  
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

**LIGHT POLE DETAILS**



**UNIT 1 SUPERSTRUCTURE BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a100(E)	482	#5	43'-2"	—
a101(E)	357	#5	41'-4"	—
a102(E)	964	#6	8'-4"	—
a103(E)	30	#5	6'-10"	—
a104(E)	24	#5	4'-0"	—
b100(E)	517	#5	30'-5"	—
b101(E)	432	#5	28'-3"	—
b102(E)	40	#6	46'-0"	—
b103(E)	40	#6	46'-10"	—
b104(E)	40	#6	43'-5"	—
b115(E)	120	#4	28'-4"	—
d100(E)	900	#5	7'-0"	—
d101(E)	900	#5	9'-4"	—
d103(E)	3	#6	5'-3"	—
d104(E)	6	#6	8'-11"	—
d105(E)	1518	#4	3'-11"	—
e100(E)	96	#4	21'-3"	—
e101(E)	96	#4	10'-5"	—
e102(E)	48	#4	9'-8"	—
e103(E)	192	#4	19'-4"	—
x100(E)	88	#5	4'-2"	—
x101(E)	30	#5	6'-4"	—
x102(E)	30	#5	7'-4"	—
Reinforcement Bars, Epoxy Coated		Lbs.	114,100	
Concrete Superstructure		Cu. Yds.	475.4	
Protective Coat		Sq. Yds.	1,658	
Bridge Deck Grooving (Longitudinal)		Sq. Yds.	1,106	
Diamond Grinding (Bridge Section)		Sq. Yds.	1,229	

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

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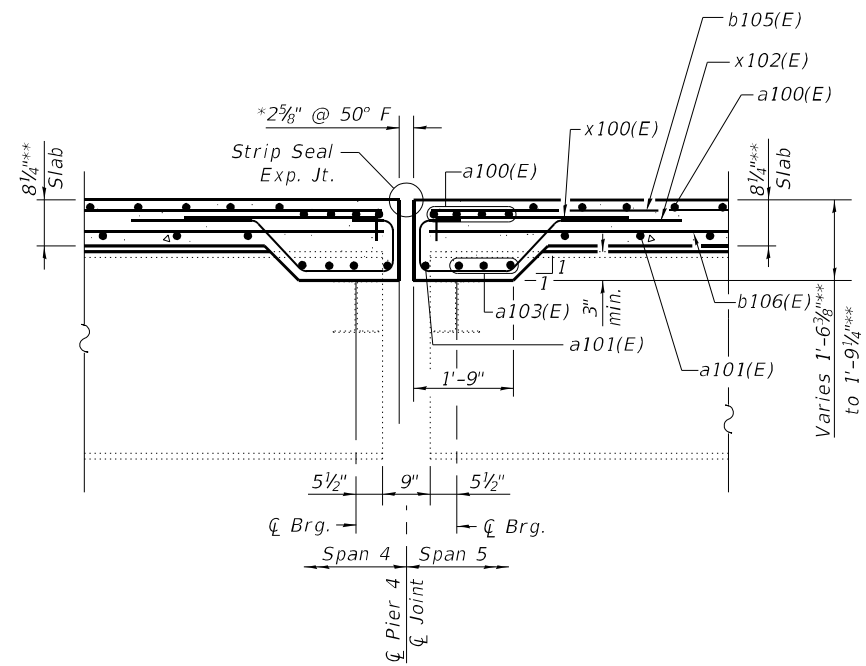
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DATE = 10/21/2021	DRAWN - LJK	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS (UNIT 1)  
SHEET NO. 016-2468**

SHEET SA-22 OF SA-73 SHEETS

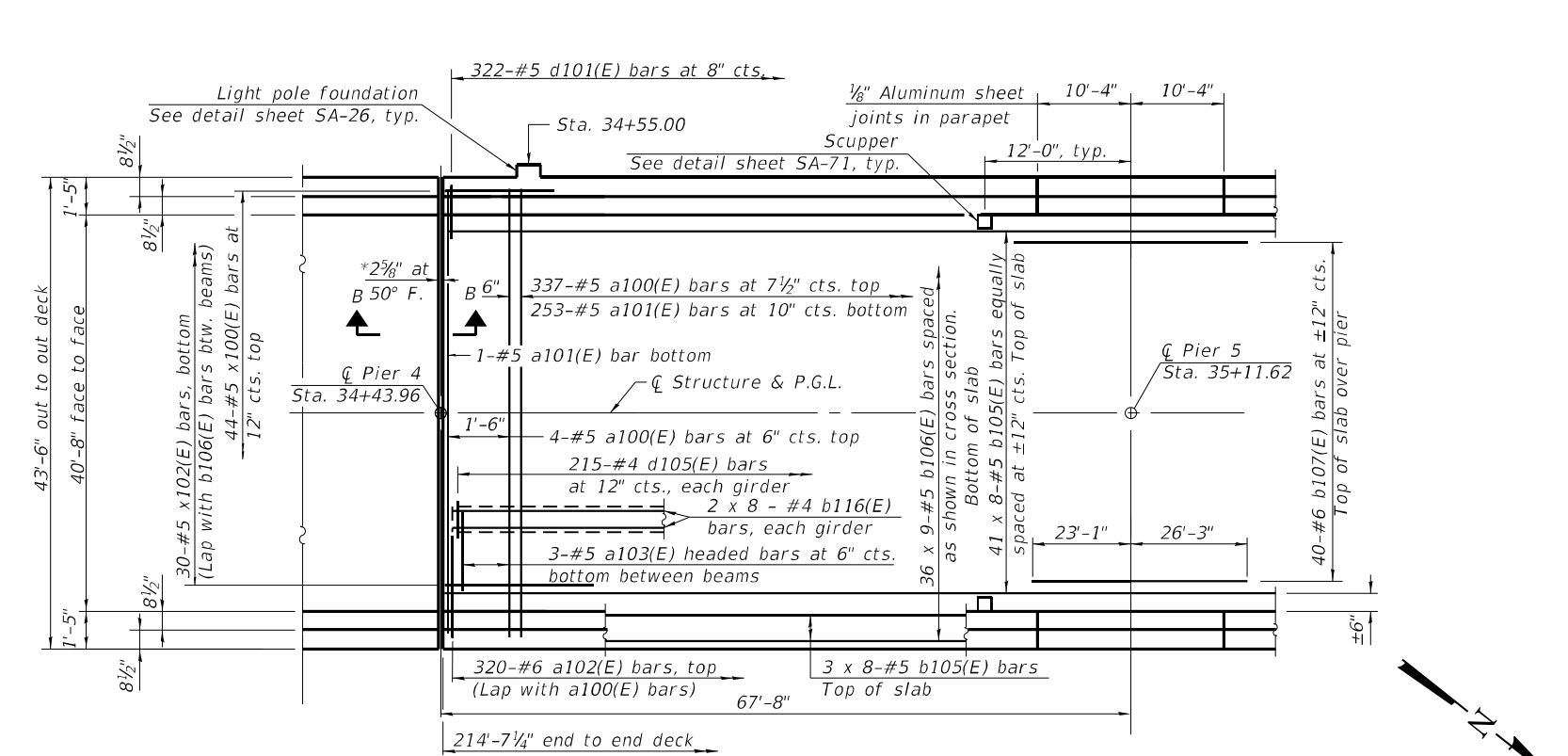
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			CONTRACT NO. 62H49	
ILLINOIS				



SECTION B-B

**MINIMUM BAR LAP**

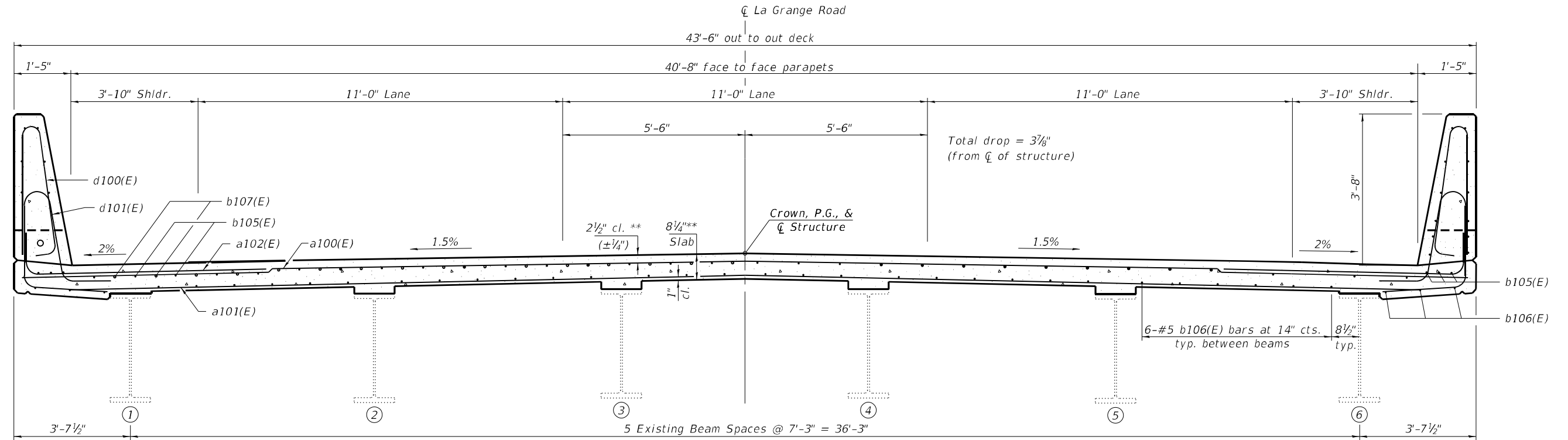
#4 bar = 2'-5"  
 #5 bar = 3'-6"



**SPAN 5 PLAN**

\* Dimension showing concrete opening. For joint opening see sheet SA-37.  
 \*\* Prior to grinding.

Notes:  
 See sheet SA26 for superstructure details and Bill of Material.  
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



**CROSS SECTION**  
 (Looking North)

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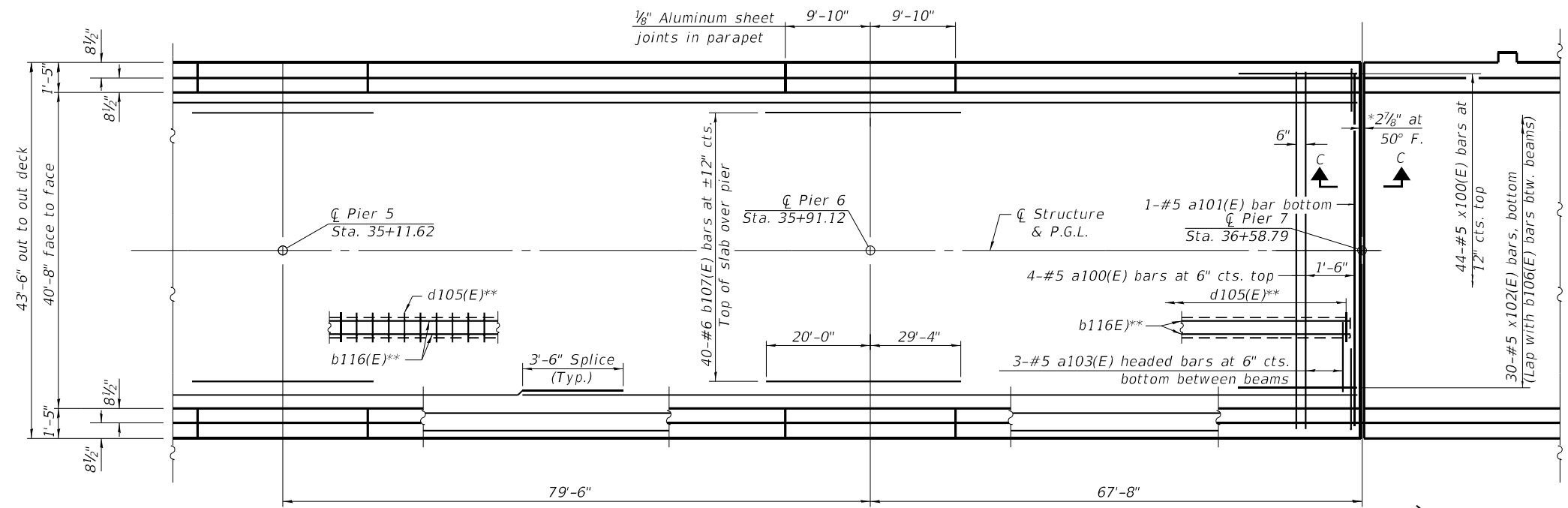
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	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN I (UNIT 2)**  
**STRUCTURE NO. 016-2468**

SHEET SA-23 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 137
CONTRACT NO. 62H49			ILLINOIS	



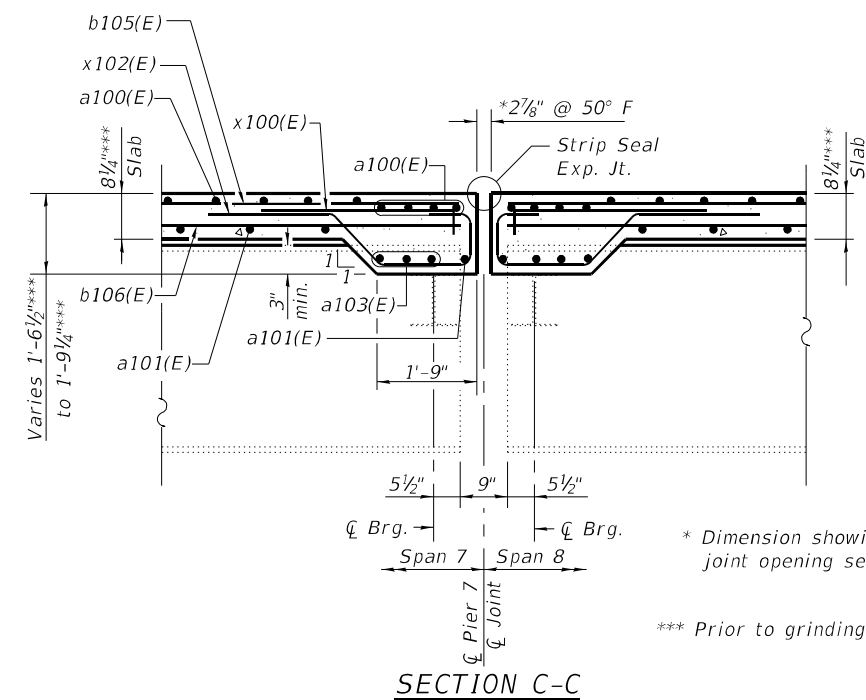
**MINIMUM BAR LAP**

#4 bar = 2'-5"  
 #5 bar = 3'-6"

**SPAN 6 PLAN**

\*\* See previous sheet for spacing and limits of fillet reinforcement typ. each girder

**SPAN 7 PLAN**



Notes:  
 See sheet SA-26 for superstructure details and Bill of Material.  
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

\* Dimension showing concrete opening. For joint opening see sheet SA-37.

\*\*\* Prior to grinding.

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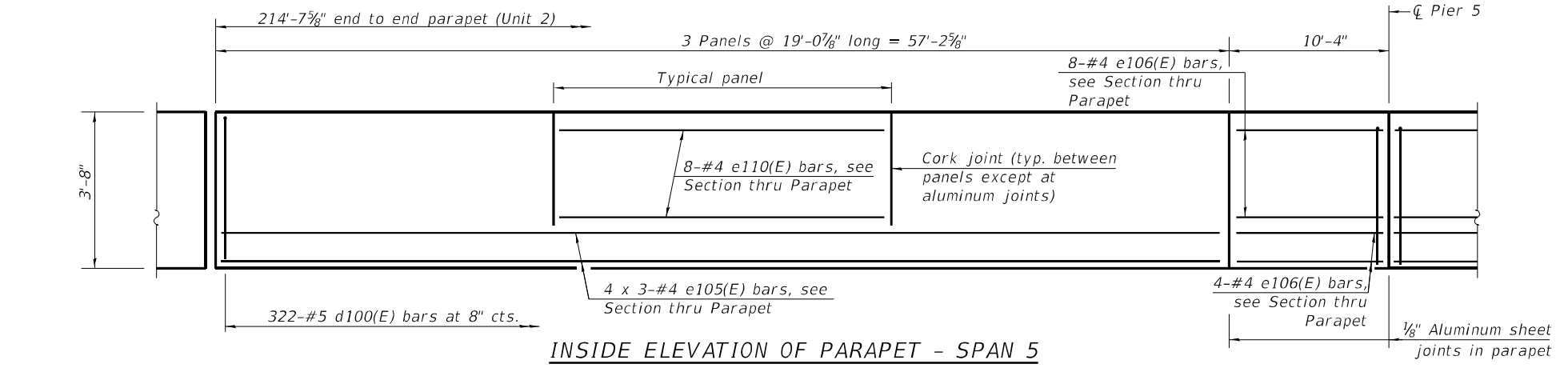
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**STATE OF ILLINOIS  
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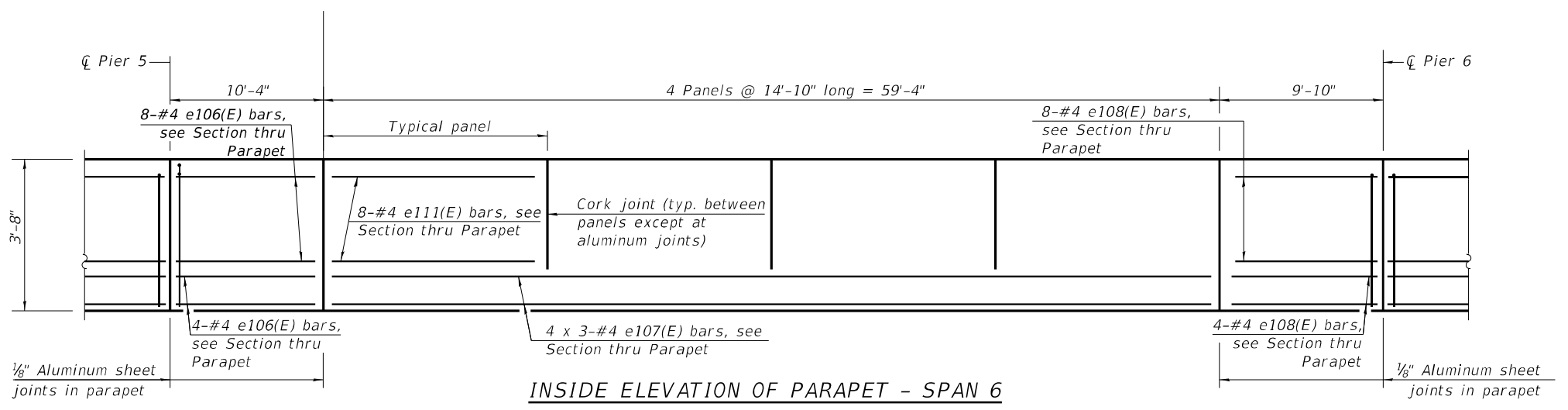
**SUPERSTRUCTURE PLAN II (UNIT 2)  
 STRUCTURE NO. 016-2468**

SHEET SA-24 OF SA-73 SHEETS

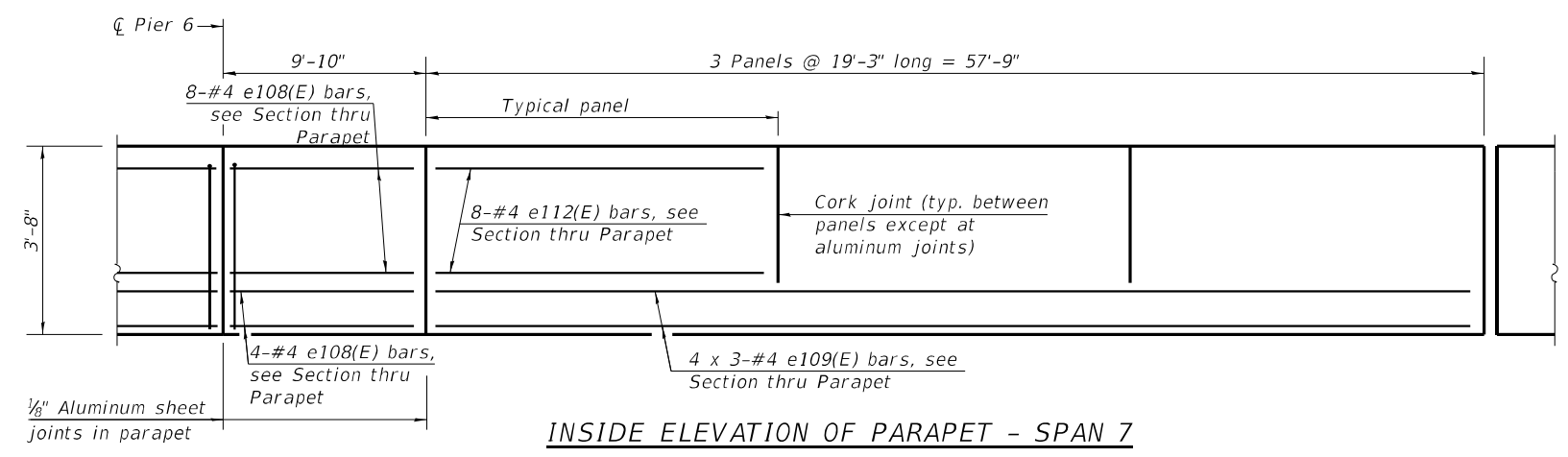
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	138
CONTRACT NO. 62H49			ILLINOIS	



INSIDE ELEVATION OF PARAPET - SPAN 5



INSIDE ELEVATION OF PARAPET - SPAN 6



INSIDE ELEVATION OF PARAPET - SPAN 7

MINIMUM BAR LAP  
#4 bar = 2'-5"

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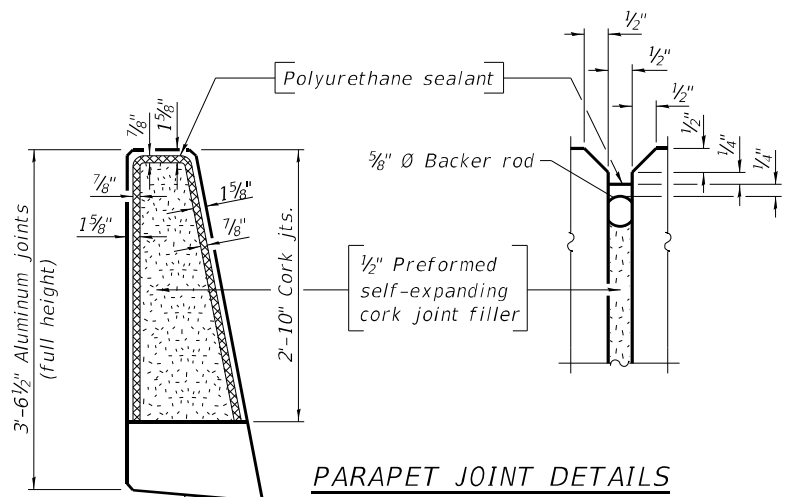
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

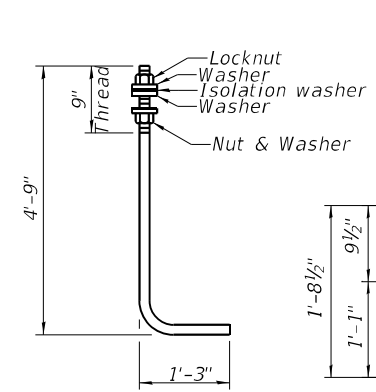
PARAPET ELEVATIONS (UNIT 2)  
STRUCTURE NO. 016-2468

SHEET SA-25 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	139
CONTRACT NO. 62H49			ILLINOIS	

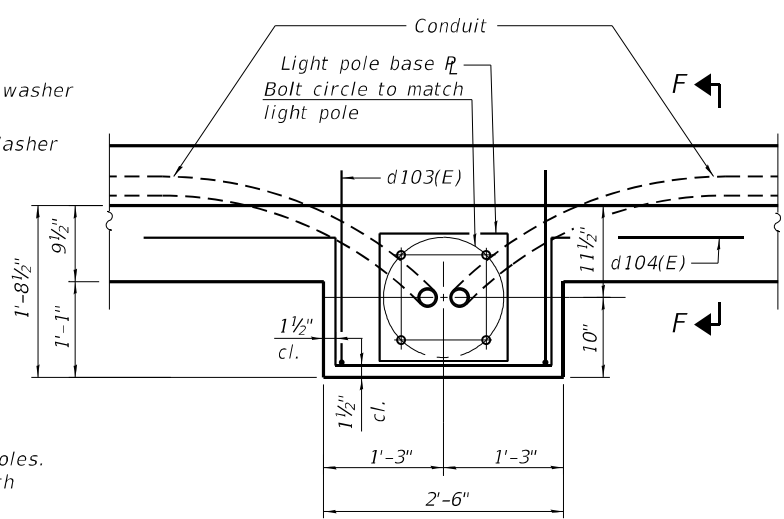


**PARAPET JOINT DETAILS**



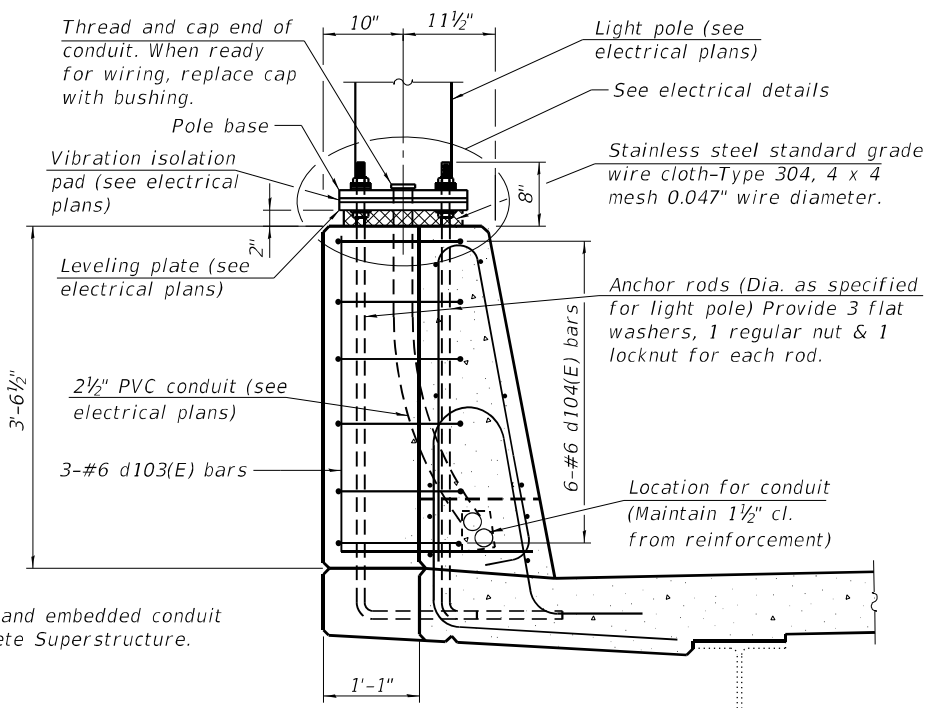
**ANCHOR ROD**

Diameter as specified for light poles.  
(ASTM F 1554 Grade 105) Full length hot dipped galvanized

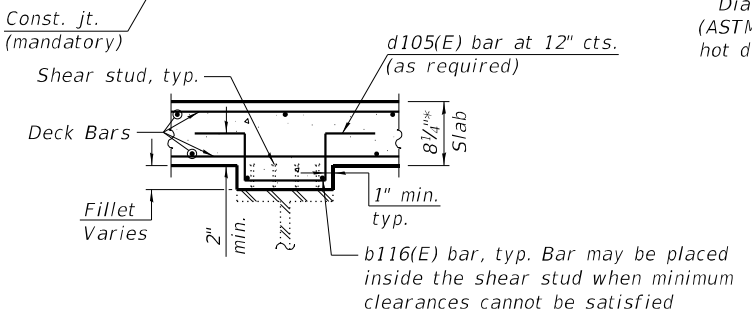


**PLAN**

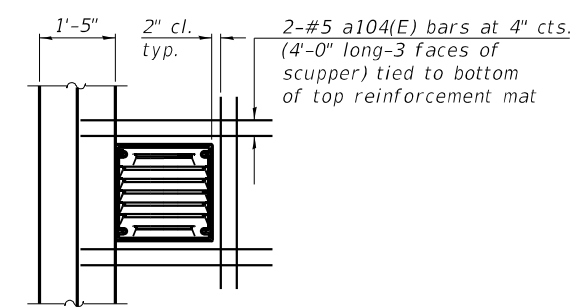
Note:  
Cost of anchor rods and embedded conduit is included with Concrete Superstructure.



**SECTION F-F**



**FILLET REINFORCEMENT DETAIL**  
(When fillet height exceeds 6 inches)



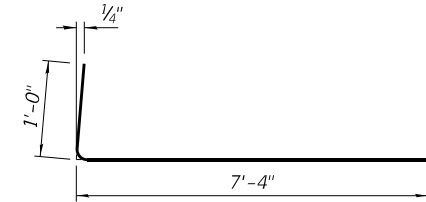
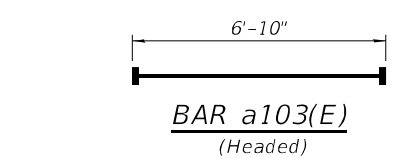
**LIGHT POLE DETAILS**

**UNIT 2 SUPERSTRUCTURE  
BILL OF MATERIAL**

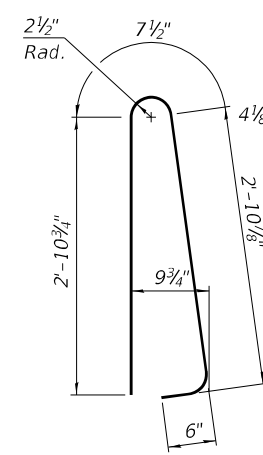
Bar	No.	Size	Length	Shape
a100(E)	345	#5	43'-2"	—
a101(E)	255	#5	41'-4"	—
a102(E)	640	#6	8'-4"	—
a103(E)	30	#5	6'-10"	—
a104(E)	12	#5	4'-0"	—
b105(E)	376	#5	29'-11"	—
b106(E)	324	#5	26'-11"	—
b107(E)	80	#6	49'-4"	—
b116(E)	96	#4	28'-11"	—
d100(E)	644	#5	7'-0"	—
d101(E)	644	#5	9'-4"	—
d103(E)	3	#6	5'-3"	—
d104(E)	6	#6	8'-11"	—
d105(E)	1290	#4	3'-11"	—
e105(E)	24	#4	20'-7"	—
e106(E)	48	#4	10'-0"	—
e107(E)	24	#4	21'-3"	—
e108(E)	48	#4	9'-6"	—
e109(E)	24	#4	20'-9"	—
e110(E)	48	#4	18'-8"	—
e111(E)	64	#4	14'-5"	—
e112(E)	48	#4	18'-10"	—
x100(E)	88	#5	4'-2"	—
x102(E)	60	#5	7'-4"	—

Reinforcement Bars, Epoxy Coated	Lbs.	82,150
Concrete Superstructure	Cu. Yds.	348.1
Protective Coat	Sq. Yds.	1,181
Bridge Deck Grooving (Longitudinal)	Sq. Yds.	788
Diamond Grinding (Bridge Section)	Sq. Yds.	876

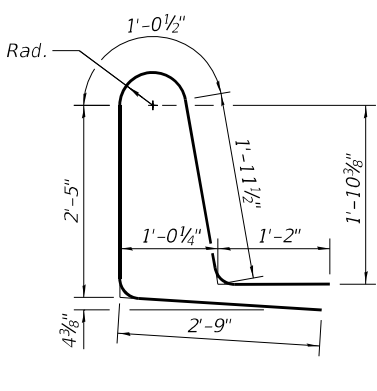
Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.



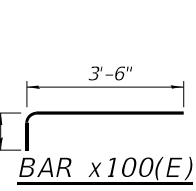
**BAR a102(E)**



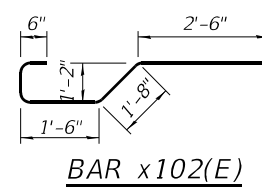
**BAR d100(E)**



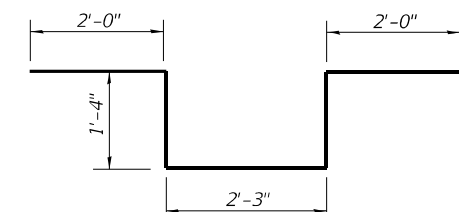
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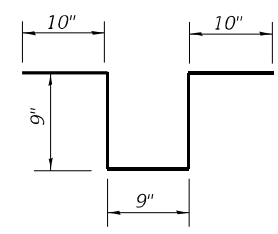
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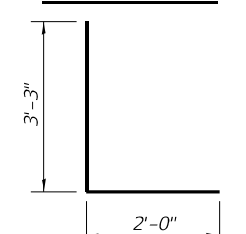
**BAR x102(E)**



**BAR d104(E)**



**BAR d105(E)**



**BAR d103(E)**

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**STATE OF ILLINOIS  
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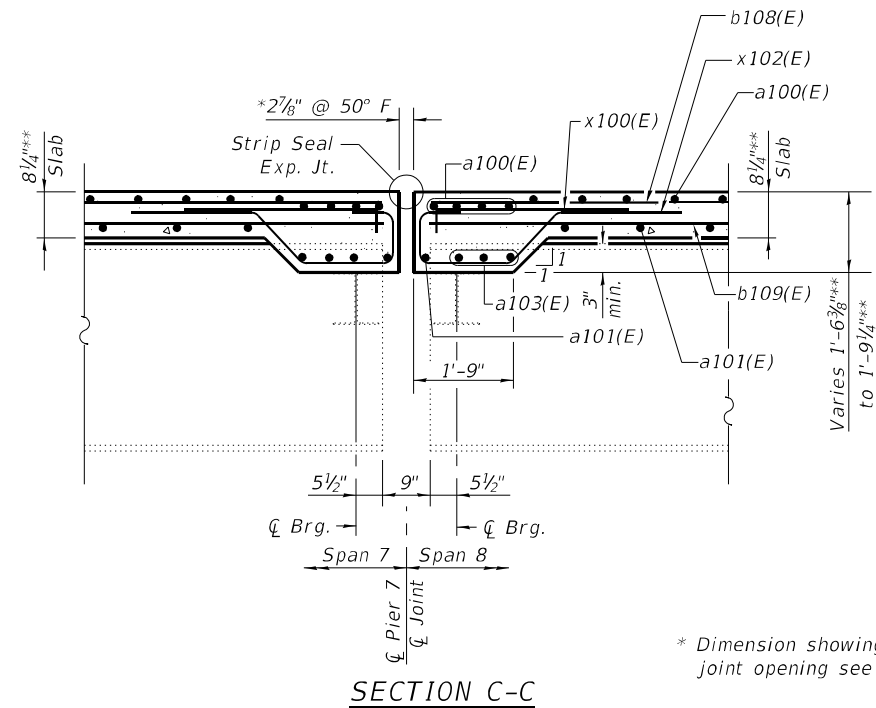
**SUPERSTRUCTURE DETAILS (UNIT 2)  
STRUCTURE NO. 016-2468**

SHEET SA-26 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	140
			CONTRACT NO. 62H49	

ILLINOIS

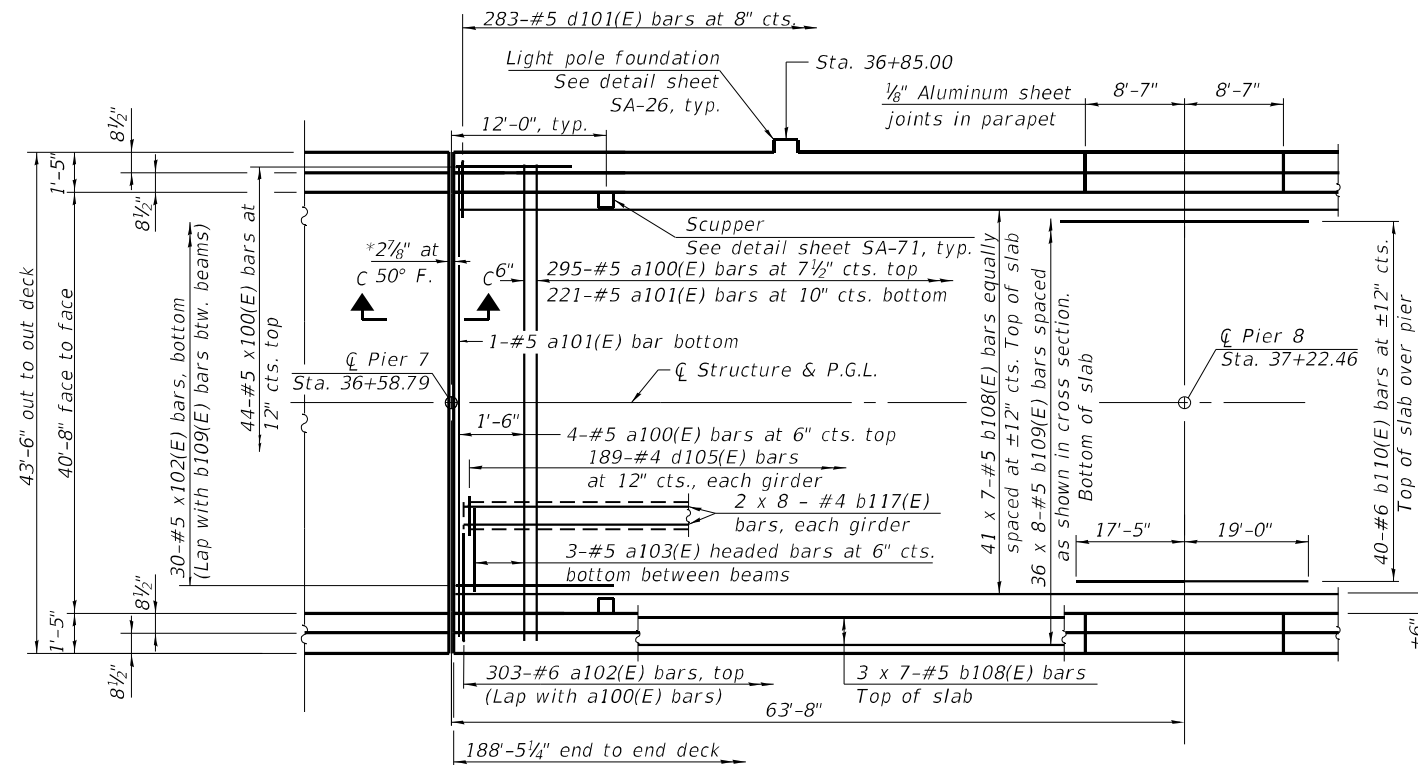




SECTION C-C

\* Dimension showing concrete opening. For joint opening see sheet SA-37.

\*\* Prior to grinding.

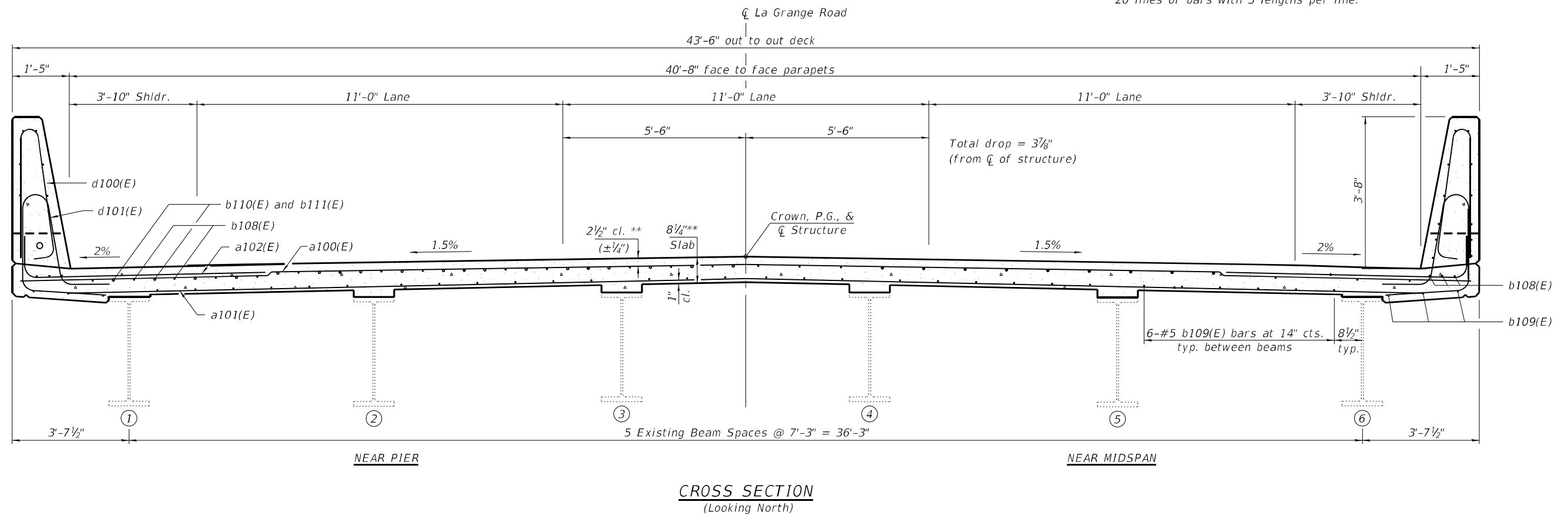


SPAN 8 PLAN

Notes:  
See sheet SA-30 for superstructure details and Bill of Material.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

MINIMUM BAR LAP

#4 bar = 2'-5"  
#5 bar = 3'-6"



CROSS SECTION  
(Looking North)

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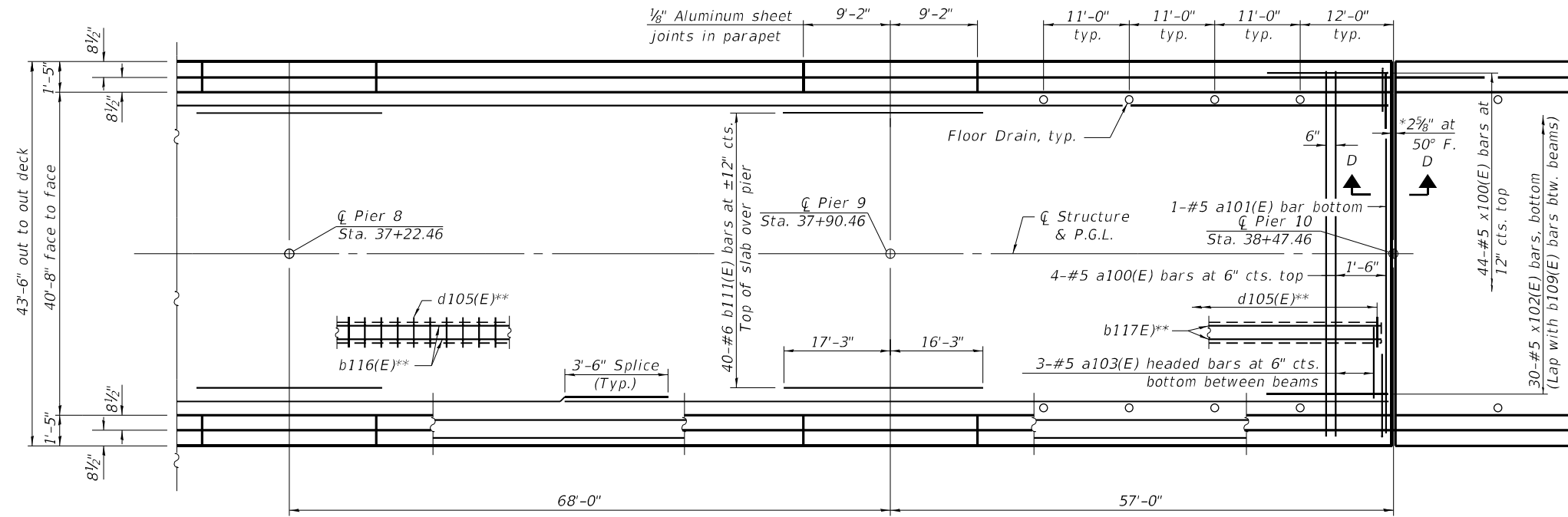
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PLOT DATE = 10/21/2021	DRAWN - LJK	REVISED -
	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
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SUPERSTRUCTURE PLAN I (UNIT 3)  
STRUCTURE NO. 016-2468

SHEET SA-27 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 141
ILLINOIS			CONTRACT NO. 62H49	



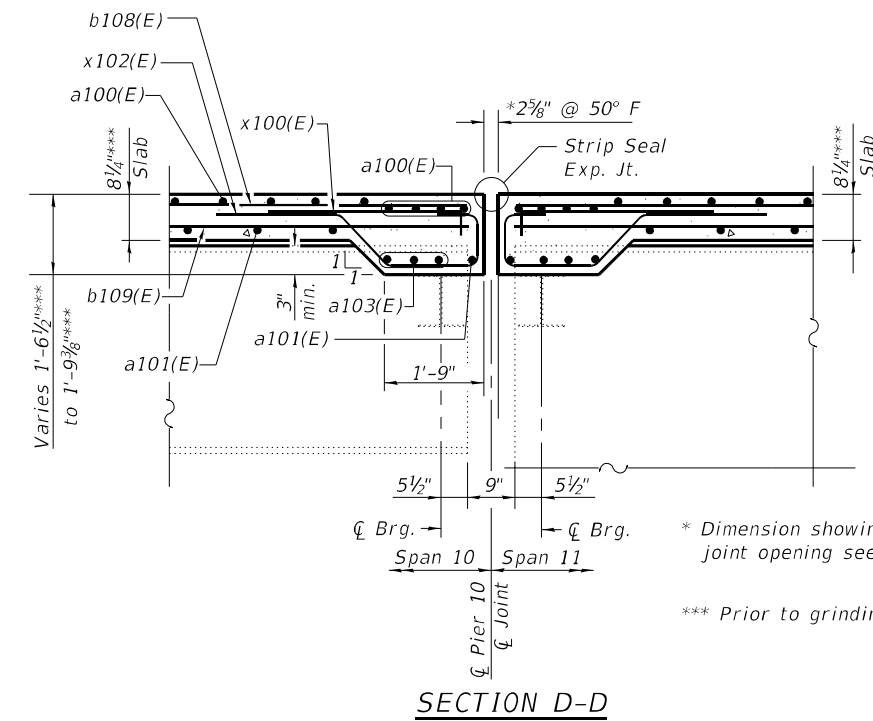
\*\* See previous sheet for spacing and limits of fillet reinforcement typ. each girder

**SPAN 9 PLAN**

**SPAN 10 PLAN**

**MINIMUM BAR LAP**

#4 bar = 2'-5"  
#5 bar = 3'-6"



Notes:  
See sheet SA-30 for superstructure details and Bill of Material.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

\* Dimension showing concrete opening. For joint opening see sheet SA-37.

\*\*\* Prior to grinding.

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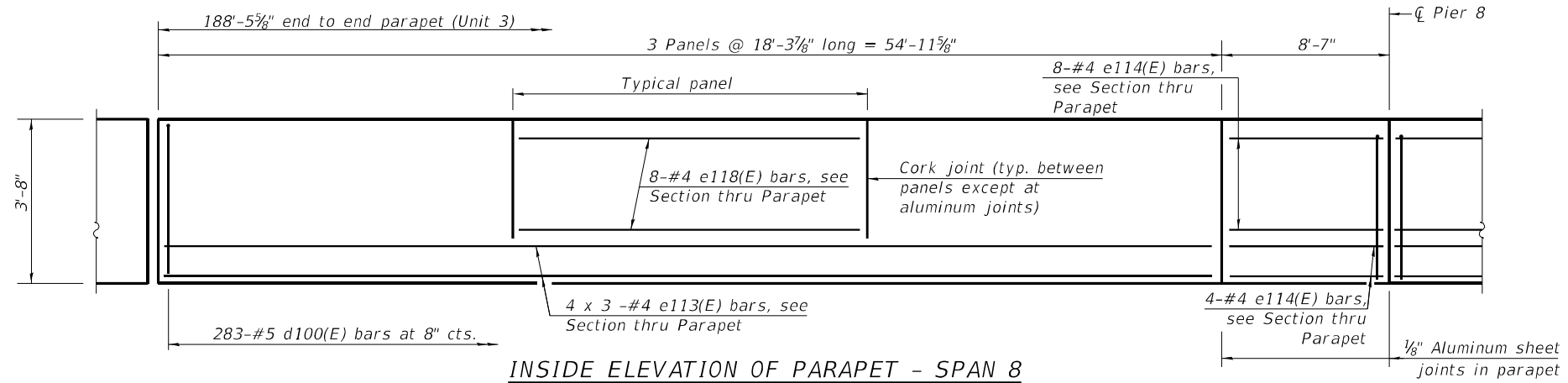
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	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

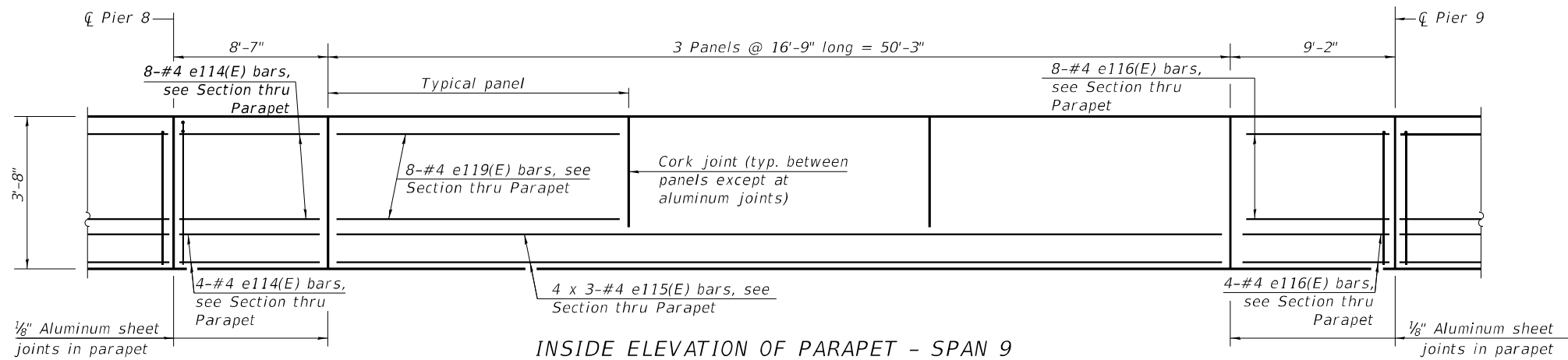
SUPERSTRUCTURE PLAN II (UNIT 3)  
STREET NO. 016-2468

SHEET SA-28 OF SA-73 SHEETS

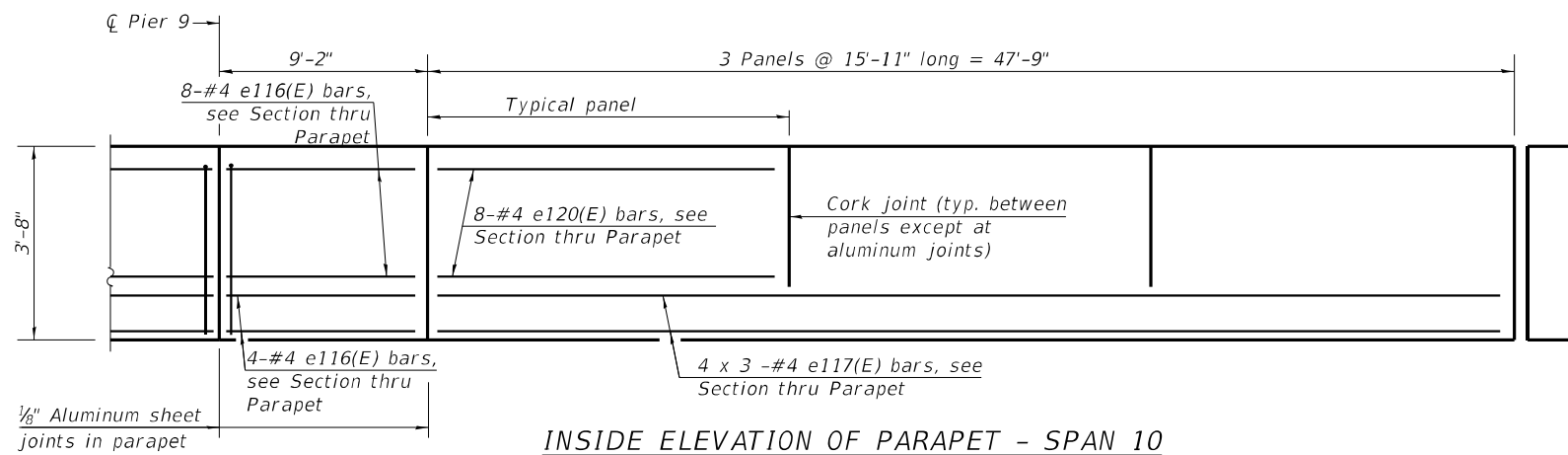
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	142
CONTRACT NO. 62H49			ILLINOIS	



INSIDE ELEVATION OF PARAPET - SPAN 8



INSIDE ELEVATION OF PARAPET - SPAN 9



INSIDE ELEVATION OF PARAPET - SPAN 10

MINIMUM BAR LAP  
#4 bar = 2'-5"

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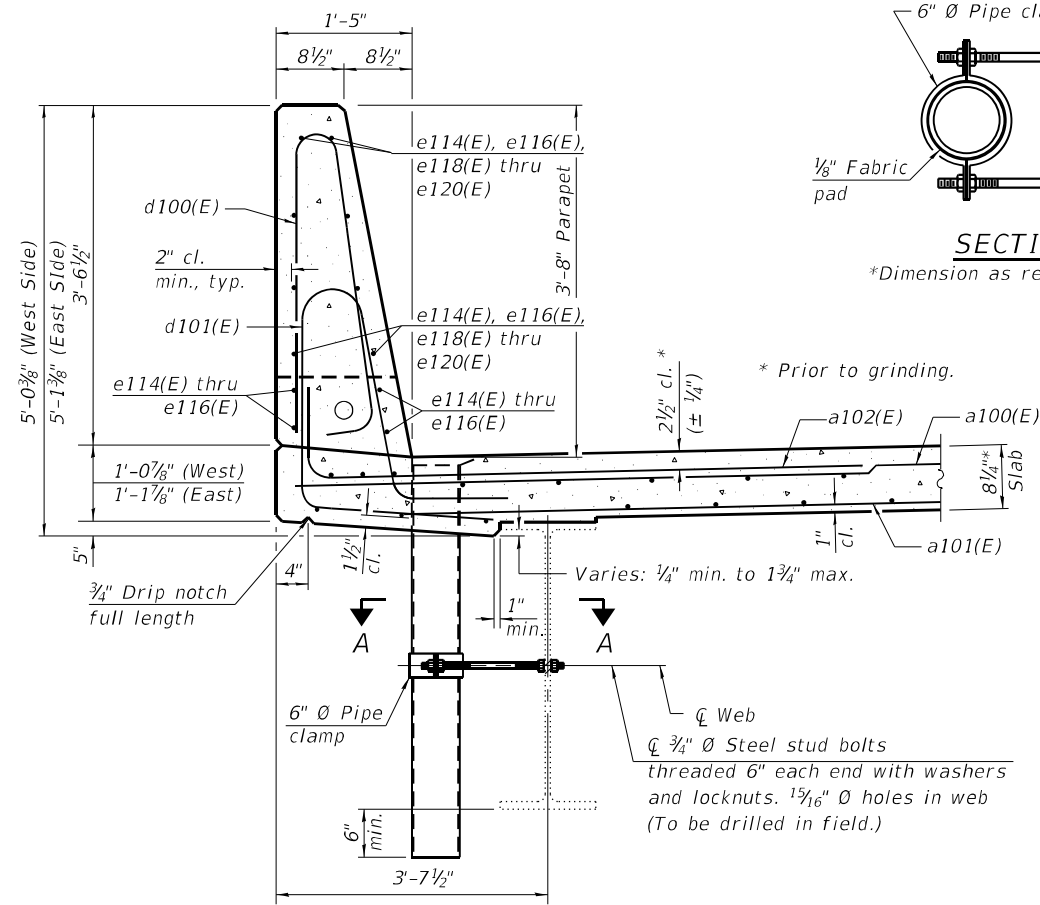


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CHECKED - BLB	REVISIONS -	
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STATE OF ILLINOIS  
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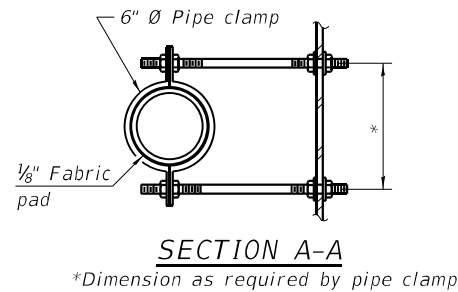
PARAPET ELEVATIONS (UNIT 3)  
STRUCTURE NO. 016-2468  
SHEET SA-29 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	143
CONTRACT NO. 62H49			ILLINOIS	



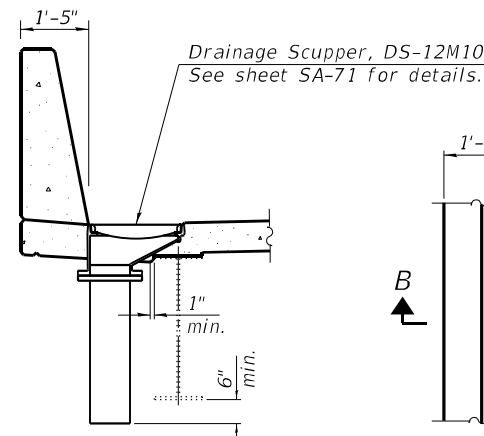
**SECTION THRU PARAPET**

Note:  
See Section Thru Parapet on Sheet 34 of 73 for Scupper details.



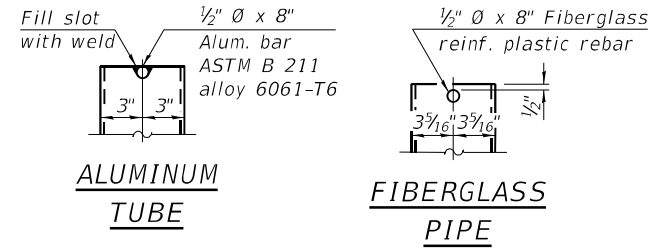
**SECTION A-A**

\*Dimension as required by pipe clamp



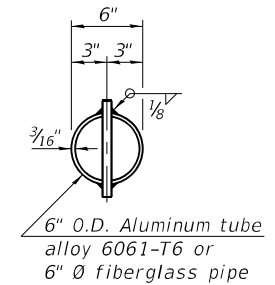
**SECTION B-B**

Note:  
Cut longitudinal reinforcement to clear drainage scuppers.  
Drain shall be located clear of all diaphragms.  
See Section Thru Parapet for details.

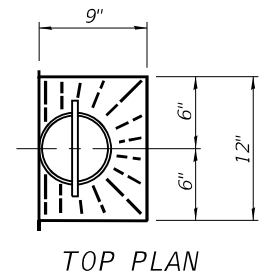


**ALUMINUM TUBE**

**FIBERGLASS PIPE**



**TOP PLAN**  
(Showing aluminum tube)



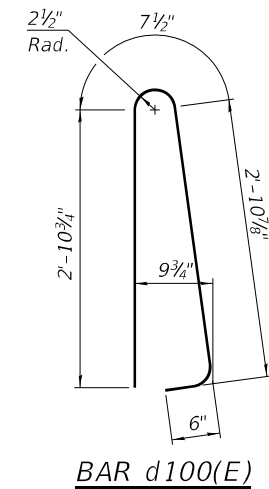
**TOP PLAN**

**UNIT 3 SUPERSTRUCTURE BILL OF MATERIAL**

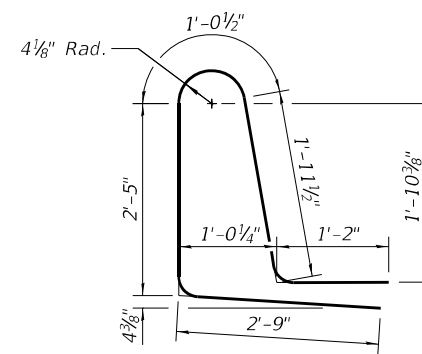
Bar	No.	Size	Length	Shape
a100(E)	303	#5	43'-2"	—
a101(E)	223	#5	41'-4"	—
a102(E)	606	#6	8'-4"	—
a103(E)	30	#5	6'-10"	—
a104(E)	12	#5	4'-0"	—
b108(E)	329	#5	29'-11"	—
b109(E)	288	#5	26'-7"	—
b110(E)	40	#6	36'-7"	—
b111(E)	40	#6	33'-6"	—
b117(E)	96	#4	25'-8"	—
d100(E)	566	#5	7'-0"	—
d101(E)	566	#5	9'-4"	—
**d103(E)	3	#6	5'-3"	—
**d104(E)	6	#6	8'-11"	—
d105(E)	1134	#4	3'-11"	—
e113(E)	24	#4	19'-10"	—
e114(E)	48	#4	8'-3"	—
e115(E)	24	#4	18'-3"	—
e116(E)	48	#4	8'-10"	—
e117(E)	24	#4	17'-5"	—
e118(E)	48	#4	17'-11"	—
e119(E)	48	#4	16'-5"	—
e120(E)	48	#4	15'-6"	—
x100(E)	88	#5	4'-2"	—
x102(E)	60	#5	7'-4"	—
Reinforcement Bars, Epoxy Coated		Lbs.		71,810
Concrete Superstructure		Cu. Yds.		305.2
Protective Coat		Sq. Yds.		1,037
Bridge Deck Grooving (Longitudinal)		Sq. Yds.		692
Diamond Grinding (Bridge Section)		Sq. Yds.		769

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

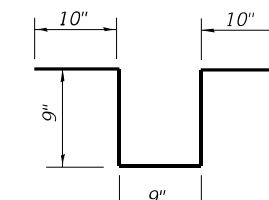
\*\* See sheet SA-26 for light pole foundation details, bar d103(E) and bar d104(E) details.



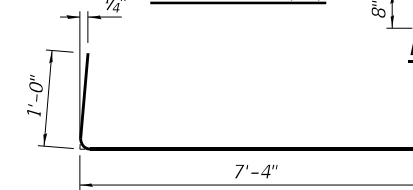
**BAR d100(E)**



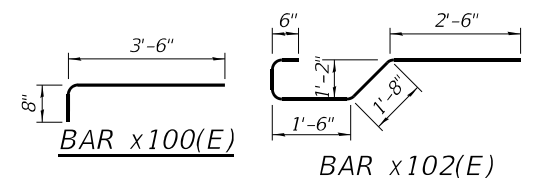
**BAR d101(E)**



**BAR d105(E)**



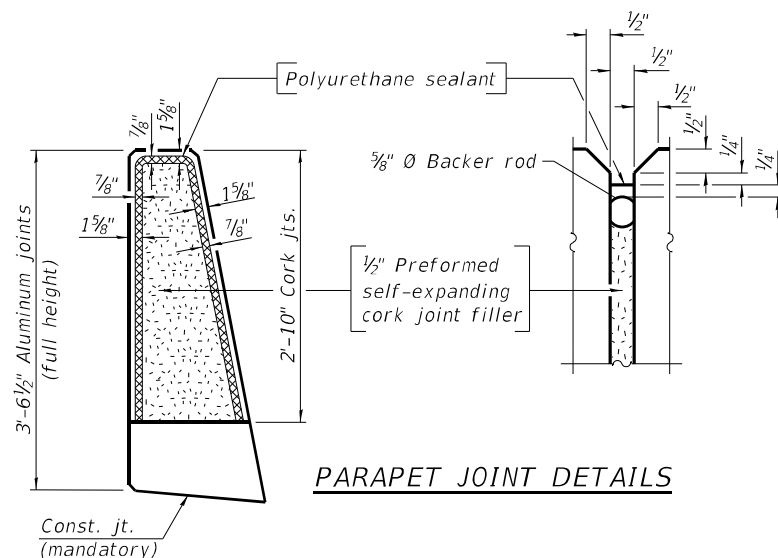
**BAR a102(E)**



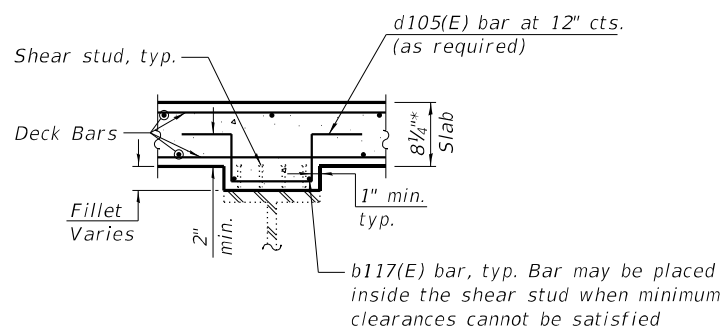
**BAR x100(E)**

**BAR x102(E)**

**BAR a103(E)**  
(Headed)



**PARAPET JOINT DETAILS**



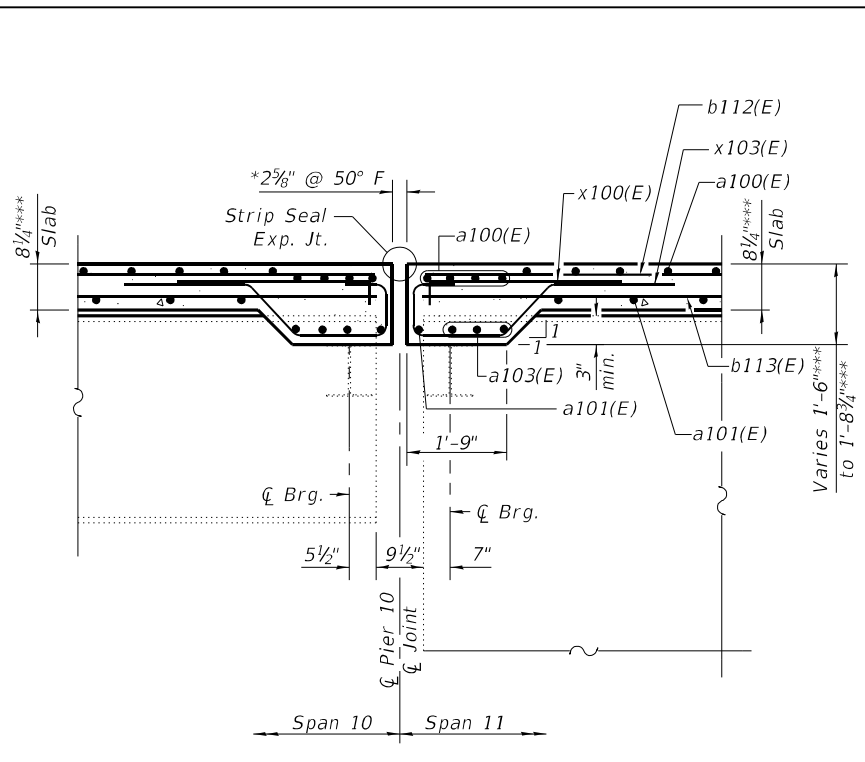
**FILLET REINFORCEMENT DETAIL**  
(When fillet height exceeds 6 inches)

Notes:  
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.  
The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings' Spec. SSPC-SP1 prior to painting.  
The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.  
The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.  
The 1/8" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.  
The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.  
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

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PLOT DATE = 10/21/2021	DRAWN - LJK	REVISED -
	DATE - 10/21/2021	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	144
ILLINOIS			CONTRACT NO. 62H49	



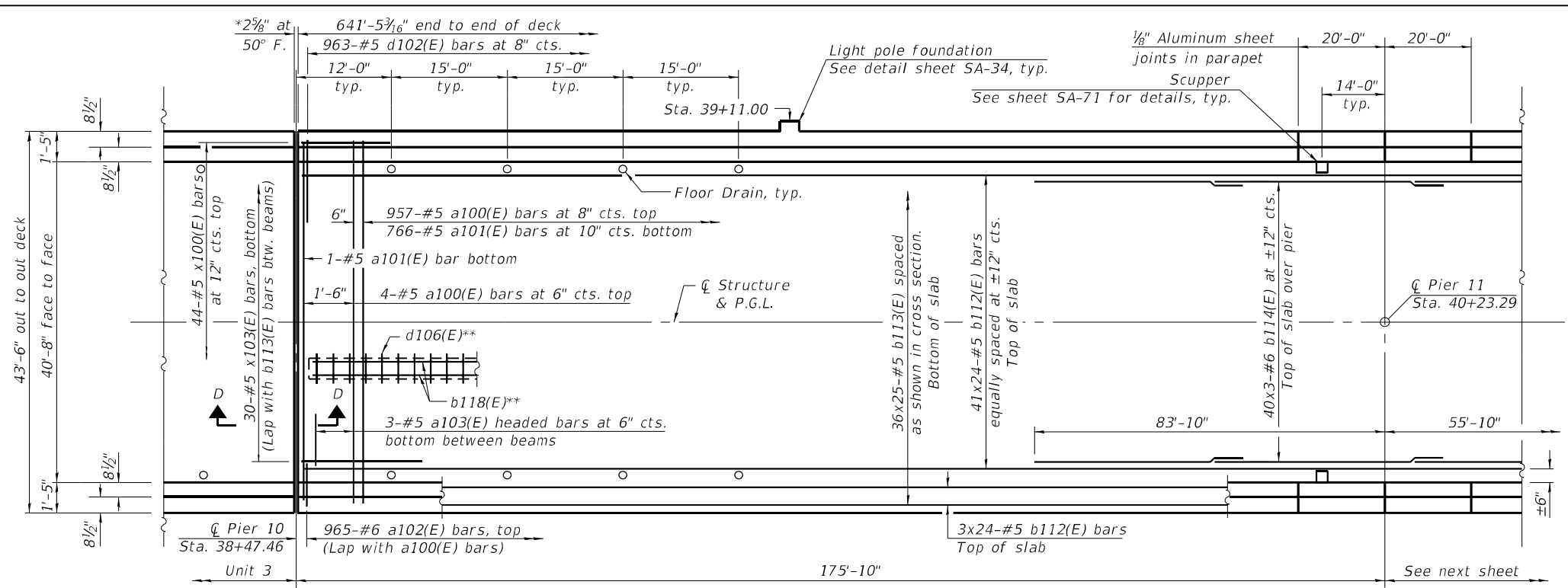
**SECTION D-D**

**MINIMUM BAR LAP**

#5 bar = 3'-6"  
#6 bar = 4'-5"

\* Dimension showing concrete opening. For joint opening see sheet SA-37.

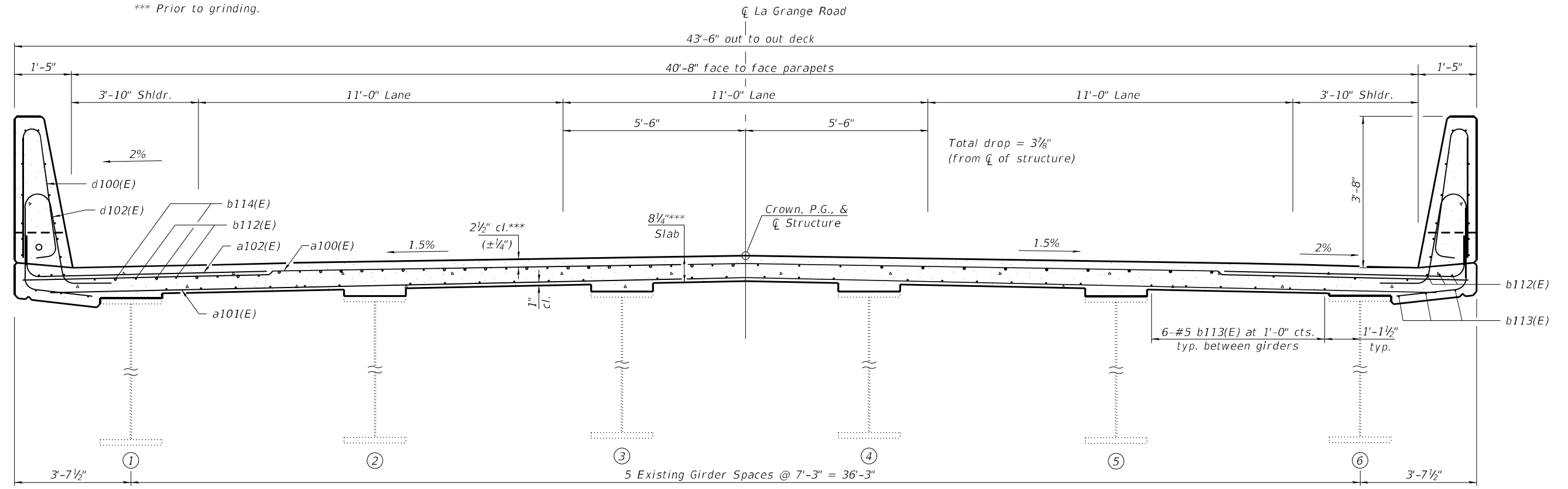
\*\*\* Prior to grinding.



**SPAN 11 PLAN**

\*\* See next sheet for spacing and limits of fillet reinforcement typ. each girder

Notes:  
See sheet SA-34 for superstructure details and Bill of Material.  
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



**CROSS SECTION  
UNIT 4 (SPANS 11-13)  
(Looking North)**

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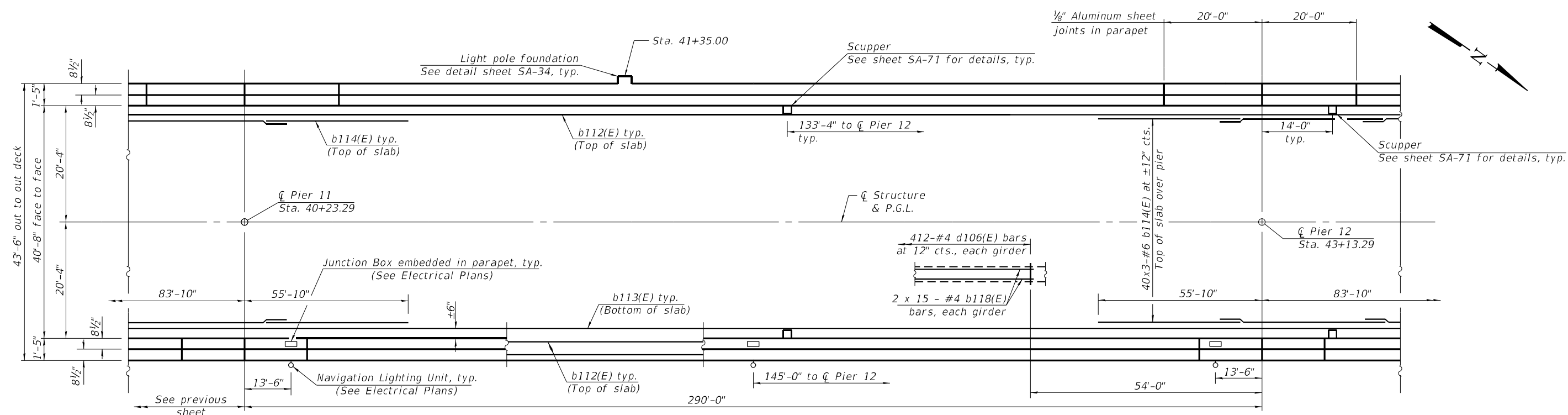
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	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
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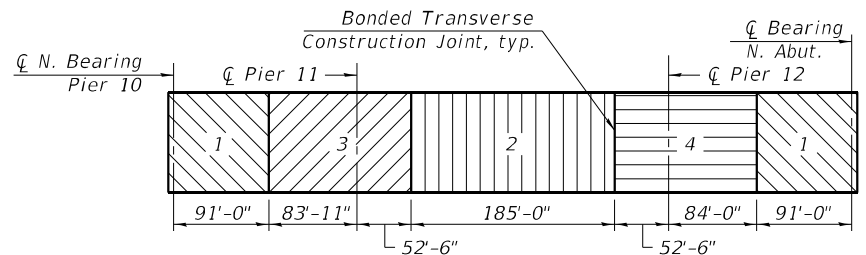
**SUPERSTRUCTURE PLAN I (UNIT 4)  
STRUCTURE NO. 016-2468**

SHEET SA-31 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 145
ILLINOIS			CONTRACT NO. 62H49	



**SPAN 12 PLAN**



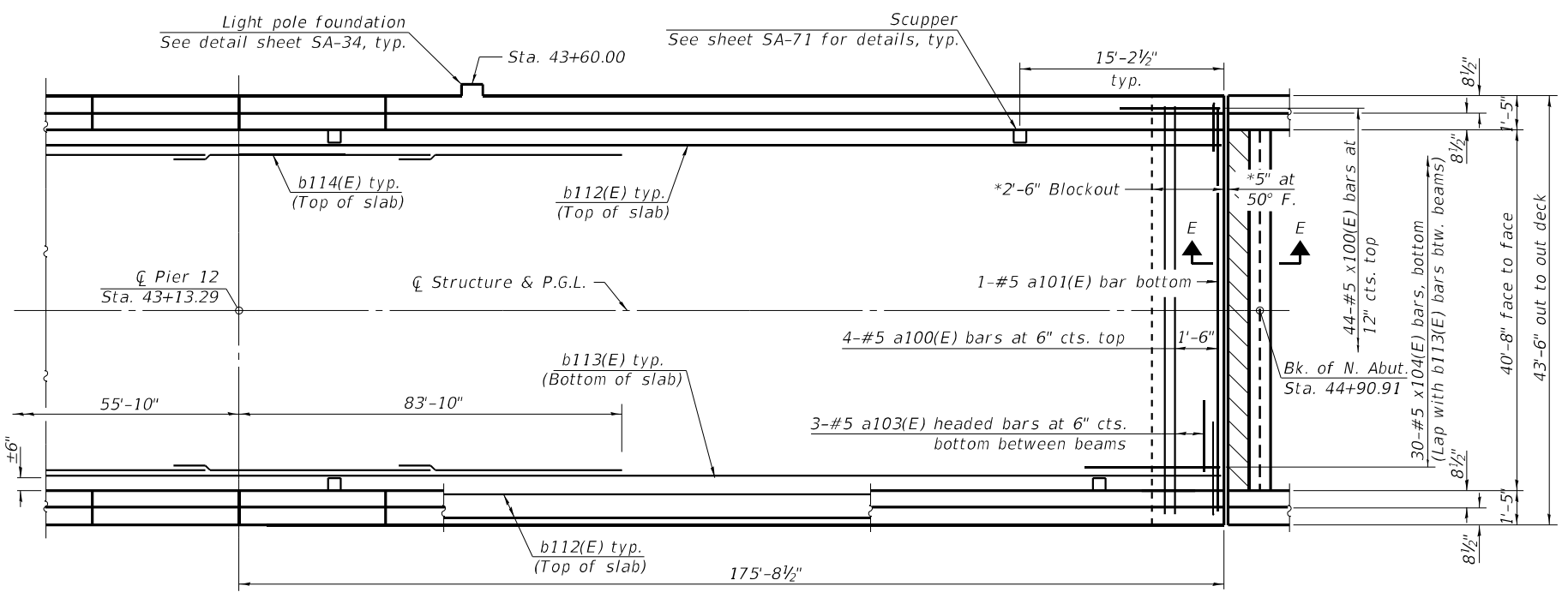
**DECK POUR SEQUENCE**

**Notes:**  
 1. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:  
 a. At least 72 hours shall have elapsed from the end of the previous pour.  
 b. The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.  
 2. Transverse joints are mandatory.  
 3. The dead load deflections shown on Sheets SA-12 to SA-16 of SA-77 were developed based on the deck pouring sequence shown. Any deviation from this pouring sequence will result in changes to deck elevations. If the Contractor wishes to change the sequence, then the proposed plan revisions and design calculations, prepared by an Illinois Licensed Structural Engineer, shall be submitted to the Engineer for review and approval.

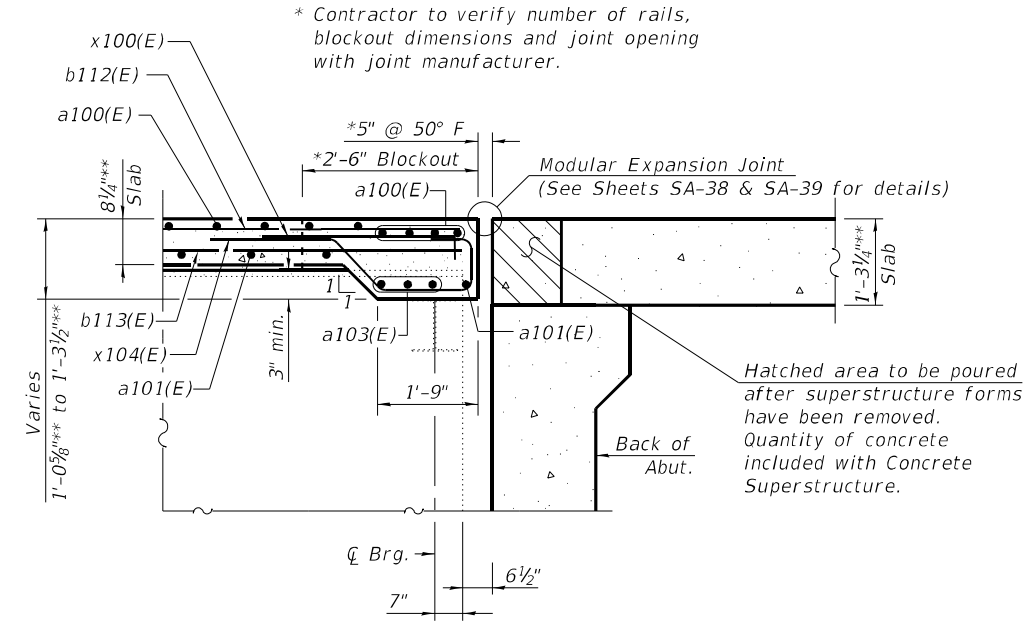
**MINIMUM BAR LAP**

- #4 bar = 2'-5"
- #5 bar = 3'-6"
- #6 bar = 4'-5"

**Notes:**  
 See sheet SA-34 for superstructure details and Bill of Material.  
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.  
 Bars a100(E), a101(E), a103(E), & b113(E) may be cut to fit, and bars x100(E) and x104(E) may be adjusted as required at support boxes and beam webs to place Modular Expansion Joint.



**SPAN 13 PLAN**



**SECTION E-E**

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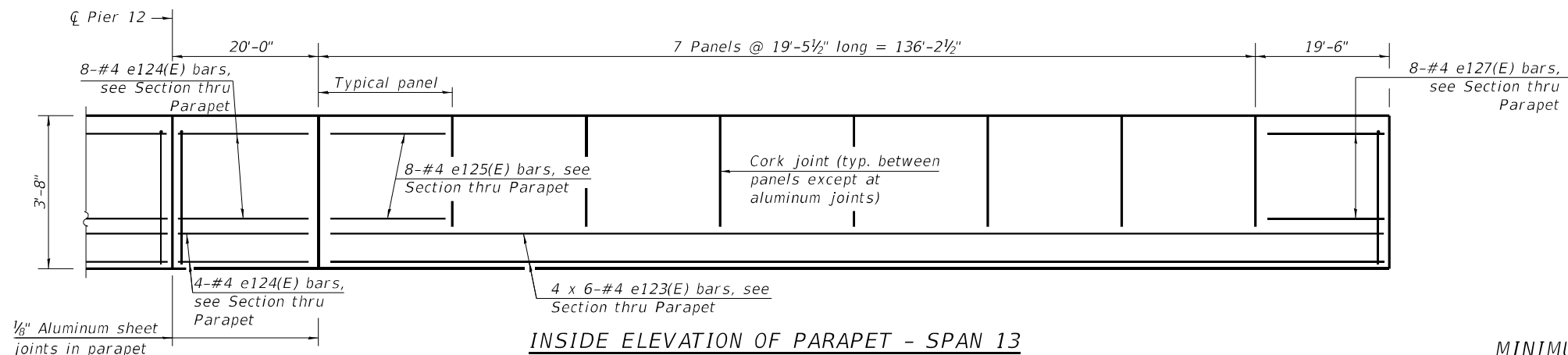
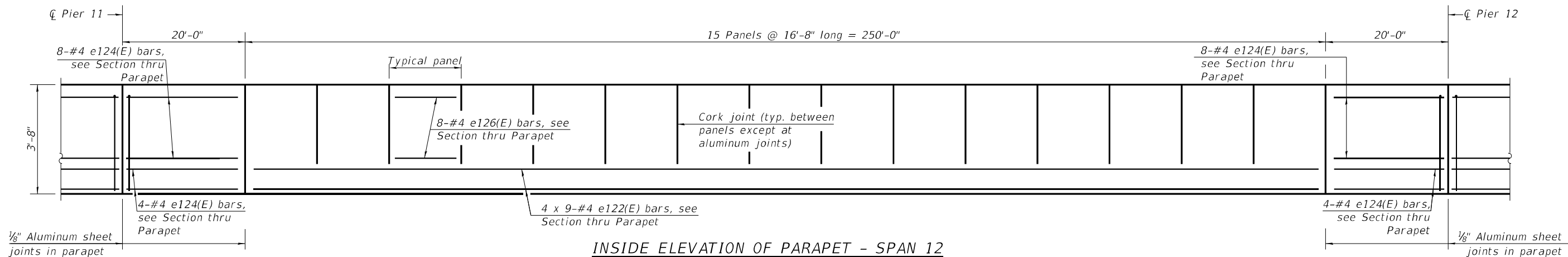
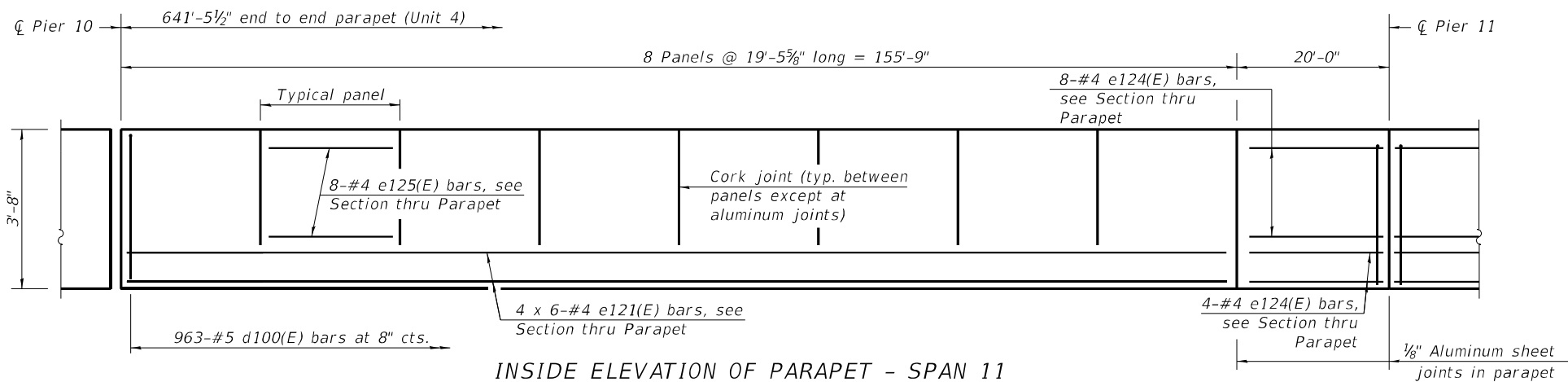
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PLOT DATE = 10/21/2021	DRAWN - LJK	REVISED -
	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN II (UNIT 4)  
 STRUCTURE NO. 016-2468**

SHEET SA-32 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 146
ILLINOIS			CONTRACT NO. 62H49	



**MINIMUM BAR LAP**  
#4 bar = 2'-5"

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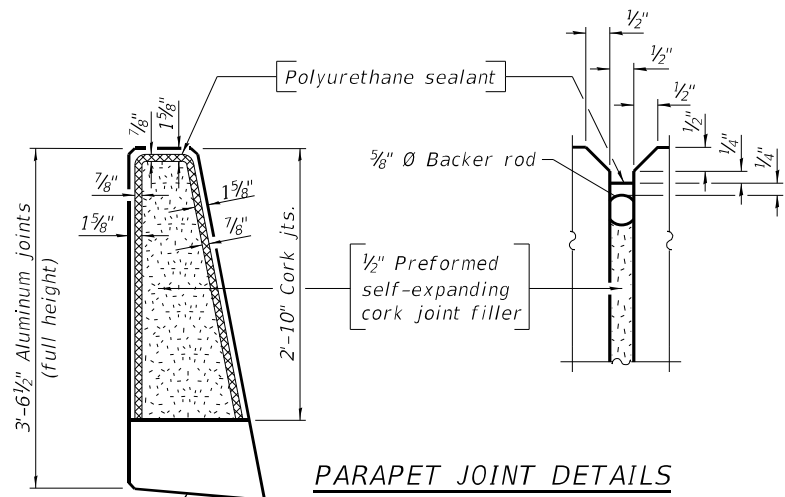
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PLOT DATE = 10/21/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

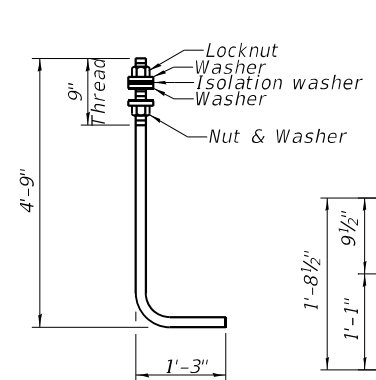
**PARAPET ELEVATIONS (UNIT 4)  
STRUCTURE NO. 016-2468**

SHEET SA-33 OF SA-73 SHEETS

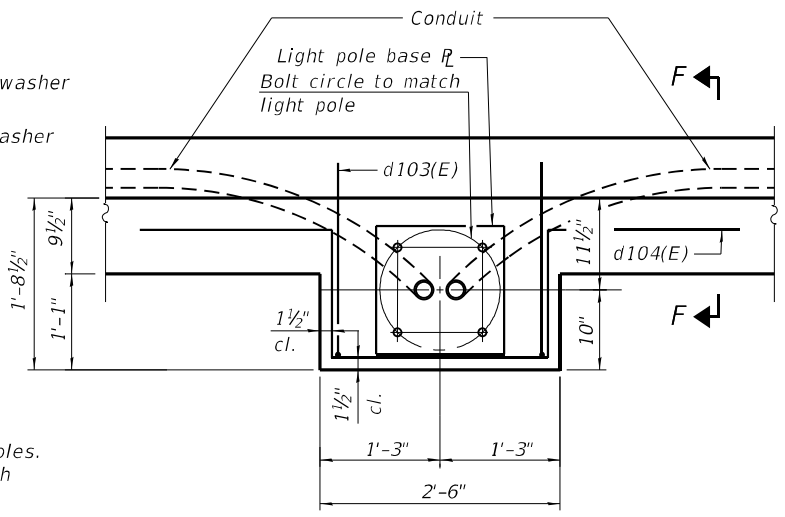
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	147
CONTRACT NO. 62H49			ILLINOIS	



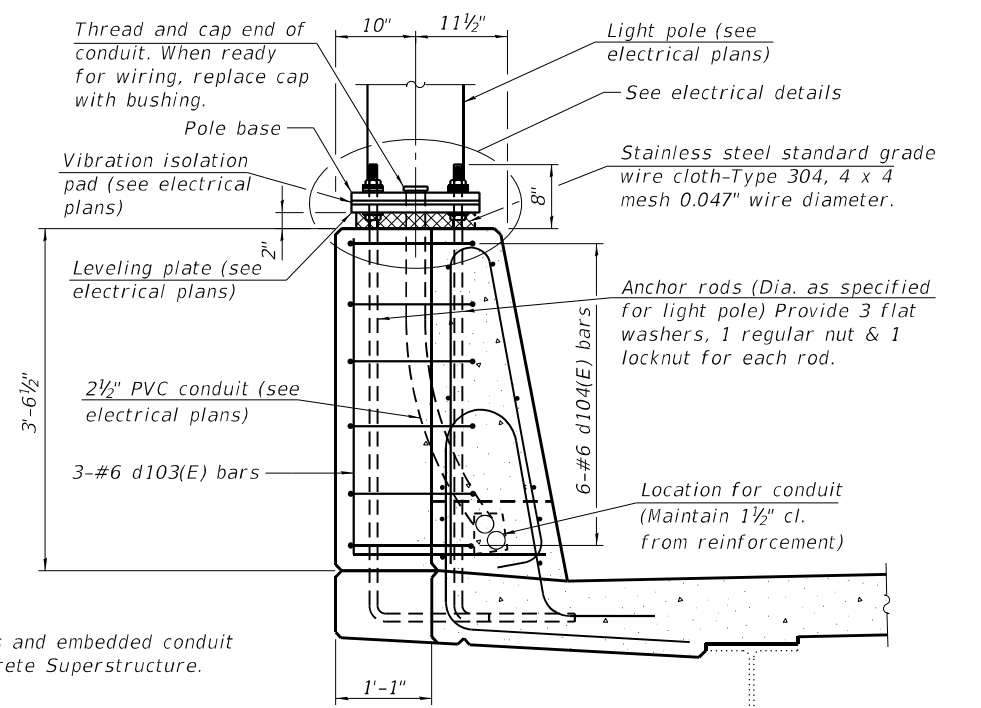
**PARAPET JOINT DETAILS**



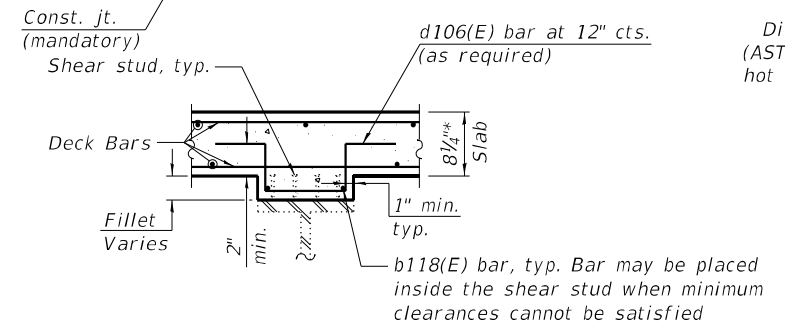
**ANCHOR ROD**



**PLAN**

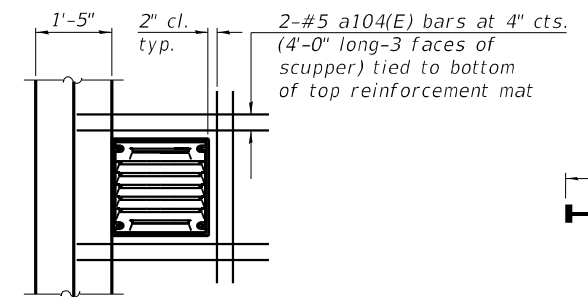


**SECTION F-F**



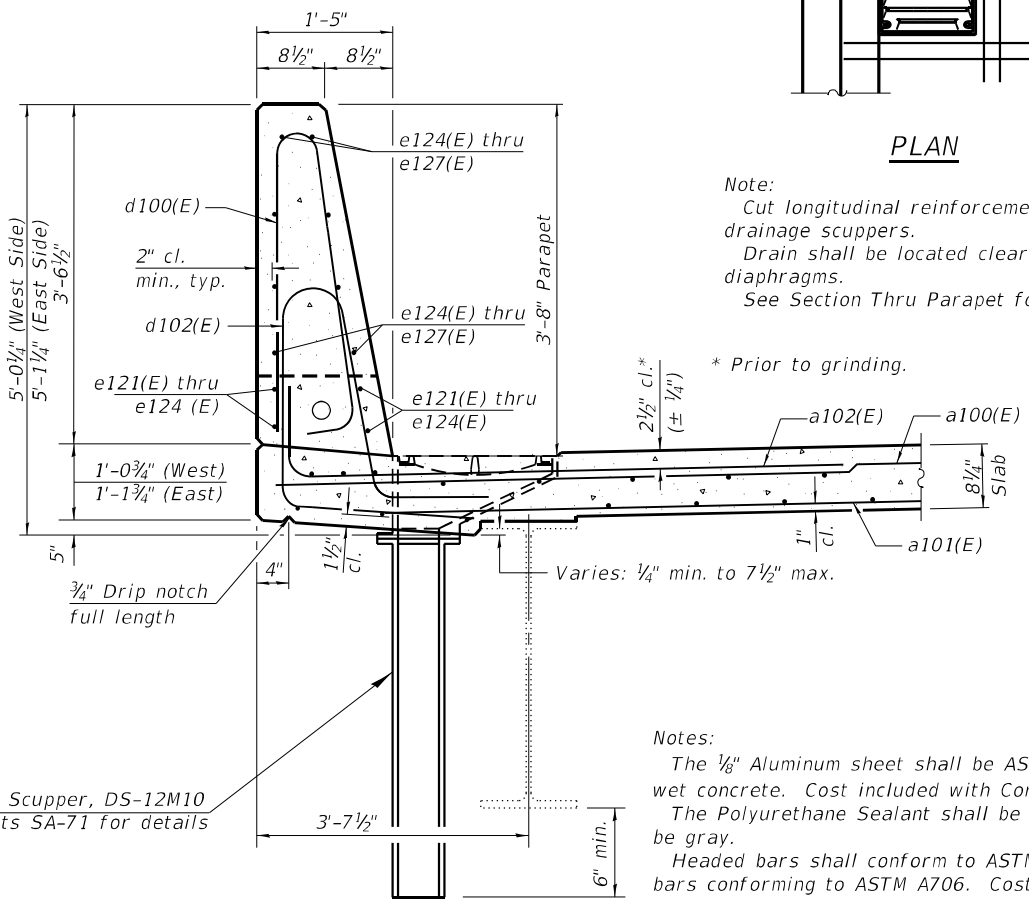
**FILLET REINFORCEMENT DETAIL**

(When fillet height exceeds 6 inches)



**PLAN**

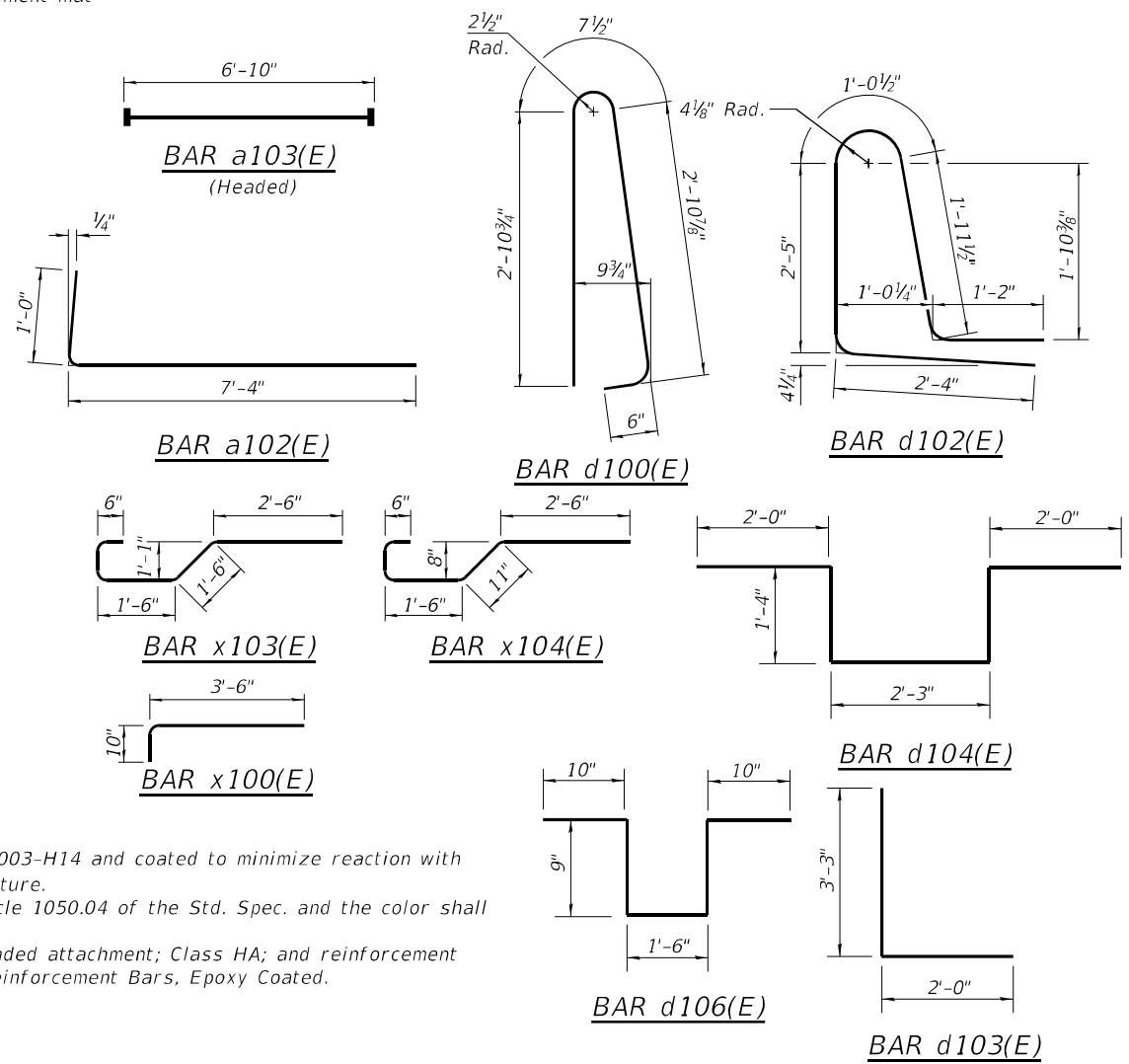
Note:  
Cut longitudinal reinforcement to clear drainage scuppers.  
Drain shall be located clear of all diaphragms.  
See Section Thru Parapet for details.



**SECTION THRU PARAPET**

Note:  
See Section Thru Parapet on Sheet 30 of 73 for Floor Drain details.

**LIGHT POLE DETAILS**



**UNIT 4 SUPERSTRUCTURE BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a100(E)	965	#5	43'-2"	—
a101(E)	766	#5	41'-4"	—
a102(E)	1930	#6	8'-4"	—
a103(E)	30	#5	6'-10"	—
a104(E)	48	#5	4'-0"	—
b112(E)	1128	#5	30'-1"	—
b113(E)	900	#5	29'-0"	—
b114(E)	240	#6	48'-1"	—
b118(E)	180	#4	29'-9"	—
d100(E)	1926	#5	7'-0"	—
d102(E)	1926	#5	8'-11"	—
d103(E)	9	#5	5'-3"	—
d104(E)	18	#5	8'-11"	—
d106(E)	2472	#4	4'-8"	—
e121(E)	48	#4	27'-11"	—
e122(E)	72	#4	29'-11"	—
e123(E)	48	#4	24'-8"	—
e124(E)	96	#4	19'-9"	—
e125(E)	240	#4	19'-2"	—
e126(E)	240	#4	16'-5"	—
e127(E)	16	#4	19'-3"	—
x100(E)	88	#5	4'-4"	—
x103(E)	30	#5	7'-1"	—
x104(E)	30	#5	6'-1"	—

Material	Quantity	Unit
Reinforcement Bars, Epoxy Coated	235,580	Lbs.
Concrete Superstructure	1037.9	Cu. Yds.
Protective Coat	3,535	Sq. Yds.
Bridge Deck Grooving (Longitudinal)	2,360	Sq. Yds.
Diamond Grinding (Bridge Section)	2,622	Sq. Yds.

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

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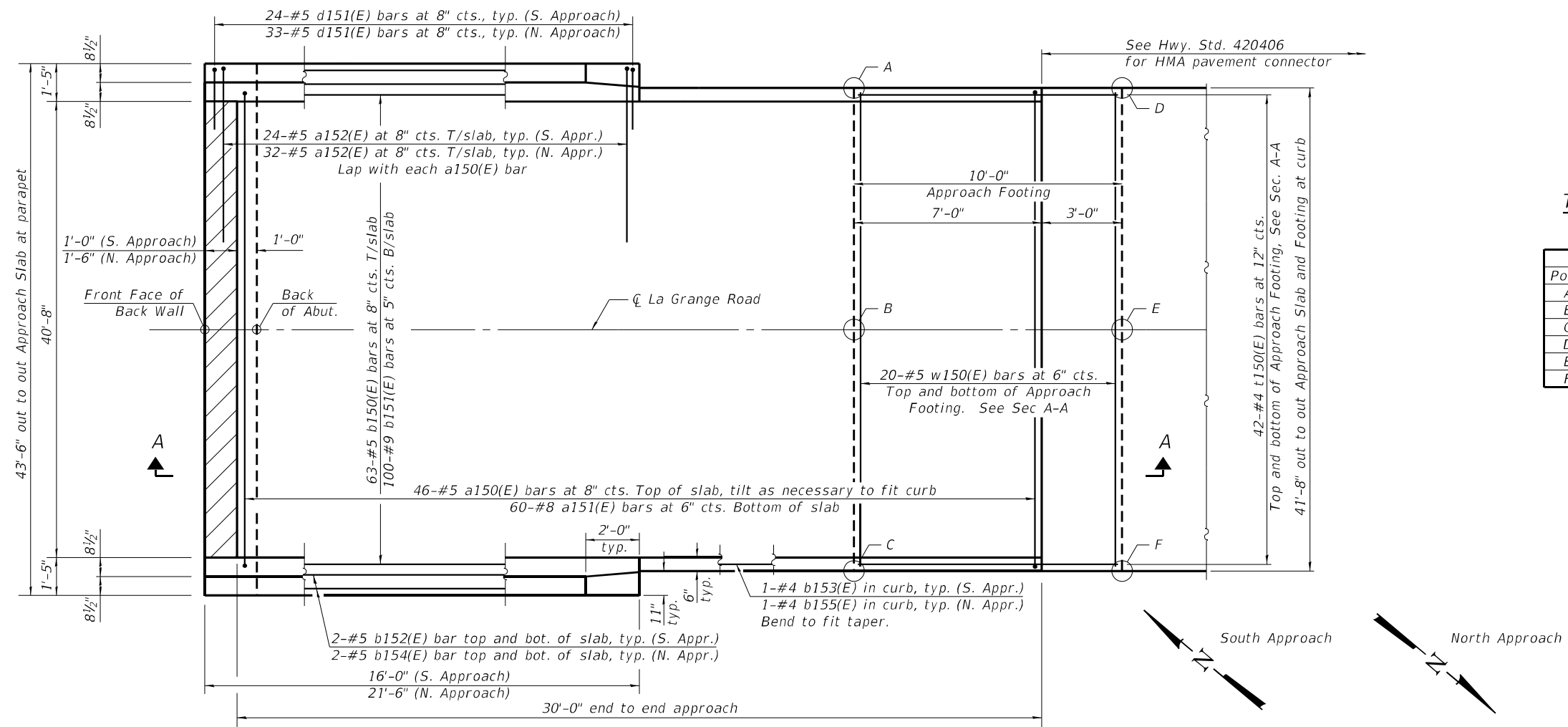
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS (UNIT 4) STRUCTURE NO. 016-2468**

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330	2018-133-BR	COOK	308	148

SHEET SA-34 OF SA-73 SHEETS

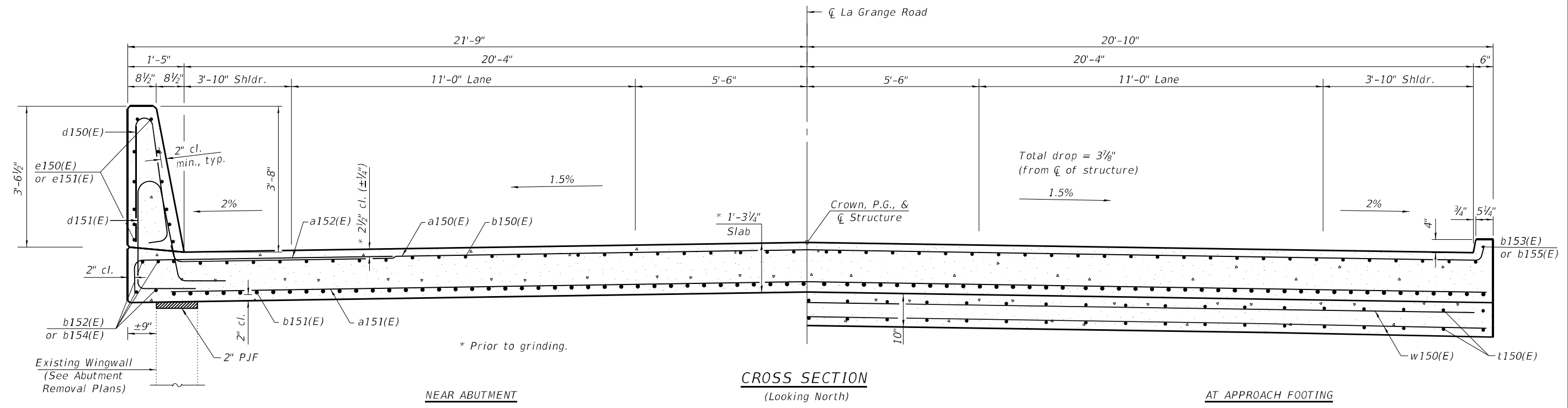




TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	South Approach		North Approach	
	Top	Bottom	Top	Bottom
A	617.45	616.62	623.73	622.89
B	617.79	616.96	624.07	623.23
C	617.45	616.62	623.73	622.89
D	618.33	617.50	623.38	622.54
E	618.67	617.83	623.71	622.88
F	618.33	617.50	623.38	622.54

PLAN



NEAR ABUTMENT

CROSS SECTION (Looking North)

AT APPROACH FOOTING

(Sheet 1 of 2)

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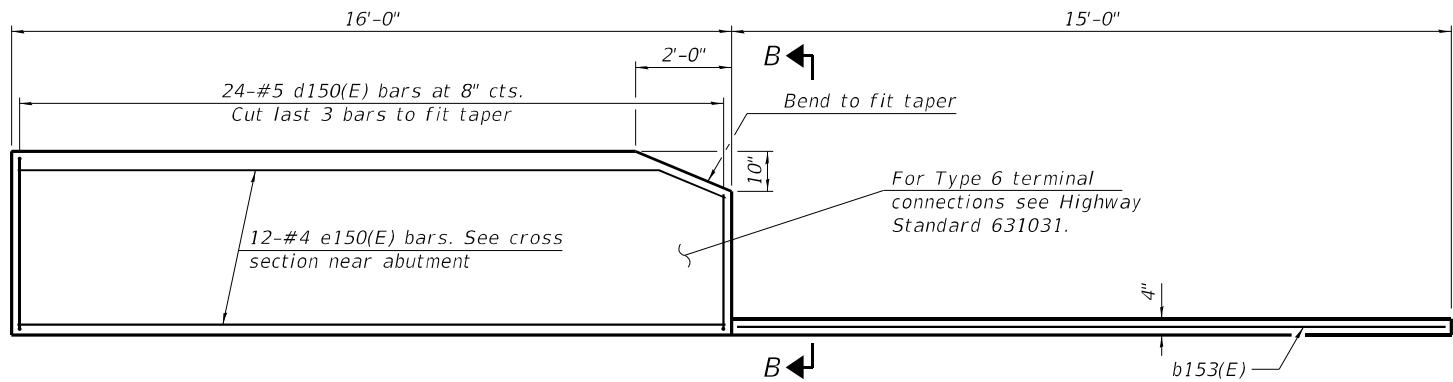
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DEPARTMENT OF TRANSPORTATION

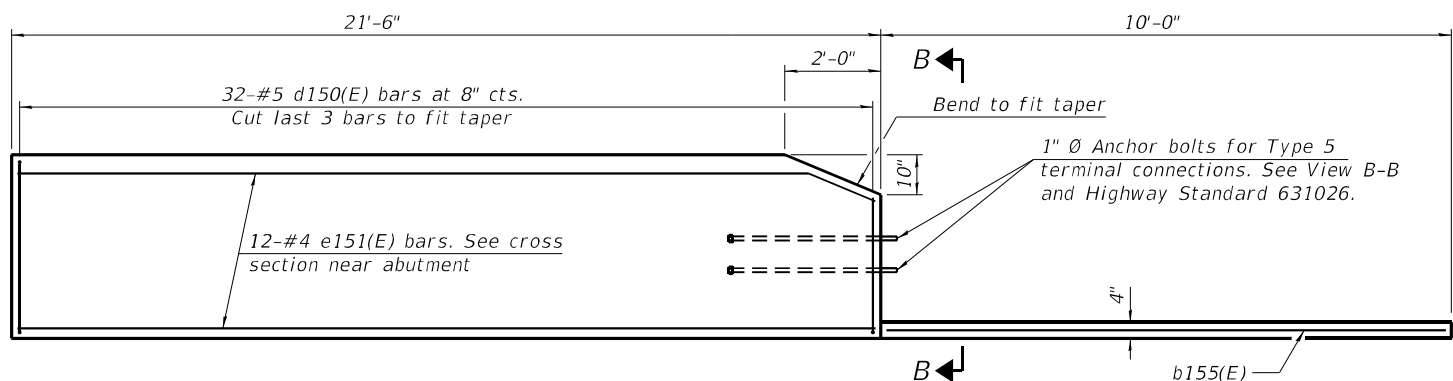
BRIDGE APPROACH SLAB DETAILS (1 OF 2)  
STRUCTURE NO. 016-2468

SHEET SA-35 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 149
CONTRACT NO. 62H49			ILLINOIS	

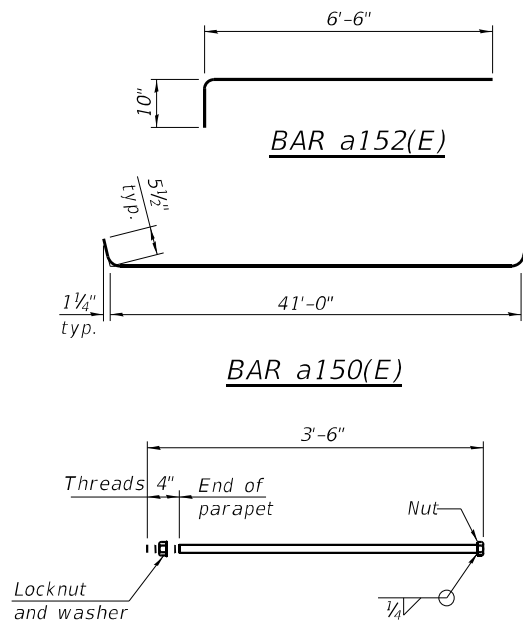


INSIDE ELEVATION OF PARAPET AND CURB (S. APPROACH)

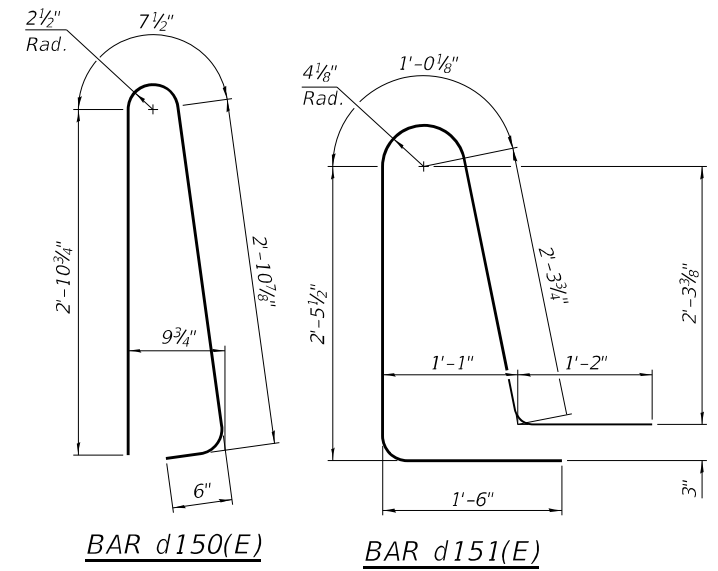


INSIDE ELEVATION OF PARAPET AND CURB (N. APPROACH)

Notes:  
 Parapet concrete shall be paid for as Concrete Superstructure.  
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).  
 Approach footing concrete shall be paid for as Concrete Structures.  
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see Sheet SA-3.

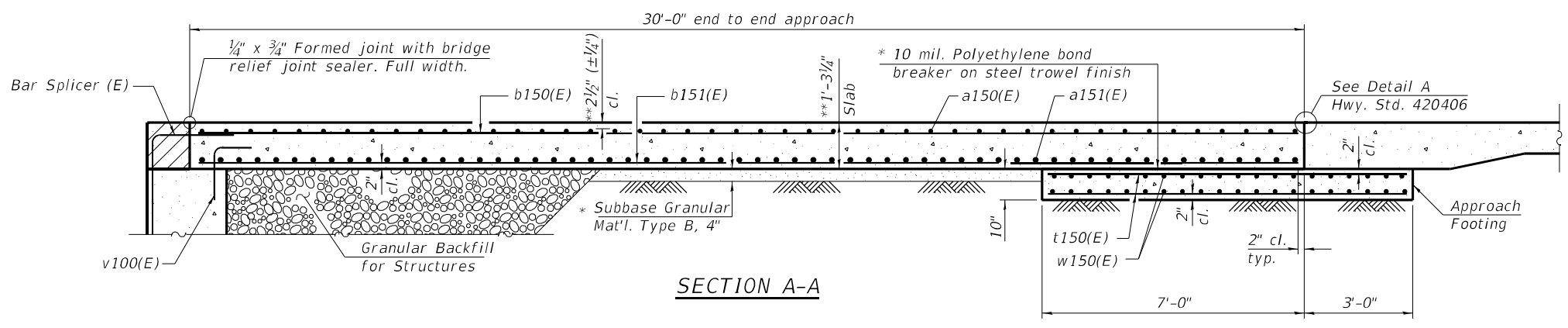


\*1" Ø ANCHOR BOLT  
 (Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)



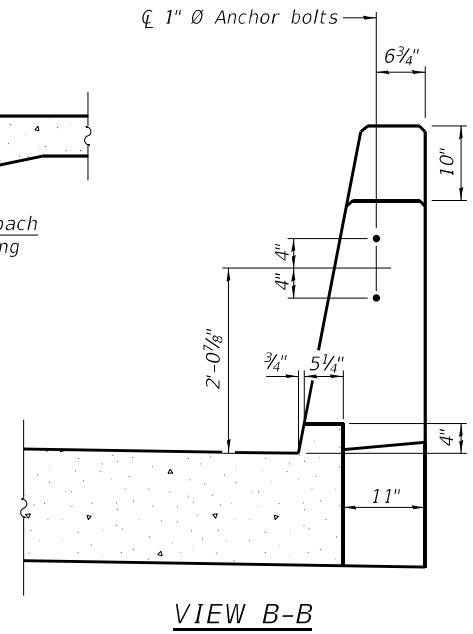
TWO APPROACHES  
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a150(E)	92	#5	41'-11"	—
a151(E)	120	#8	41'-4"	—
a152(E)	114	#5	7'-4"	—
b150(E)	126	#5	29'-8"	—
b151(E)	200	#9	29'-8"	—
b152(E)	8	#5	15'-8"	—
b153(E)	2	#4	14'-8"	—
b154(E)	8	#5	21'-2"	—
b155(E)	2	#4	9'-6"	—
d150(E)	112	#5	7'-0"	—
d151(E)	112	#5	8'-6"	—
e150(E)	24	#4	15'-8"	—
e151(E)	24	#4	21'-2"	—
t150(E)	168	#4	9'-8"	—
w150(E)	80	#5	41'-4"	—
Concrete Superstructure		Cu. Yd.	10.6	
Concrete Superstructure (Approach Slab)		Cu. Yd.	121.6	
Concrete Structures		Cu. Yd.	25.7	
Reinforcement Bars, Epoxy Coated		Pound	49,490	
Protective Coat		Sq. Yd.	309	
Bridge Deck Grooving (Longitudinal)		Sq. Yd.	220	
Diamond Grinding (Bridge Section)		Sq. Yd.	326	



SECTION A-A

\* Cost included with Concrete Superstructure (Approach Slab).  
 \*\* Prior to grinding.



VIEW B-B

(Sheet 2 of 2)

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BAIA-CIP-44CS-0 6-15-2019



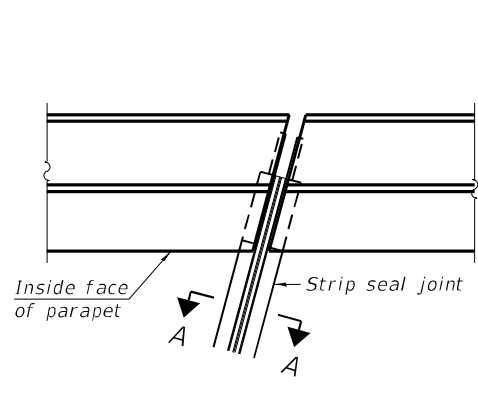
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BRIDGE APPROACH SLAB DETAILS (2 OF 2)  
 STRUCTURE NO. 016-2468

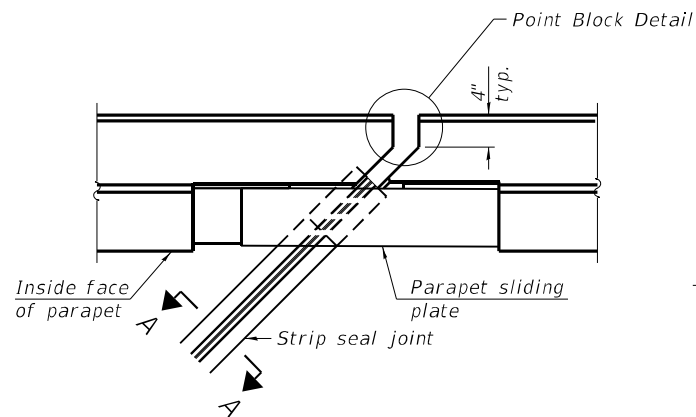
SHEET SA-36 OF SA-73 SHEETS

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CONTRACT NO. 62H49			ILLINOIS	

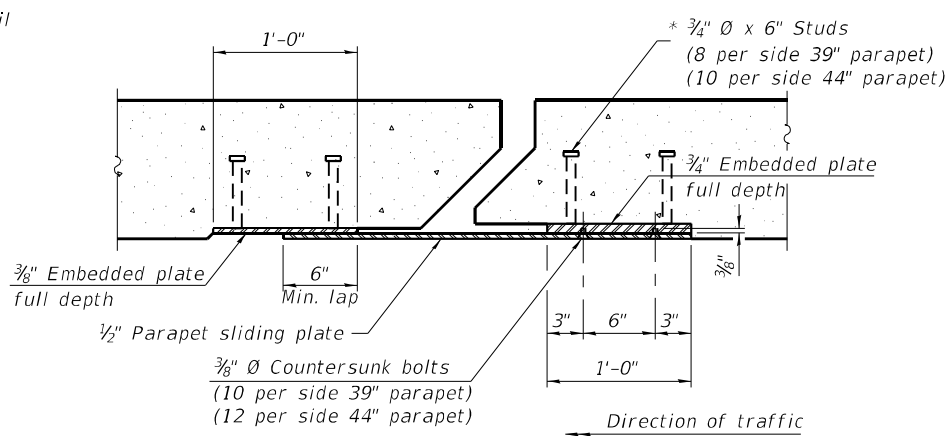


FOR SKEWS  $\leq 30^\circ$

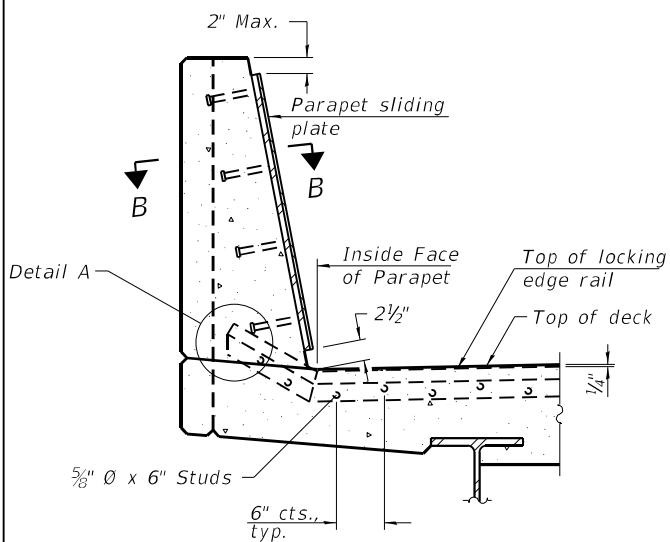
**PLAN AT PARAPET**



FOR SKEWS  $> 30^\circ$

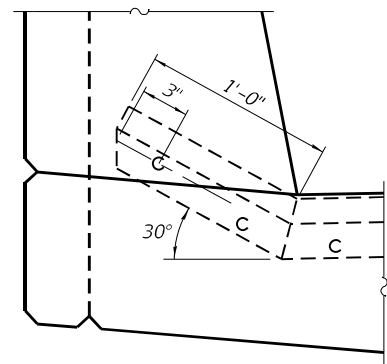


**SECTION B-B**

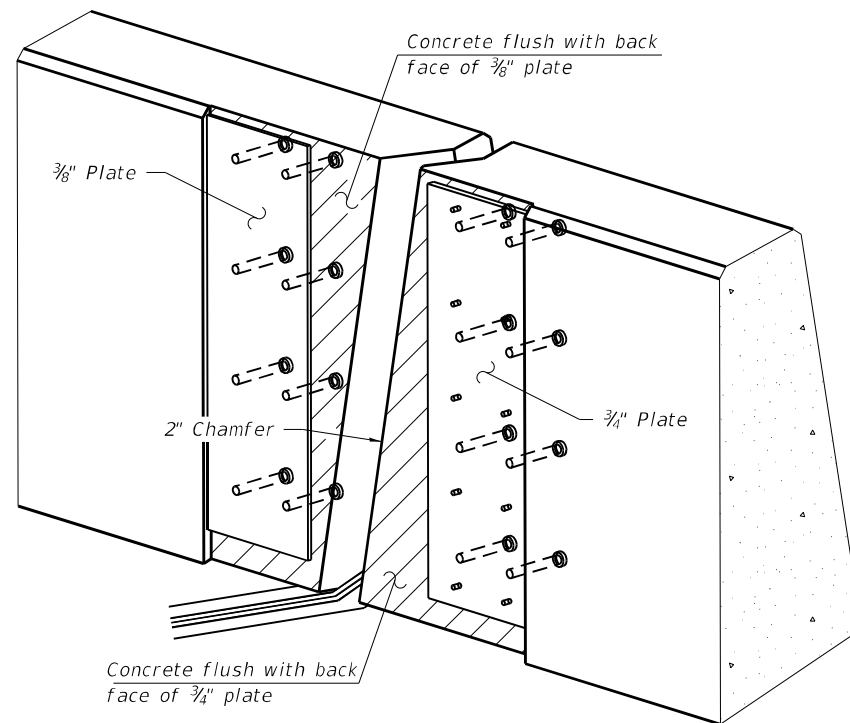


**SECTION AT PARAPET**

(Skews  $> 30^\circ$  shown. Skews  $\leq 30^\circ$  similar except as shown in plan view.)

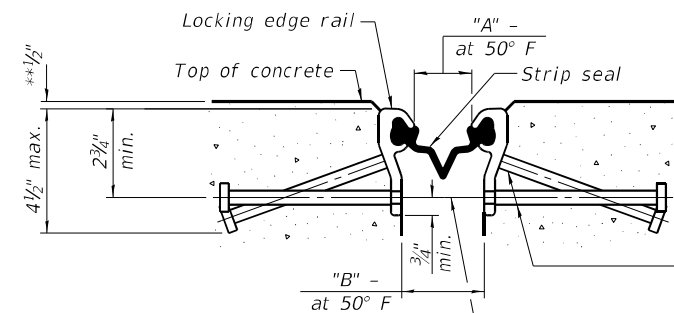


**DETAIL A**



**TRIMETRIC VIEW**

(Showing embedded plates only)



**SHOWING ROLLED RAIL JOINT**

**JOINT DIMENSIONS**

	A	B	C
S. Abut.	1 1/2"	2 3/8"	3"
Pier 4	1 3/4"	2 5/8"	3 1/4"
Pier 7	2"	2 7/8"	3 1/2"
Pier 10	1 3/4"	2 5/8"	3 1/4"

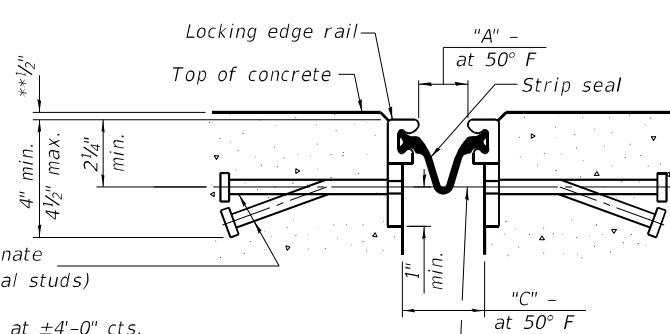
\* 5/8"  $\phi$  x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8"  $\phi$  threaded rods in 7/16"  $\phi$  holes at  $\pm 4$ -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.

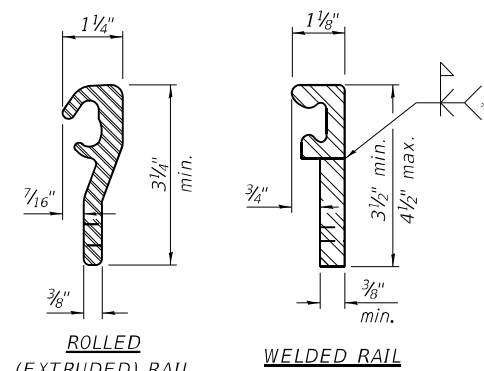
**SECTION A-A**

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

\*\* Prior to grinding.



**SHOWING WELDED RAIL JOINT**

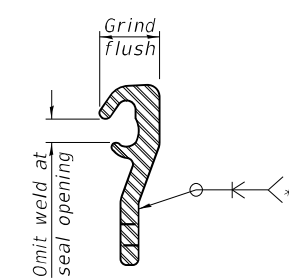


**ROLLED (EXTRUDED) RAIL**

**WELDED RAIL**

**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.

**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	171

**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.  
 Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal.  
 39" constant slope barrier shown, 44" constant slope barrier similar as noted.  
 The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

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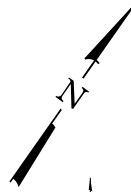
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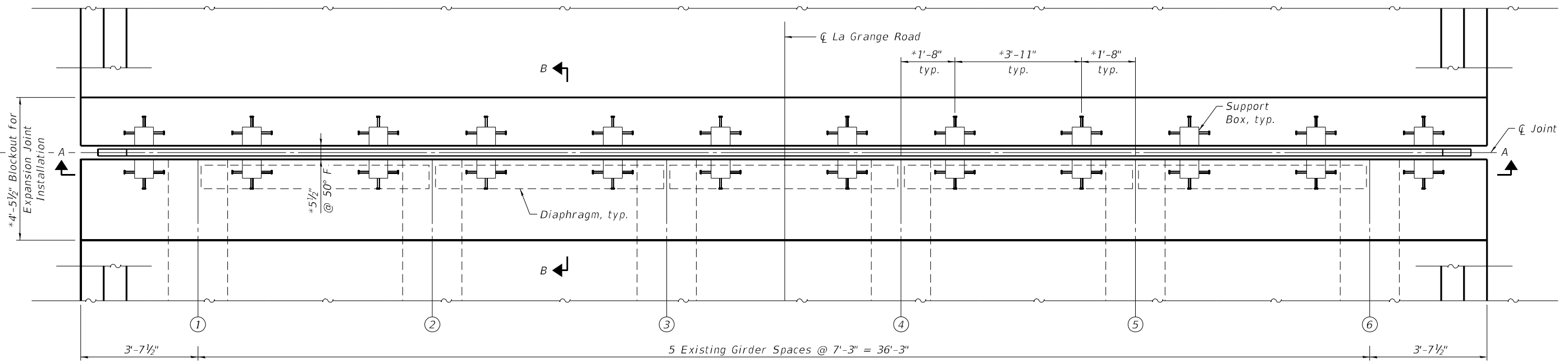
**MODIFIED PREFORMED JOINT STRIP SEAL  
 STRUCTURE NO. 016-2468**

SHEET SA-37 OF SA-73 SHEETS

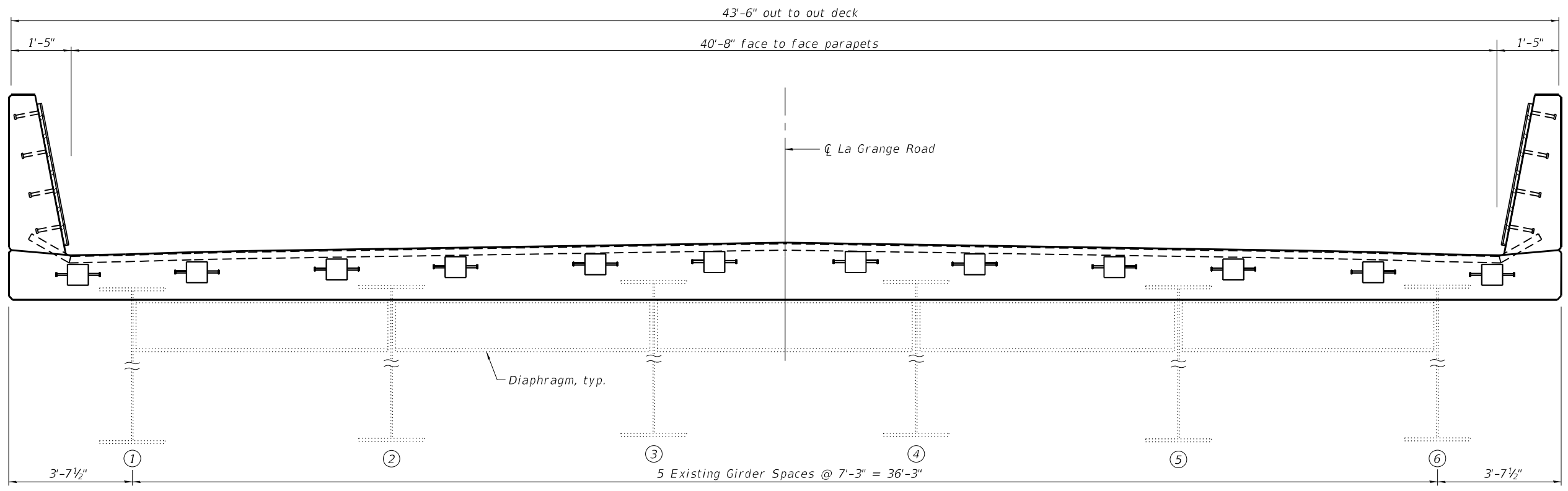
F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 151
ILLINOIS			CONTRACT NO. 62H49	



Span 13 N. Approach



PLAN



SECTION A-A  
(Looking North)

\* Contractor to verify number of rails, blockout dimensions, joint opening and support box layout with joint manufacturer.

Notes:  
See Sheet SA-39 for Modular Expansion Joint Notes, Section B-B and Details.  
Total longitudinal movement (open/close) = 5 1/8".

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint, 6"	Foot	41

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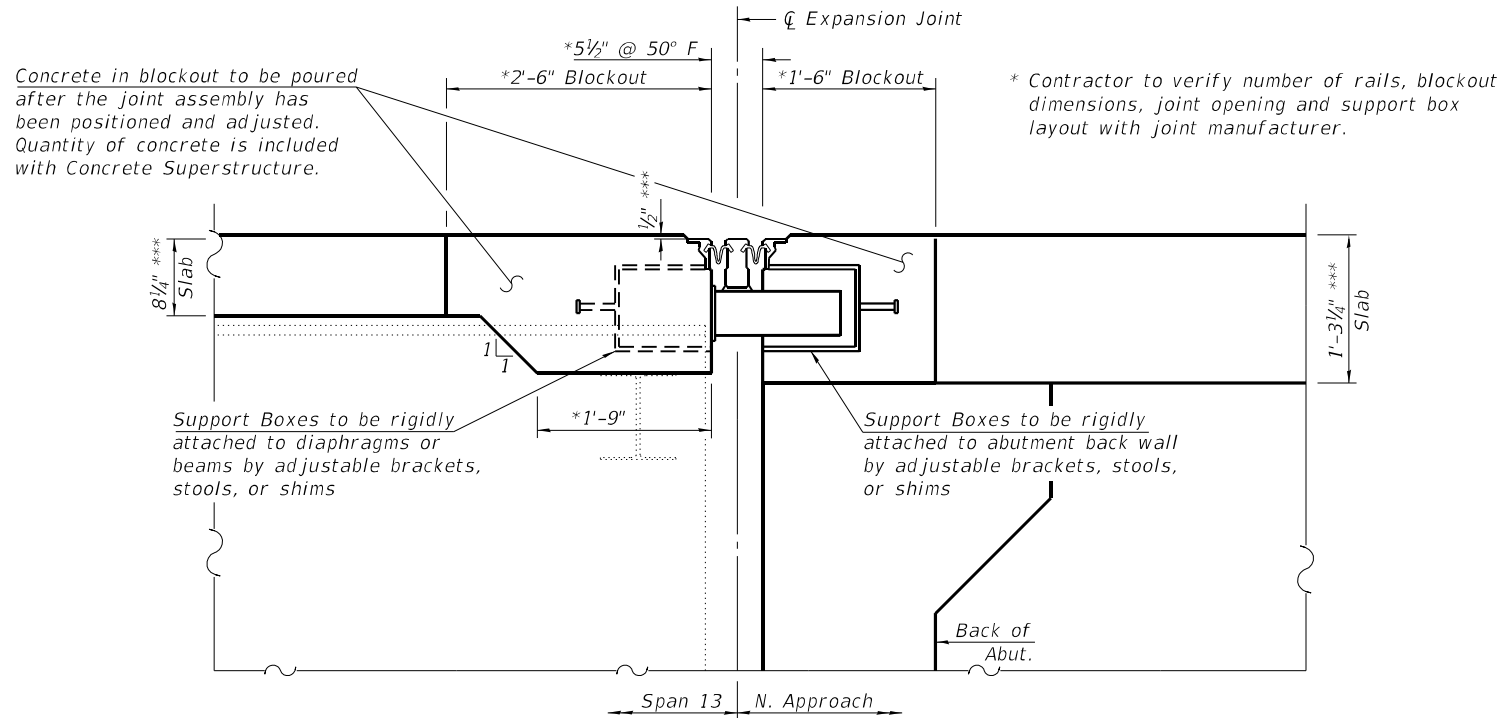
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MODULAR EXPANSION JOINT (1 OF 2)  
STRUCTURE NO. 016-2468

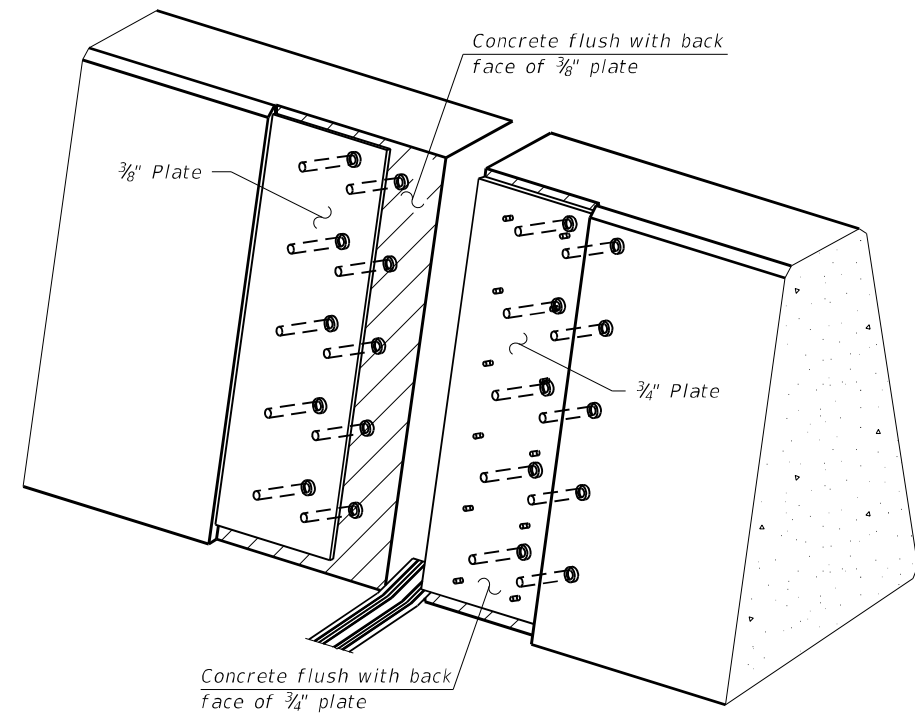
SHEET SA-38 OF SA-73 SHEETS

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			CONTRACT NO. 62H49	
ILLINOIS				

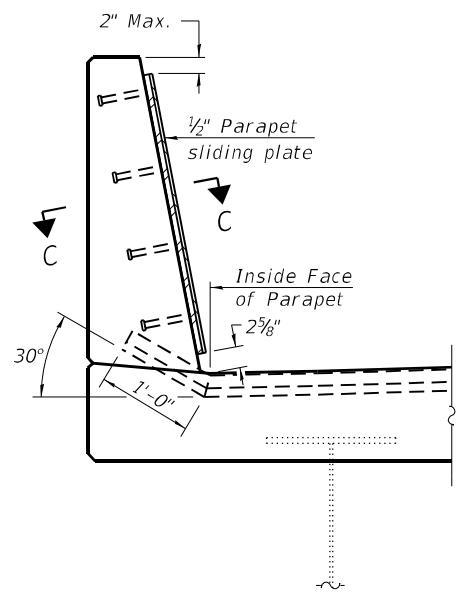


**SECTION B-B**  
(At North Abutment)

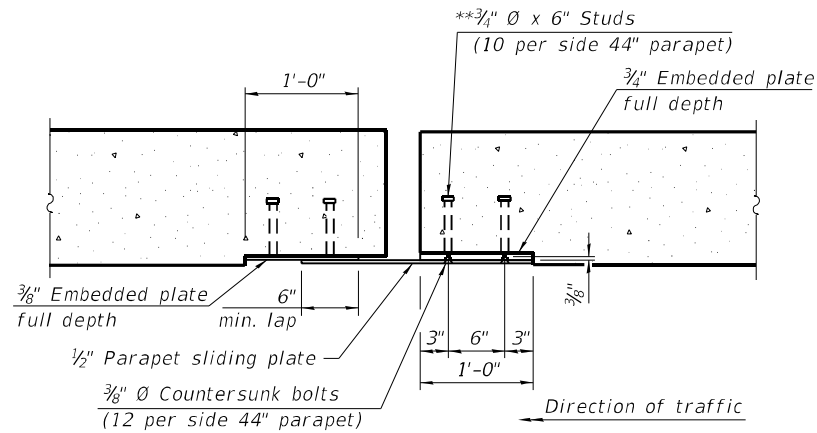
\*\*\* Prior to grinding



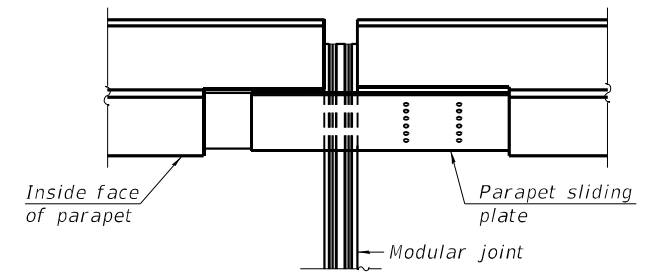
**TRIMETRIC VIEW**  
(Showing embedded plates only)



**SECTION AT PARAPET**



**SECTION C-C**



**PLAN AT PARAPET**

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

Notes:  
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.  
Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.  
Cost of parapet sliding plates, embedded plates, and anchorage studs and bolts is included with Modular Expansion Joint, 6".

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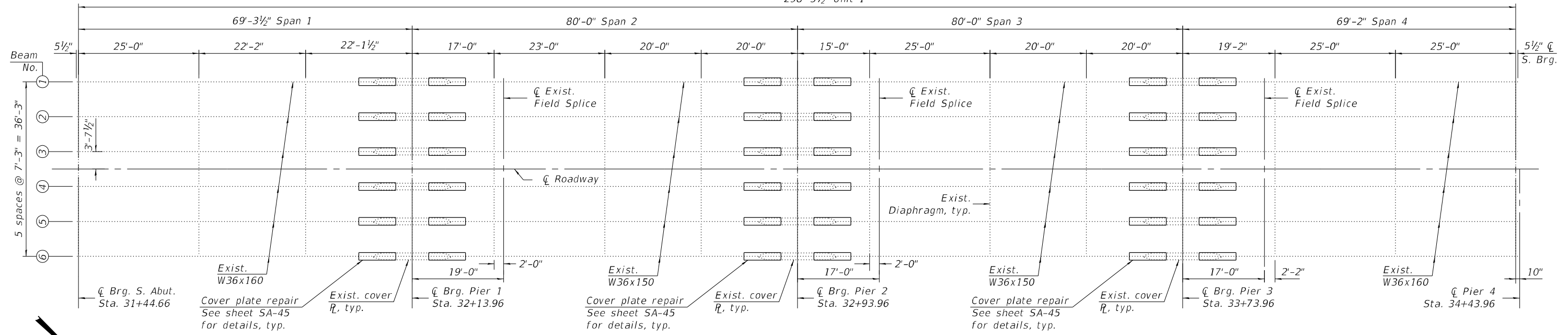
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**MODULAR EXPANSION JOINT (2 OF 2)  
STRUCTURE NO. 016-2468**

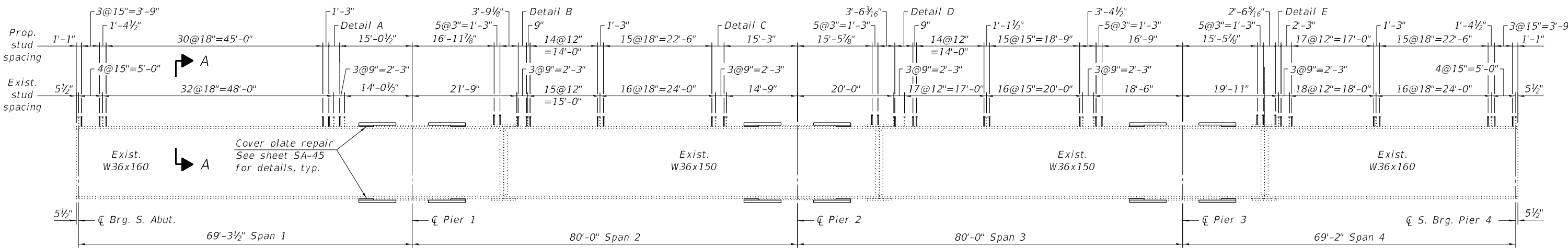
SHEET SA-39 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			CONTRACT NO. 62H49	

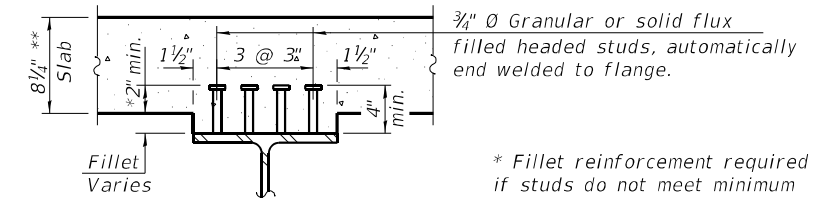
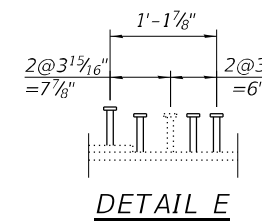
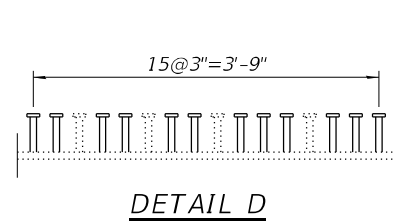
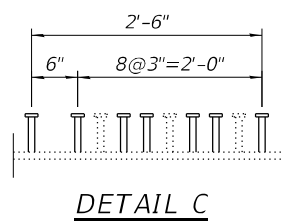
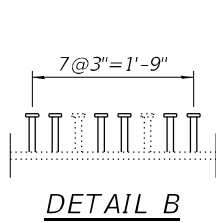
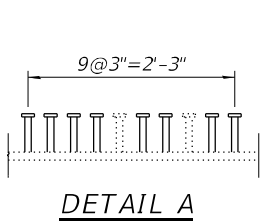
298'-5 1/2" Unit 1



FRAMING PLAN



GIRDER ELEVATION



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	4,680

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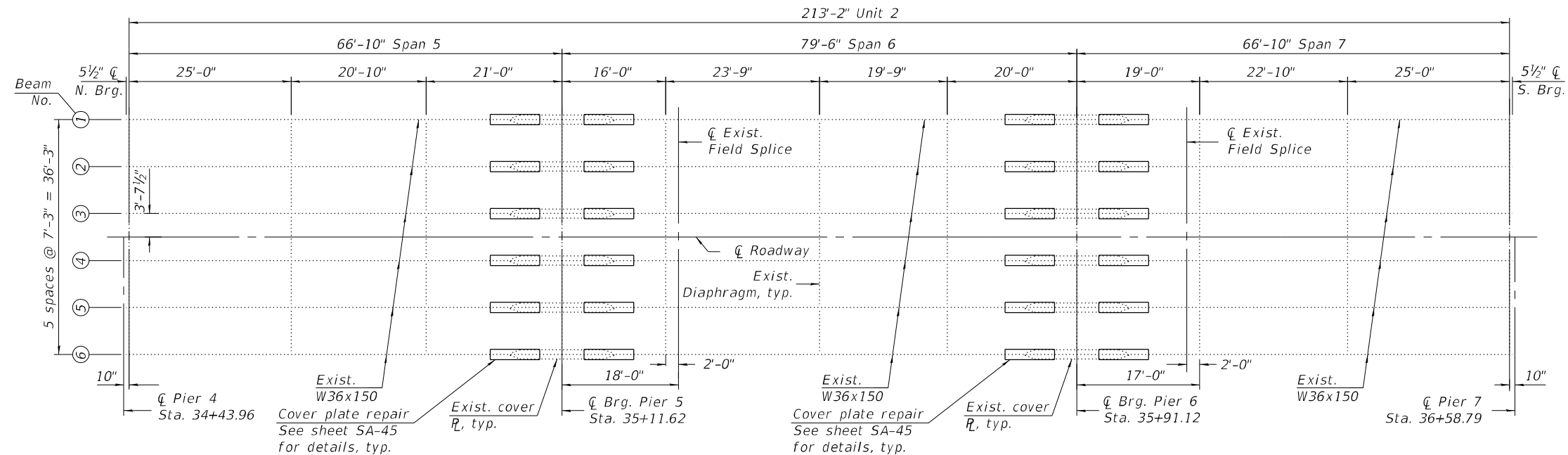
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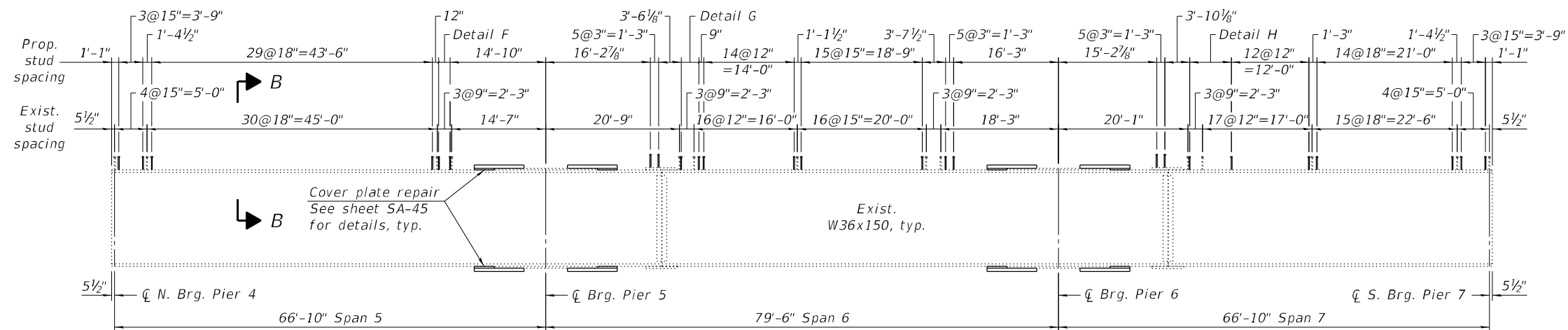
UNIT 1 FRAMING PLAN  
STRUCTURE NO. 016-2468

SHEET SA-40 OF SA-73 SHEETS

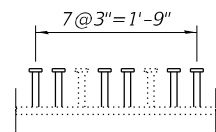
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CONTRACT NO. 62H49			ILLINOIS	



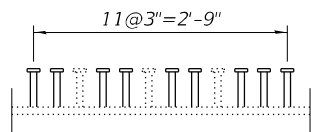
**FRAMING PLAN**



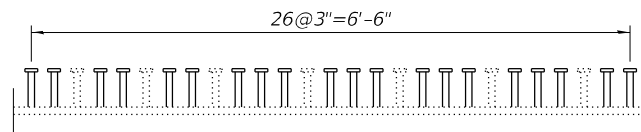
**GIRDER ELEVATION**



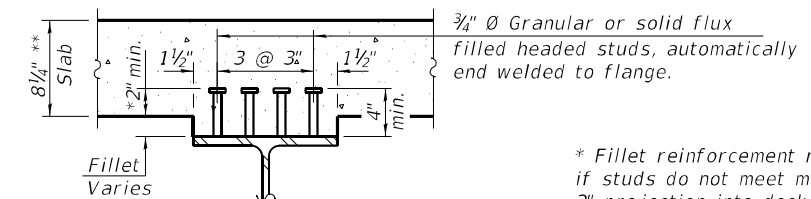
**DETAIL F**



**DETAIL G**



**DETAIL H**



**SECTION B-B**

\*\* Prior to grinding

\* Fillet reinforcement required if studs do not meet minimum 2" projection into deck. See Sheet SA-26 for fillet reinforcement detail.

**BILL OF MATERIAL**

Item	Unit	Total
Stud Shear Connectors	Each	3,576

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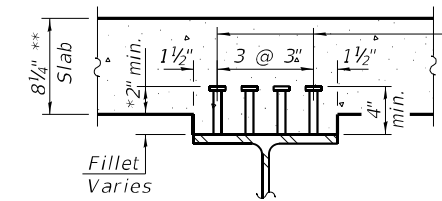
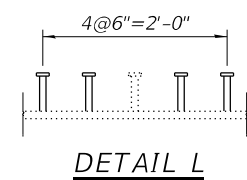
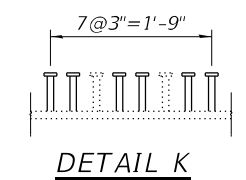
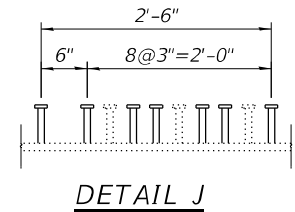
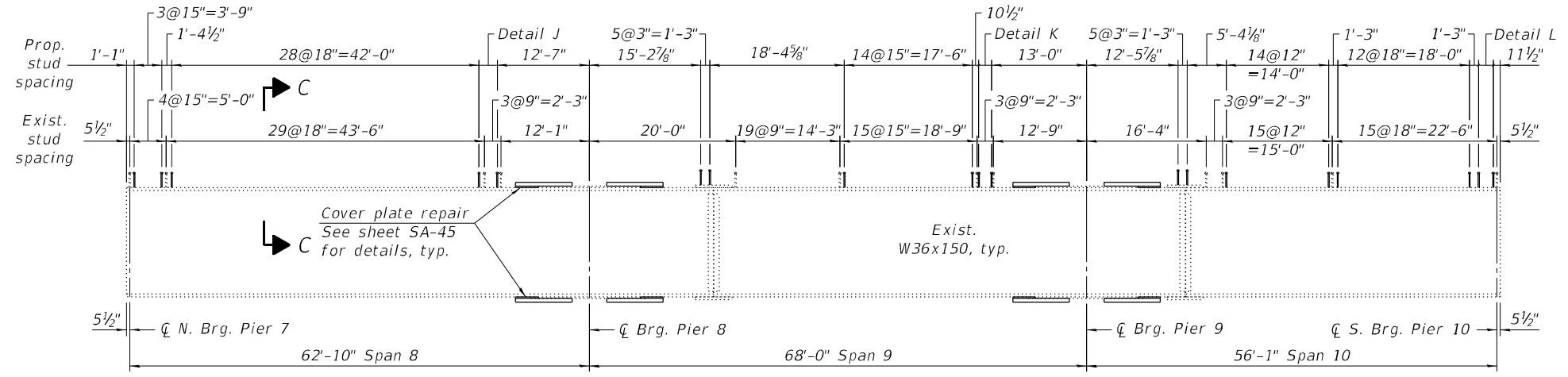
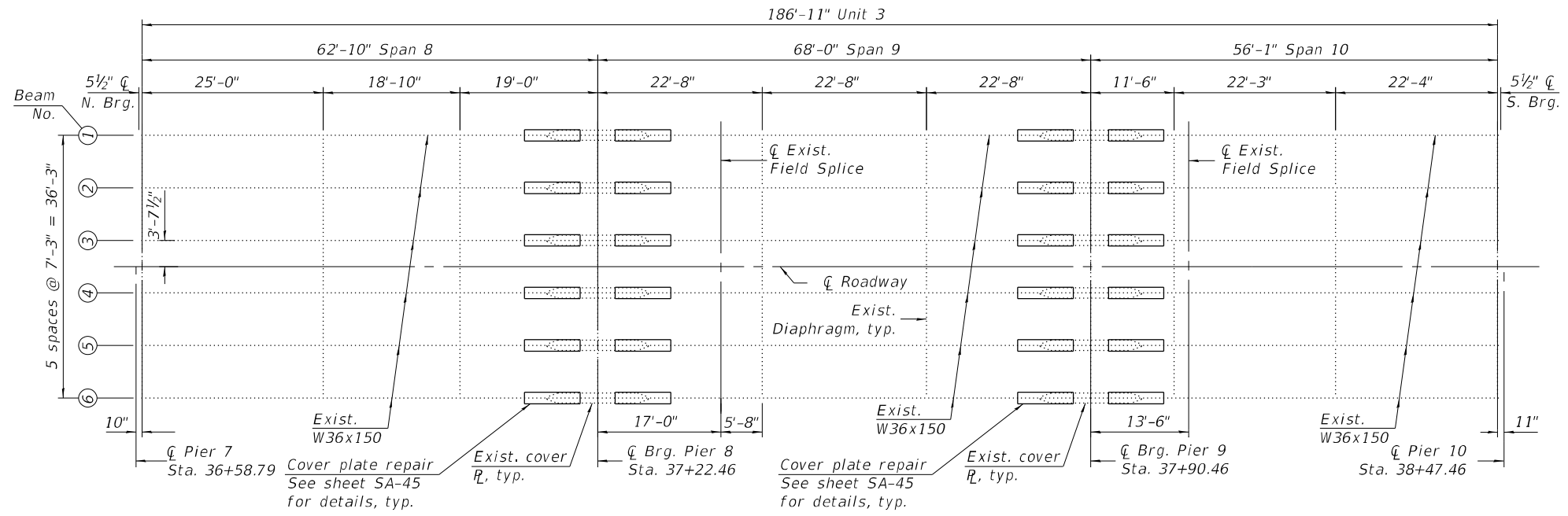
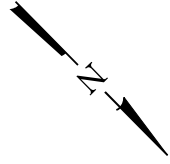
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

UNIT 2 FRAMING PLAN  
STRUCTURE NO. 016-2468

SHEET SA-41 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	155
CONTRACT NO. 62H49			ILLINOIS	

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3/4" Ø Granular or solid flux filled headed studs, automatically end welded to flange.

\* Fillet reinforcement required if studs do not meet minimum 2" projection into deck. See Sheet SA-30 for fillet reinforcement detail.

**BILL OF MATERIAL**

Item	Unit	Total
Stud Shear Connectors	Each	2,400



USER NAME = mtc	DESIGNED - AS	REVISED -
	CHECKED - BLB	REVISED -
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PLOT DATE = 10/21/2021	DATE - 10/21/2021	REVISED -

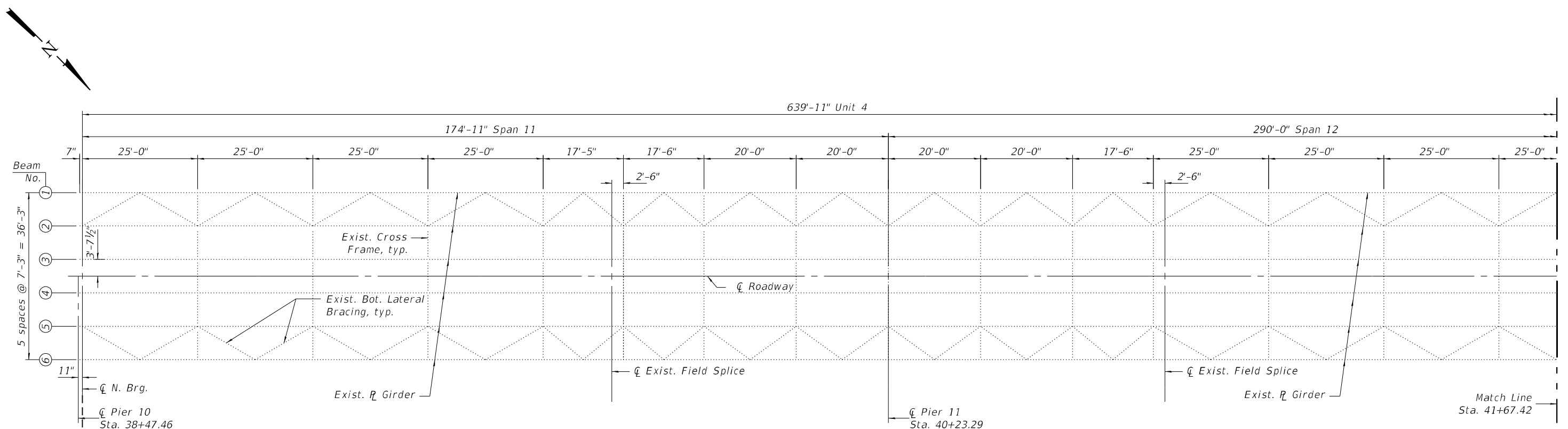
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UNIT 3 FRAMING PLAN  
STRUCTURE NO. 016-2468

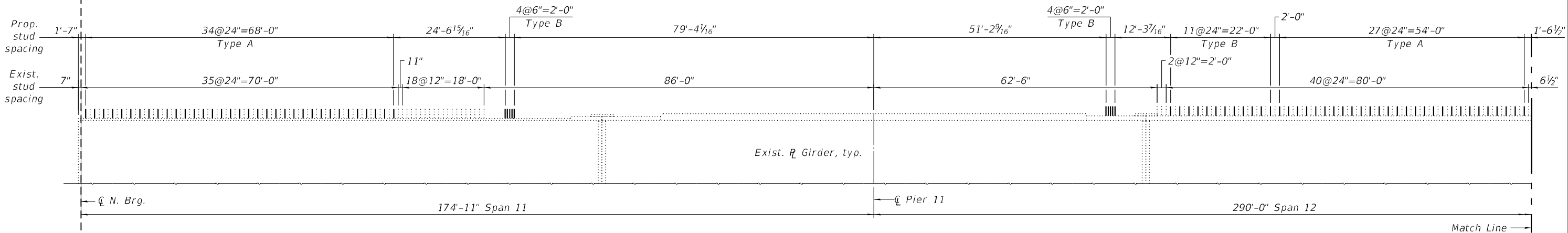
SHEET SA-42 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	156
ILLINOIS			CONTRACT NO. 62H49	

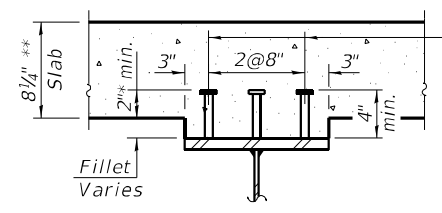




**FRAMING PLAN**



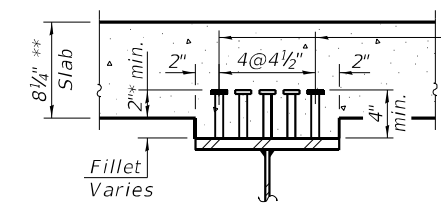
**GIRDER ELEVATION**



**TYPE A SECTION**  
\*\* Prior to grinding

3/4" Ø Granular or solid flux filled headed studs, automatically end welded to flange.

\* Fillet reinforcement required if studs do not meet minimum 2" projection into deck. See Sheet SA-34 for fillet reinforcement detail.



**TYPE B SECTION**  
\*\* Prior to grinding

3/4" Ø Granular or solid flux filled headed studs, automatically end welded to flange.

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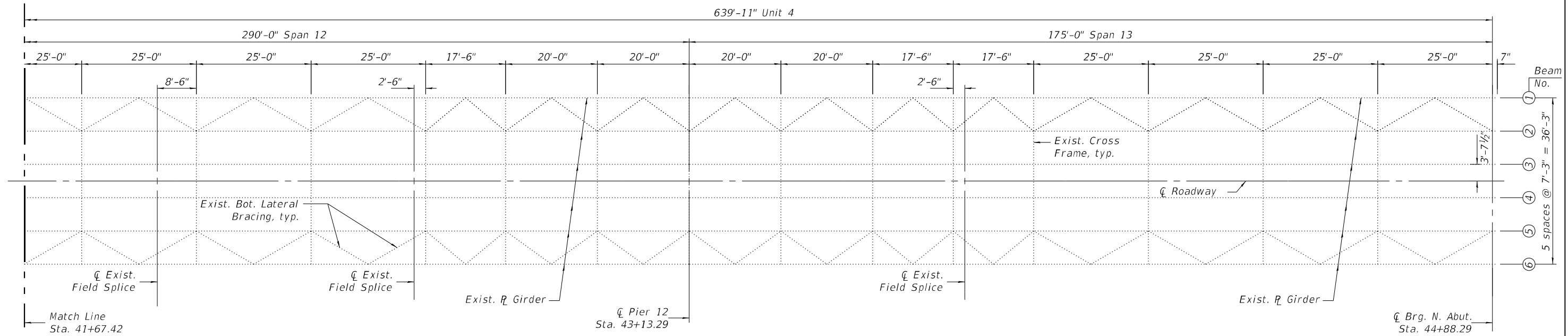
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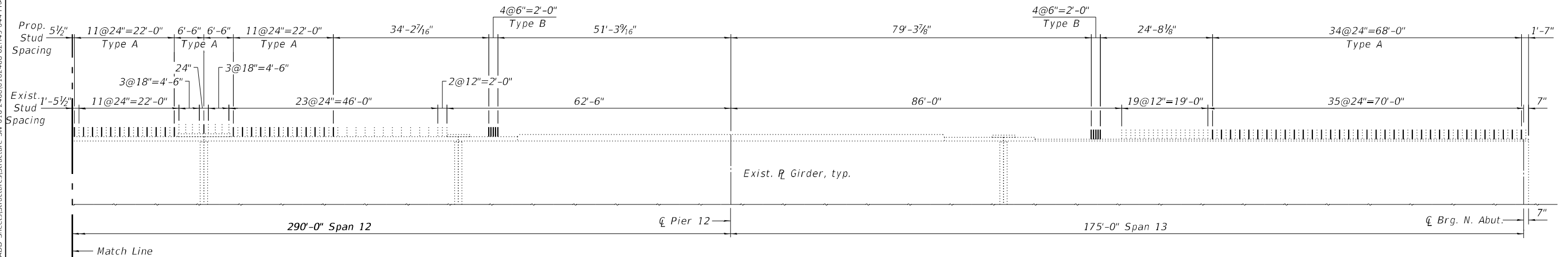
**UNIT 4 FRAMING PLAN - I  
STRUCTURE NO. 016-2468**

SHEET SA-43 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	157
CONTRACT NO. 62H49			ILLINOIS	



**FRAMING PLAN**



**GIRDER ELEVATION**

**BILL OF MATERIAL**

Item	Unit	Total
Stud Shear Connectors	Each	3,174

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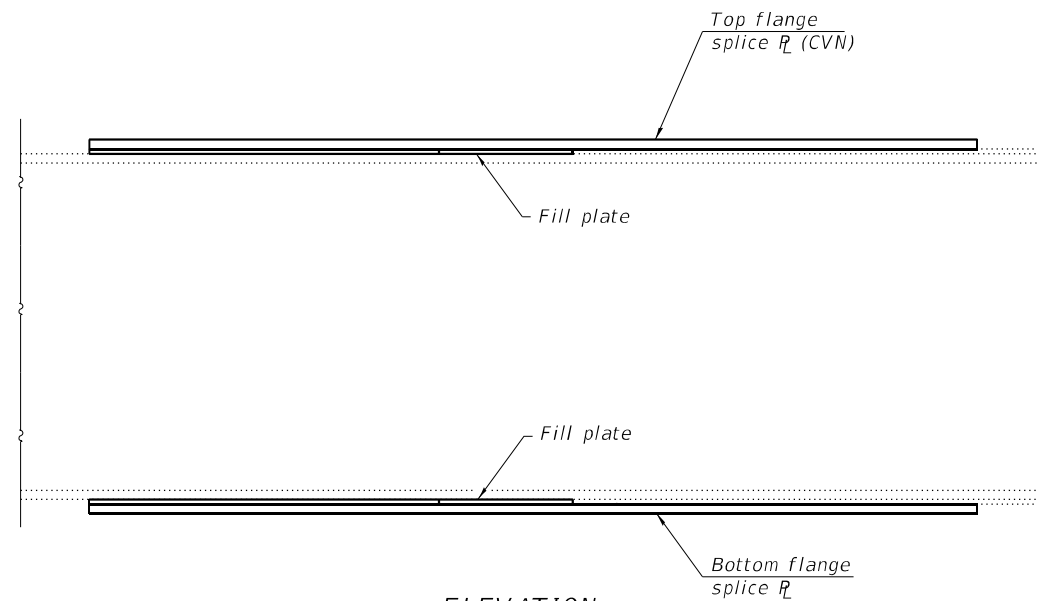
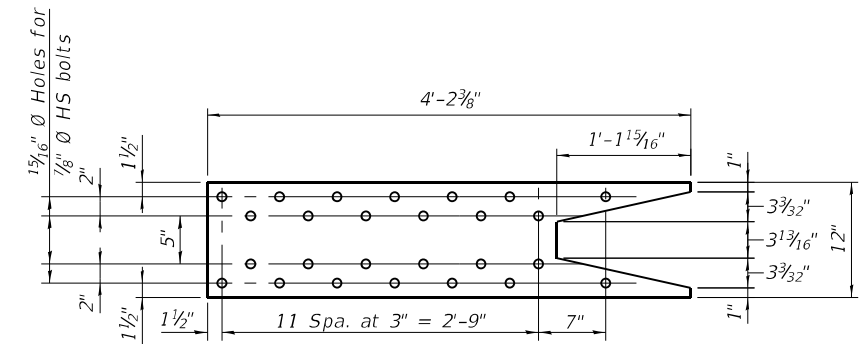
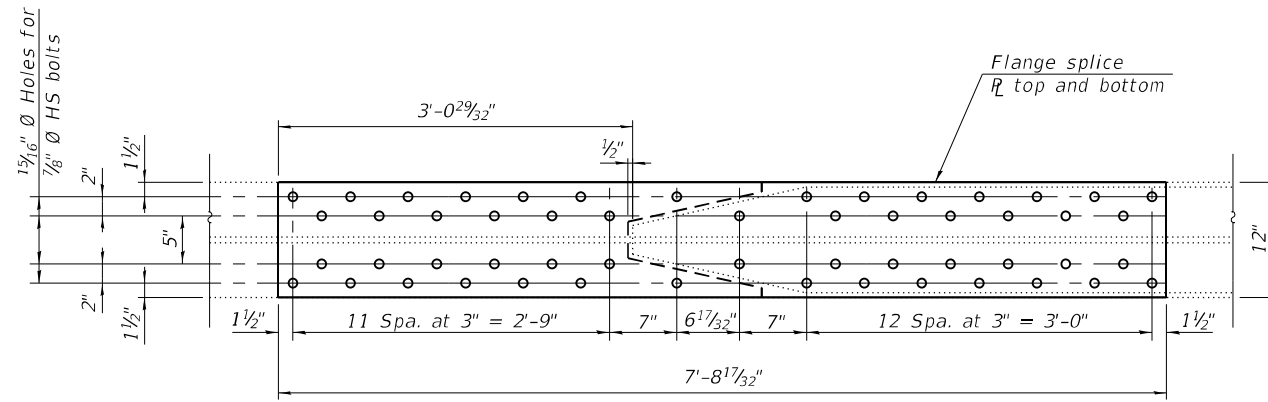
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**STATE OF ILLINOIS  
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**UNIT 4 FRAMING PLAN - II  
STRUCTURE NO. 016-2468**

SHEET SA-44 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 158
			CONTRACT NO. 62H49	
ILLINOIS				



**COVER PLATE REPAIR DETAIL**  
(84 Required)

**PLATE THICKNESS TABLE**

Pier	Splice Plate Thickness	Fill Plate Thickness
1	1 <sup>1</sup> / <sub>4</sub> "	<sup>5</sup> / <sub>8</sub> "
2	1"	<sup>5</sup> / <sub>8</sub> "
3	1"	<sup>3</sup> / <sub>4</sub> "
5	1"	<sup>5</sup> / <sub>8</sub> "
6	1"	<sup>5</sup> / <sub>8</sub> "
8	1"	<sup>1</sup> / <sub>2</sub> "
9	1"	<sup>1</sup> / <sub>2</sub> "

**BILL OF MATERIAL**

Item	Unit	Total
Structural Steel Repair	Pound	73,840

**Notes:**

Cost of drilling holes in existing steel members is included with Structural Steel Repair.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures." All contact surfaces on this sheet shall be treated as primary connections.

CVN denotes Charpy-V-Notch impact energy requirements, zone 2.

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PLATE DATE = 10/21/2021	DRAWN - AS	REVISED -
	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

COVER PLATE RETROFIT DETAILS  
STRUCTURE NO. 016-2468

SHEET SA-45 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	159
ILLINOIS			CONTRACT NO. 62H49	

UNIT 1 INTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 1 or 0.6 Sp. 4	Pier 1	0.5 Sp. 2 or 0.5 Sp. 3	Pier 2	Pier 3
Is	(in <sup>4</sup> )	9,760	14,371	9,040	13,626	14,582
Ic(n)	(in <sup>4</sup> )	24,993	-	23,626	-	-
Ic(3n)	(in <sup>4</sup> )	18,595	-	17,632	-	-
Ss	(in <sup>3</sup> )	542	772	504	734	780
Sc(n)	(in <sup>3</sup> )	774	-	727	-	-
Sc(3n)	(in <sup>3</sup> )	704	-	662	-	-
Z	(in <sup>2</sup> )	-	624	-	624	624
ρ	(k/')	1.00	1.41	0.99	1.40	1.41
Mρ	('k)	341	-773	240	-694	-760
Sρ	(k/')	0.37	-	0.37	-	-
Msρ	('k)	139	-	115	-	-
M <sub>L</sub>	('k)	557	-316	562	-325	-313
M <sub>I</sub>	('k)	143	-79	137	-79	-79
S <sub>3</sub> [M <sub>L</sub> + I]	('k)	1,167	-658	1,165	-673	-653
Ma	('k)	2,143	-1,861	1,978	-1,779	-1,838
* Mu	('k)	3,209	2,602	3,055	2,479	2,633
fs ρ non-comp	(ksi)	7.5	-12.0	5.7	-11.3	-11.7
fs ρ (comp)	(ksi)	2.4	-	2.1	-	-
fs S <sub>3</sub> [M <sub>L</sub> + M <sub>I</sub> ]	(ksi)	18.1	-10.2	19.2	-11.0	-10.1
fs (Overload)	(ksi)	28.0	-22.2	27.0	-22.4	-21.7
** fs (Total)	(ksi)	-	-	-	-	-
VR	(k)	43.7	-	46.8	-	-

UNIT 1 INTERIOR GIRDER REACTION TABLE				
		S. Abut. or Pier 4	Pier 1 or Pier 3	Pier 2
Rρ	(k)	37.1	114.6	107.2
R <sub>L</sub>	(k)	40.2	50.3	50.8
R <sub>I</sub>	(k)	10.4	12.6	12.4
R <sub>Total</sub>	(k)	87.7	177.4	170.4

\* Compact section  
 \*\* Braced non-compact and partially braced section

UNIT 3 INTERIOR GIRDER MOMENT TABLE						
		0.4 Sp. 8	Pier 8	0.5 Sp. 9	Pier 9	0.6 Sp. 10
Is	(in <sup>4</sup> )	9,040	12,684	9,040	12,684	9,040
Ic(n)	(in <sup>4</sup> )	23,626	-	23,626	-	23,626
Ic(3n)	(in <sup>4</sup> )	17,632	-	17,632	-	17,632
Ss	(in <sup>3</sup> )	504	687	504	687	504
Sc(n)	(in <sup>3</sup> )	727	-	727	-	727
Sc(3n)	(in <sup>3</sup> )	662	-	662	-	662
Z	(in <sup>2</sup> )	-	581	-	581	-
ρ	(k/')	0.98	1.39	0.98	1.39	0.98
Mρ	('k)	289	-584	160	-496	221
Sρ	(k/')	0.37	-	0.37	-	0.37
Msρ	('k)	119	-	81	-	91
M <sub>L</sub>	('k)	491	-242	455	-222	419
M <sub>I</sub>	('k)	131	-63	118	-59	116
S <sub>3</sub> [M <sub>L</sub> + I]	('k)	1,036	-508	956	-469	892
Ma	('k)	1,879	-1,422	1,559	-1,256	1,567
* Mu	('k)	3,055	2,326	3,055	2,326	3,055
fs ρ non-comp	(ksi)	6.9	-10.2	3.8	-8.7	5.3
fs ρ (comp)	(ksi)	2.2	-	1.5	-	2.2
fs S <sub>3</sub> [M <sub>L</sub> + M <sub>I</sub> ]	(ksi)	17.1	-8.9	15.8	-8.2	21.2
fs (Overload)	(ksi)	26.1	-19.1	21.1	-16.9	28.7
** fs (Total)	(ksi)	-	-	-	-	-
VR	(k)	43.6	-	43.2	-	43.3

UNIT 3 INTERIOR GIRDER REACTION TABLE					
		Pier 7	Pier 8	Pier 9	Pier 10
Rρ	(k)	34.1	99.5	91.7	30.0
R <sub>L</sub>	(k)	39.5	45.7	44.1	38.5
R <sub>I</sub>	(k)	10.5	12.0	11.8	10.6
R <sub>Total</sub>	(k)	84.1	157.2	147.6	79.1

UNIT 2 INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 5 or 0.6 Sp. 7	Pier 5 or Pier 6	0.5 Sp. 6
Is	(in <sup>4</sup> )	9,040	13,626	9,040
Ic(n)	(in <sup>4</sup> )	23,626	-	23,626
Ic(3n)	(in <sup>4</sup> )	17,632	-	17,632
Ss	(in <sup>3</sup> )	504	734	504
Sc(n)	(in <sup>3</sup> )	727	-	727
Sc(3n)	(in <sup>3</sup> )	662	-	662
Z	(in <sup>2</sup> )	-	581	-
ρ	(k/')	0.99	1.41	0.99
Mρ	('k)	312	-721	236
Sρ	(k/')	0.37	-	0.37
Msρ	('k)	128	-	114
M <sub>L</sub>	('k)	533	-297	556
M <sub>I</sub>	('k)	139	-75	136
S <sub>3</sub> [M <sub>L</sub> + I]	('k)	1,119	-621	1,153
Ma	('k)	2,030	-1,746	1,956
* Mu	('k)	3,055	2,479	3,055
fs ρ non-comp	(ksi)	7.4	-11.8	5.6
fs ρ (comp)	(ksi)	2.3	-	2.1
fs S <sub>3</sub> [M <sub>L</sub> + M <sub>I</sub> ]	(ksi)	18.5	-10.1	19.0
fs (Overload)	(ksi)	28.2	-21.9	26.7
** fs (Total)	(ksi)	-	-	-
VR	(k)	43.7	-	46.7

UNIT 2 INTERIOR GIRDER REACTION TABLE			
		Pier 4 or Pier 7	Pier 5 or Pier 6
Rρ	(k)	35.5	110.7
R <sub>L</sub>	(k)	40.0	49.2
R <sub>I</sub>	(k)	10.4	12.4
R <sub>Total</sub>	(k)	85.9	172.3

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total and Overload) due to non-composite dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total and Overload) due to short-term composite live loads (in.<sup>4</sup> and in.<sup>3</sup>).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total and Overload) due to long-term composite (superimposed) dead loads (in.<sup>4</sup> and in.<sup>3</sup>).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.<sup>3</sup>).

ρ: Un-factored non-composite dead load (kips/ft.).

Mρ: Un-factored moment due to non-composite dead load (kip-ft.).

Sρ: Un-factored long-term composite (superimposed) dead load (kips/ft.).

Msρ: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M<sub>L</sub>: Un-factored live load moment (kip-ft.).

M<sub>I</sub>: Un-factored moment due to impact (kip-ft.).

Ma: Factored design moment (kip-ft.).

1.3 [Mρ + Msρ +  $\frac{5}{3}$ (M<sub>L</sub> + M<sub>I</sub>)]

Mu: Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

fs (Overload): Sum of stresses as computed from the moments below (ksi).

Mρ + Msρ +  $\frac{5}{3}$ (M<sub>L</sub> + M<sub>I</sub>)

fs (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).

1.3 [Mρ + Msρ +  $\frac{5}{3}$ (M<sub>L</sub> + M<sub>I</sub>)]

VR: Maximum L + impact shear range within the composite portion of the span for stud shear connector design (kips).

UNIT 4 INTERIOR GIRDER MOMENT TABLE				
		0.3 Sp. 11 or 0.7 Sp. 13	Pier 11 or Pier 12	0.5 Sp. 12
Is	(in <sup>4</sup> )	93,508	659,369	229,794
Ic(n)	(in <sup>4</sup> )	180,514	-	380,406
Ic(3n)	(in <sup>4</sup> )	137,317	-	295,058
Ss	(in <sup>3</sup> )	2,281	10,384	6,013
Sc(n)	(in <sup>3</sup> )	2,825	-	6,786
Sc(3n)	(in <sup>3</sup> )	2,613	-	6,421
Z	(in <sup>2</sup> )	-	-	-
ρ	(k/')	1.10	1.92	1.38
Mρ	('k)	1,137	-10903	5979
Sρ	(k/')	0.37	-	0.37
Msρ	('k)	506	-	1616
M <sub>L</sub>	('k)	1,515	-3145	3403
M <sub>I</sub>	('k)	252	-452	410
S <sub>3</sub> [M <sub>L</sub> + I]	('k)	2,945	-5995	6,355
Ma	('k)	5,971	-21,983	18,151
* Mu	('k)	-	-	-
fs ρ non-comp	(ksi)	6.0	-12.6	11.9
fs ρ (comp)	(ksi)	2.3	-	3.0
fs S <sub>3</sub> [M <sub>L</sub> + M <sub>I</sub> ]	(ksi)	12.5	-6.9	11.2
fs (Overload)	(ksi)	20.8	-19.5	26.2
** fs (Total)	(ksi)	27.1	-25.4	34.0
VR	(k)	51.6	-	53.2

UNIT 4 INTERIOR GIRDER REACTION TABLE			
		Pier 10 or N. Abut.	Pier 11 or Pier 12
Rρ	(k)	72.8	468.3
R <sub>L</sub>	(k)	49.7	127.5
R <sub>I</sub>	(k)	8.3	18.3
R <sub>Total</sub>	(k)	130.8	614.2

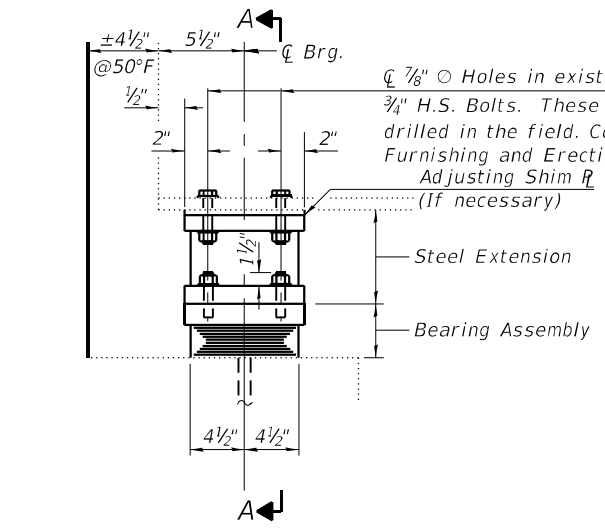
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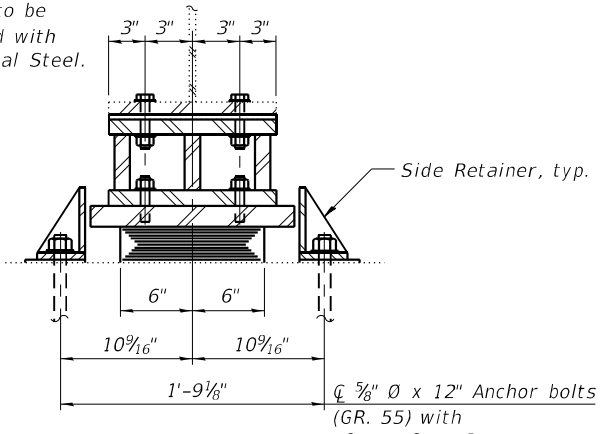
**MOMENT & REACTION TABLES**  
 STRUCTURE NO. 016-2468

SHEET SA-46 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	160
CONTRACT NO.			62H49	
ILLINOIS				

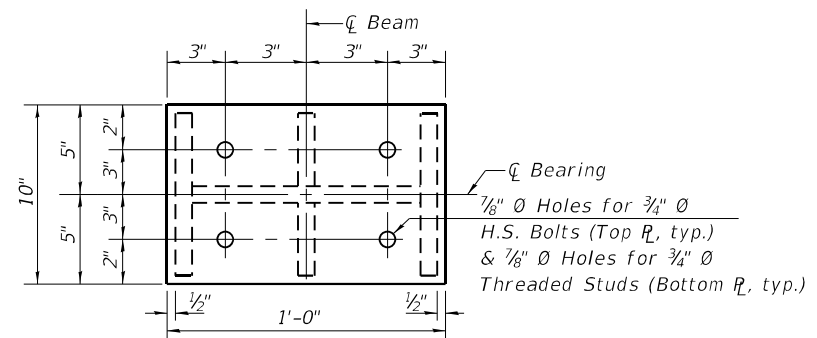


ELEVATION AT SOUTH ABUTMENT

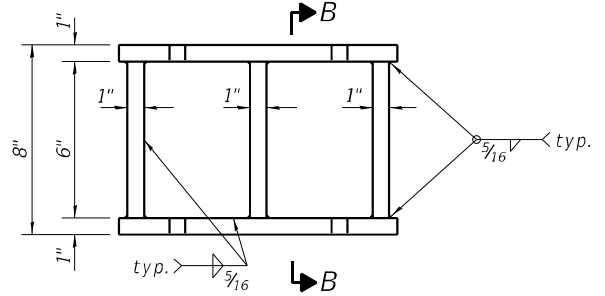


SECTION A-A

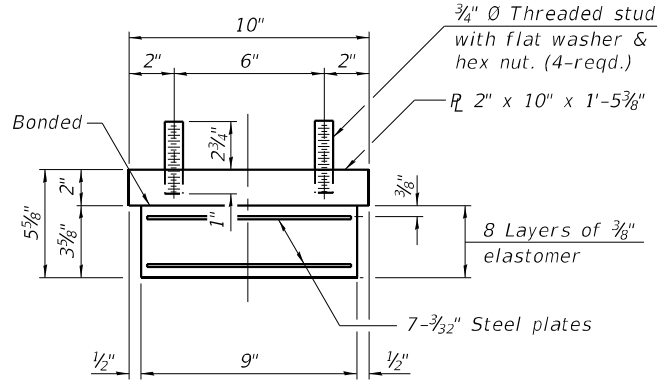
**TYPE I ELASTOMERIC EXP. BRG.**



STEEL EXTENSION PLAN

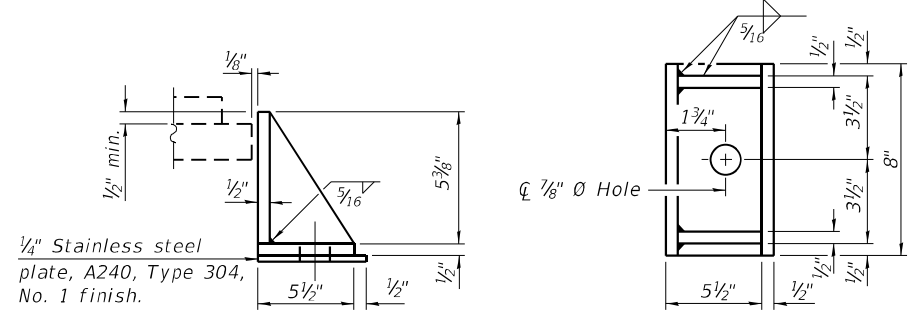


STEEL EXTENSION ELEVATION



BEARING ASSEMBLY

Note:  
 Shim plates shall not be placed under bearing assembly.



SIDE RETAINER

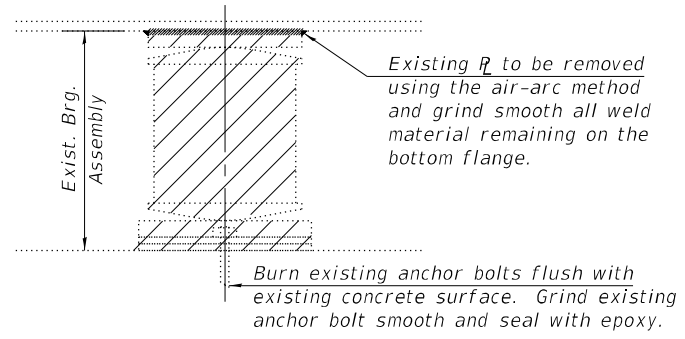
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
 Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
 Two  $\frac{1}{8}''$  in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
 Jacking of existing girders and replacement of bearings shall be done after the existing deck has been removed and prior to placing the new deck.  
 The Contractor shall submit, for approval by the Engineer, plans for jacking existing beams and removing the existing bearings prior to commencing any related work. See Special Provision.  
 Min. Jack Capacity = 8k.

**\*JACKING LOAD**

	S. Abut.
R $\text{Q}$ (k)	4.7

\* Service girder self-weight reaction is shown for a single girder with the deck removed. The Contractor shall design and place jacking system to replace the specified bearings for the stated beam reaction and as required in the Special Provisions.



EXISTING BEARING REMOVAL DETAIL

Cost is included with Jack and Remove Existing Bearings

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, $\frac{5}{8}''$	Each	12
Furnishing and Erecting Structural Steel	Pound	850
Jack and Remove Existing Bearings	Each	6

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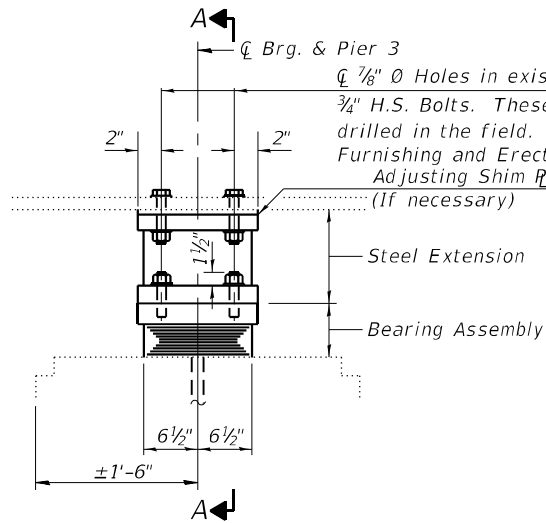
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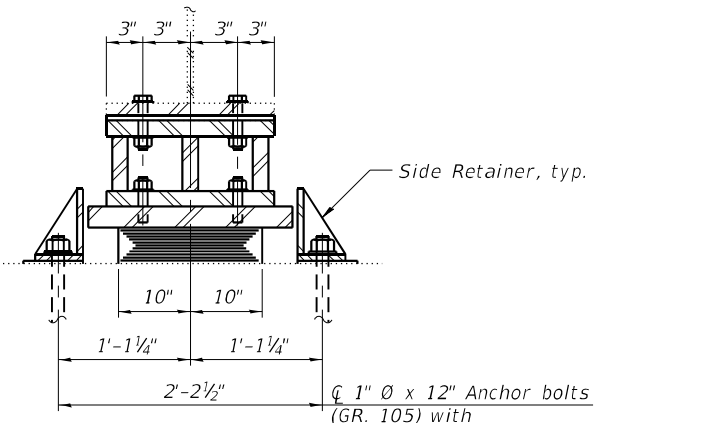
BEARING DETAILS - SOUTH ABUTMENT  
 STRUCTURE NO. 016-2468

SHEET SA-47 OF SA-73 SHEETS

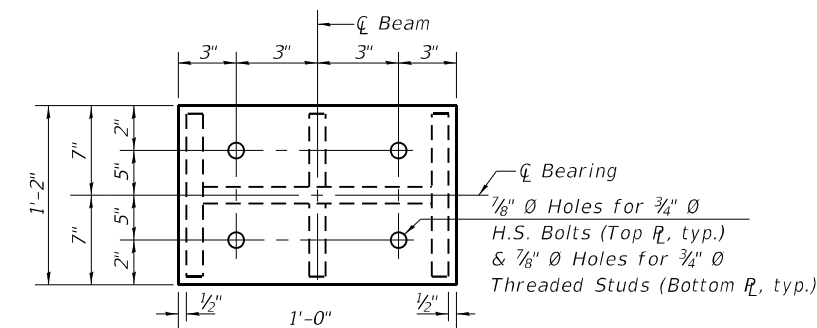
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	161
ILLINOIS			CONTRACT NO. 62H49	



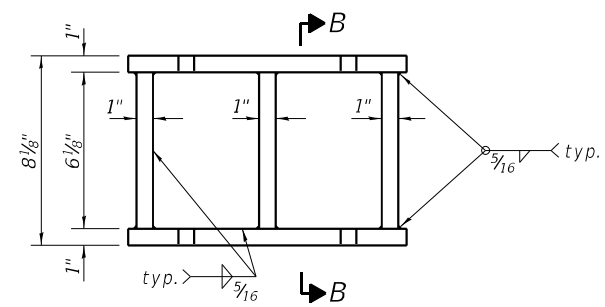
**ELEVATION AT PIER 3**



**SECTION A-A**

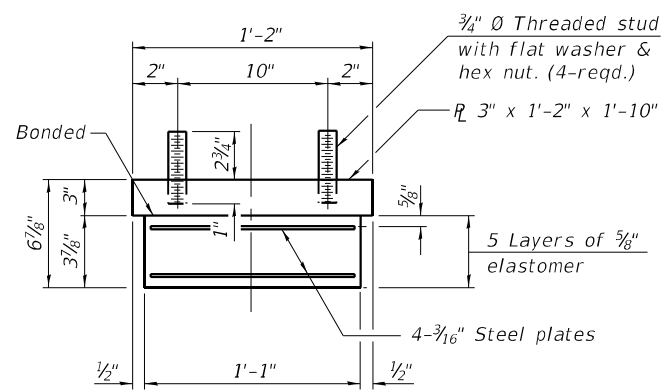


**STEEL EXTENSION PLAN**



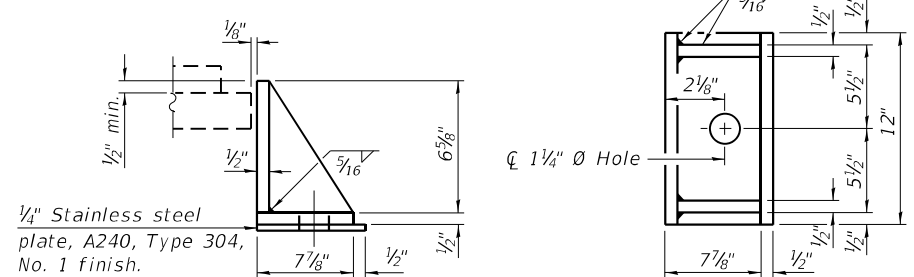
**STEEL EXTENSION ELEVATION**

**TYPE I ELASTOMERIC EXP. BRG.**



**BEARING ASSEMBLY**

Note:  
Shim plates shall not be placed under bearing assembly.



**SIDE RETAINER**

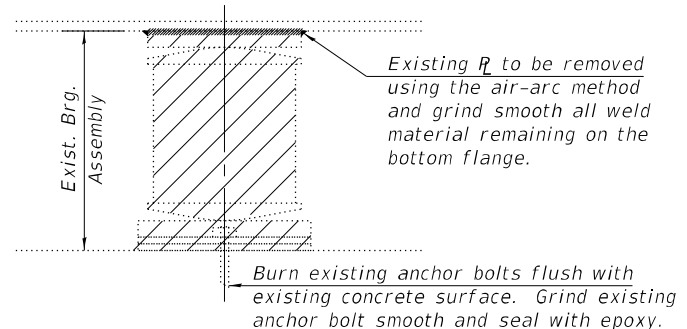
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:  
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
Jacking of existing girders and replacement of bearings shall be done after the existing deck has been removed and prior to placing the new deck.  
The Contractor shall submit, for approval by the Engineer, plans for jacking existing beams and removing the existing bearings prior to commencing any related work.  
See Special Provision.  
Min. Jack Capacity = 24k.

**\*JACKING LOAD**

	Pier 3
R Q (k)	14.1

\* Service girder self-weight reaction is shown for a single girder with the deck removed. The Contractor shall design and place jacking system to replace the specified bearings for the stated beam reaction and as required in the Special Provisions.



**EXISTING BEARING REMOVAL DETAIL**

Cost is included with Jack and Remove Existing Bearings

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, 1"	Each	12
Furnishing and Erecting Structural Steel	Pound	1,160
Jack and Remove Existing Bearings	Each	6

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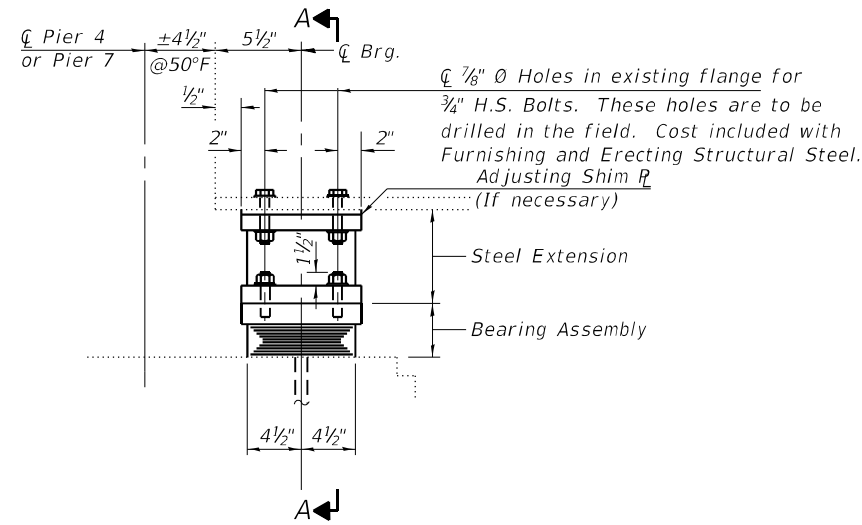
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	DATE - 10/21/2021	REVISED -

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DEPARTMENT OF TRANSPORTATION**

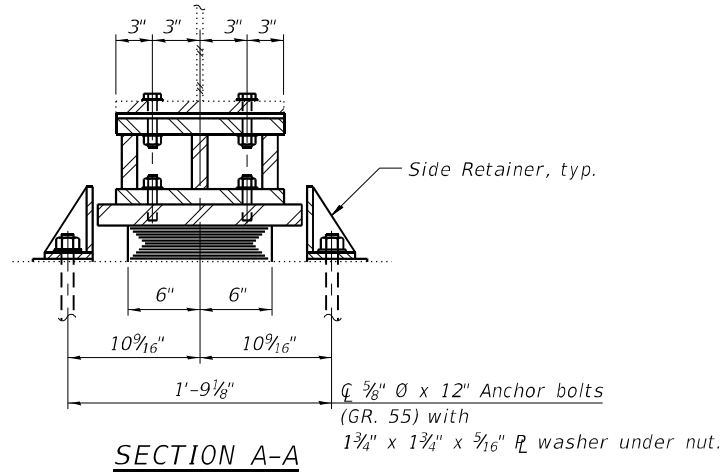
**BEARING DETAILS - PIER 3  
STRUCTURE NO. 016-2468**

SHEET SA-48 OF SA-73 SHEETS

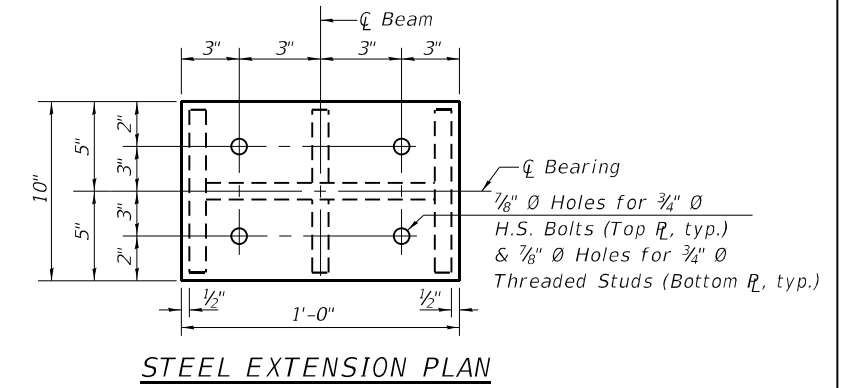
F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 162
ILLINOIS			CONTRACT NO. 62H49	



ELEVATION AT PIER 4 (S. BRG.) & PIER 7 (S. & N. BRGs.)

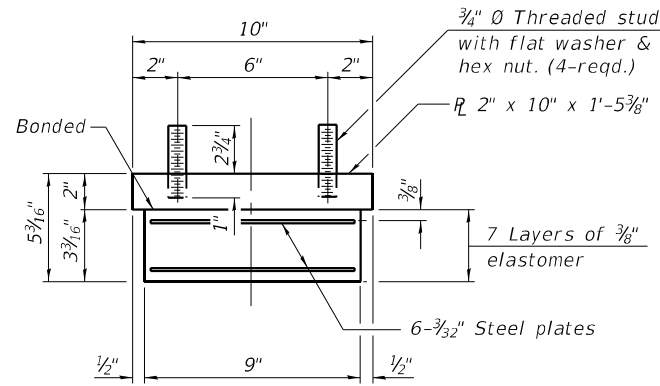


SECTION A-A



STEEL EXTENSION PLAN

TYPE I ELASTOMERIC EXP. BRG.



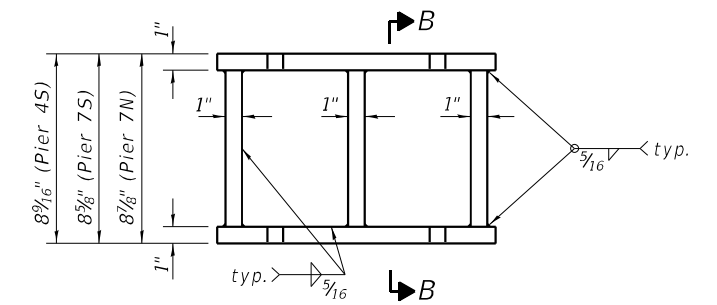
BEARING ASSEMBLY

Notes:  
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
 Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
 Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
 Jacking of existing girders and replacement of bearings shall be done after the existing deck has been removed and prior to placing the new deck.  
 The Contractor shall submit, for approval by the Engineer, plans for jacking existing beams and removing the existing bearings prior to commencing any related work. See Special Provision.  
 Min. Jack Capacity = 7k.

\*JACKING LOAD

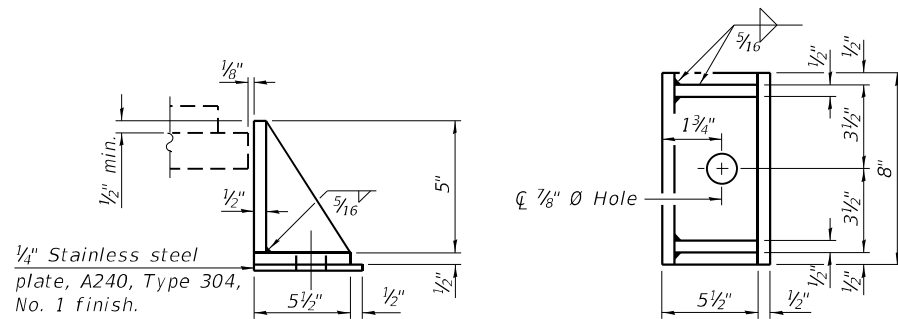
	Pier 4 S	Pier 7 S	Pier 7 N
R @ (k)	4.6	4.2	4.1

\* Service girder self-weight reactions are shown for a single girder with the deck removed. The Contractor shall design and place jacking system to replace the specified bearings for the stated beam reaction and as required in the Special Provisions.



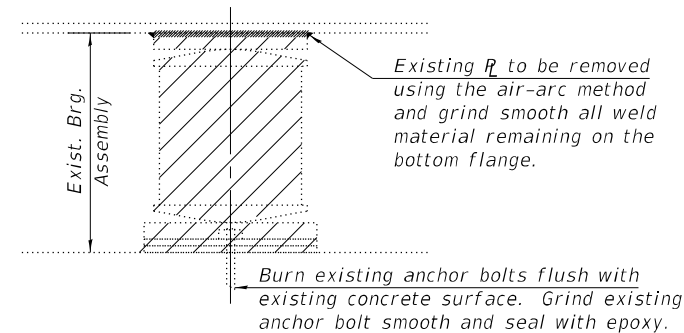
STEEL EXTENSION ELEVATION

Note:  
 Shim plates shall not be placed under bearing assembly.



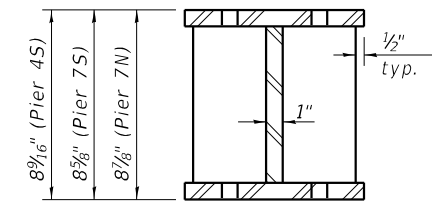
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



EXISTING BEARING REMOVAL DETAIL

Cost is included with Jack and Remove Existing Bearings



SECTION B-B

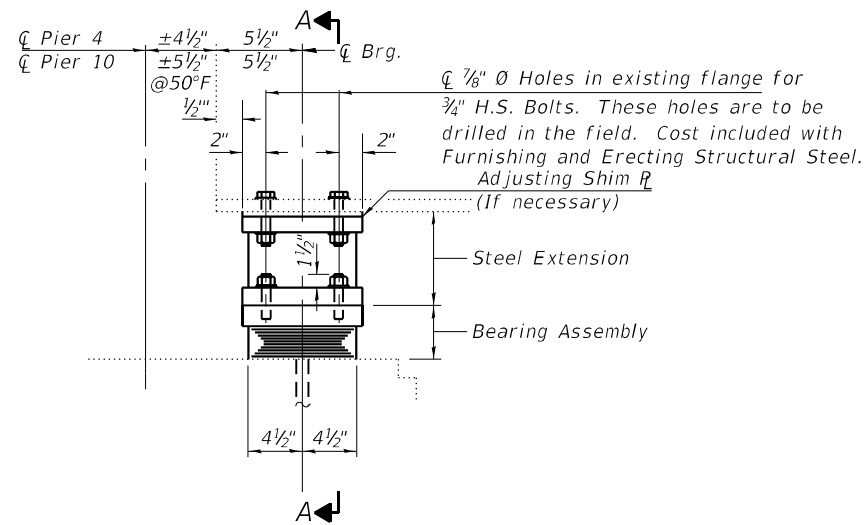
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Anchor Bolts, 5/8"	Each	36
Furnishing and Erecting Structural Steel	Pound	2,660
Jack and Remove Existing Bearings	Each	18

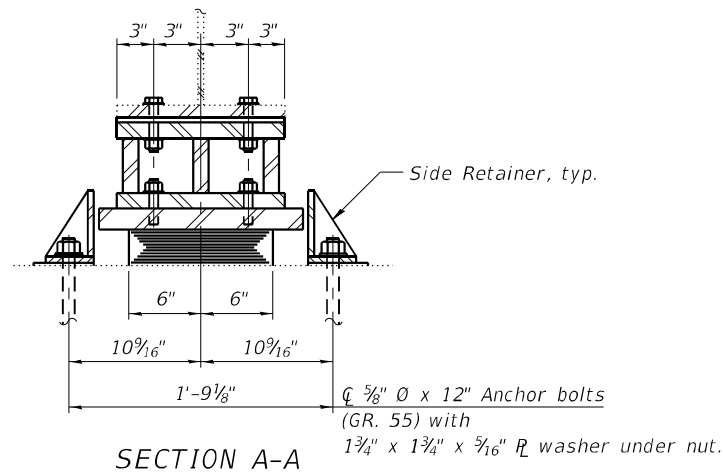
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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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USER NAME = mtc	DESIGNED - AS	REVISED -
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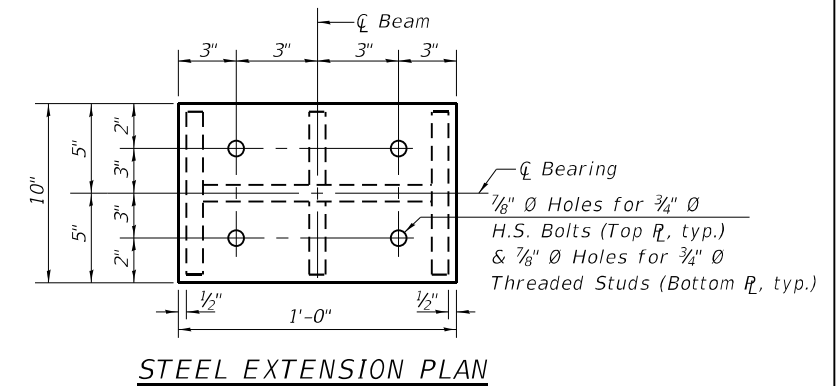
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			CONTRACT NO. 62H49	
ILLINOIS				



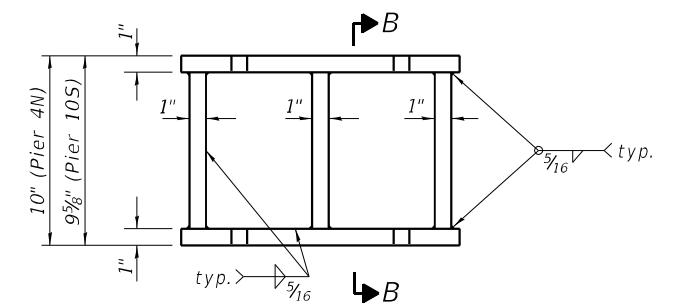
ELEVATION AT PIER 4 (N. BRG.) AND PIER 10 (S. BRG.)



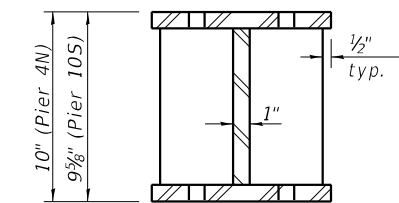
SECTION A-A



STEEL EXTENSION PLAN

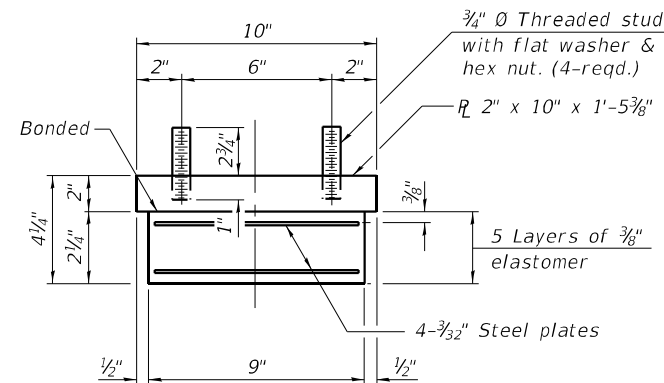


STEEL EXTENSION ELEVATION



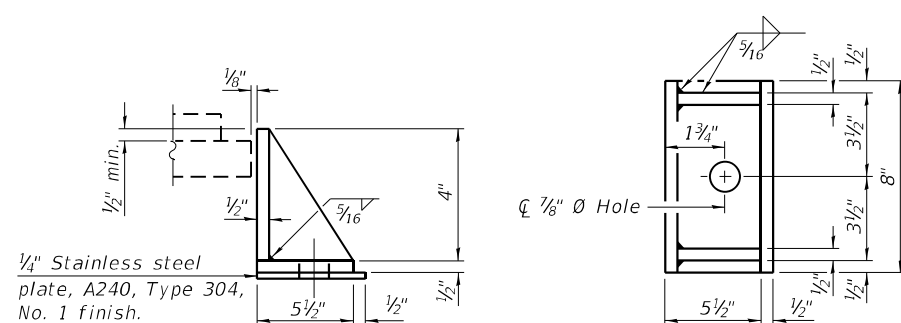
SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Note:  
Shim plates shall not be placed under bearing assembly.



SIDE RETAINER

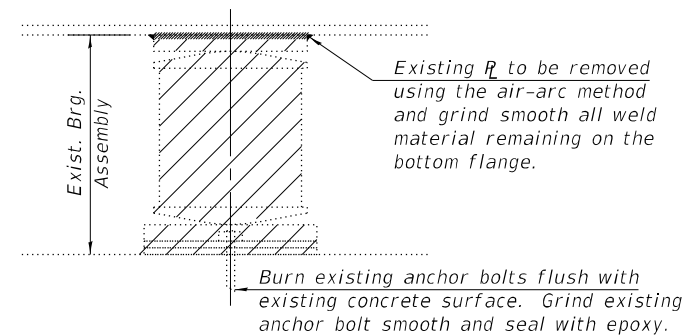
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:  
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
Jacking of existing girders and replacement of bearings shall be done after the existing deck has been removed and prior to placing the new deck.  
The Contractor shall submit, for approval by the Engineer, plans for jacking existing beams and removing the existing bearings prior to commencing any related work. See Special Provision.  
Min. Jack Capacity = 7k.

\*JACKING LOAD

	Pier 4 N	Pier 10 S
R Q (k)	4.2	3.6

\* Service girder self-weight reactions are shown for a single girder with the deck removed. The Contractor shall design and place jacking system to replace the specified bearings for the stated beam reaction and as required in the Special Provisions.



EXISTING BEARING REMOVAL DETAIL

Cost is included with Jack and Remove Existing Bearings

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 7/8"	Each	24
Furnishing and Erecting Structural Steel	Pound	1,900
Jack and Remove Existing Bearings	Each	12

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**BAXTER & WOODMAN**  
Consulting Engineers

USER NAME = mtc	DESIGNED - BAB	REVISED -
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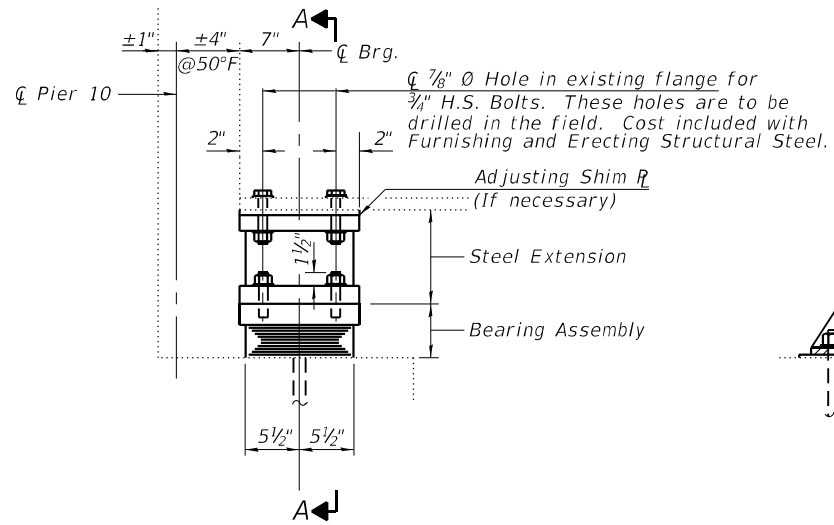
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS - PIER 4 NORTH & PIER 10 SOUTH  
STRUCTURE NO. 016-2468

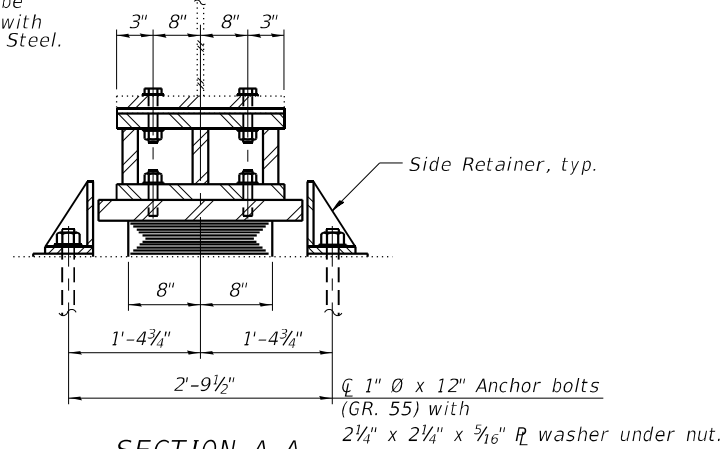
SHEET SA-50 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 62H49
ILLINOIS				



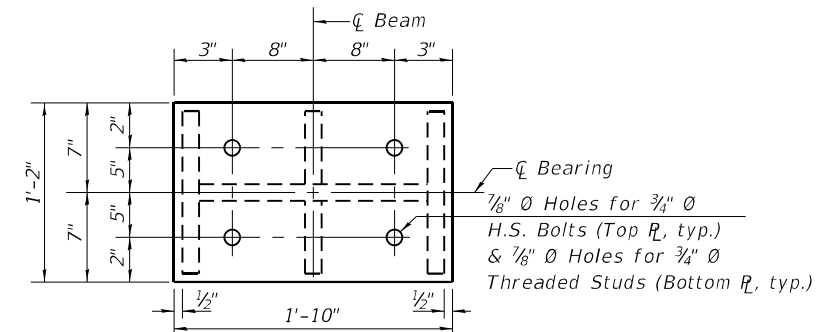


ELEVATION AT PIER 10 (N. BRG.)

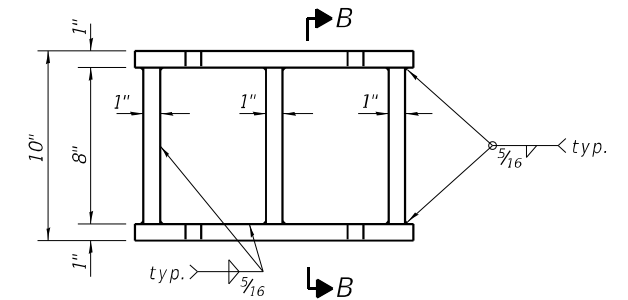


SECTION A-A

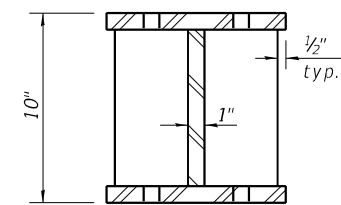
**TYPE I ELASTOMERIC EXP. BRG.**



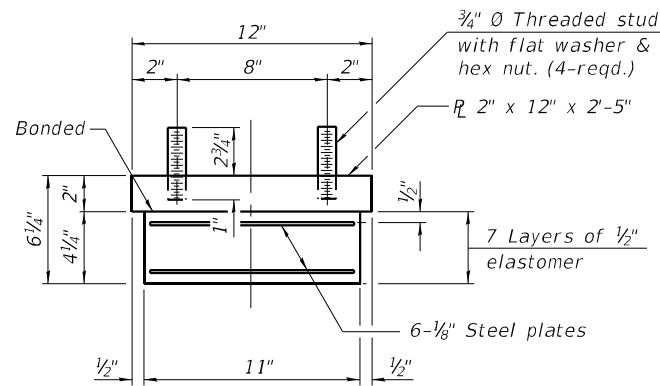
STEEL EXTENSION PLAN



STEEL EXTENSION ELEVATION

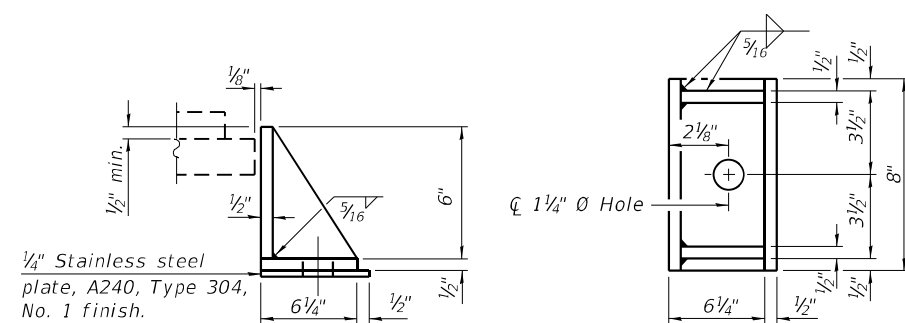


SECTION B-B



BEARING ASSEMBLY

Note:  
Shim plates shall not be placed under bearing assembly.



SIDE RETAINER

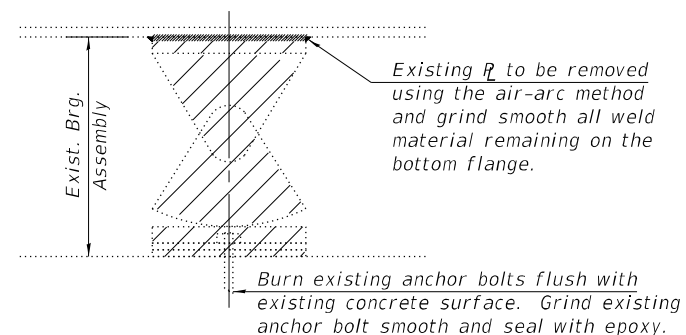
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:  
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
Jacking of existing girders and replacement of bearings shall be done after the existing deck has been removed and prior to placing the new deck.  
The Contractor shall submit, for approval by the Engineer, plans for jacking existing beams and removing the existing bearings prior to commencing any related work. See Special Provision.  
Min. Jack Capacity = 17k.

**\*JACKING LOAD**

	Pier 10 N
R D (k)	9.8

\* Service girder self-weight reaction is shown for a single girder with the deck removed. The Contractor shall design and place jacking system to replace the specified bearings for the stated beam reaction and as required in the Special Provisions.



EXISTING BEARING REMOVAL DETAIL

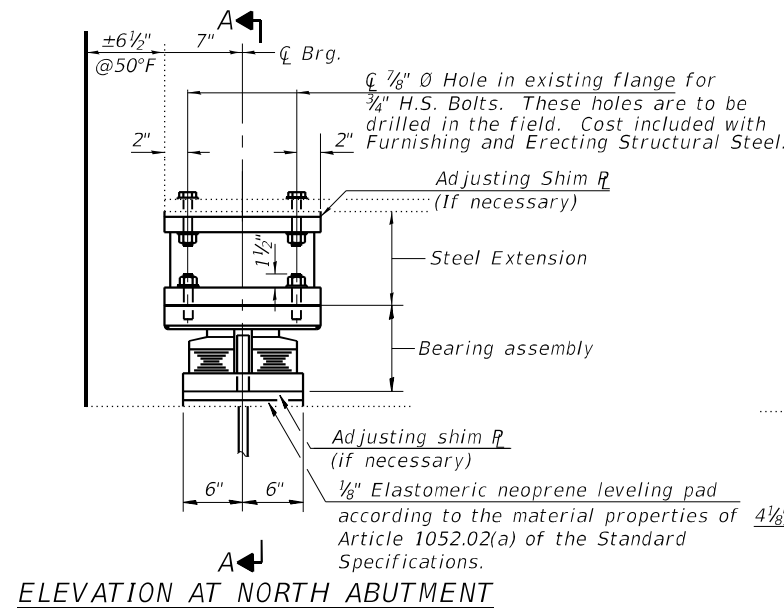
Cost is included with Jack and Remove Existing Bearings

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, 1"	Each	12
Furnishing and Erecting Structural Steel	Pound	1,730
Jack and Remove Existing Bearings	Each	6

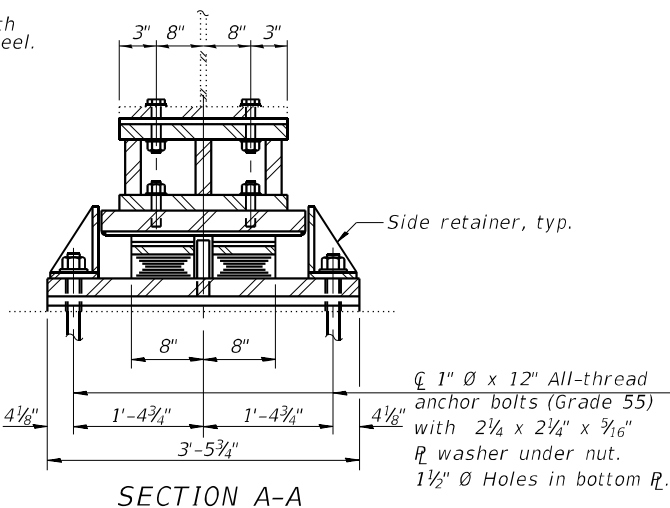
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 62H49	
ILLINOIS				



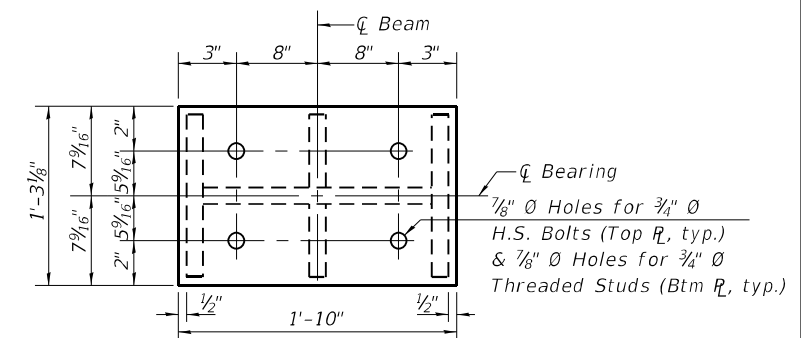
ELEVATION AT NORTH ABUTMENT

TYPE III ELASTOMERIC EXP. BRG.

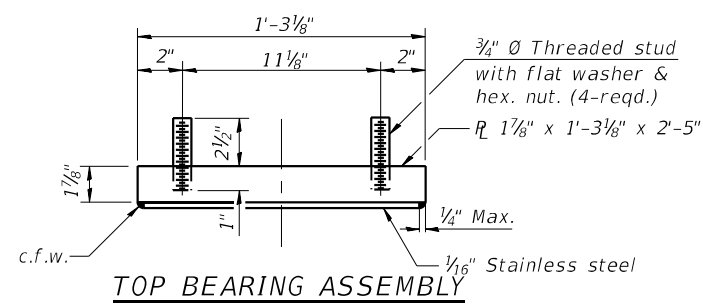


SECTION A-A

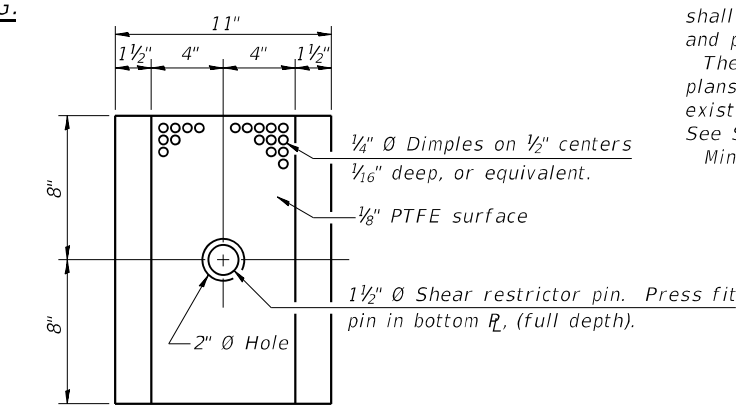
Notes:  
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.  
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
Side retainers and leveling pad required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type III.  
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.  
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.  
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.  
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
Jacking of existing girders and replacement of bearings shall be done after the existing deck has been removed and prior to placing the new deck.  
The Contractor shall submit, for approval by the Engineer, plans for jacking existing beams and removing the existing bearings prior to commencing any related work. See Special Provision.  
Min. Jack Capacity = 17k.



STEEL EXTENSION PLAN



TOP BEARING ASSEMBLY

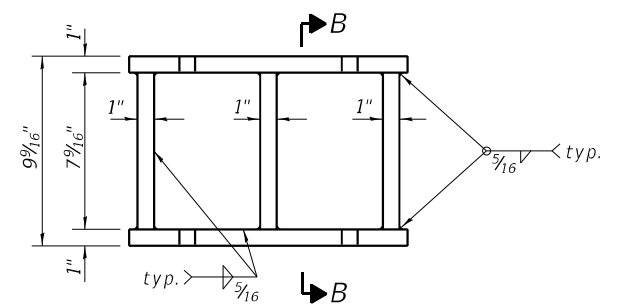


PLAN-PTFE ELASTOMERIC BRG.

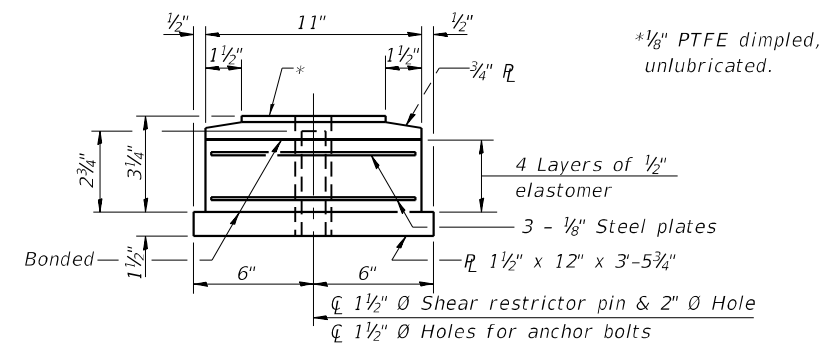
\*JACKING LOAD

R @ (k)	N Abut
	9.8

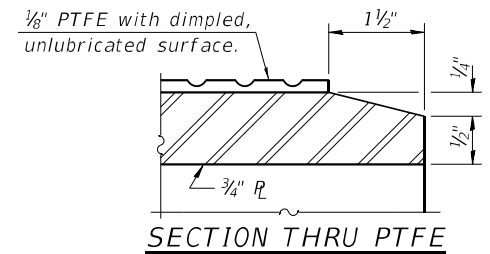
\* Service girder self-weight reaction is shown for a single girder with the deck removed. The Contractor shall design and place jacking system to replace the specified bearings for the stated beam reaction and as required in the Special Provisions.



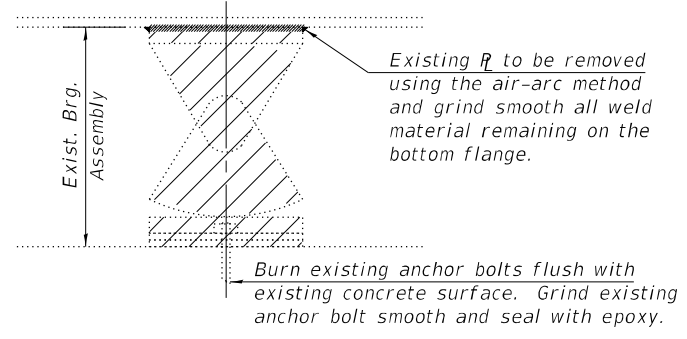
STEEL EXTENSION ELEVATION



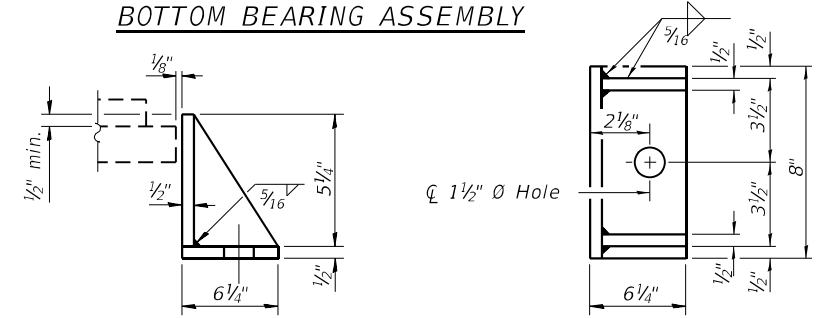
BOTTOM BEARING ASSEMBLY



SECTION THRU PTFE

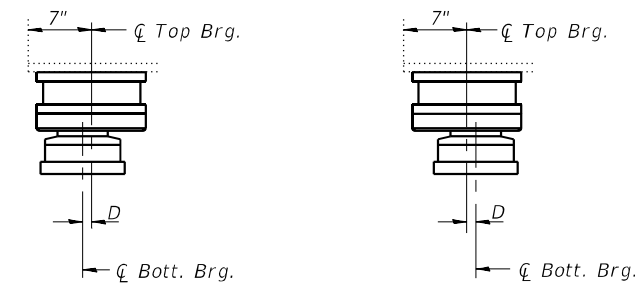


EXISTING BEARING REMOVAL DETAIL



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50° F.  
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.  
ABOVE 50° F.

EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.

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PLOT DATE = 10/21/2021	DRAWN - BAB	REVISED -
	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

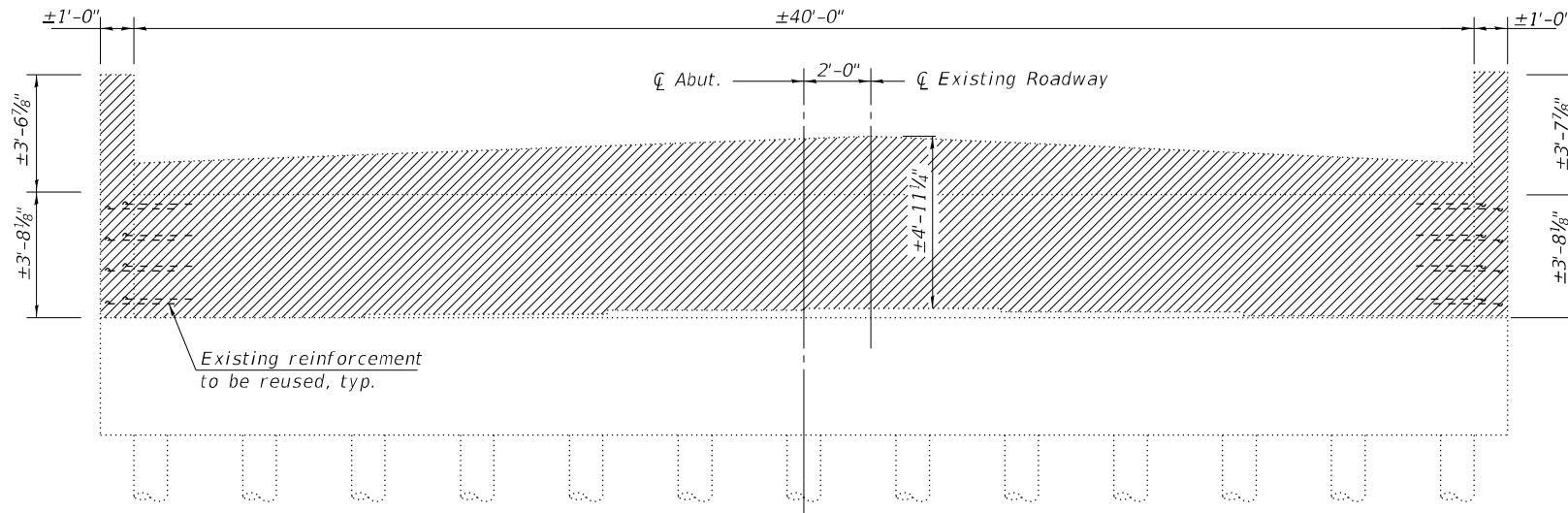
BEARING DETAILS - NORTH ABUTMENT  
STRUCTURE NO. 016-2468

SHEET SA-52 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 166
			CONTRACT NO. 62H49	
ILLINOIS				

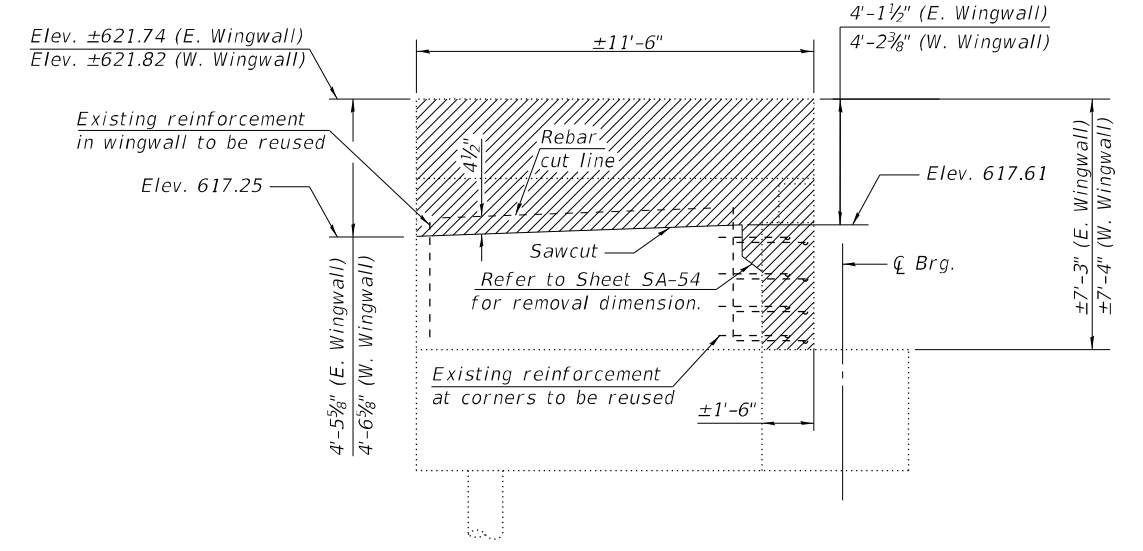
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	6
Anchor Bolts, 1"	Each	12
Furnishing and Erecting Structural Steel	Pound	2,110
Jack and Remove Existing Bearings	Each	6

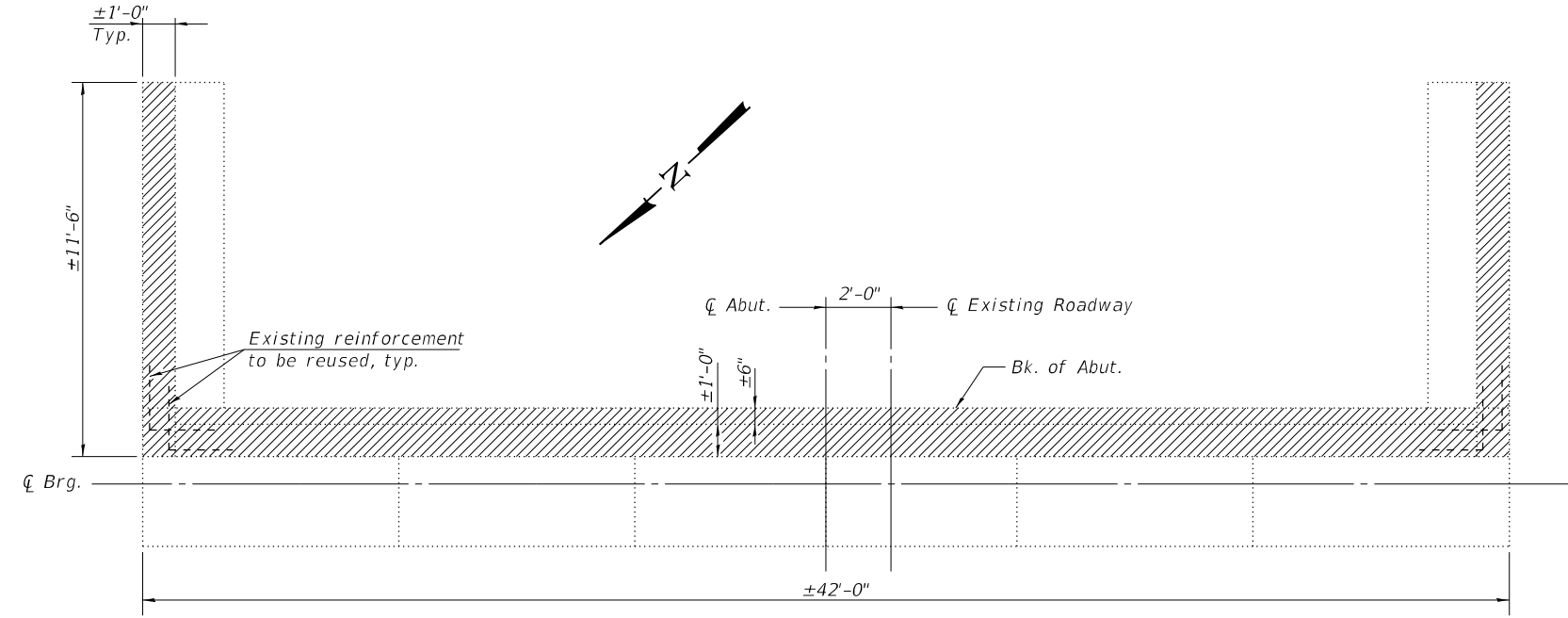


**ELEVATION**  
(Looking South)

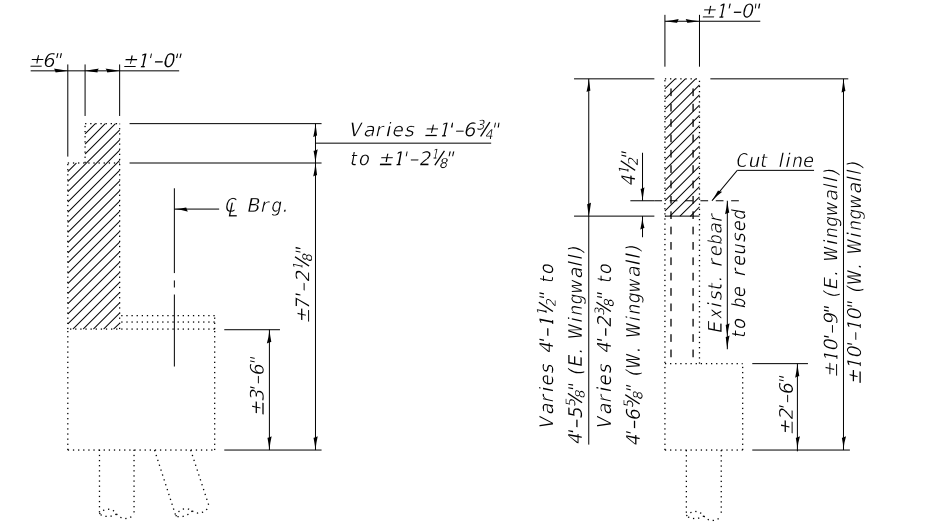
Note: See Section Thru Abutment for lower limit of Concrete Removal.



**WINGWALL ELEVATION**  
(East Wingwall shown, West Wingwall similar)



**SOUTH ABUTMENT PLAN**



**SECTION THRU ABUTMENT**

**SECTION THRU WINGWALL**

**NOTES**

Existing reinforcement shall be cleaned and incorporated into the new construction, unless otherwise noted. Cost included with Concrete Removal.  
Any excavation and backfill necessary to complete wingwall removal as shown shall be included with the cost of Concrete Removal.

**BILL OF MATERIAL**

Item	Unit	Total
Concrete Removal	Cu. Yd.	14.5

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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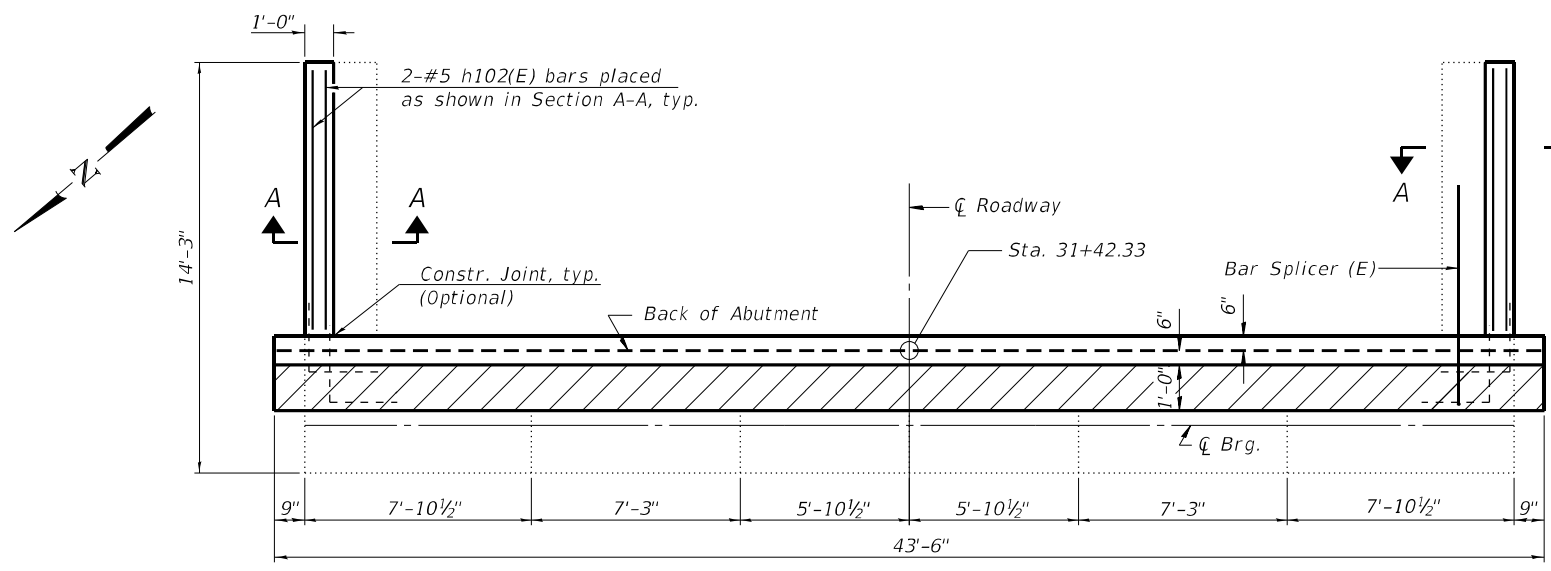
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PLOT DATE = 10/21/2021	DRAWN - <b>BAB</b>	REVISED -
	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

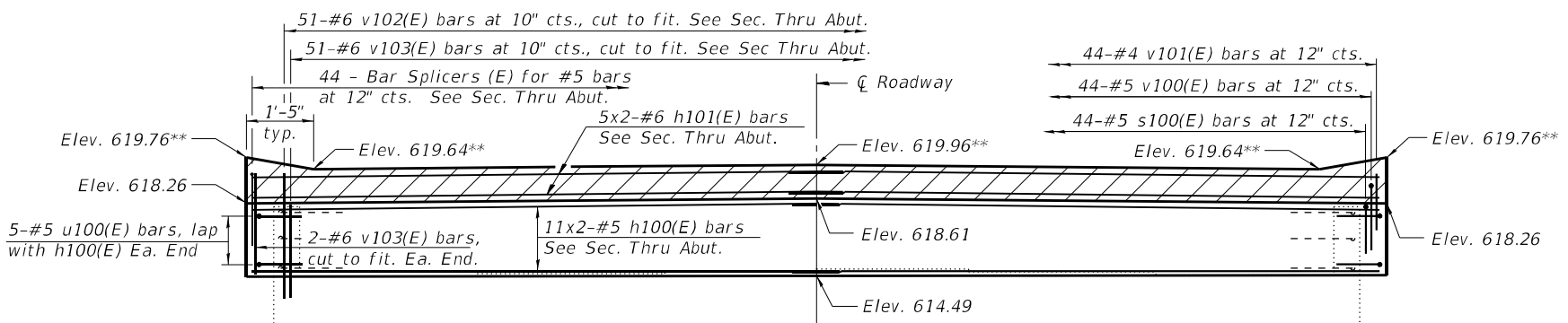
**SOUTH ABUTMENT REMOVAL PLAN**  
**STRUCTURE NO. 016-2468**

SHEET SA-53 OF SA-73 SHEETS

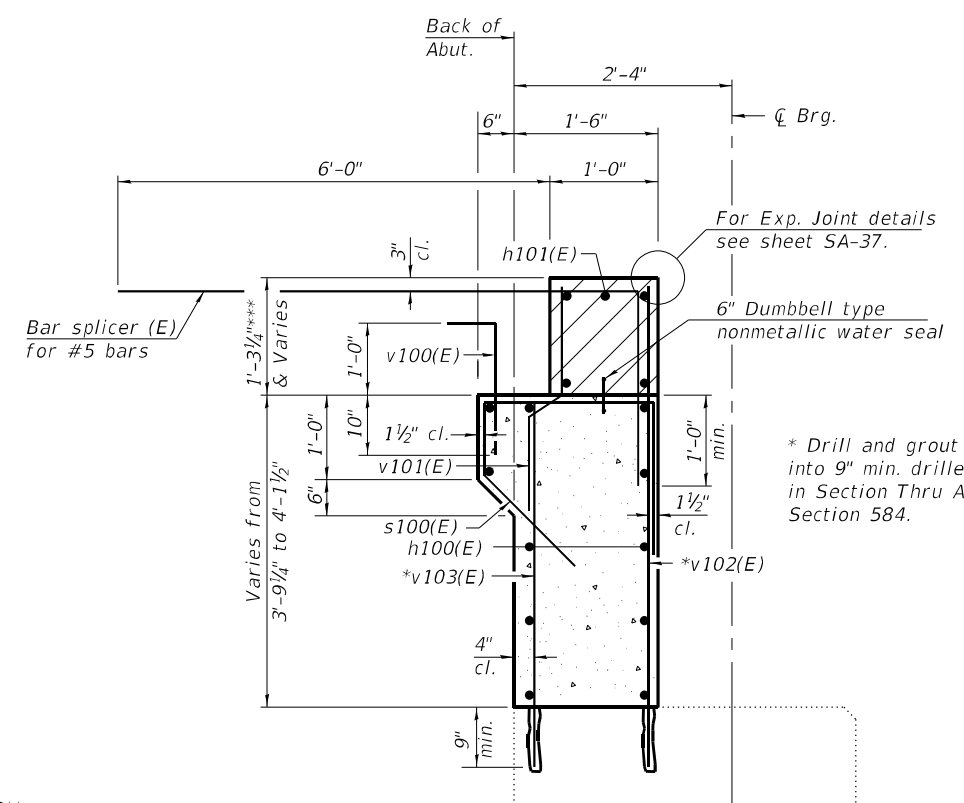
F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 167
ILLINOIS			CONTRACT NO. 62H49	



**SOUTH ABUTMENT TOP VIEW**



**ELEVATION**  
(Looking South)

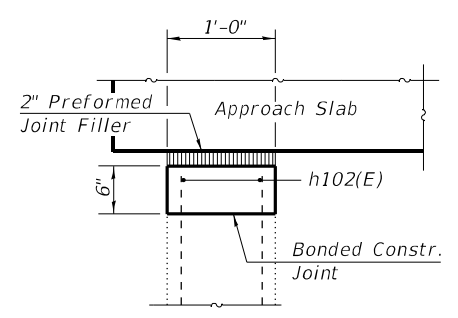


**SEC. THRU ABUT.**

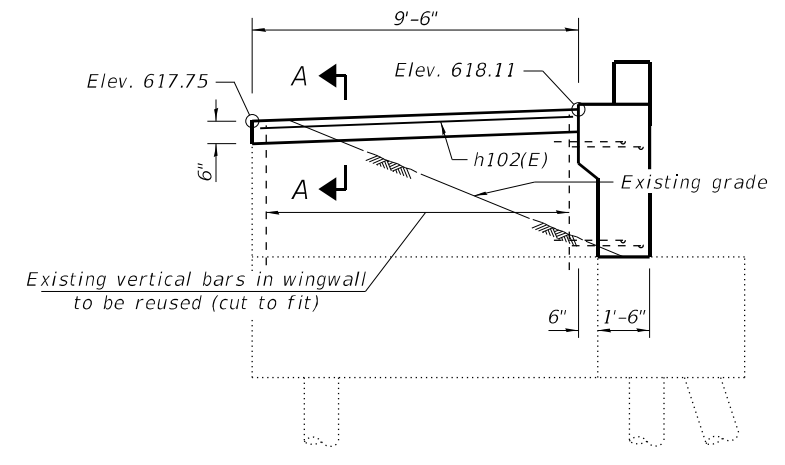
\*\* Prior to Grinding; shown at front face of backwall

**MINIMUM BAR LAP**  
#5 bar = 3'-4"  
#6 bar = 4'-5"

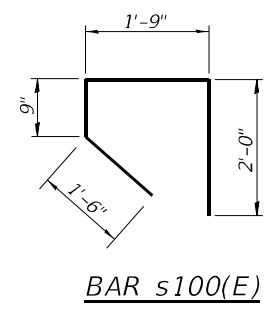
Notes:  
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.



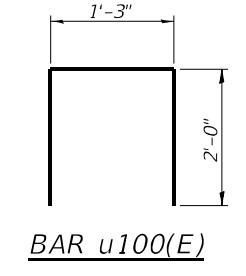
**SECTION A-A**



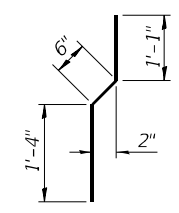
**WINGWALL ELEVATION**  
(Southeast Wingwall shown, Southwest Wingwall similar)



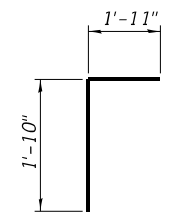
**BAR s100(E)**



**BAR u100(E)**



**BAR v101(E)**



**BAR v100(E)**

**SOUTH ABUTMENT BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h100(E)	22	#5	23'-4"	—
h101(E)	10	#6	23'-10"	—
h102(E)	4	#5	9'-2"	—
s100(E)	44	#5	6'-0"	└
u100(E)	10	#5	5'-3"	┐
v100(E)	44	#5	3'-9"	┌
v101(E)	44	#4	2'-11"	└
v102(E)	52	#6	6'-0"	—
v103(E)	56	#6	4'-9"	—
Structure Excavation		Cu. Yd.	36	
Concrete Structures		Cu. Yd.	10.9	
Reinforcement Bars, Epoxy Coated		Pound	2,390	
Concrete Sealer		Sq. Ft.	270	

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.

For details of Bar Splicers, see sheet SA-72.

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	DATE - 10/21/2021	REVISED -

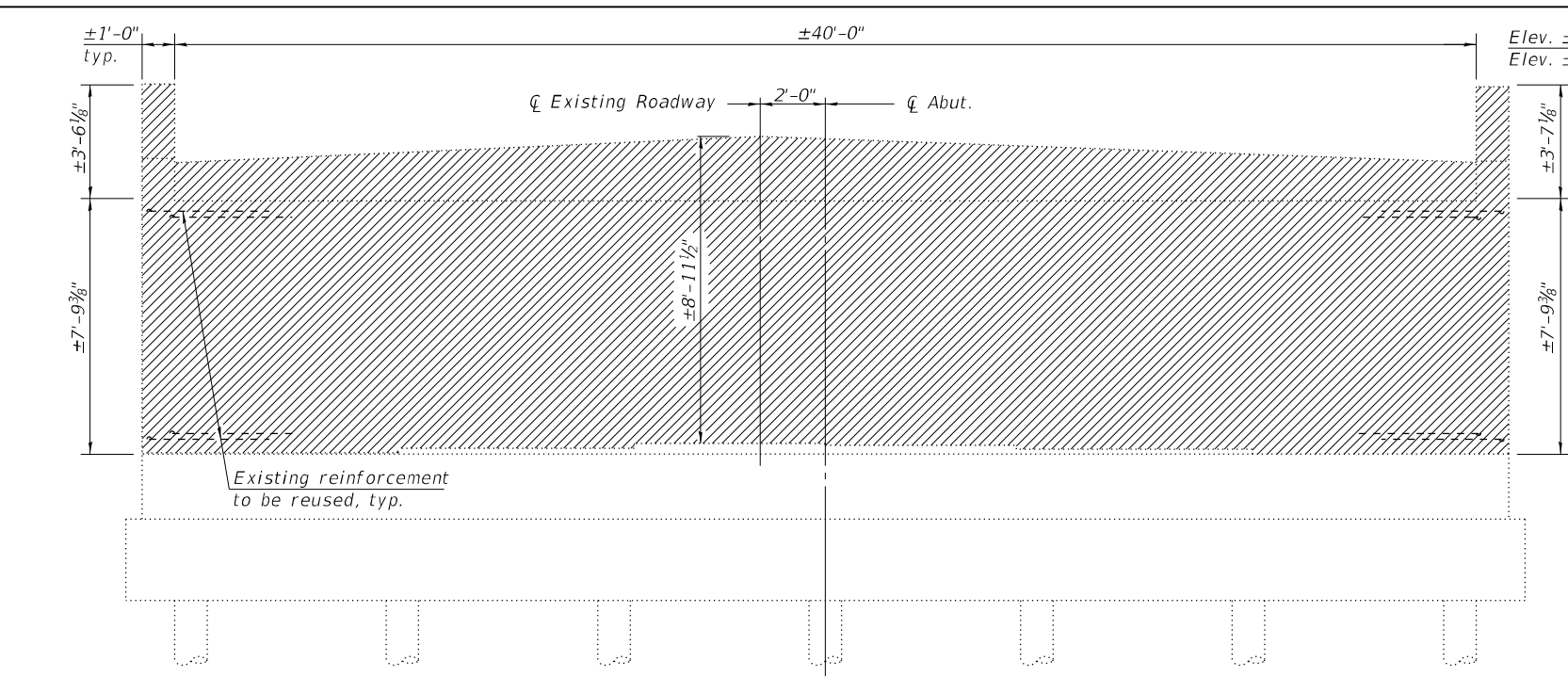
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SOUTH ABUTMENT DETAILS**  
**STRUCTURE NO. 016-2468**

SHEET SA-54 OF SA-73 SHEETS

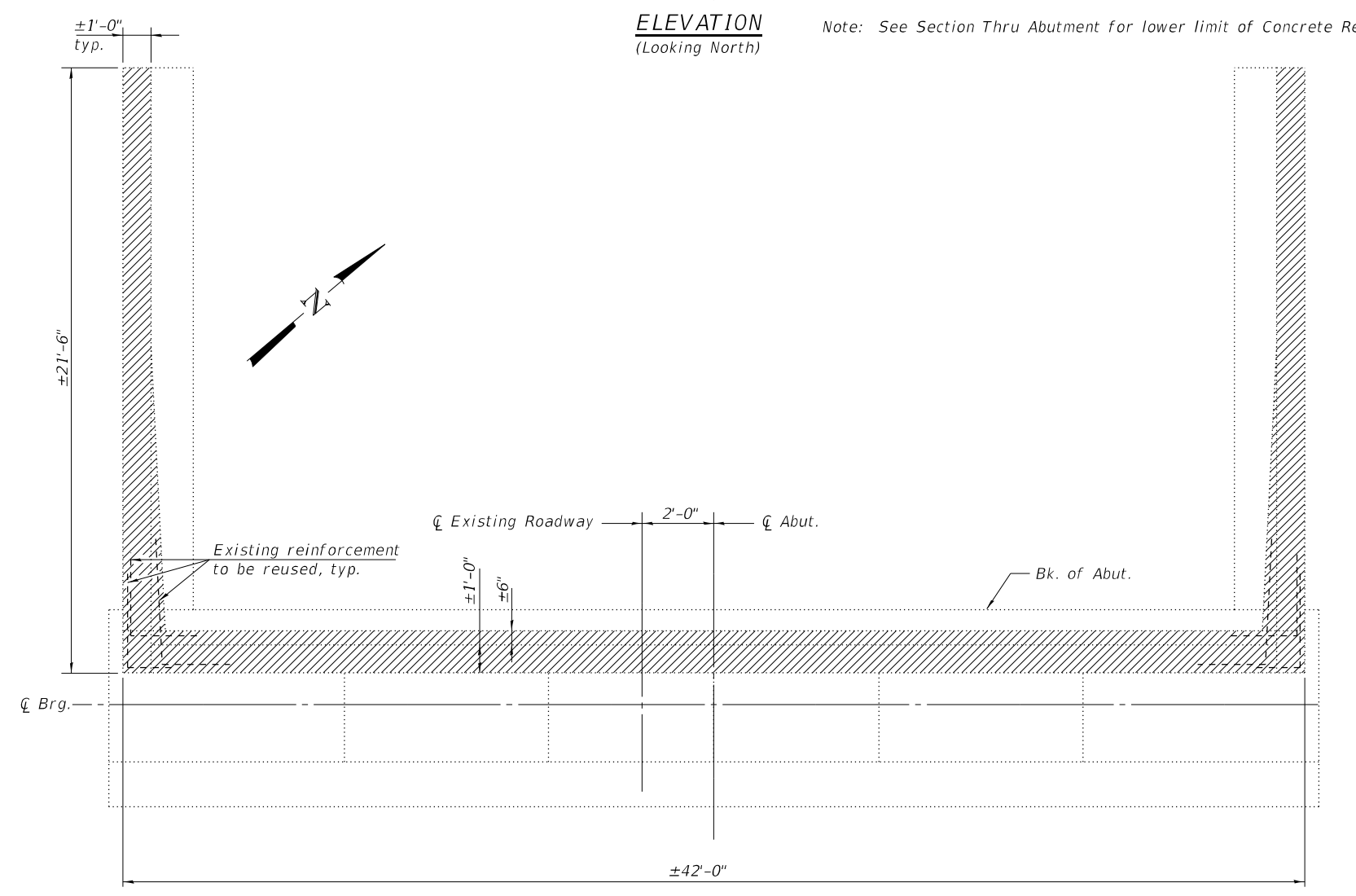
F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 168
ILLINOIS			CONTRACT NO. 62H49	

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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 FILE NAME: pw:\victeltech-pw-bentley.com\civ\iltech-pw\Documents\Projects\3393\CAD\CADD Sheets\Structures\Structure SN 016-2468\0162468-62145-055-NABUTREMOVAL.dgn

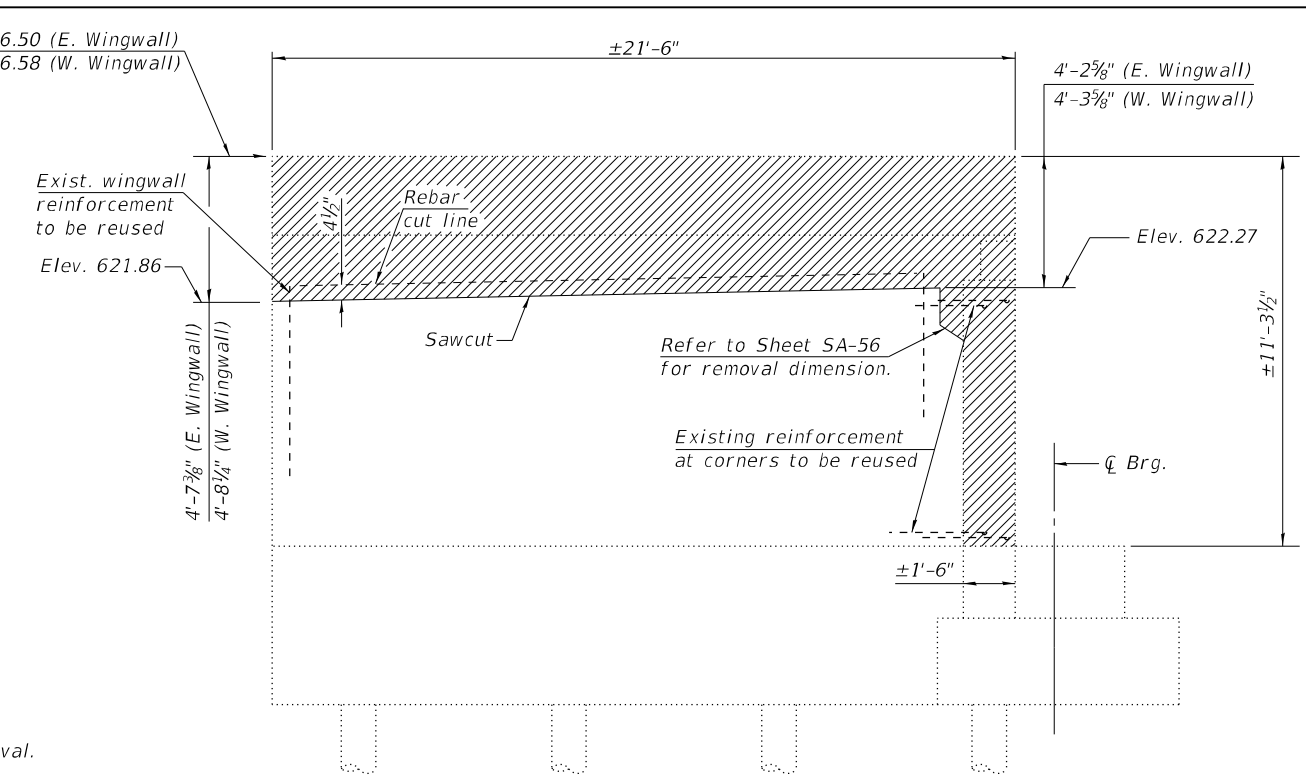


**ELEVATION**  
(Looking North)

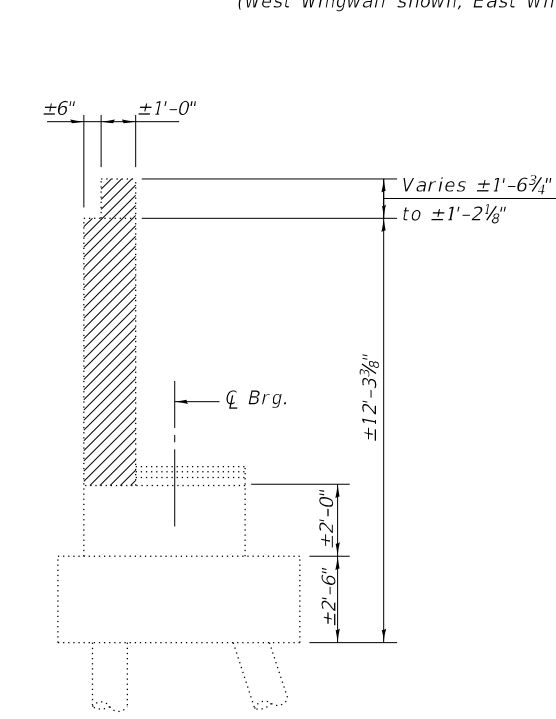
Note: See Section Thru Abutment for lower limit of Concrete Removal.



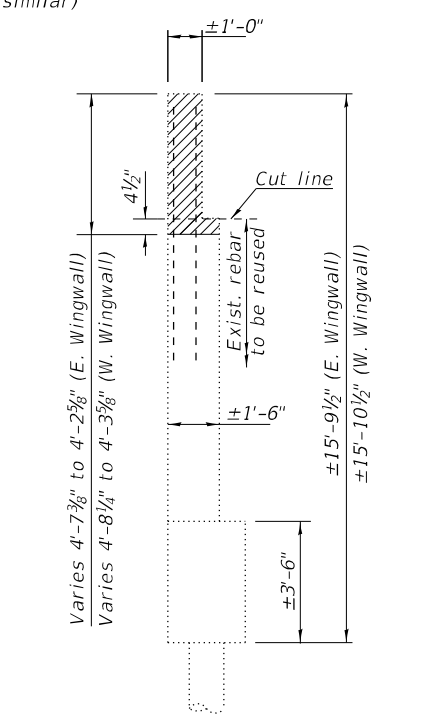
**NORTH ABUTMENT PLAN**



**WINGWALL ELEVATION**  
(West Wingwall shown, East Wingwall similar)



**SECTION THRU ABUTMENT**



**SECTION THRU WINGWALL**

**NOTES**

Existing reinforcement shall be cleaned and incorporated into the new construction, unless otherwise noted. Cost included with Concrete Removal.  
 Any excavation and backfill necessary to complete wingwall removal as shown shall be included with the cost of Concrete Removal.

**BILL OF MATERIAL**

Item	Unit	Total
Concrete Removal	Cu. Yd.	28.0

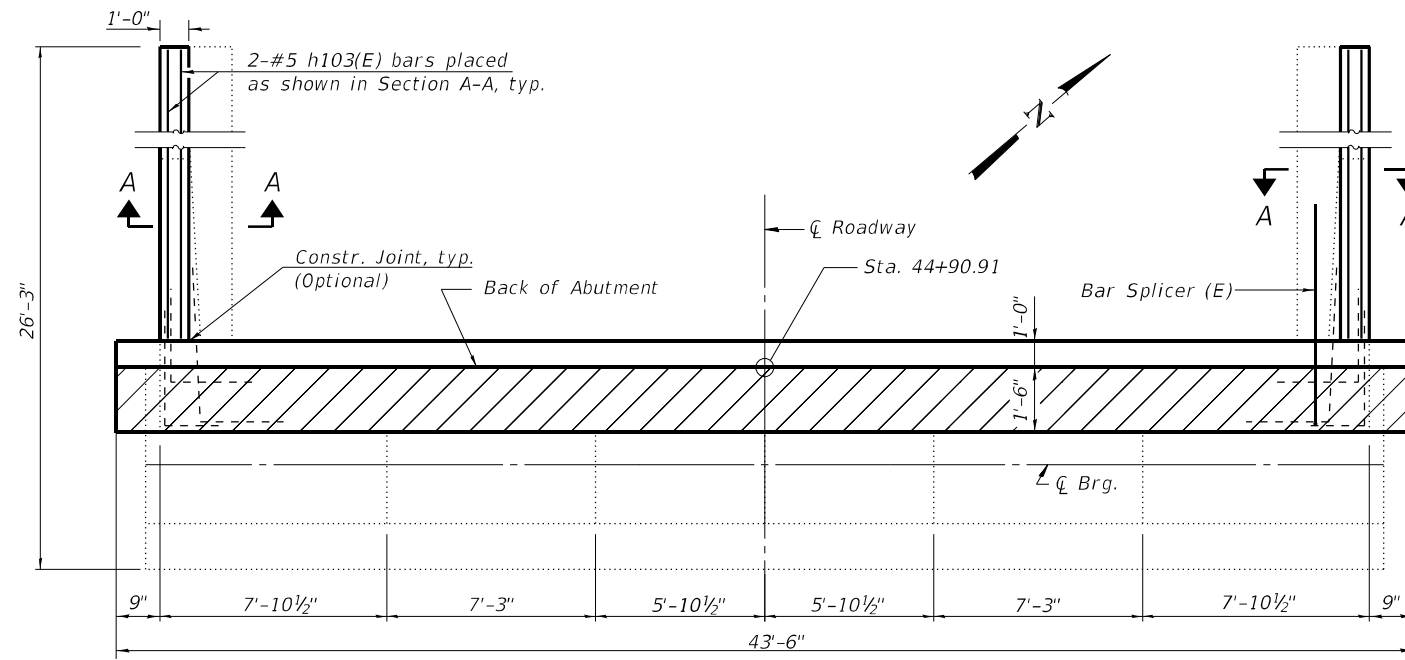
<b>BAXTER &amp; WOODMAN</b> Consulting Engineers	USER NAME = mtc	DESIGNED - <b>BAB</b>	REVISED -
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	PLOT DATE = 10/21/2021	DRAWN - <b>BAB</b>	REVISED -
		DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

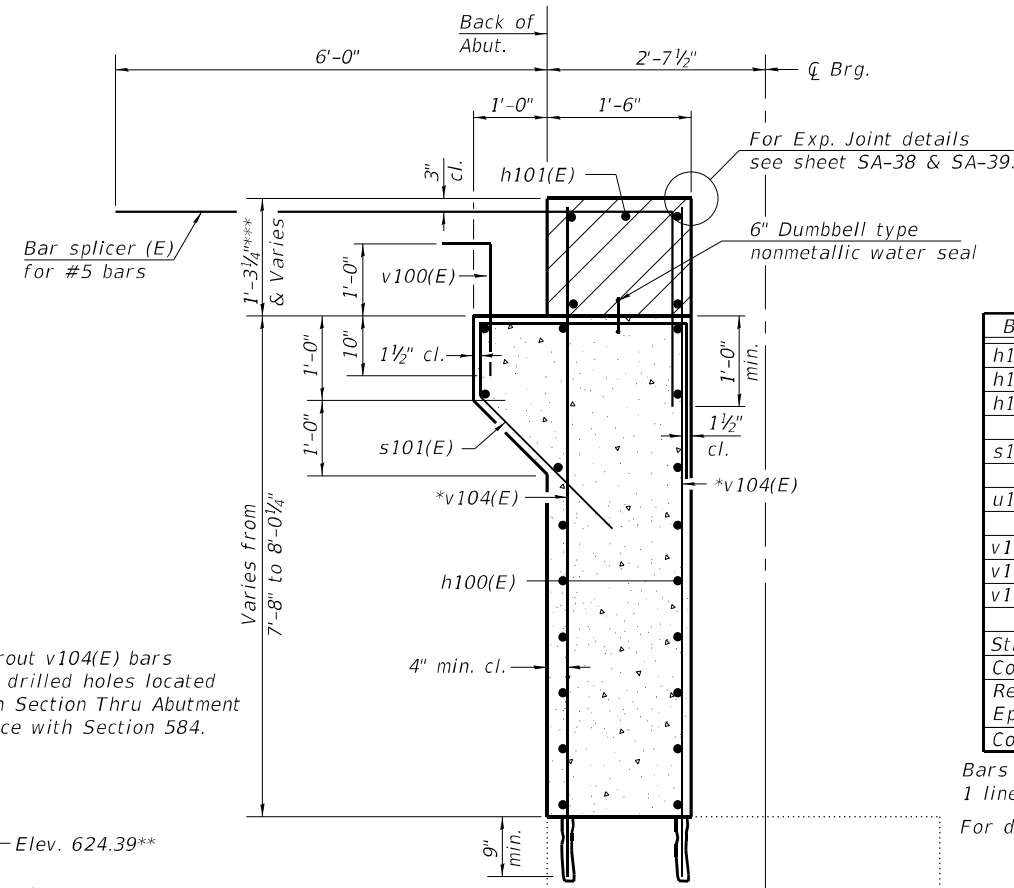
**NORTH ABUTMENT REMOVAL PLAN**  
**STRUCTURE NO. 016-2468**

SHEET SA-55 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 169
ILLINOIS			CONTRACT NO. 62H49	



**NORTH ABUTMENT TOP VIEW**

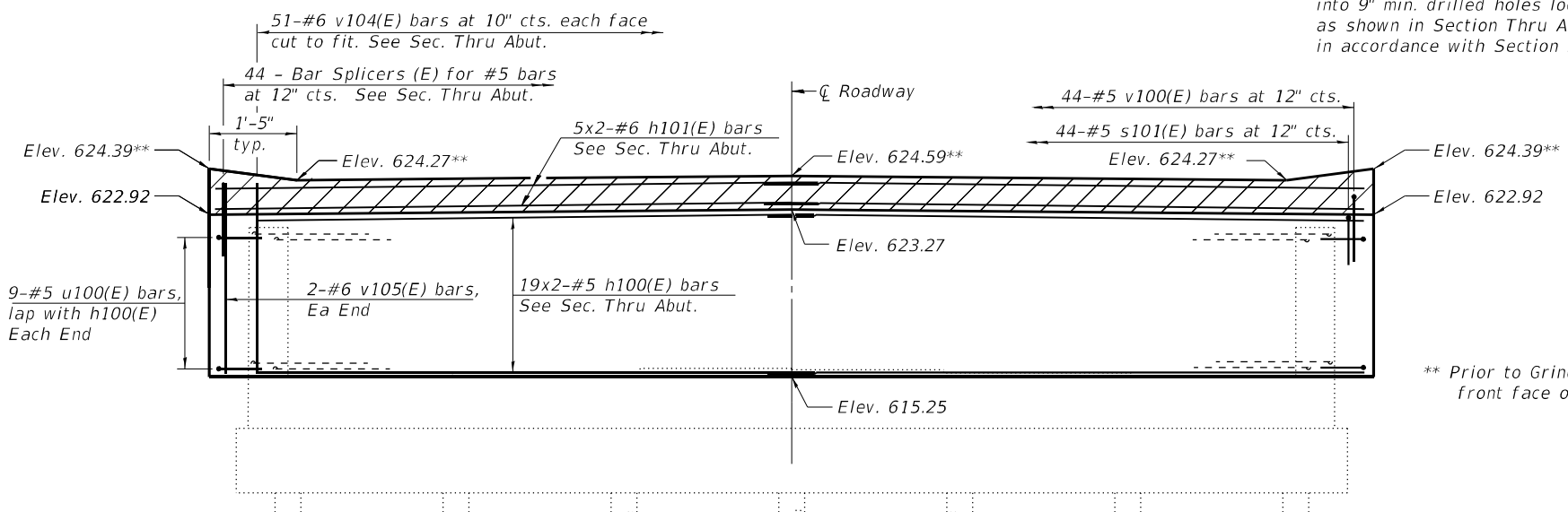


**SEC. THRU ABUT.**

**NORTH ABUTMENT  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h100(E)	38	#5	23'-4"	—
h101(E)	10	#6	23'-10"	—
h103(E)	4	#5	19'-2"	—
s101(E)	44	#5	7'-0"	└
u100(E)	18	#5	5'-3"	└
v100(E)	44	#5	3'-9"	└
v104(E)	102	#6	9'-10"	—
v105(E)	4	#6	8'-9"	—
Structure Excavation			Cu. Yd.	90
Concrete Structures			Cu. Yd.	22.2
Reinforcement Bars, Epoxy Coated			Pound	3,520
Concrete Sealer			Sq. Ft.	462

Bars indicated thus 1 x 2-#4 etc. indicates 1 line of bars with 2 lengths per line.  
For details of Bar Splicers, see sheet SA-72.

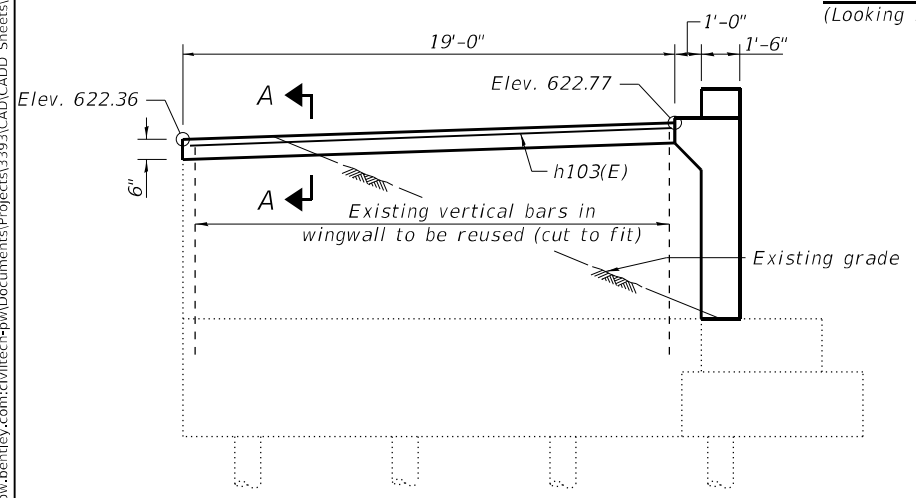
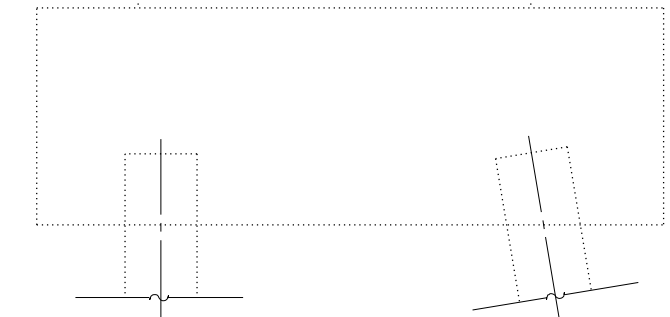


**ELEVATION  
(Looking North)**

\* Drill and grout v104(E) bars into 9" min. drilled holes located as shown in Section Thru Abutment in accordance with Section 584.

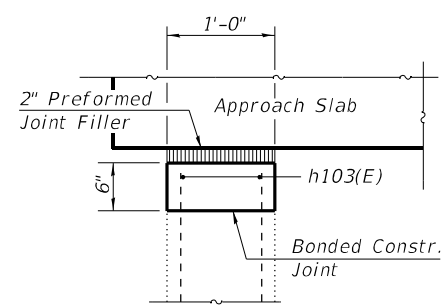
\*\* Prior to Grinding; shown at front face of backwall

**MINIMUM BAR LAP**  
#5 bar = 3'-4"  
#6 bar = 4'-5"



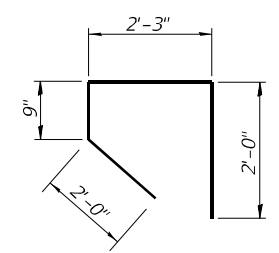
**WINGWALL ELEVATION**

Northwest Wingwall shown, Northeast Wingwall similar

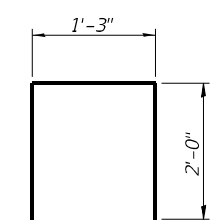


**SECTION A-A**

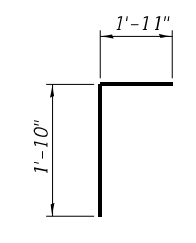
Notes:  
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.



**BAR s101(E)**



**BAR u100(E)**



**BAR v100(E)**

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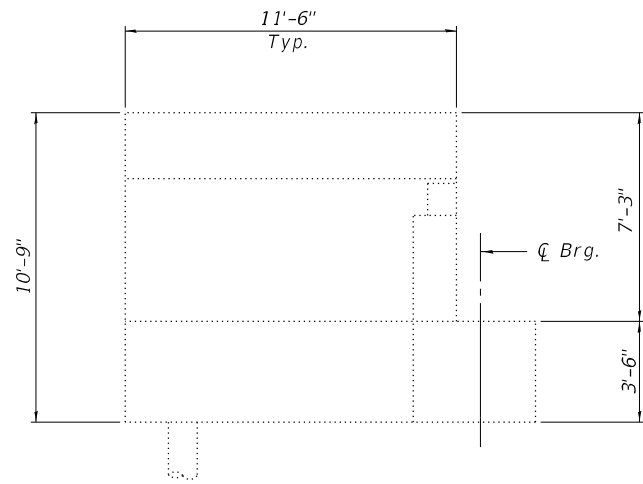
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

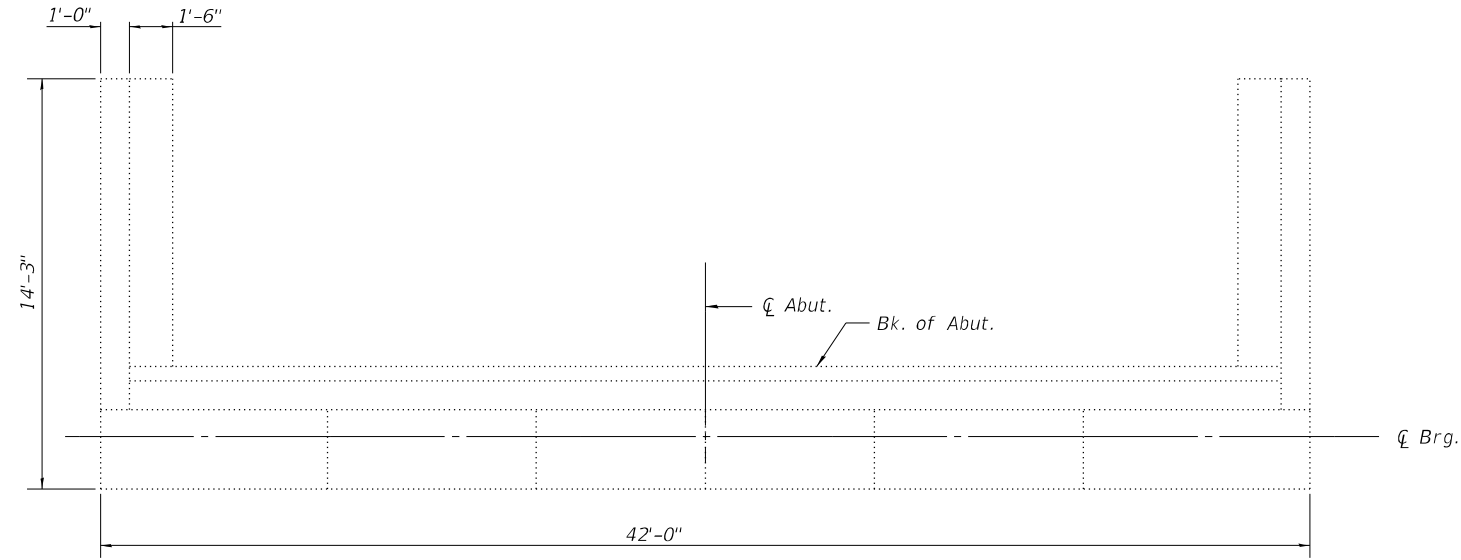
**NORTH ABUTMENT DETAILS  
STRUCTURE NO. 016-2468**

SHEET SA-56 OF SA-73 SHEETS

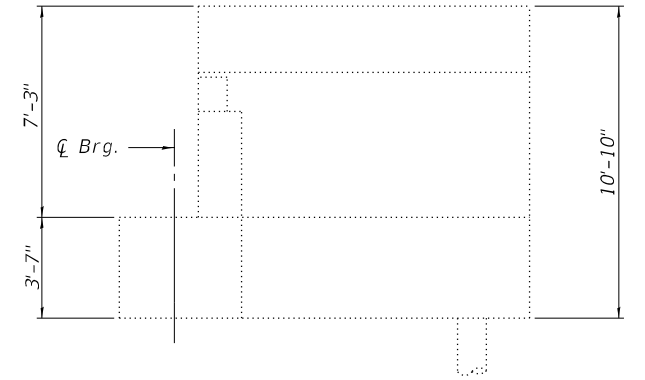
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330	2018-133-BR	COOK	308	170
CONTRACT NO. 62H49			ILLINOIS	



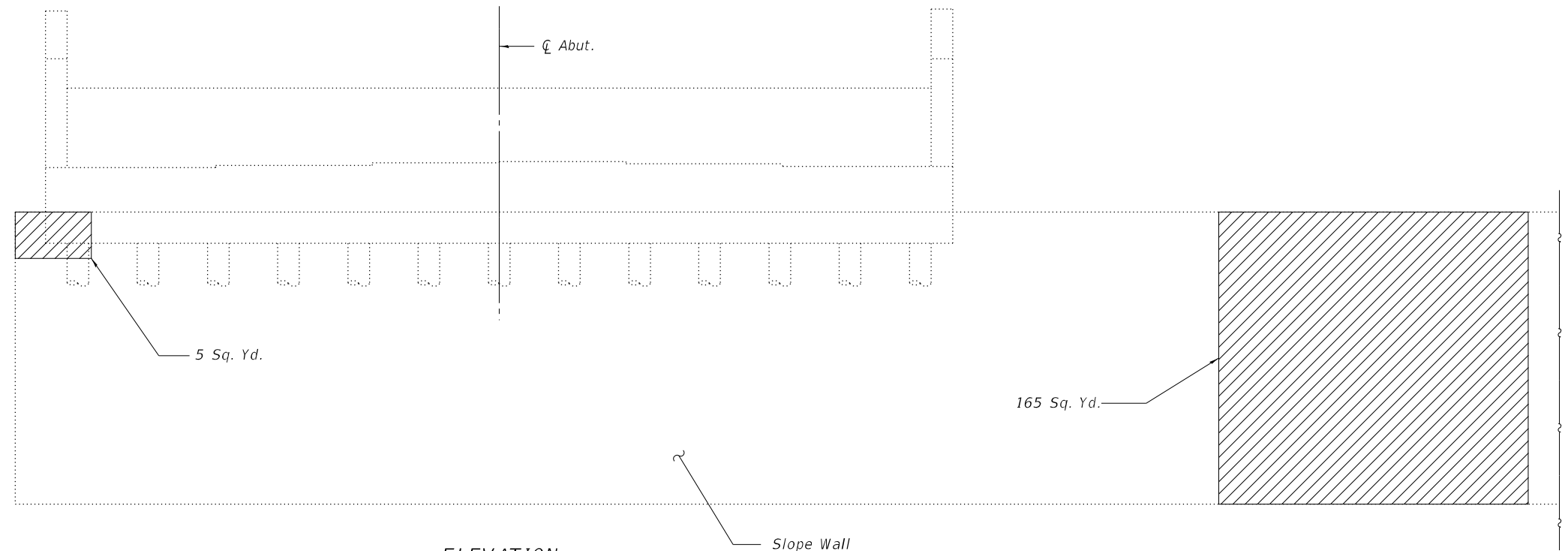
**EAST WING ELEVATION**  
(Looking West)



**PLAN**



**WEST WING ELEVATION**  
(Looking East)



**ELEVATION**  
(Looking South)

**LEGEND**

Slope Wall Repair

**BILL OF MATERIAL**

Item	Unit	Total
Slope Wall Repair	Sq Yd	300

**NOTES:**

Repairs to the existing abutments shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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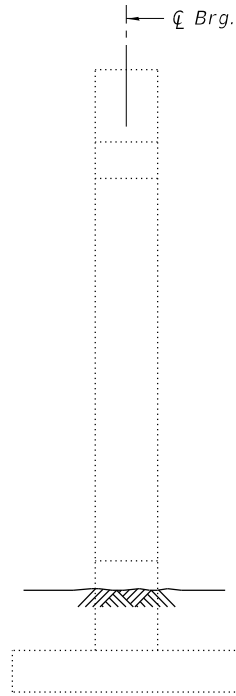
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	PLOT DATE = 11/15/2021	DRAWN - <b>LJK</b>	REVISED -
		DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SOUTH ABUTMENT AND SLOPE WALL REPAIR  
STRUCTURE NO. 016-2468**

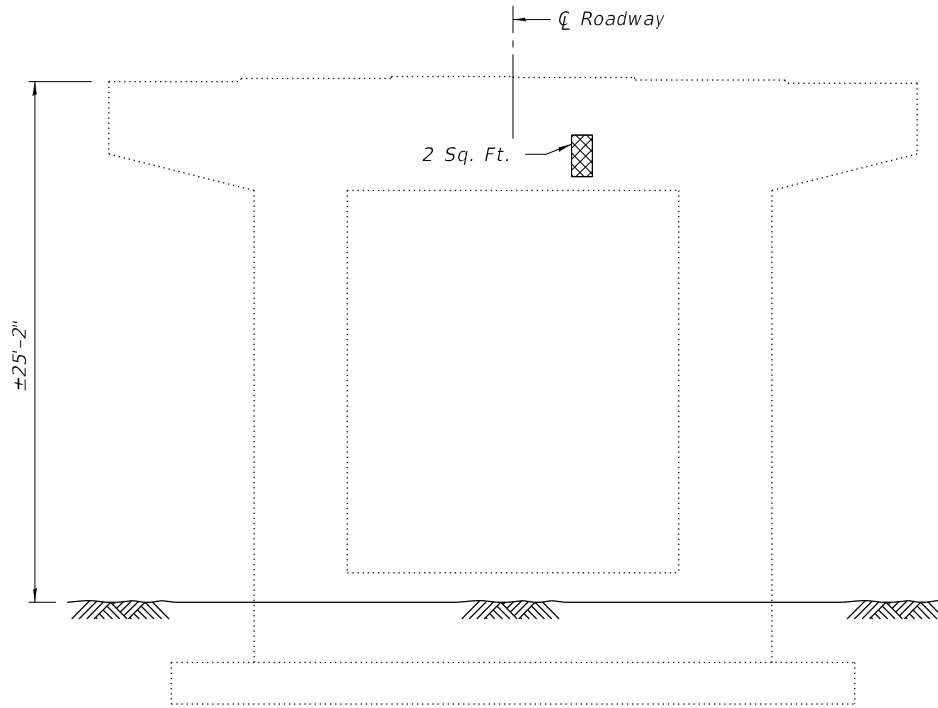
SHEET SA-57 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 171
			CONTRACT NO. 62H49	
		ILLINOIS		



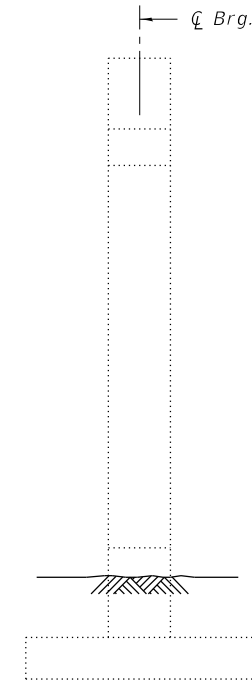
**WEST END ELEVATION**  
(Looking East)

**INSIDE ELEVATION**  
(Looking West)

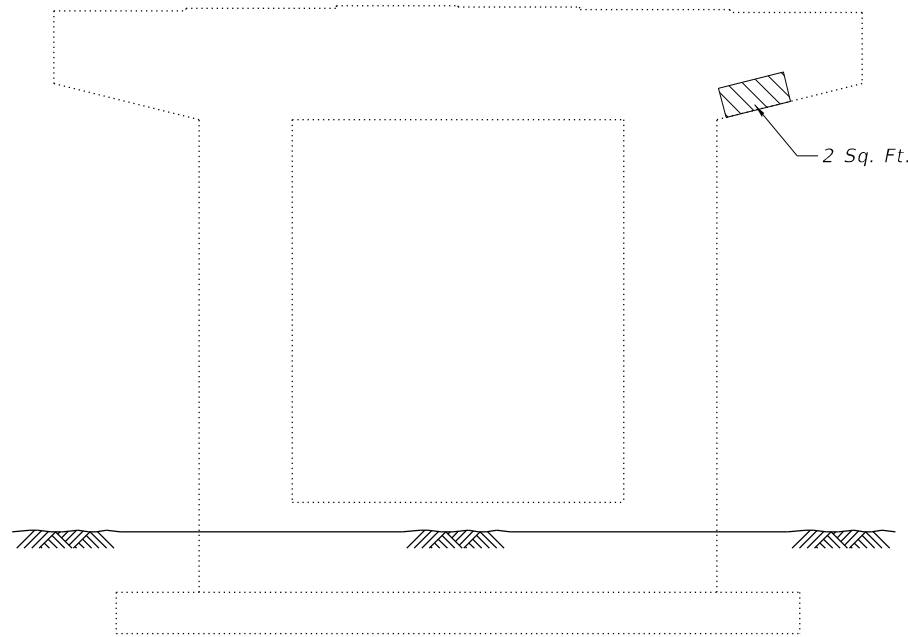


**SOUTH ELEVATION**  
(Looking North)

**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**LEGEND**

- Structural Repair of Concrete (Depth Greater Than 5")
- Structural Repair of Concrete (Depth Equal To Or Less Than 5")

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq Ft	5
Structural Repair of Concrete (Depth Greater Than 5")	Sq Ft	5

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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USER NAME = 611blb	DESIGNED - <b>BAB</b>	REVISED -
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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

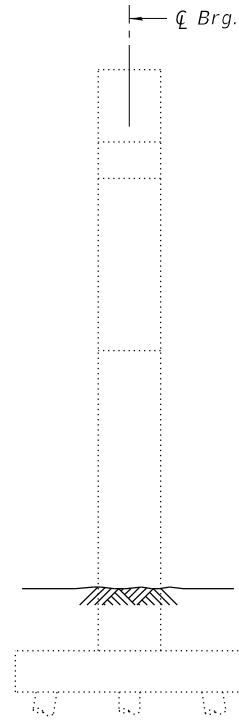
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 1 REPAIR  
STRUCTURE NO. 016-2468**

SHEET SA-58 OF SA-73 SHEETS

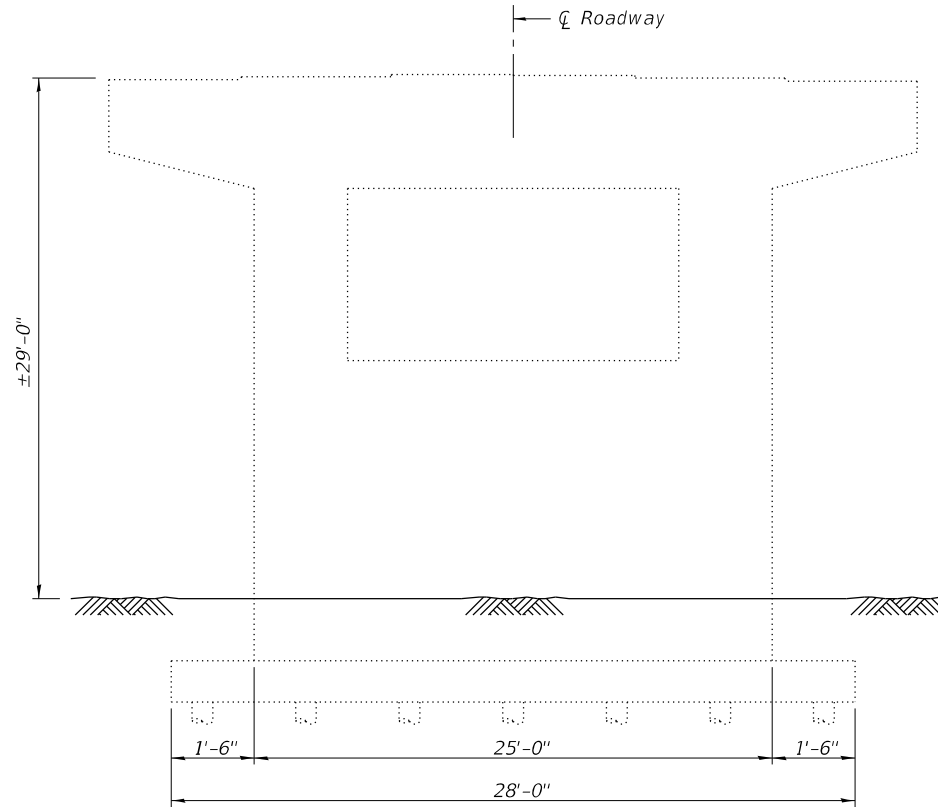
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS			CONTRACT NO. 62H49	





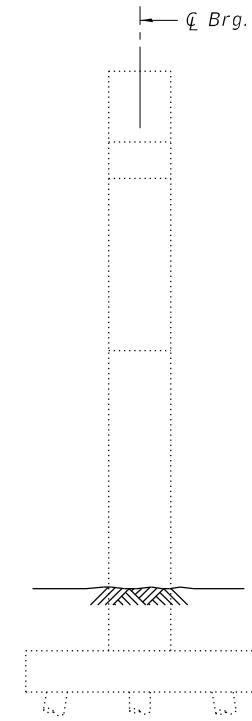
**WEST END ELEVATION**  
(Looking East)

**INSIDE ELEVATION**  
(Looking West)

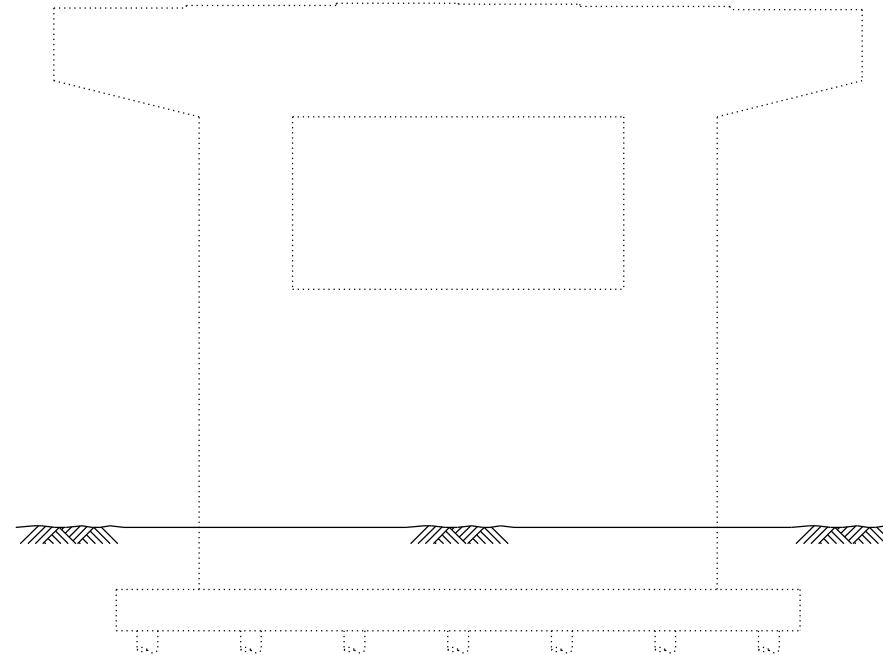


**SOUTH ELEVATION**  
(Looking North)

**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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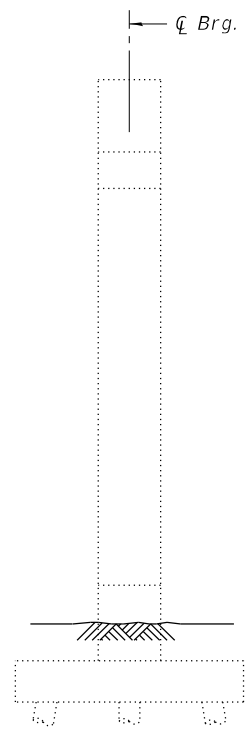
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

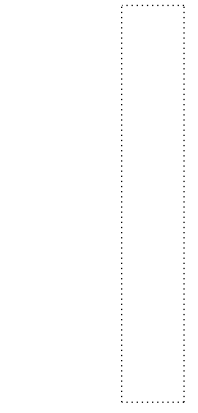
**PIER 2 REPAIR**  
**STRUCTURE NO. 016-2468**

SHEET SA-59 OF SA-73 SHEETS

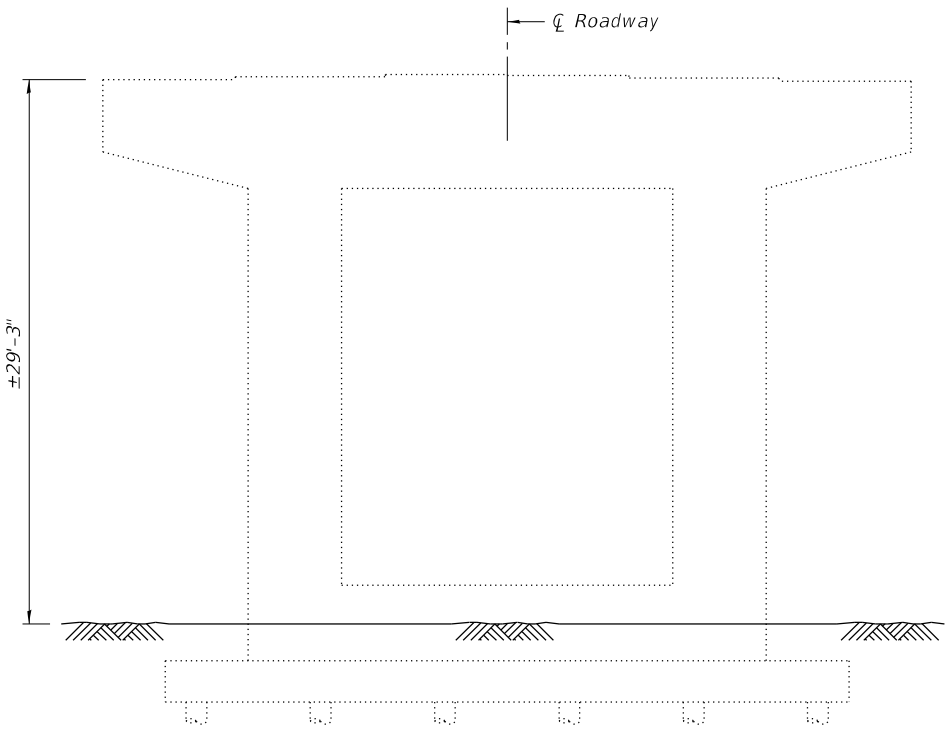
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	173
CONTRACT NO. 62H49				
ILLINOIS				



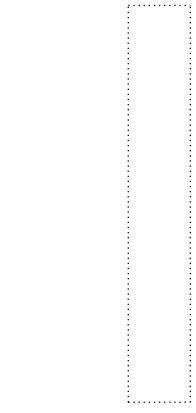
WEST END ELEVATION  
(Looking East)



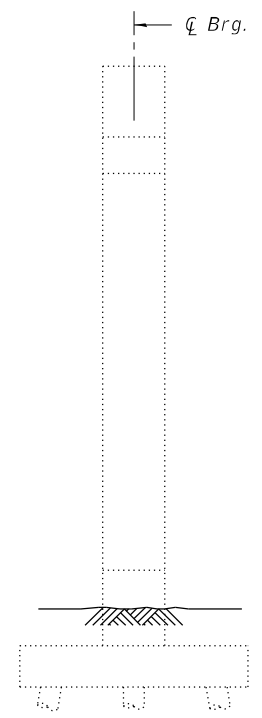
INSIDE ELEVATION  
(Looking West)



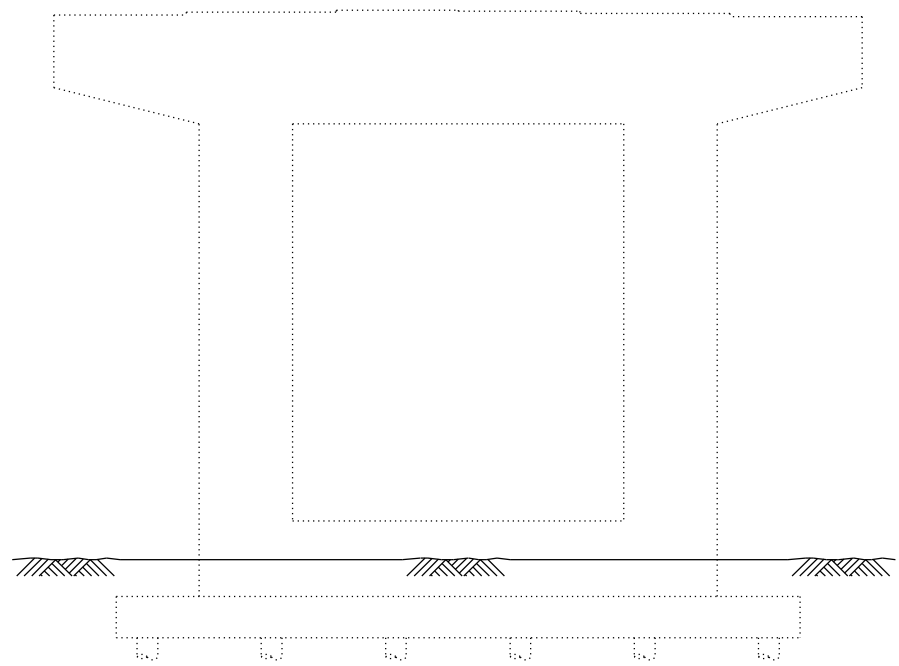
SOUTH ELEVATION  
(Looking North)



INSIDE ELEVATION  
(Looking East)



EAST END ELEVATION  
(Looking West)



NORTH ELEVATION  
(Looking South)

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM  
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 MODEL: Sheet  
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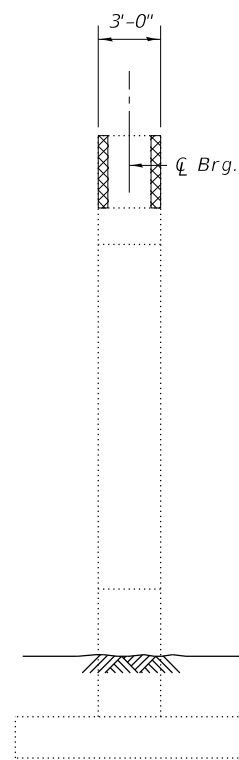
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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 3 REPAIR  
STRUCTURE NO. 016-2468**

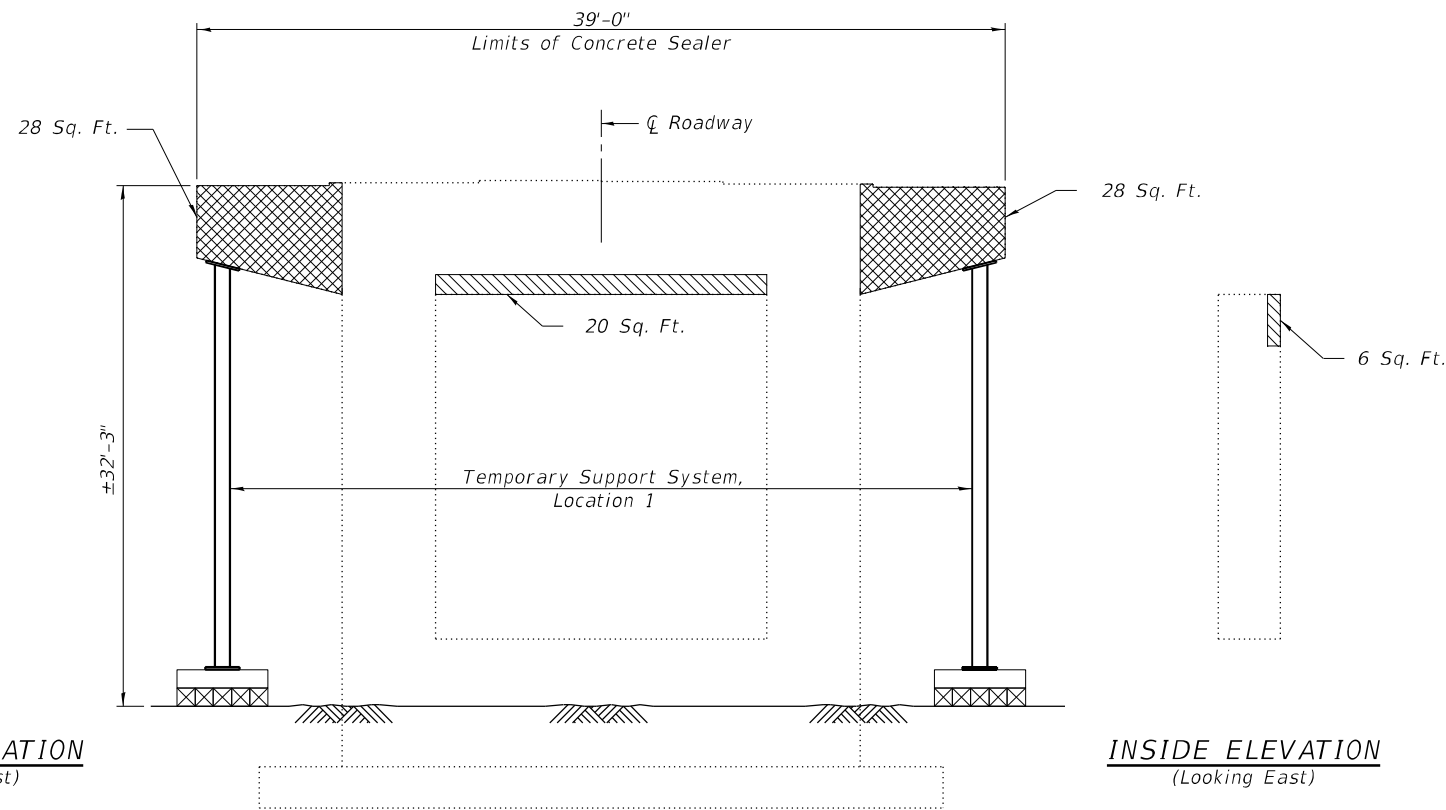
SHEET SA-60 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	174
CONTRACT NO. 62H49			ILLINOIS	

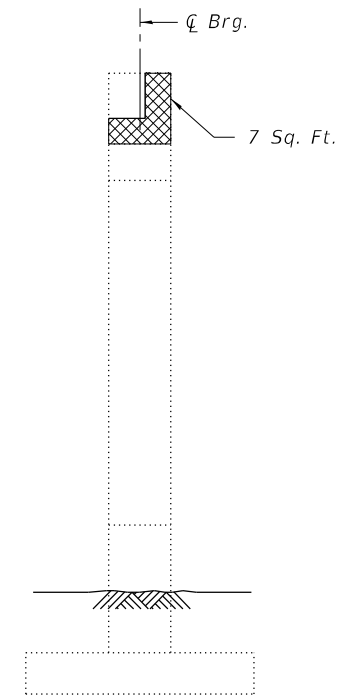


**WEST END ELEVATION**  
(Looking East)

**INSIDE ELEVATION**  
(Looking West)

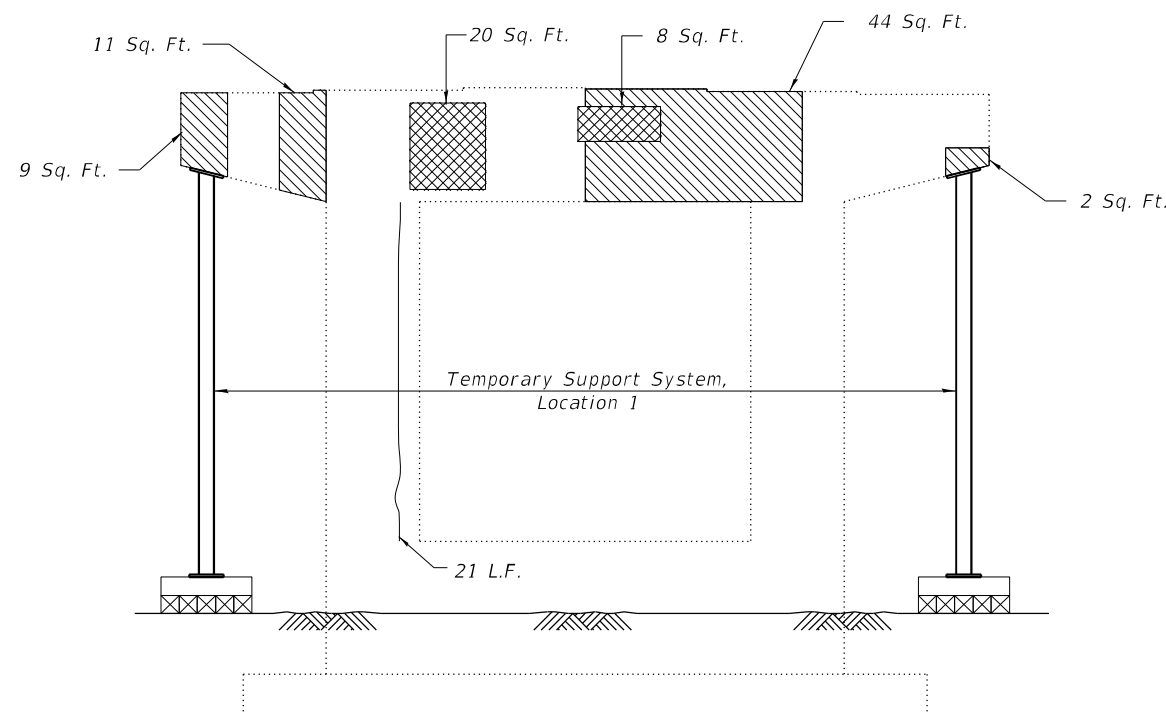


**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)

**SOUTH ELEVATION**  
(Looking North)



**NORTH ELEVATION**  
(Looking South)

**\*PIER 4 GIRDER LOADS**

	S. Brg.	N. Brg.
R @ (k)	4.6	4.2

\* Service girder self-weight reaction is shown for a single girder with the deck removed. The Contractor shall design and place the Temporary Support System for the stated beam reactions, concrete weight and as required in the Special Provisions.

**LEGEND**

- Structural Repair of Concrete (Depth Greater Than 5")
- Structural Repair of Concrete (Depth Equal To Or Less Than 5")
- Epoxy Crack Injection

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq Ft	100
Structural Repair of Concrete (Depth Greater Than 5")	Sq Ft	115
Epoxy Crack Injection	Foot	21
Concrete Sealer	Sq Ft	117
Temporary Support System Location 1	Each	1

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM  
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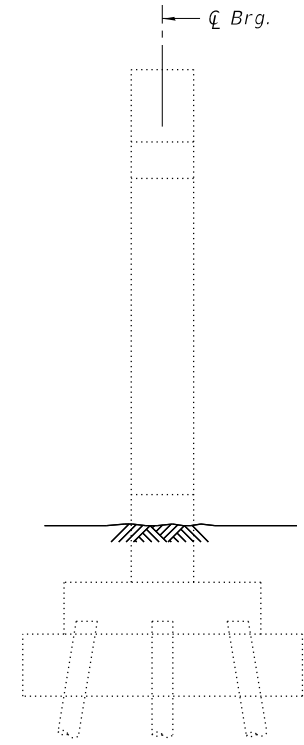
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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 4 REPAIR AND TEMPORARY SUPPORT SYSTEM**  
**STRUCTURE NO. 016-2468**

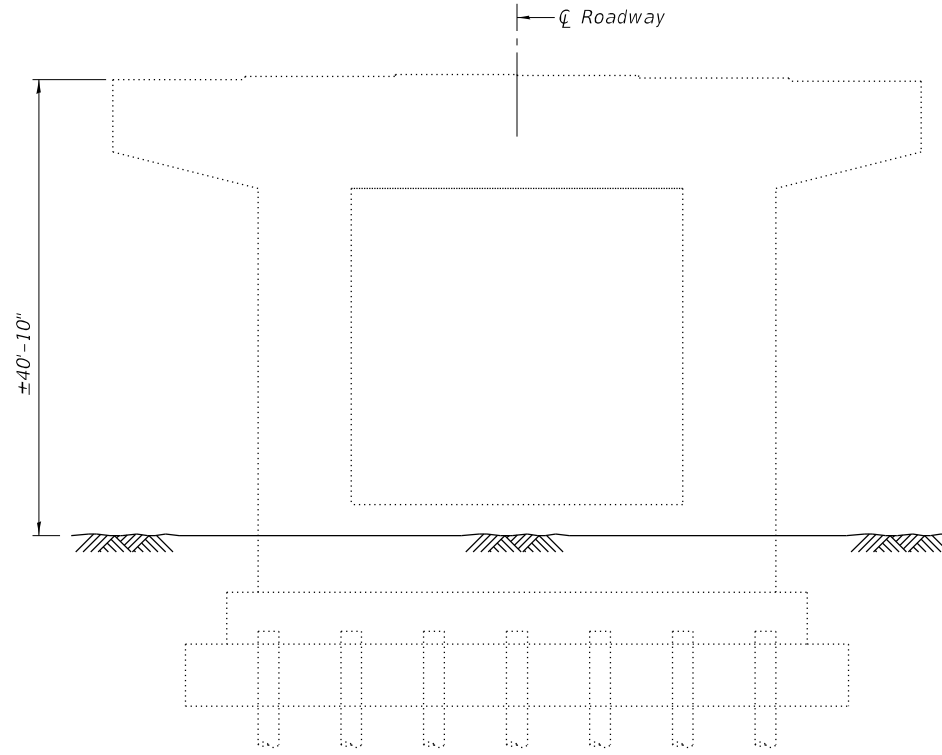
SHEET SA-61 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 62H49
ILLINOIS				



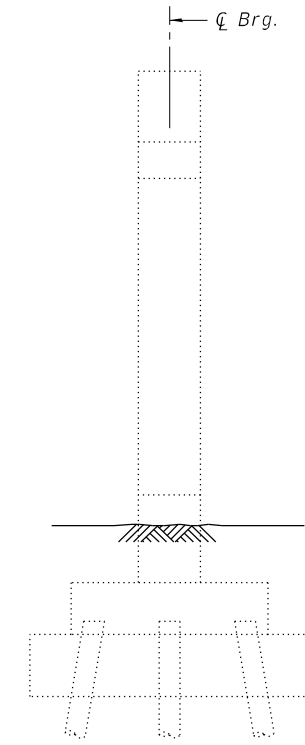
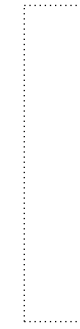
**WEST END ELEVATION**  
(Looking East)

**INSIDE ELEVATION**  
(Looking West)

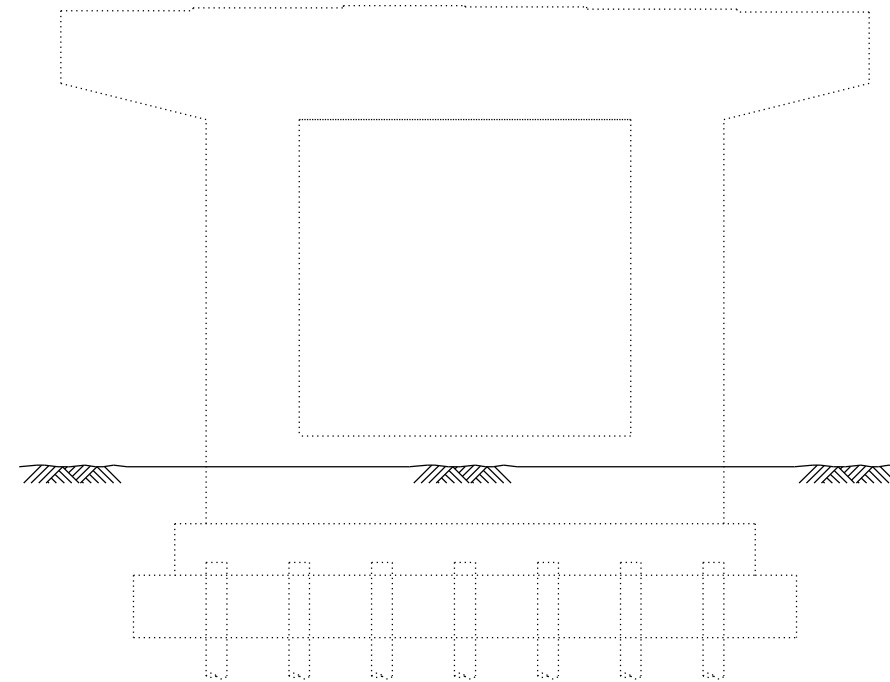


**SOUTH ELEVATION**  
(Looking North)

**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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 STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM  
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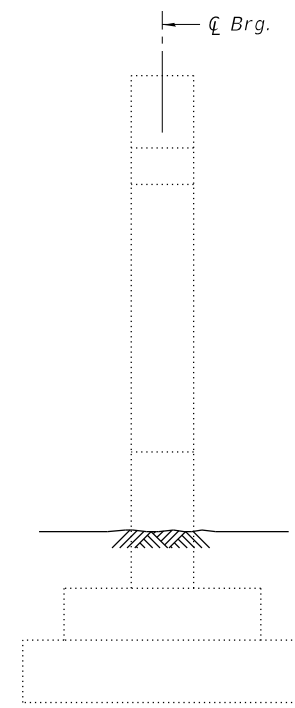
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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

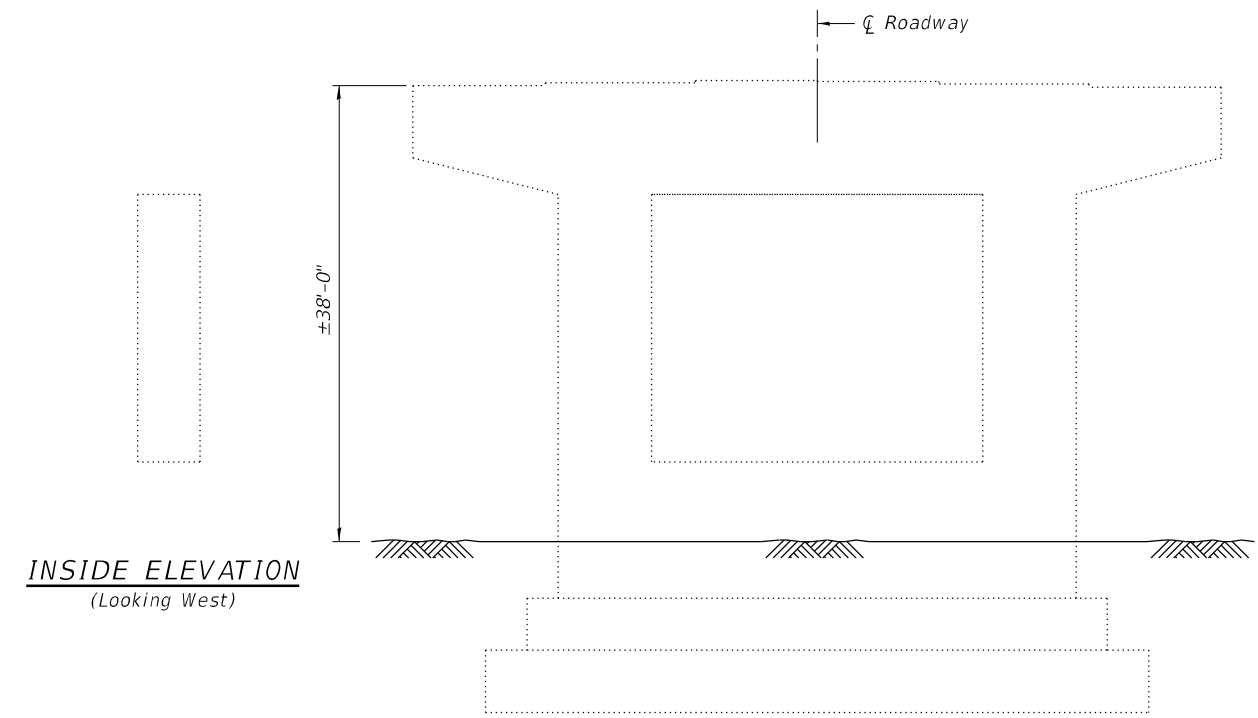
**PIER 5 REPAIR**  
**STRUCTURE NO. 016-2468**

SHEET SA-62 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	176
CONTRACT NO. 62H49			ILLINOIS	

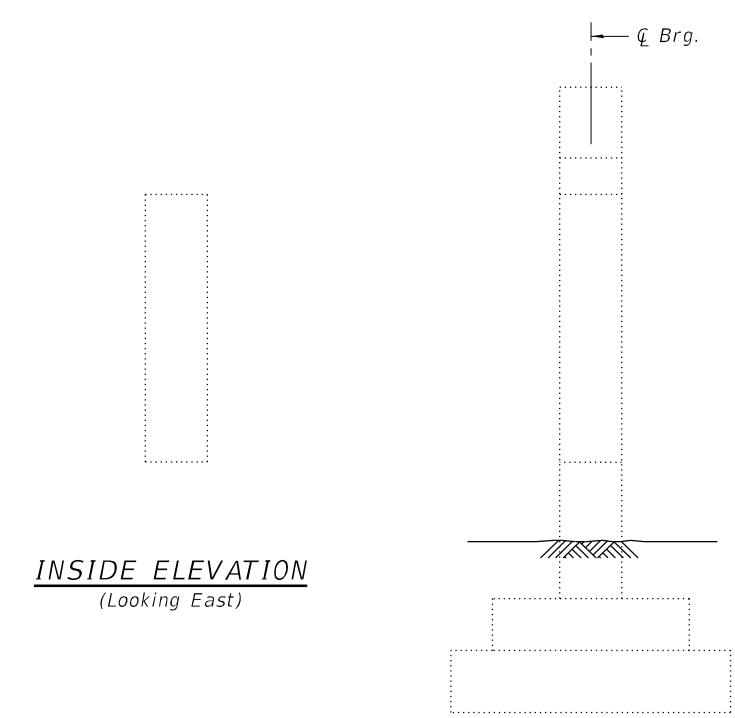


**WEST END ELEVATION**  
(Looking East)



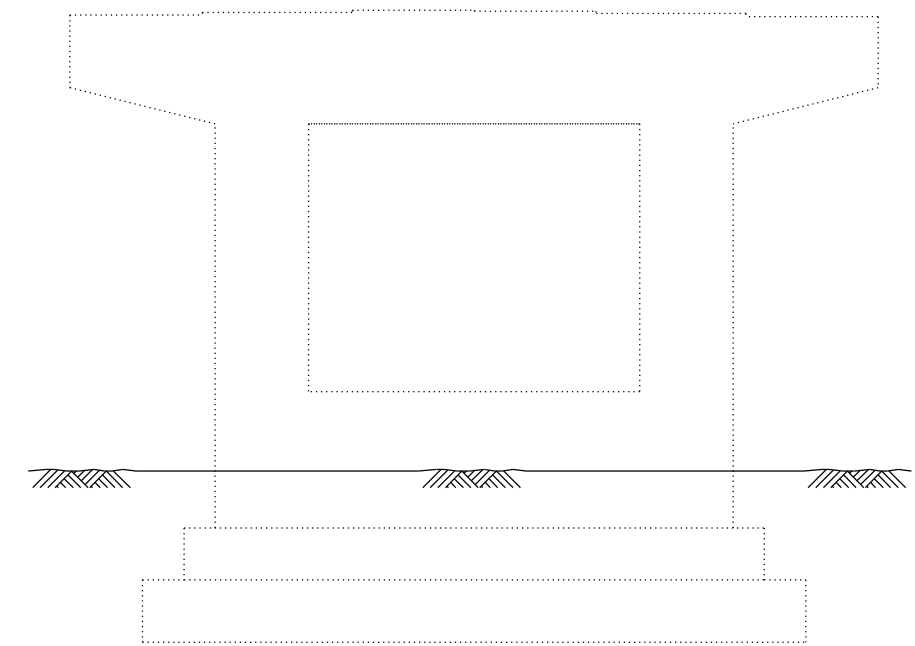
**INSIDE ELEVATION**  
(Looking West)

**SOUTH ELEVATION**  
(Looking North)



**INSIDE ELEVATION**  
(Looking East)

**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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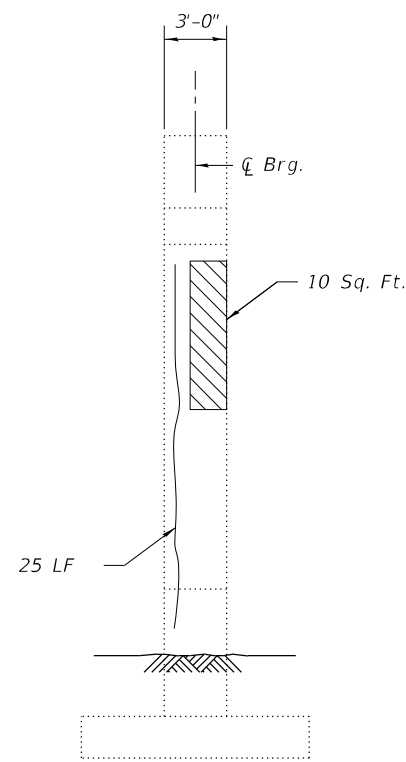
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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

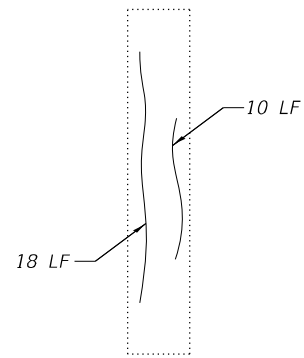
**PIER 6 REPAIR  
STRUCTURE NO. 016-2468**

SHEET SA-63 OF SA-73 SHEETS

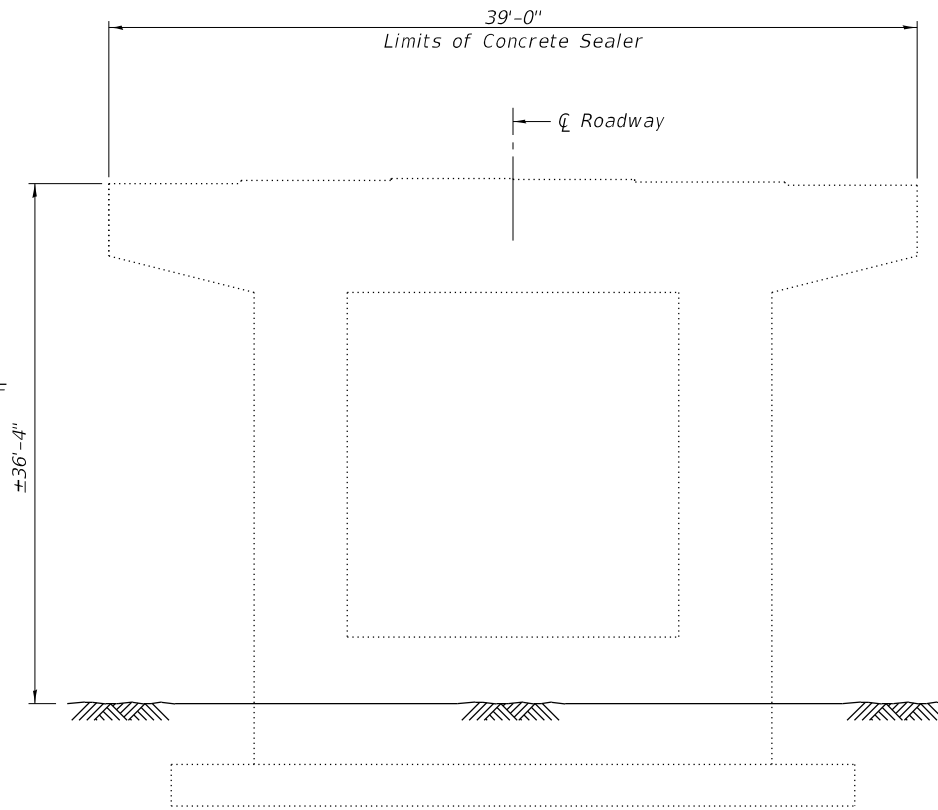
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	177
CONTRACT NO. 62H49			ILLINOIS	



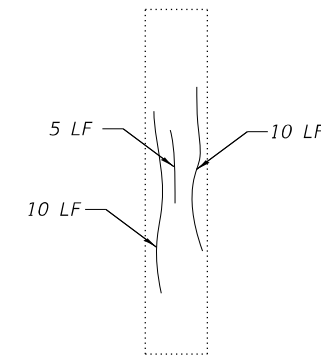
**WEST END ELEVATION**  
(Looking East)



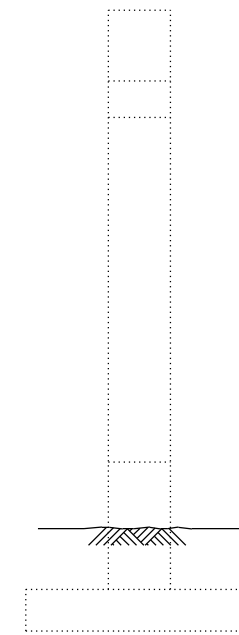
**INSIDE ELEVATION**  
(Looking West)



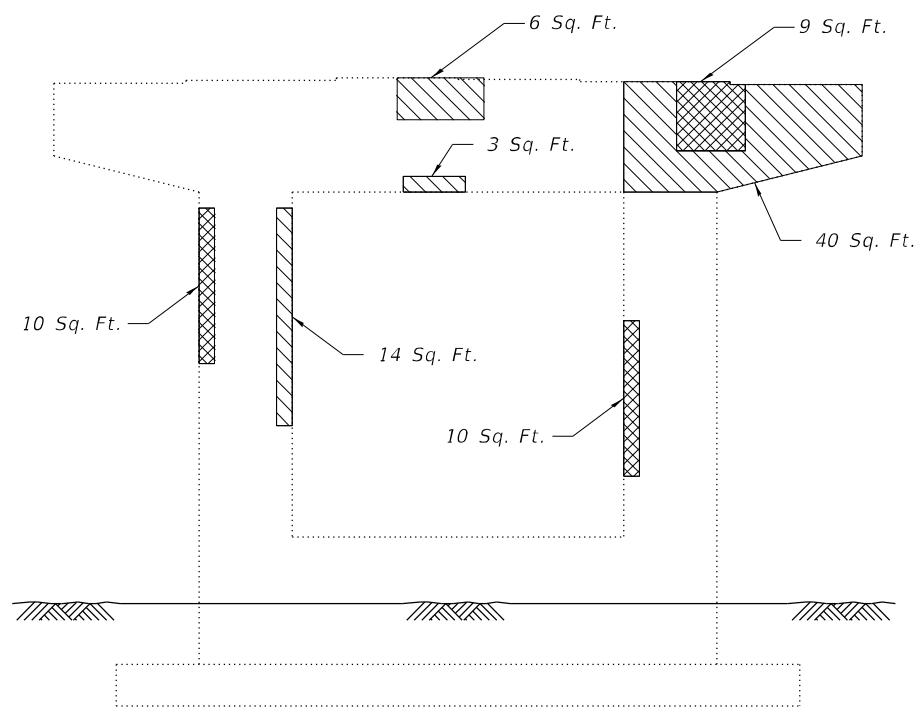
**SOUTH ELEVATION**  
(Looking North)



**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**LEGEND**

- Structural Repair of Concrete (Depth Greater Than 5")
- Structural Repair of Concrete (Depth Equal To Or Less Than 5")
- Epoxy Crack Injection

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq Ft	95
Structural Repair of Concrete (Depth Greater Than 5")	Sq Ft	40
Epoxy Crack Injection	Foot	78
Concrete Sealer	Sq Ft	117

**NOTES:**

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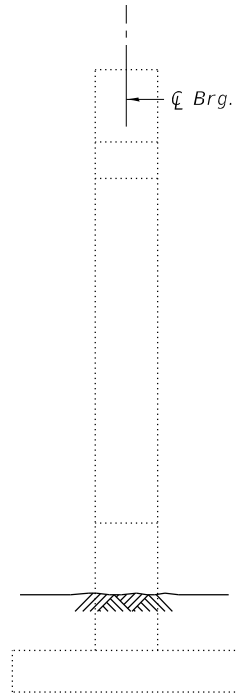
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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

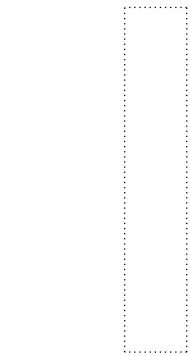
**PIER 7 REPAIR**  
**STRUCTURE NO. 016-2468**

SHEET SA-64 OF SA-73 SHEETS

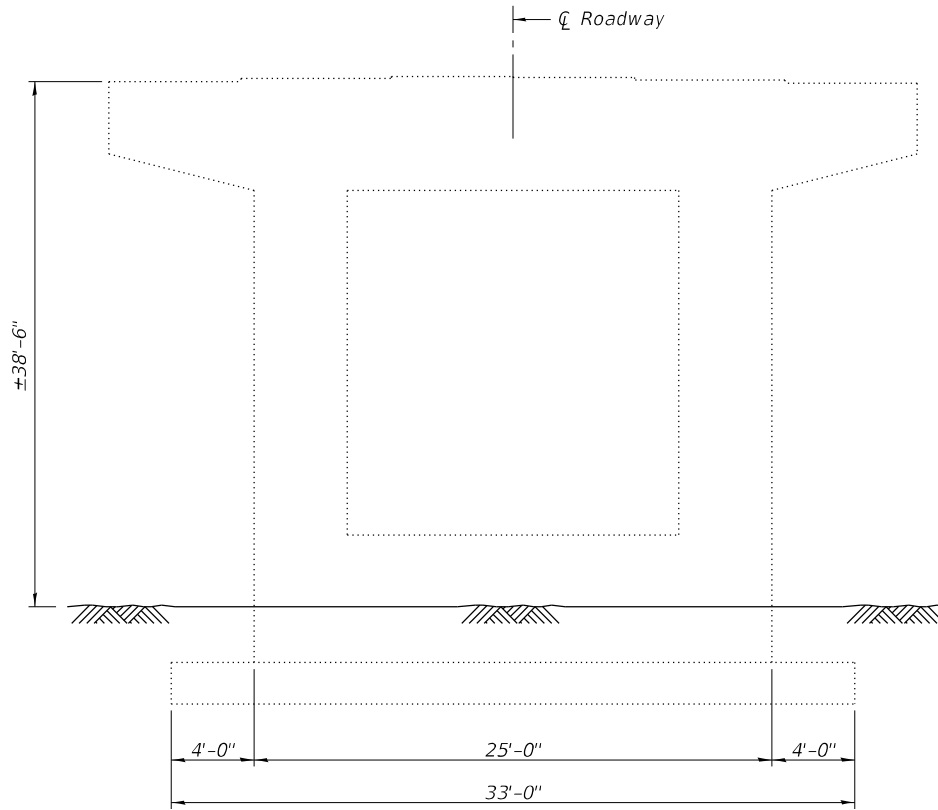
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	178
ILLINOIS			CONTRACT NO. 62H49	



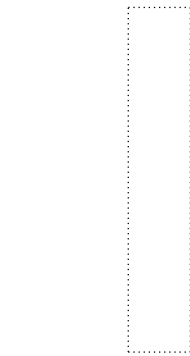
**WEST END ELEVATION**  
(Looking East)



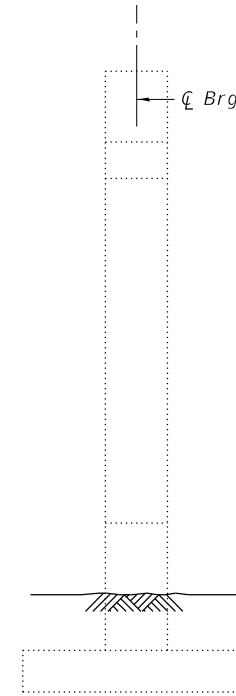
**INSIDE ELEVATION**  
(Looking West)



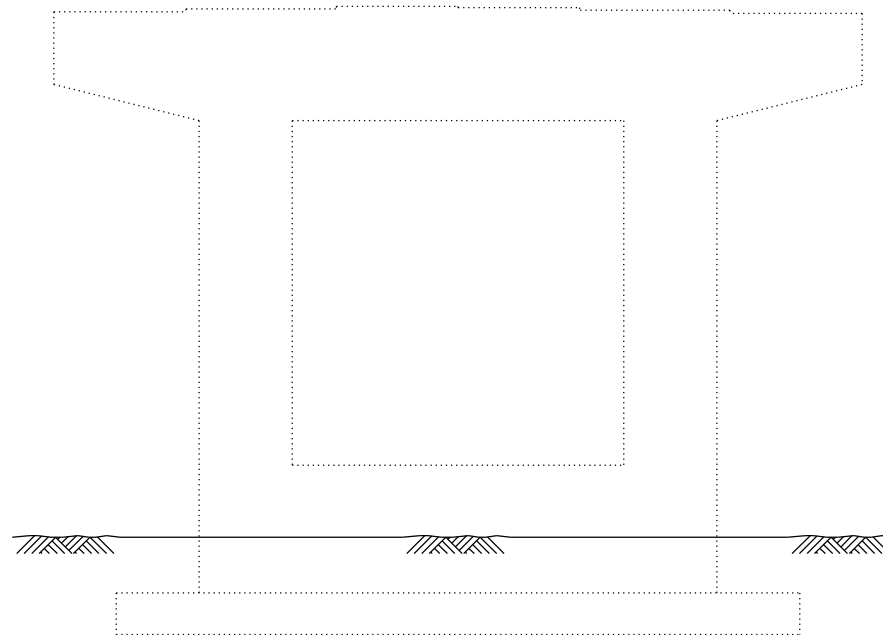
**SOUTH ELEVATION**  
(Looking North)



**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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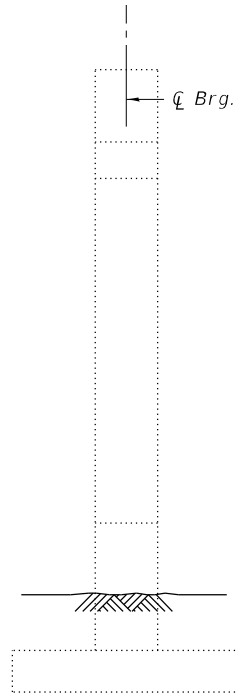
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 8 REPAIR**  
**STRUCTURE NO. 016-2468**

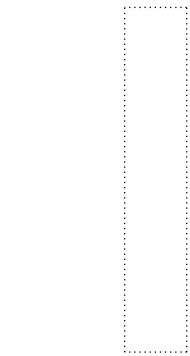
SHEET SA-65 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	179
CONTRACT NO. 62H49				

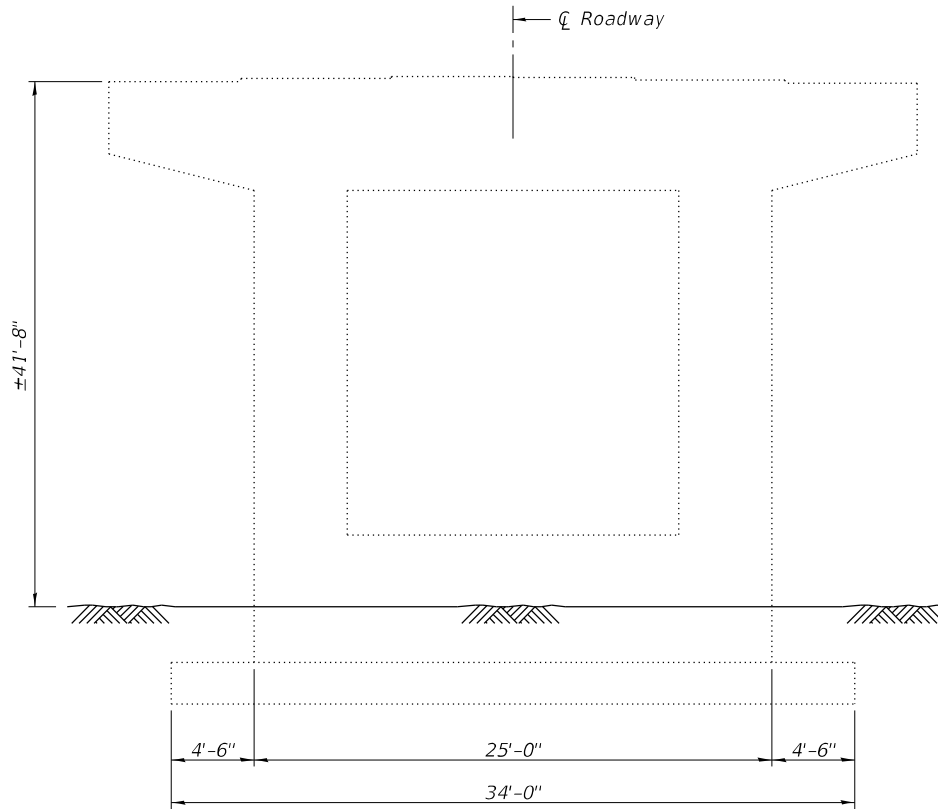
ILLINOIS



**WEST END ELEVATION**  
(Looking East)



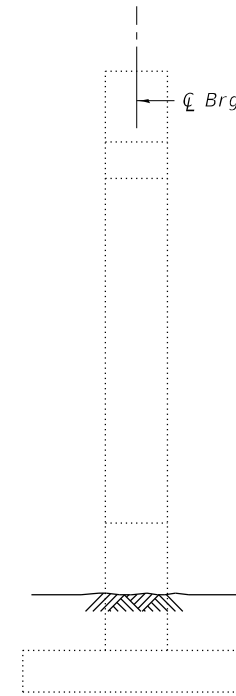
**INSIDE ELEVATION**  
(Looking West)



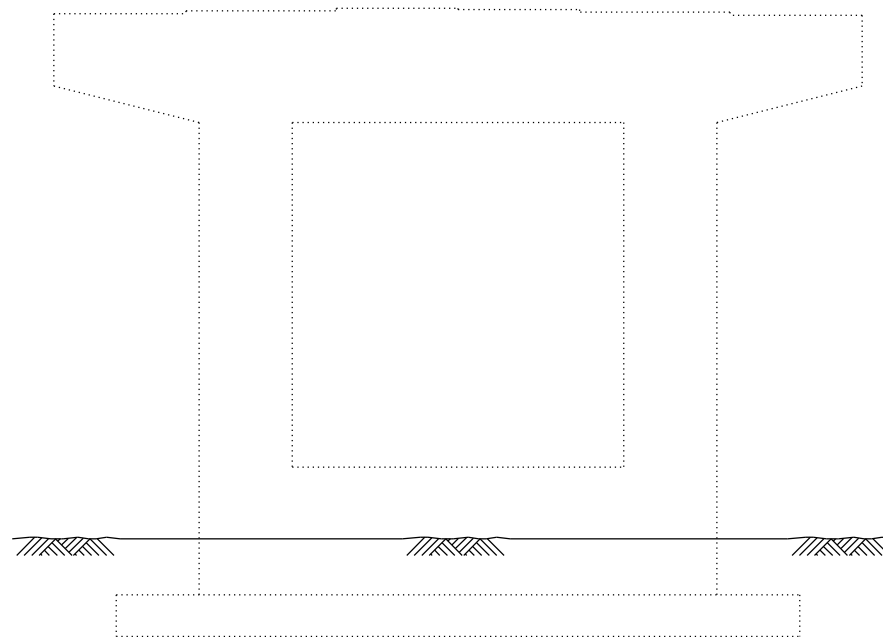
**SOUTH ELEVATION**  
(Looking North)



**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

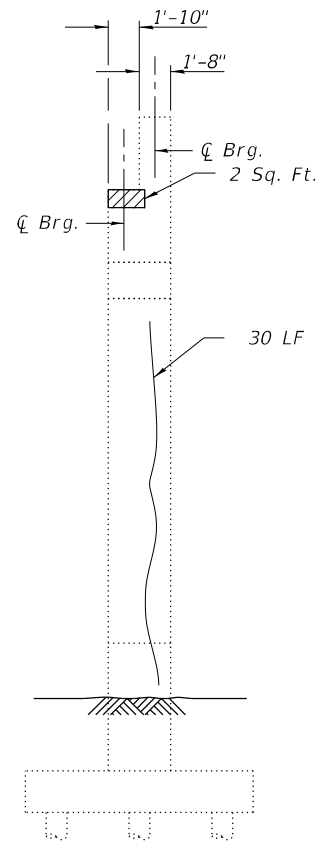
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 9 REPAIR  
STRUCTURE NO. 016-2468**

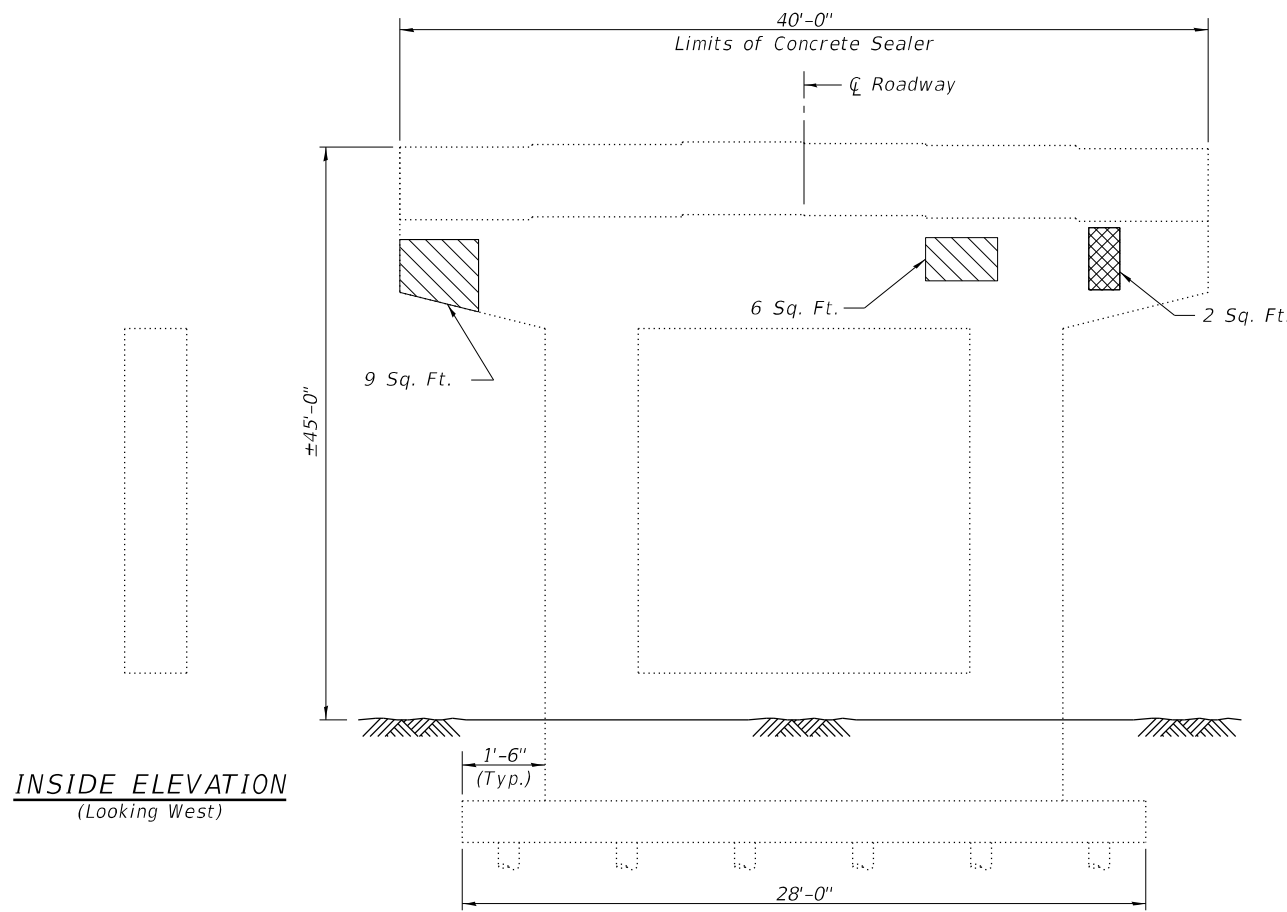
SHEET SA-66 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	180
ILLINOIS			CONTRACT NO. 62H49	





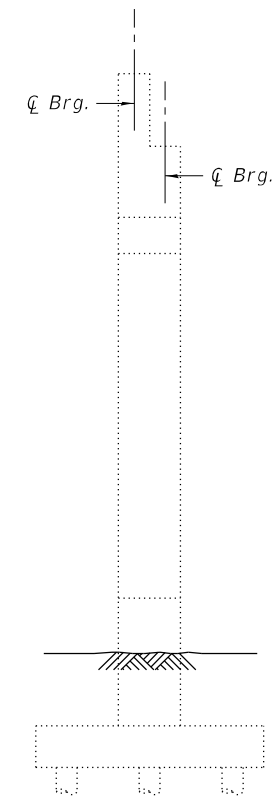
**WEST END ELEVATION**  
(Looking East)



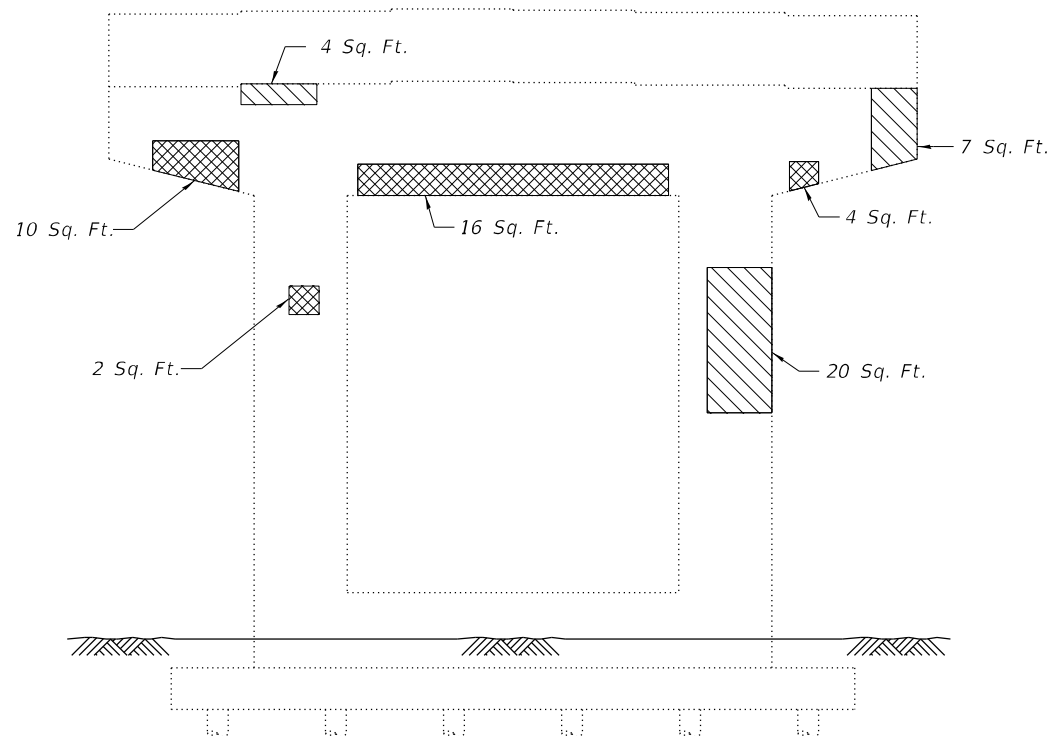
**INSIDE ELEVATION**  
(Looking West)

**SOUTH ELEVATION**  
(Looking North)

**INSIDE ELEVATION**  
(Looking East)



**EAST END ELEVATION**  
(Looking West)



**NORTH ELEVATION**  
(Looking South)

**LEGEND**

- Structural Repair of Concrete (Depth Greater Than 5")
- Structural Repair of Concrete (Depth Equal To Or Less Than 5")
- Epoxy Crack Injection

**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq Ft	65
Structural Repair of Concrete (Depth Greater Than 5")	Sq Ft	50
Epoxy Crack Injection	Foot	30
Concrete Sealer	Sq Ft	140

**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

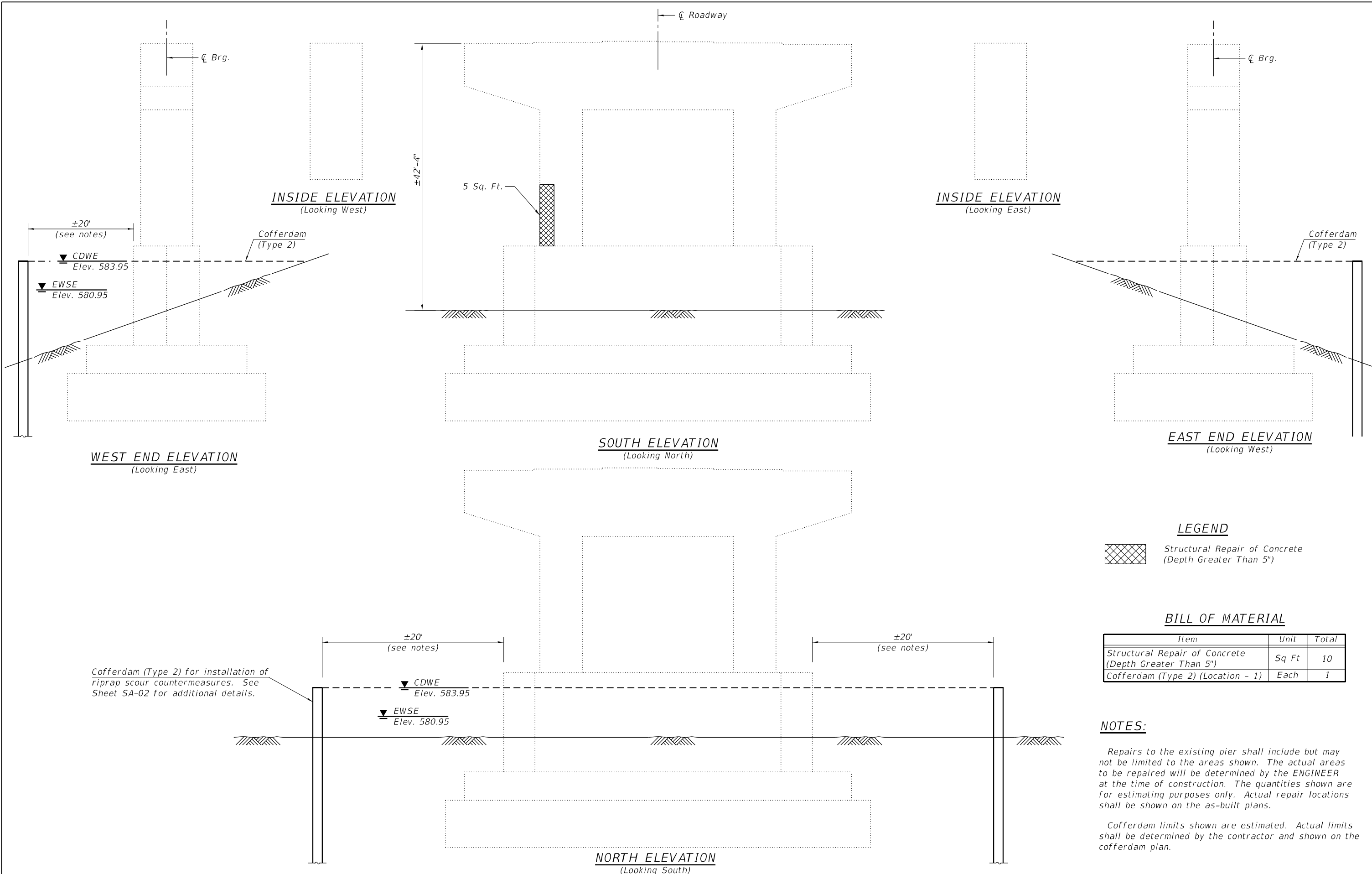
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 10 REPAIR**  
**STRUCTURE NO. 016-2468**

SHEET SA-67 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 181
			CONTRACT NO. 62H49	
ILLINOIS				

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PLOT DATE = 11/15/2021	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 11 REPAIR**  
**STRUCTURE NO. 016-2468**

SHEET SA-68 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	182
			CONTRACT NO. 62H49	
ILLINOIS				


**NOTES:**

Repairs to the existing pier shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

Cofferdam limits shown are estimated. Actual limits shall be determined by the contractor and shown on the cofferdam plan.

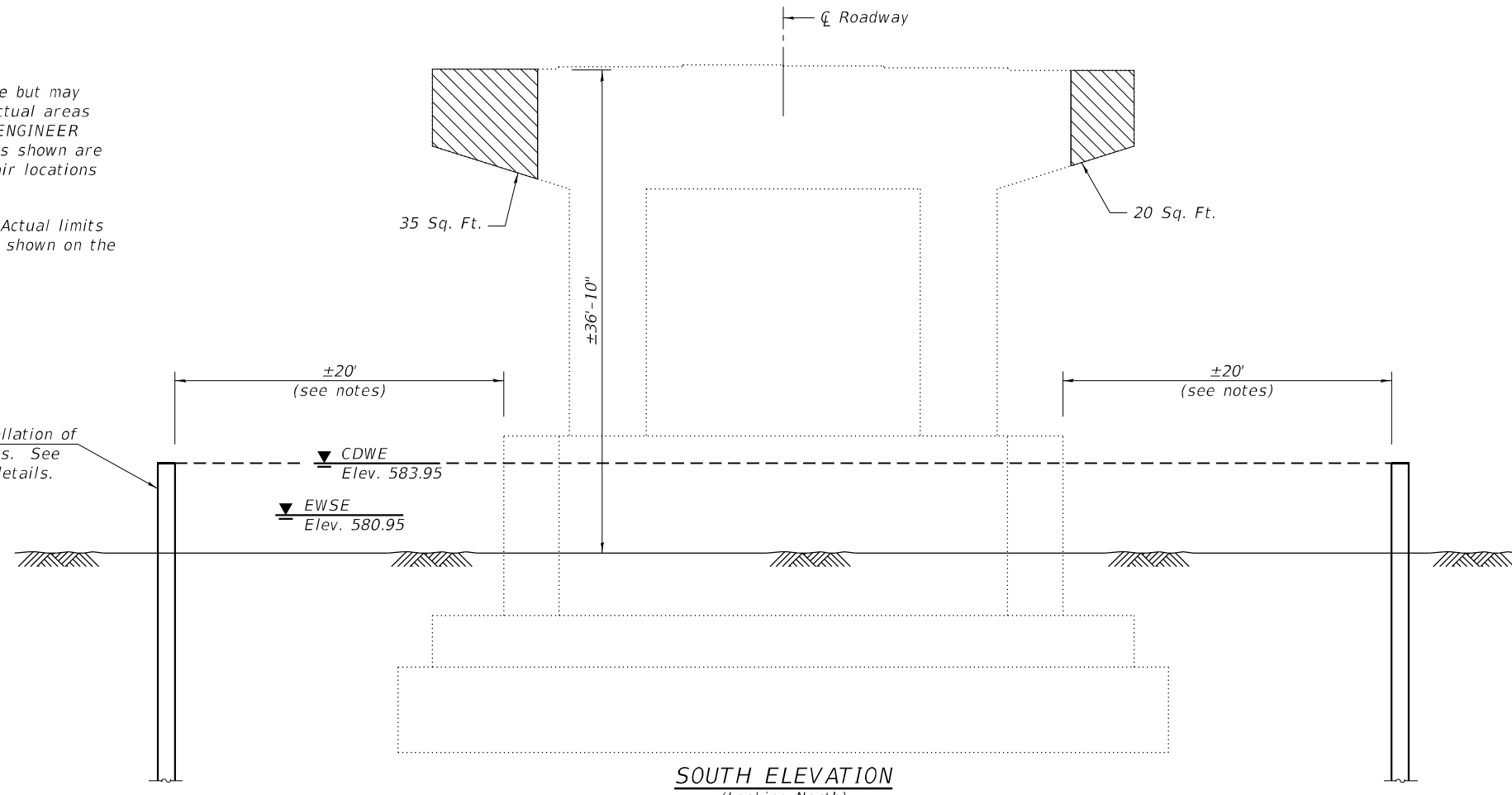
Cofferdam (Type 2) for installation of riprap scour countermeasures. See Sheet SA-02 for additional details.

**LEGEND**

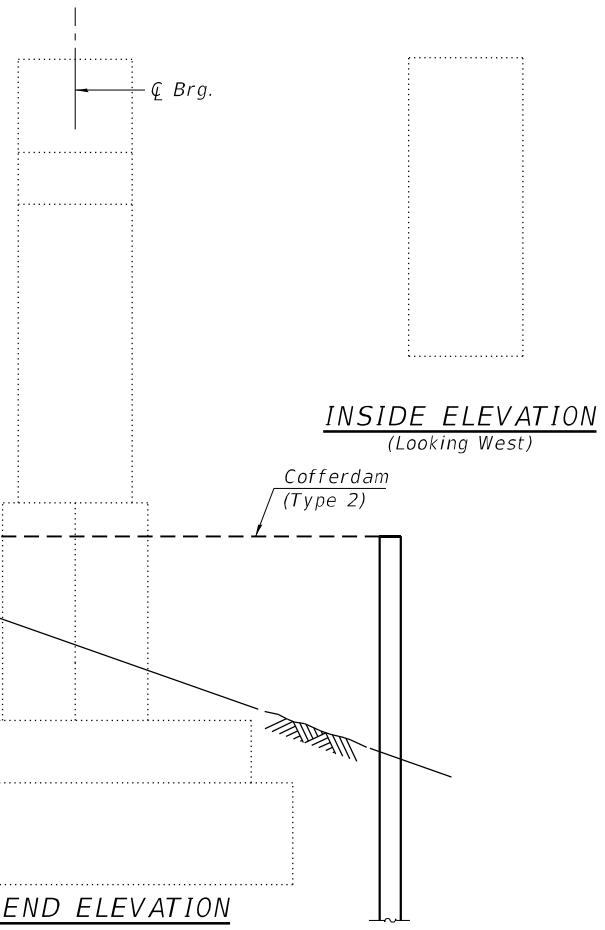
 Structural Repair of Concrete (Depth Equal To Or Less Than 5")

**BILL OF MATERIAL**

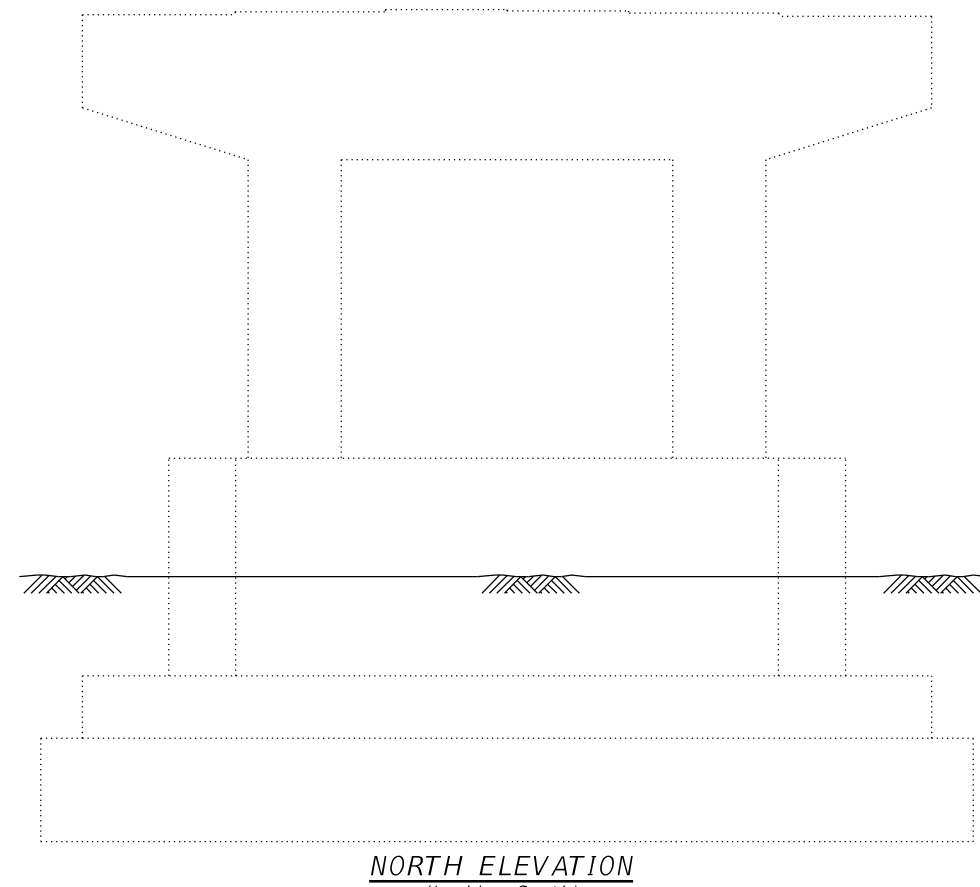
Item	Unit	Total
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq Ft	75
Cofferdam (Type 2) (Location - 2)	Each	1



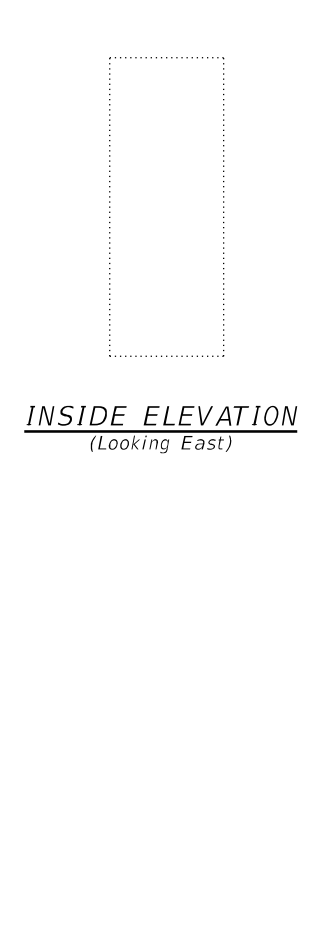
**SOUTH ELEVATION**  
(Looking North)



**WEST END ELEVATION**  
(Looking East)



**NORTH ELEVATION**  
(Looking South)



**EAST END ELEVATION**  
(Looking West)

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 LICENSE NO. - 184-001121 - EXPIRES 4/30/2023  
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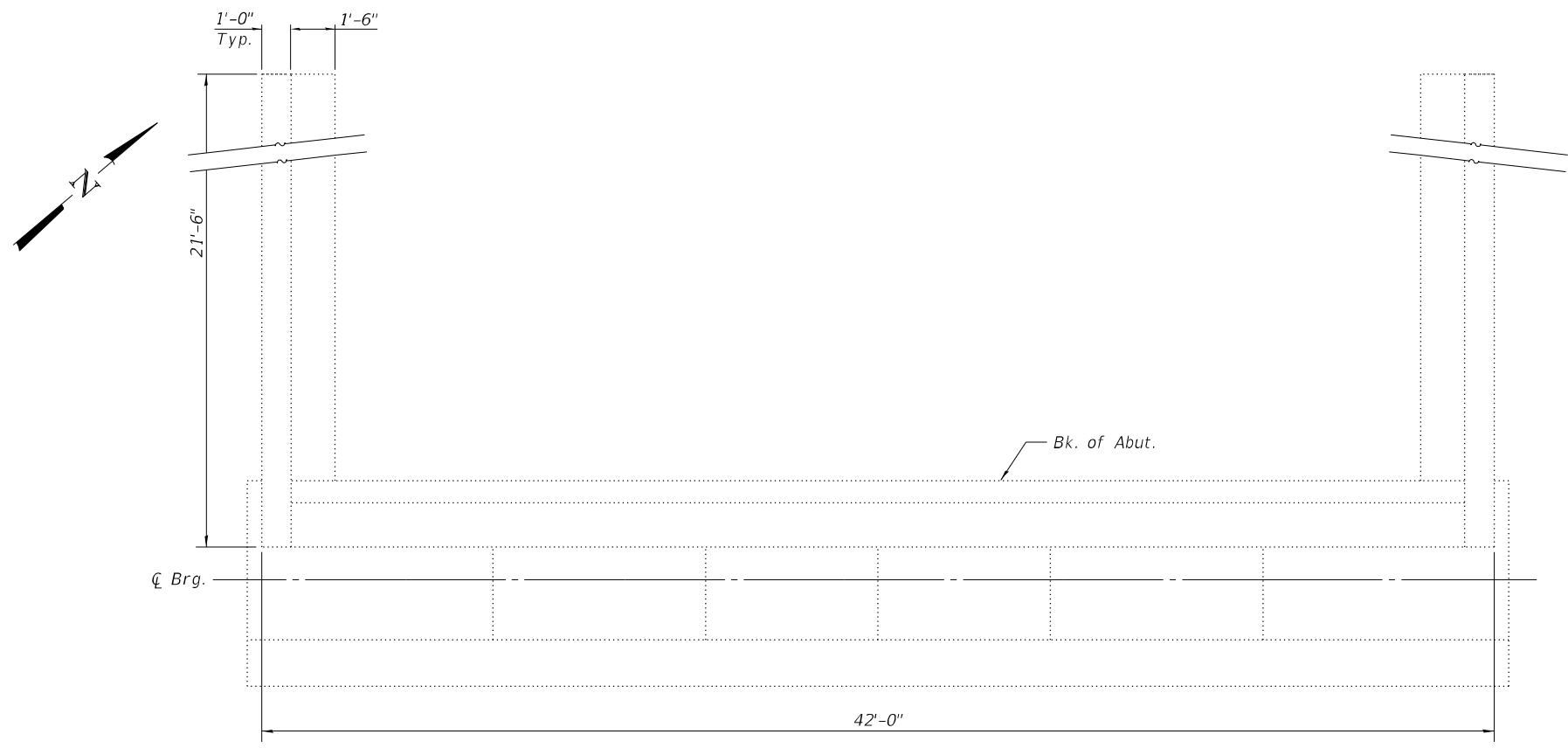
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	DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

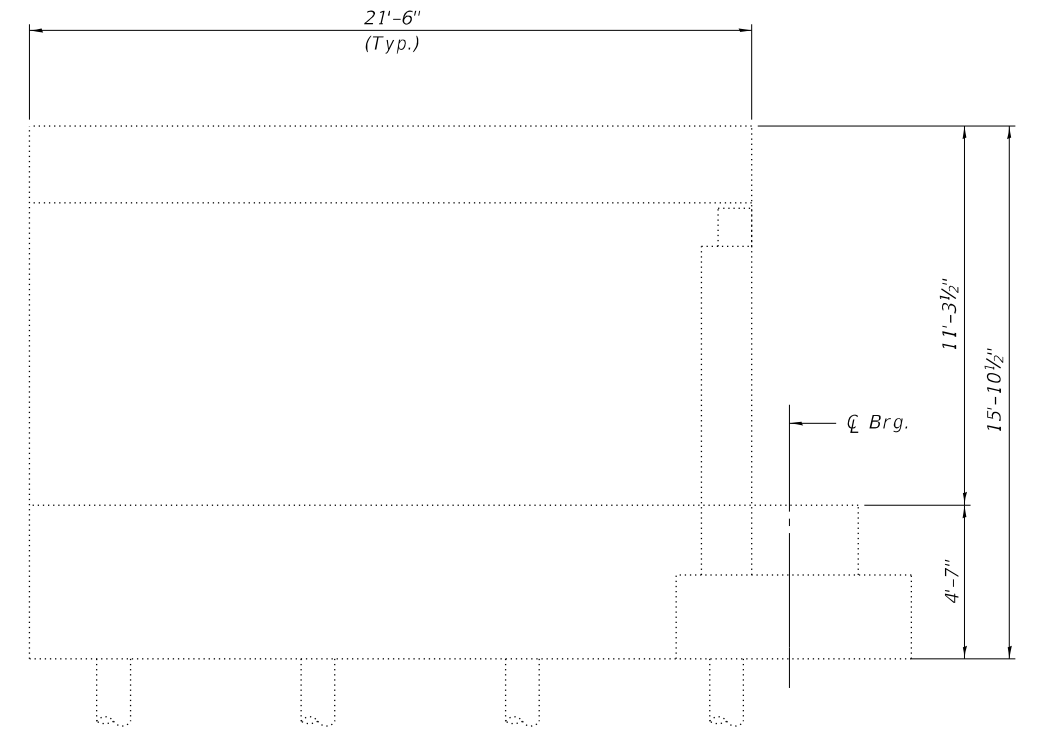
**PIER 12 REPAIR**  
**STRUCTURE NO. 016-2468**

SHEET SA-69 OF SA-73 SHEETS

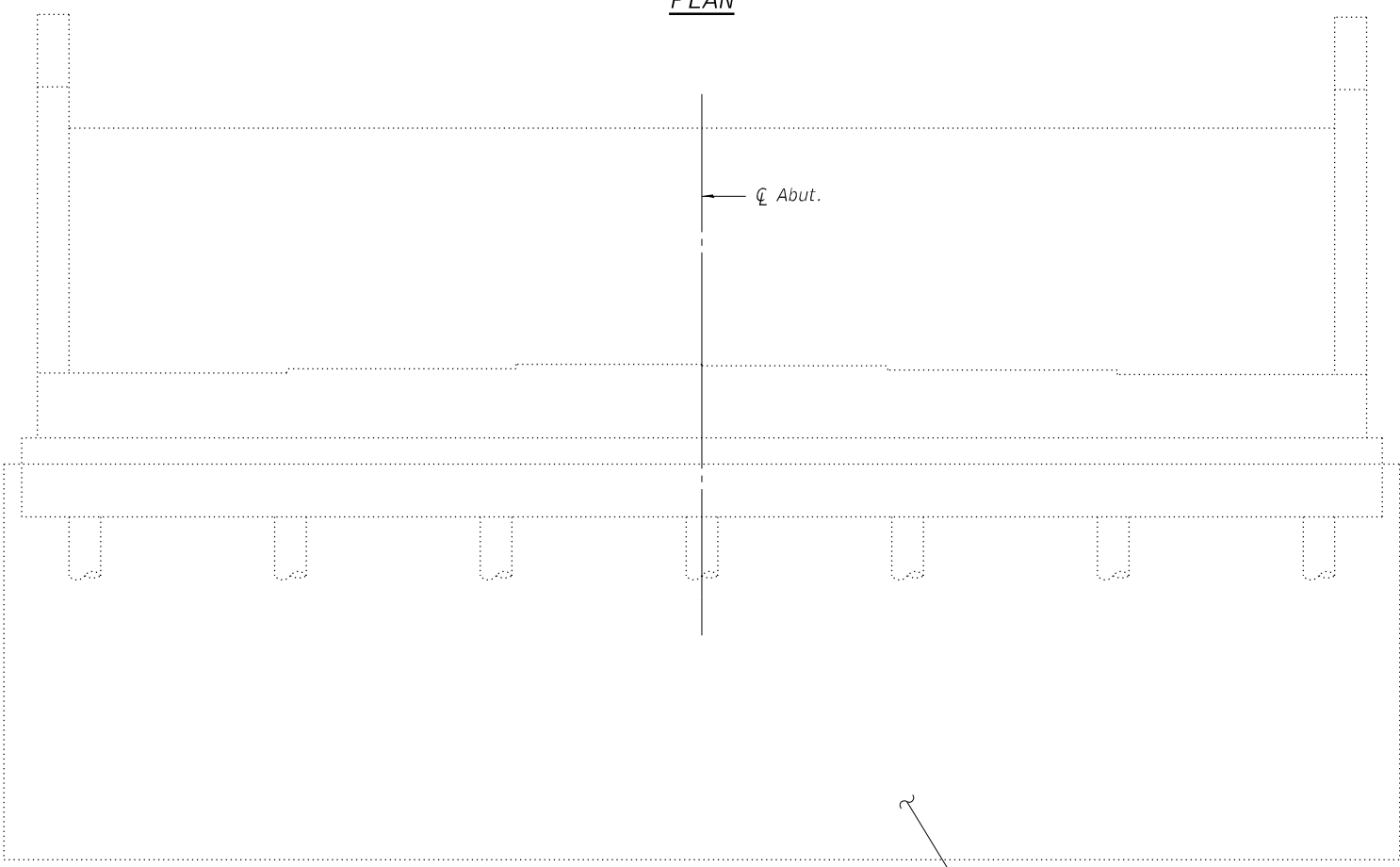
F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 183
ILLINOIS			CONTRACT NO. 62H49	



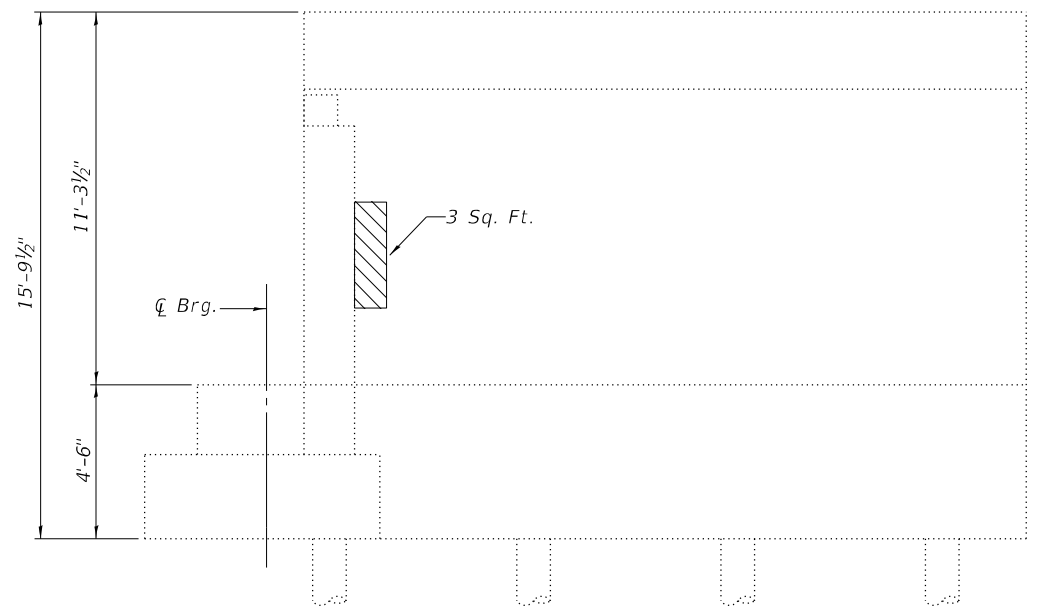
**PLAN**



**WEST WING ELEVATION**  
(Looking East)



**ELEVATION**  
(Looking North)



**BILL OF MATERIAL**

Item	Unit	Total
Structural Repair of Concrete (Depth Equal To Or Less Than 5")	Sq Ft	10

**EAST WING ELEVATION**  
(Looking West)

**NOTES:**

Repairs to the existing abutments shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the ENGINEER at the time of construction. The quantities shown are for estimating purposes only. Actual repair locations shall be shown on the as-built plans.

**LEGEND**

Structural Repair of Concrete (Depth equal to or less than 5")

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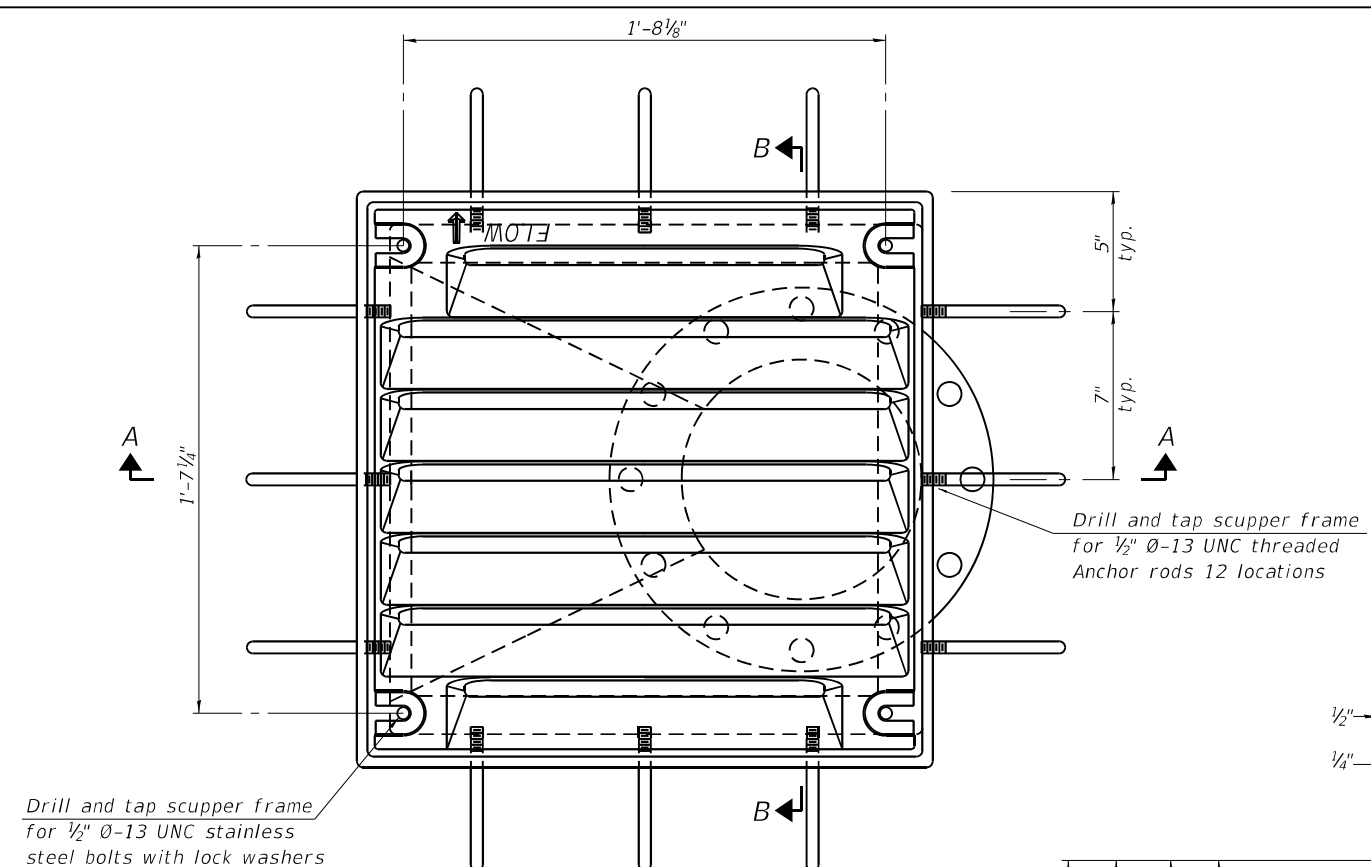
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**NORTH ABUTMENT REPAIR  
STRUCTURE NO. 016-2468**

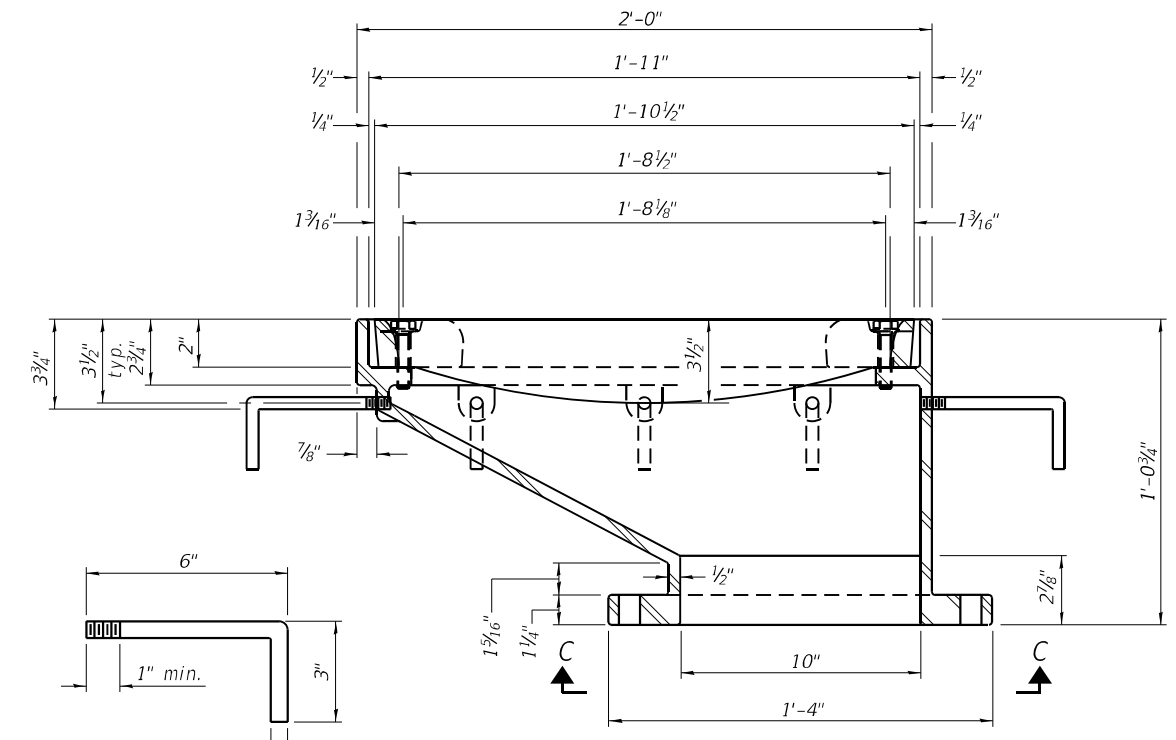
SHEET SA-70 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 184
			CONTRACT NO. 62H49	
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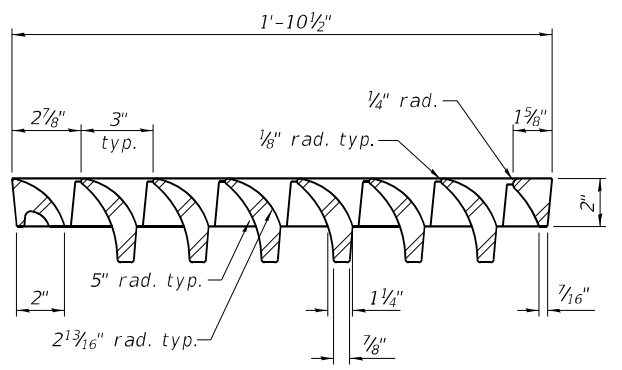


**PLAN**

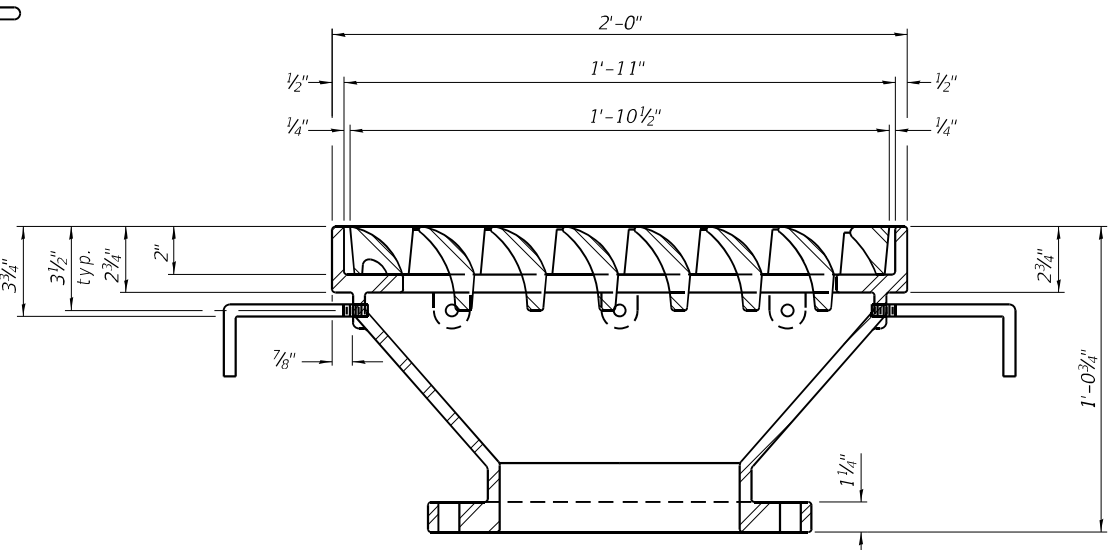


**SECTION A-A**  
See sheets SA-22, SA-26, SA-30 & SA-34 for scupper location relative to parapet.

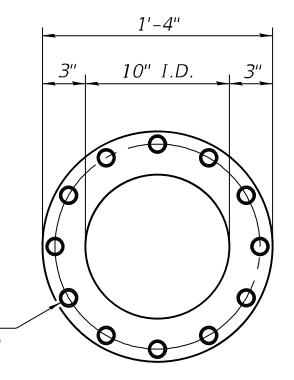
**ANCHOR ROD DETAIL**



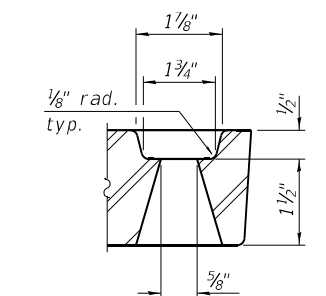
**VANE GRATE DETAIL**



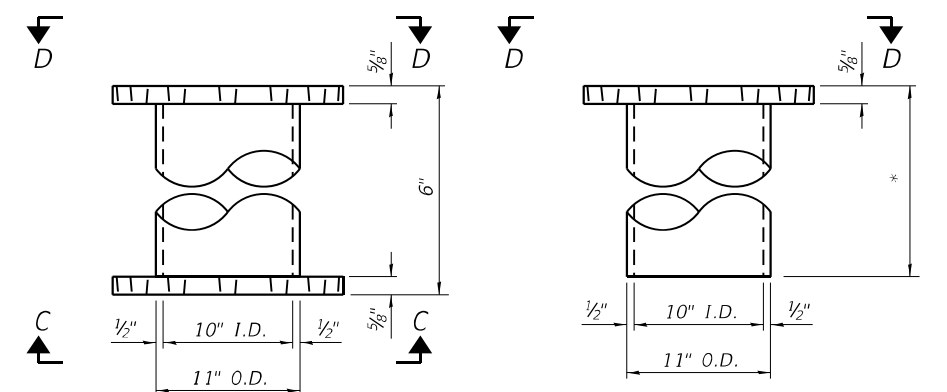
**SECTION B-B**



**VIEW C-C**

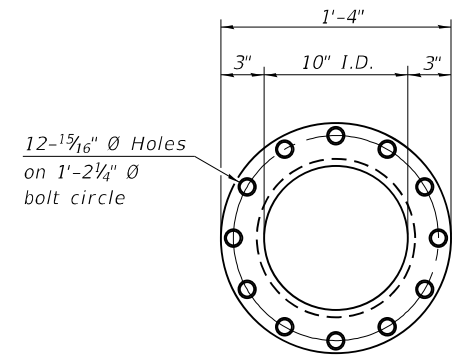


**GRATE BOLT HOLE DETAIL**



**SPOOL PIECE**

**DOWNSPOUT**



**VIEW D-D**

**Notes:**  
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 35B and AASHTO M306.  
 Bolts, anchor rods, nuts and washers shall be according to ASTM A307 and shall be galvanized according to AASHTO M232. As an alternate stainless steel may be used.  
 Stainless steel hardware shall be according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frames and downspouts; however, the scupper grates shall remain cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.  
 Structural steel scupper frames and downspouts, when utilized, shall be galvanized according to AASHTO M111.  
 As an alternate, fiberglass may be used for downspouts according to ASTM D2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. in lieu of the cast iron or structural steel.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the grate, frame, spool piece, downspout, anchor rods, nuts and washers including complete installation of the scupper shall be paid for at the contract unit price for Drainage Scupper, DS-12M10.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12M10	Each	16



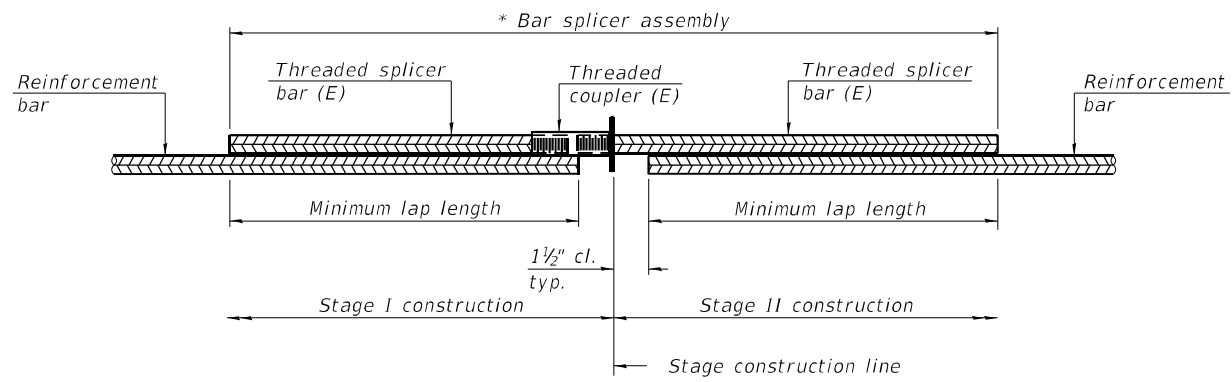
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	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER, DS-12M10  
STRUCTURE NO. 016-2468

SHEET SA-71 OF SA-73 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	185
			CONTRACT NO. 62H49	
ILLINOIS				

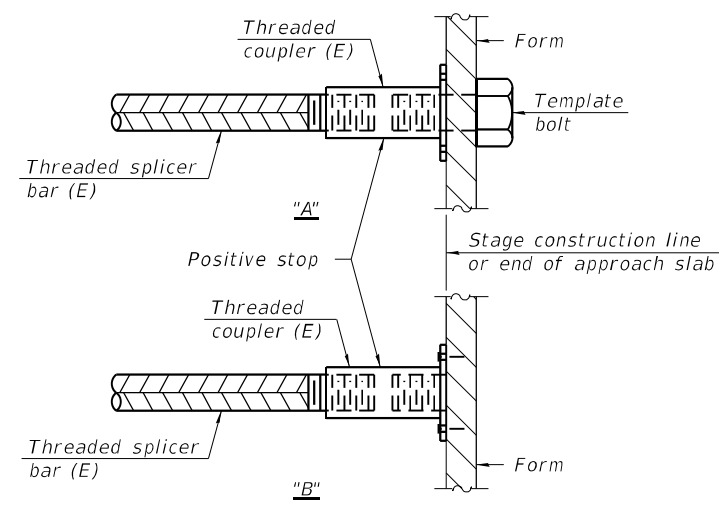


**STANDARD BAR SPLICER ASSEMBLY PLAN**  
(All components shall be provided from one supplier)

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

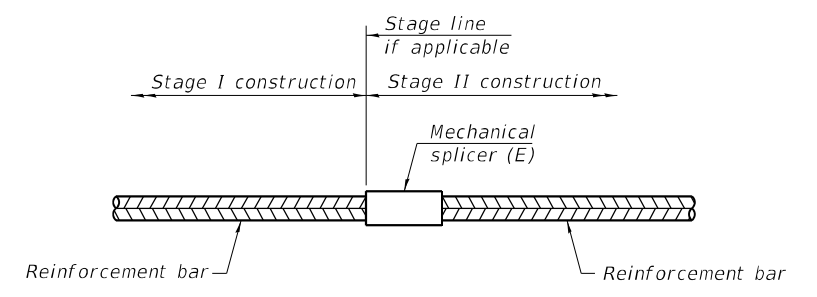
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length



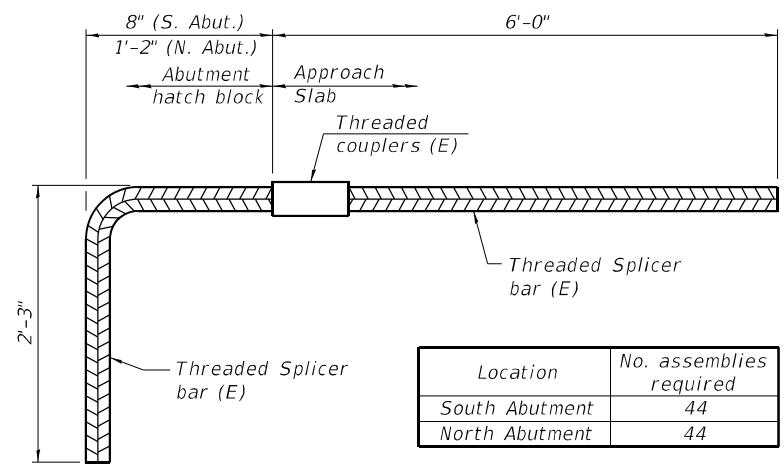
**INSTALLATION AND SETTING METHODS**

"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



Location	No. assemblies required
South Abutment	44
North Abutment	44

**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

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.

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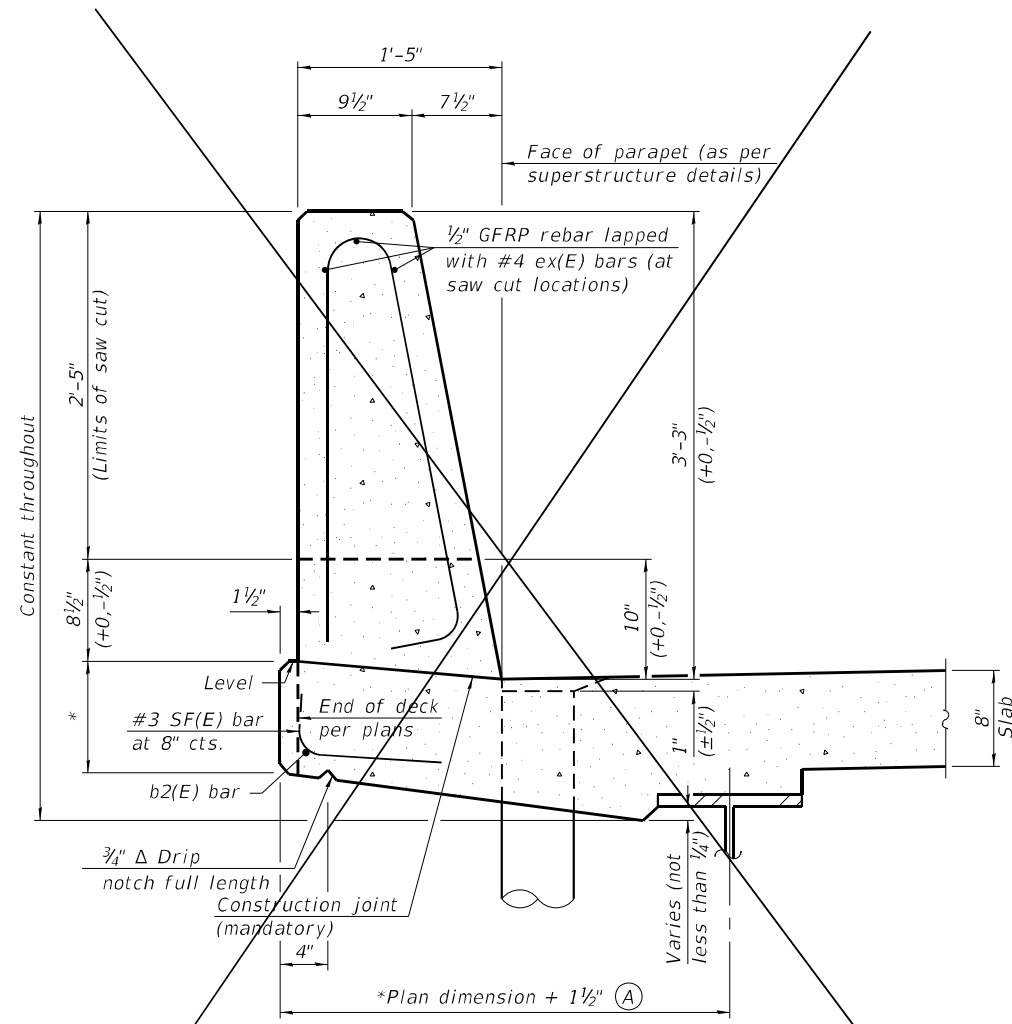
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	PLOT DATE = 10/21/2021	DRAWN - <b>BLB</b>	REVISED -
		DATE - 10/21/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 016-2468**

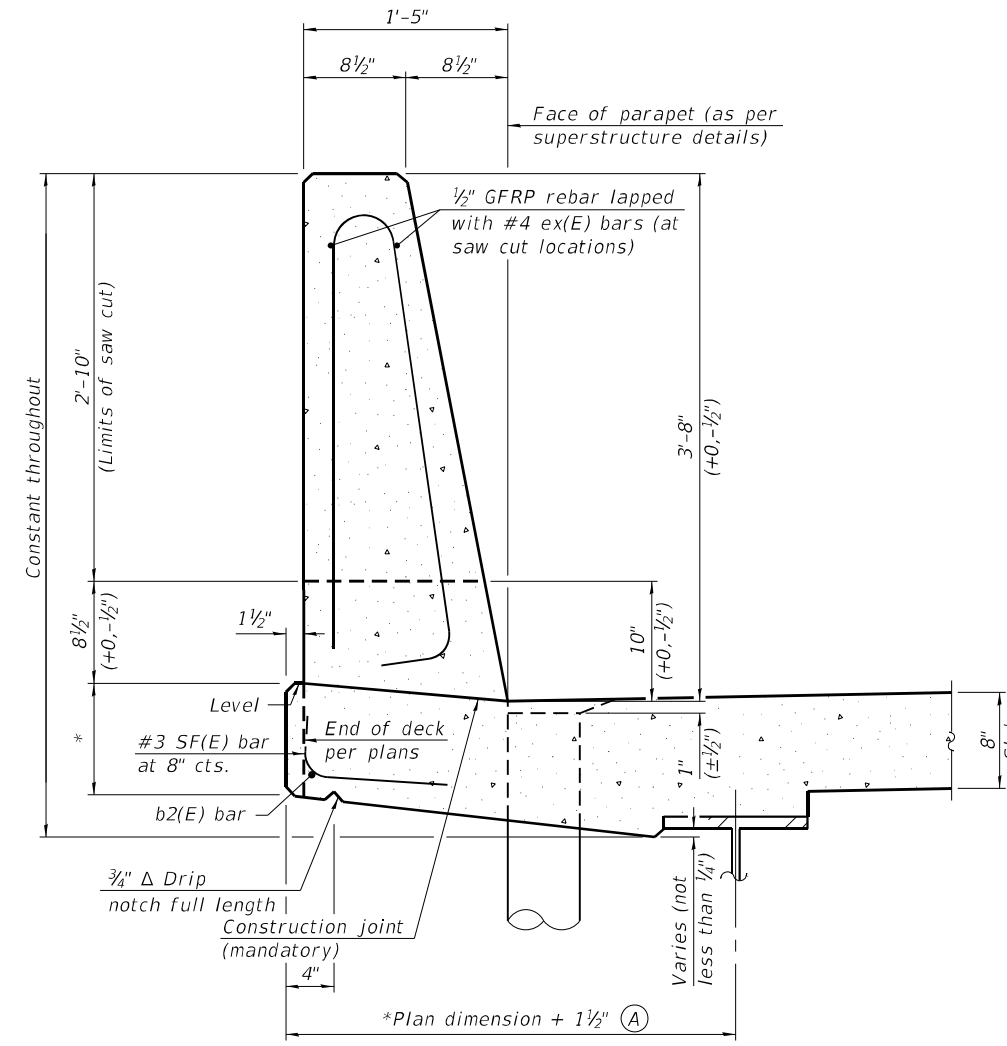
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	186
ILLINOIS			CONTRACT NO. 62H49	

SHEET SA-72 OF SA-73 SHEETS



**39" CONSTANT-SLOPE  
PARAPET SECTION**

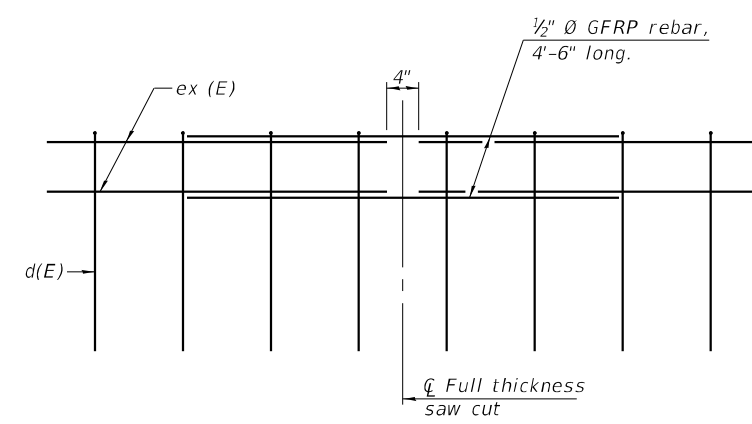
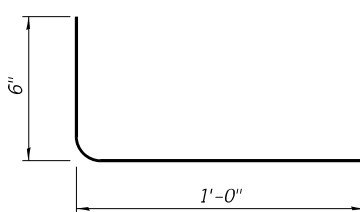
(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)



**44" CONSTANT-SLOPE  
PARAPET SECTION**

(Showing dimensions, d(E), and 1/2" Ø GFRP rebar)

\*See Superstructure Details.



**GFRP REBAR STIFFENING DETAIL**

(Place as shown in parapet section at each parapet joint location.)

Notes:  
 All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 39" and 44" parapets.  
 Place full depth aluminum sheets as shown on superstructure details.  
 Replace all cork joint filler locations with a full thickness saw cut.  
 Steel superstructure shown. Other superstructure types similar.

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SFP 39-44 1-1-2020



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	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION  
STRUCTURE NO. 016-2468

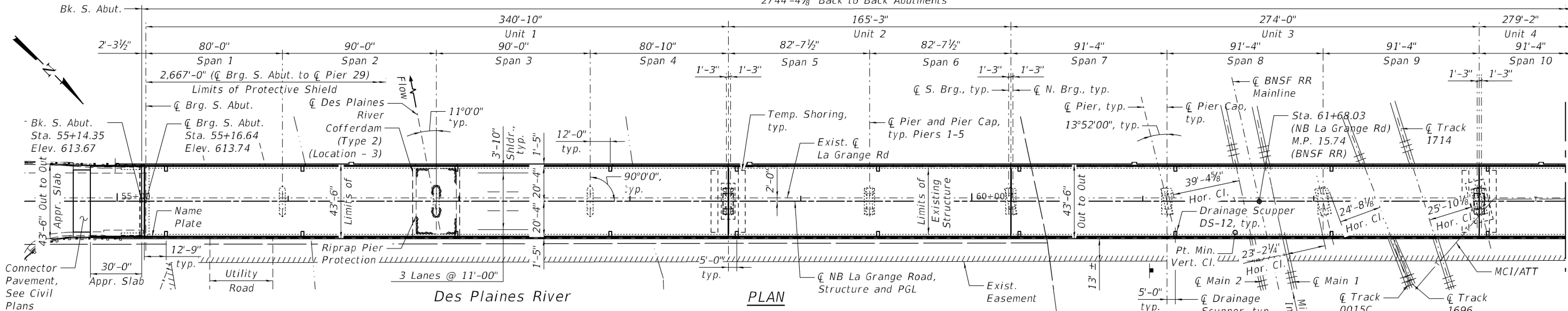
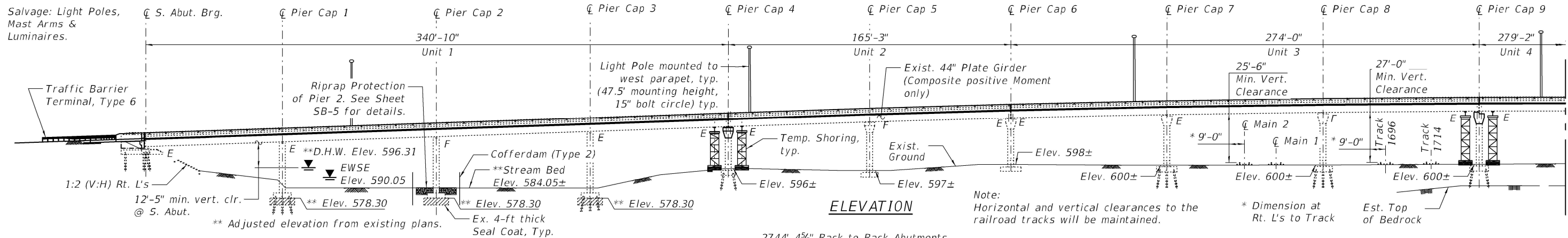
SHEET SA-73 OF SA-73 SHEETS

F.A.P. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 187
			CONTRACT NO. 62H49	
ILLINOIS				

Benchmarks: Control Point 105, Iron Rod with Cap, Station 54+92.51, Offset 40.46' Left, Elevation 611.90.  
Control Point 110, Iron Rod with Cap, Station 82+96.39, Offset 25.56' Right, Elevation 628.29.

Existing Structure: Structure No. 016-2467 was originally built in 1975 under Section 462-X-B&R in Cook County. The structure was repaired and rehabilitated in 1995 under Section 0203-632 HB-K-1. The expansion joints were replaced and deck was patched in 2001 and 2010 under Sections 2001-1311 and 2009-133-1 correspondingly. In 2013 beam ends were painted at expansion joints. The existing structure is comprised of 30 spans and contains both tangent and curved sections of roadway. The superstructure consists of 8 inch reinforced concrete deck and 2" microsilica overlay, that are composite in the positive moment regions only, supported by 44" steel web plate girders. The deck measures 42'-0" out to out with 38'-6" face to face of the concrete barrier. Aluminum railing is attached to the top of the barrier walls along the length of the bridge. The substructure consists of reinforced concrete stub abutments on steel piles and reinforced concrete pier columns. The structure measures 2,744 feet back to back of abutment. The existing composite concrete deck will be removed and replaced with a new 43'-6" wide 8" composite concrete deck and 39" constant slope parapets on both sides. The structure steel and substructure elements will be repaired and replaced, bearings repaired and replaced, and slopewalls repaired as well.

Bridge to be closed and traffic detoured to the existing southbound structure during construction.



**TOP OF RAIL AND MINIMUM VERTICAL CLEARANCE SUMMARY**  
(Offsets are measured along the tracks.)

TRACK	LEFT (WEST)		NB La Grange Rd RIGHT (EAST)		MIN. VERT. CLR.
	Offset	Elev.	Offset	Elev.	
1714	602.68 274.17	601.94 124.77	0.00'	601.62 3.50'	27'-4"
1696 / 0015C	601.98 151.83	601.89 69.65	601.92 5.57'	602.02 212.22	27'-0"
MAIN 1	602.00 220.79	601.88 2.15'	601.81 84.18	601.62 224.43	26'-3"
MAIN 2	602.37 218.48	602.38 2.96'	602.42 88.04	602.39 229.13	25'-6"

**DESIGN SCOUR ELEVATION TABLE**

Event / Limit	Design Scour Elevations (ft.)			
	Pier 1	Pier 2	Pier 3	Item 113
State	578.45	574.98	574.30	5
Design	574.30	574.30	574.30	

**PIERS CAP DATA**

Cap	Station	Deck Elev.
Pier 1	55+96.64	616.46
Pier 2	56+86.64	619.52
Pier 3	57+76.64	622.58
Pier 4	58+57.47	625.33
Pier 5	59+40.10	628.11
Pier 6	60+22.72	630.47
Pier 7	61+14.06	632.47
Pier 8	62+05.39	633.82
Pier 9	62+96.72	634.52

CIVILTECH ENGINEERING, INC.  
GREGORY J. HATLESTAD, S.E.



GREGORY J. HATLESTAD, S.E.  
# 081-005562

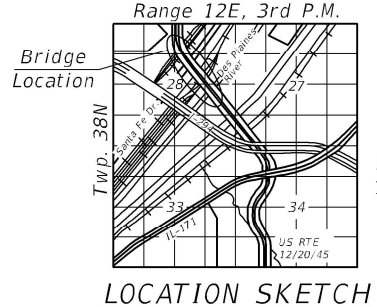
EXP 11-30-2022  
DATE 10-21-2021

- NOTES:**
- No deck drains will be permitted in the spans over tracks or within 10 ft. of crossarms of a railroad pole line.
  - All drainage scuppers north of Pier 4 will discharge into closed drainage systems.
  - Up to 1/4" may be ground off the bridge deck and the bridge approach slabs.

STATION 68+86.55  
RE-BUILT 202\_ BY  
STATE OF ILLINOIS  
FAP 330 SEC. 2018-133-BR  
LOADING HS20-44  
STRUCTURE NO. 016-2467

**NAME PLATE**

See Std. 515001  
Existing Name Plate shall be cleaned and relocated next to new Name Plate.  
Cost included with Name Plates.



**GENERAL PLAN & ELEVATION I**  
N.B. U.S. RTE 12/20/45 (LA GRANGE RD) OVER  
DES PLAINES RIVER, SANTA FE DR. & BNSF RR  
FAP 330, SEC. 2018-133-BR  
COOK COUNTY  
STA. 68+86.55  
STRUCTURE NUMBER 016-2467

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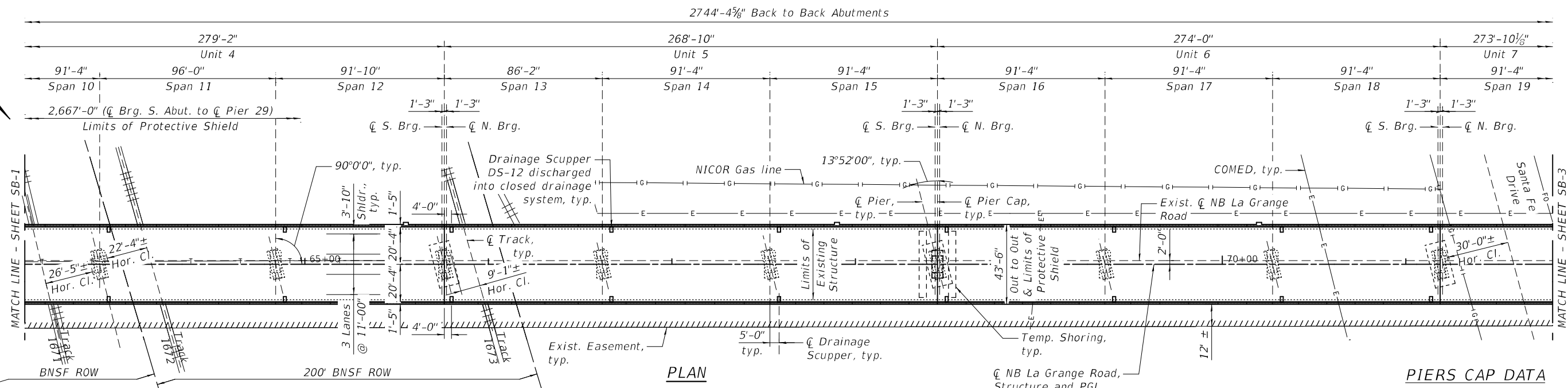
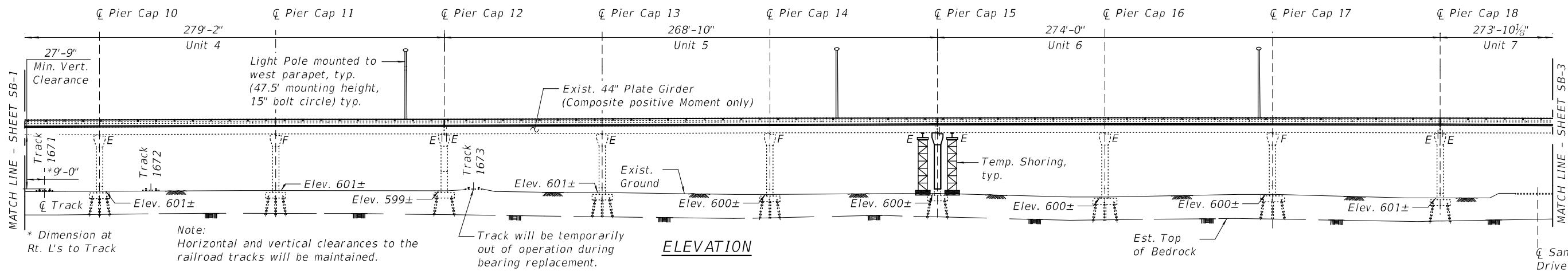
STATE OF ILLINOIS  
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GENERAL PLAN & ELEVATION I  
STRUCTURE NO. 016-2467

SHEET SB-1 OF SB-104 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	188
				CONTRACT NO. 62H49
ILLINOIS				





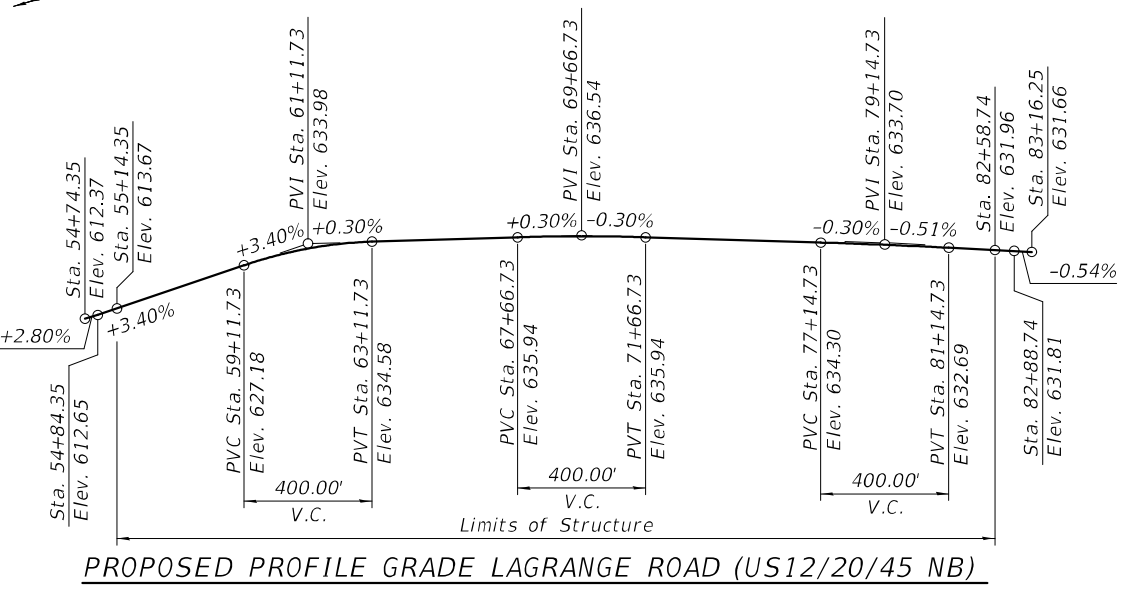
**PIERS CAP DATA**

Cl Cap	Station	Deck Elev.
Pier 10	63+88.06	634.80
Pier 11	64+84.06	635.09
Pier 12	65+75.89	635.37
Pier 13	66+62.06	635.63
Pier 14	67+53.39	635.90
Pier 15	68+44.72	636.13
Pier 16	69+36.06	636.23
Pier 17	70+27.39	636.21
Pier 18	71+18.72	636.07

**TOP OF RAIL AND MINIMUM VERTICAL CLEARANCE SUMMARY**  
(Offsets are measured along the tracks.)

TRACK	LEFT (WEST)	Cl NB La Grange Rd RIGHT (EAST)	MIN. VERT. CLR.
1671	602.06 288.66	0.00'	27'-8"
		601.73 147.57	

**Note:**  
The profile grade shows the final elevations after grinding. Up to 1/4 inch may be ground off the bridge deck and the bridge approach slabs.



- SCOPE OF WORK**
1. Remove existing composite deck, approach slabs and existing drainage system.
  2. Replace pier cap at Piers 4, 9 and 29 and replace pier cap and stem at Piers 15, 21 and 25. Perform abutments and piers structural repairs.
  3. Reconstruct abutment backwalls.
  4. Replace fixed and expansion HLMR bearings on all piers.
  5. Retrofit cross girder top cover plates at Piers 4, 6, 9, 12, 15, 18, 21, 25 and 29.
  6. Repair existing slope walls.
  7. Place new concrete deck and new approach slabs.
  8. Replace existing expansion joints with new expansion joints
  9. Attach new roadway lighting to the structure.
  10. Install new drainage system on the structure.
  11. Install Scour Countermeasures at Pier 2.

**GENERAL PLAN & ELEVATION II**  
**N.B. U.S. RTE 12/20/45 (LA GRANGE RD) OVER**  
**DES PLAINES RIVER, SANTA FE DR. & BNSF RR**  
**FAP 330, SEC. 2018-133-BR**  
**COOK COUNTY**  
**STA. 68+86.55**  
**STRUCTURE NUMBER 016-2467**

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PLOT SCALE = N/A	CHECKED - G. HATLESTAD	REVISIONS -
PLOT DATE = 11/30/2021	DRAWN - E. VAYSMAN	REVISIONS -
	DATE - 10/21/2021	REVISIONS -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION II**  
**STRUCTURE NO. 016-2467**  
 SHEET SB-2 OF SB-104 SHEETS

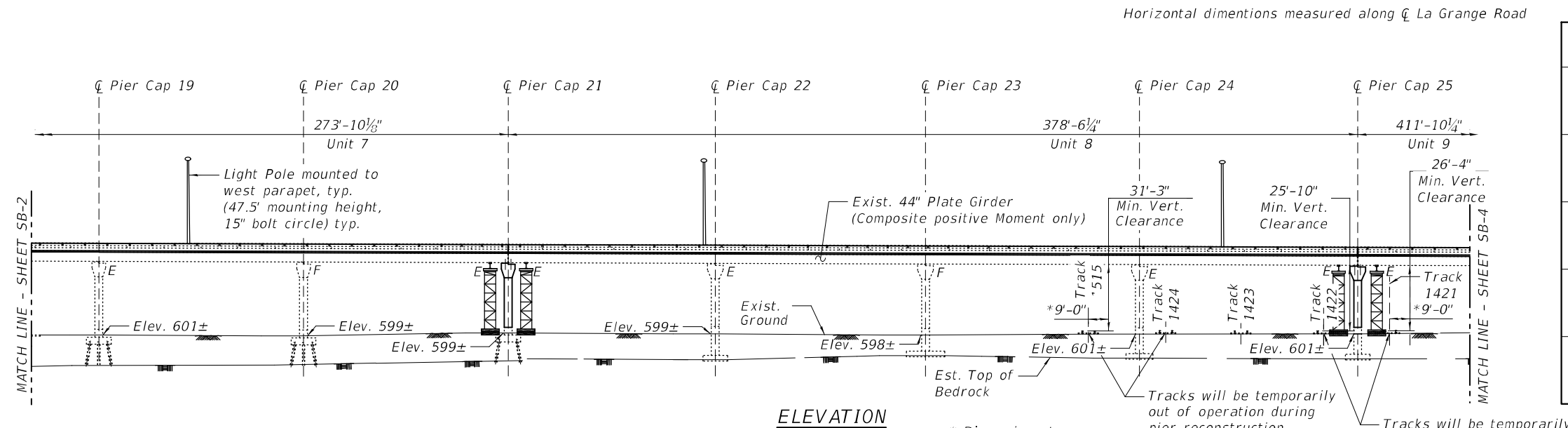
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ILLINOIS			CONTRACT NO. 62H49	

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**TOP OF RAIL AND MINIMUM VERTICAL CLEARANCE SUMMARY**

(Offsets are measured along the tracks.)

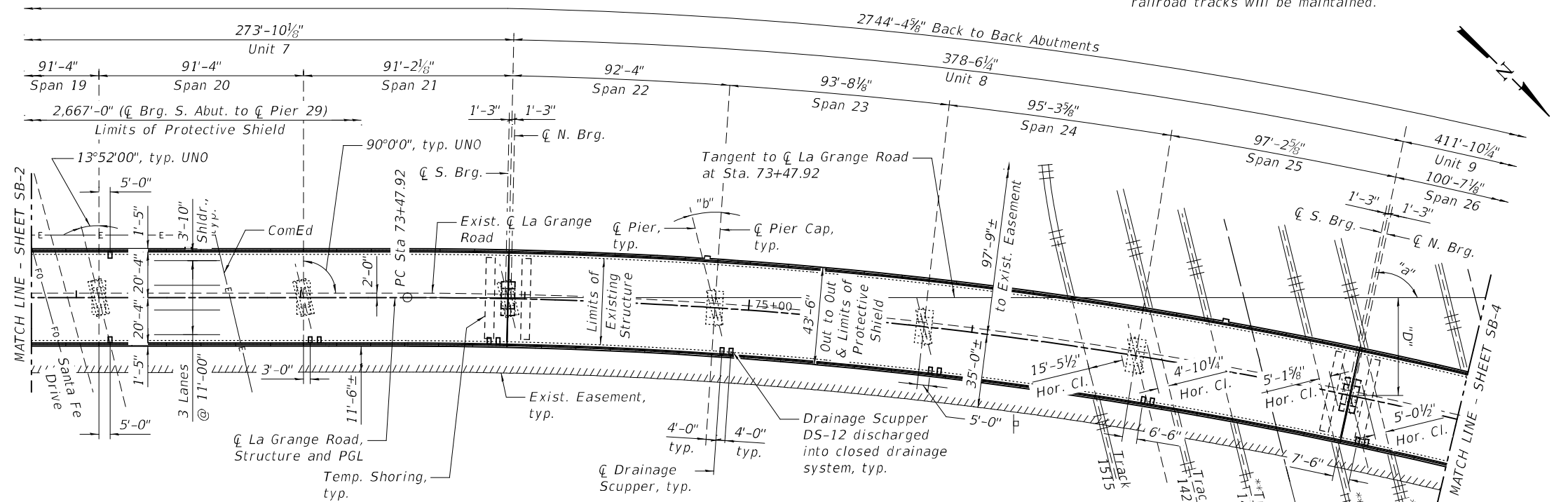
TRACK	NB La Grange Rd		MIN. VERT. CLR.
	LEFT (WEST)	RIGHT (EAST)	
1421	601.90 227.23	601.80 131.06	26'-6"
1422	602.47 256.29		25'-10"
1423	602.14 270.73	601.98 124.31	26'-1"
1424	601.26 261.43	602.26 46.45	27'-4"
1515	599.34 103.99 597.75 47.73	601.84 0.54 601.83 51.93	31'-3"



**ELEVATION**

\* Dimension at Rt. L's to Track

Note: Horizontal and vertical clearances to the railroad tracks will be maintained.



**PLAN**

**PIERS CAP DATA**

Cap	Station	Deck Elev.	"D"	"a"	"b"
Pier 19	72+10.06	635.81	-	-	-
Pier 20	73+01.39	635.54	-	-	-
Pier 21	73+92.56	635.26	0'-5 5/8"	88°44'44"	15°07'05"
Pier 22	74+84.89	634.99	4'-7"	86°09'39"	17°42'21"
Pier 23	75+78.56	634.71	13'-0"	83°32'08"	20°19'52"
Pier 24	76+73.86	634.42	25'-11 1/4"	80°51'53"	23°00'07"
Pier 25	77+71.08	634.12	43'-7 3/4"	78°08'24"	25°43'36"

Prop. Curve P2 NB45\_14  
 PI Sta. = 80+65.48  
 $\Delta = 38^\circ 41' 00''$  (RT)  
 $D = 2^\circ 48' 10''$   
 $R = 2,044.28'$   
 $T = 717.57'$   
 $L = 1,380.20'$   
 $E = 122.28'$   
 $S.E. = 4.20\%$   
 P.C. Sta. = 73+47.92  
 P.T. Sta. = 87+28.12

**DESIGN STRESSES**

FIELD UNITS (Exist. Construction)

$f'_c = 3,500$  psi  
 $f_s = 40,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (Structural Steel)

FIELD UNITS (New Construction)

$f'_c = 3,500$  psi  
 $f'_c = 4,000$  psi (Superstructure Concrete)  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (M270 Grade 36)

**LOADING HS20-44**

Allow 25#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.038  
 Site Coefficient (S) = 1

**GENERAL PLAN & ELEVATION III**  
**N.B. U.S. RTE 12/20/45 (LA GRANGE RD) OVER**  
**DES PLAINES RIVER, SANTA FE DR. & BNSF RR**

FAP 330, SEC. 2018-133-BR

COOK COUNTY

STA. 68+86.55

STRUCTURE NUMBER 016-2467

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION III  
 STRUCTURE NO. 016-2467

SHEET SB-3 OF SB-104 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	190
				CONTRACT NO. 62H49

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USER NAME = mc	DESIGNED - E. VAYSMAN	REVISED -
PLOT SCALE = N/A	CHECKED - G. HATLESTAD	REVISED -
PLOT DATE = 11/29/2021	DRAWN - E. VAYSMAN	REVISED -
	DATE - 10/21/2021	REVISED -

ILLINOIS

TOP OF RAIL AND MINIMUM VERTICAL CLEARANCE SUMMARY

(Offsets are measured along the tracks.)

TRACK	LEFT (WEST)		NB La Grange Rd RIGHT (EAST)		MIN. VERT. CLR.		
1501	601.80 224.98'	601.72 128.93'	601.73 44.68'	601.72 36.44'	601.80 109.76'	601.96 197.66'	25'-3"
1502	601.96 217.15'	601.90 120.17'	601.82 36.63'	601.74 46.03'	601.82 111.98'	602.00 199.87'	25'-5"
1503	601.97 207.48'	601.93 110.76'	601.85 27.02'	601.82 54.61'	601.86 121.21'	601.94 209.76'	25'-5"
1504	601.89 198.45'	601.89 102.76'	601.88 18.36'	601.91 62.63'	601.96 129.59'	602.05 219.03'	25'-6"
1505	601.87 206.48'	601.69 131.47'	601.63 39.83'	601.58 18.42'	601.74 131.35'	601.85 232.08'	25'-11"
1506	602.21 239.24'	602.22 166.33'	602.22 77.63'	602.13 8.55'	602.13 61.01'	602.27 196.47'	25'-6"
1507	601.77 230.46'		601.53 69.77'	601.50 14.86'	601.53 69.22'	601.77 204.94'	26'-3"
1508	601.50 222.39'		601.23 62.40'	601.35 22.29'	601.55 76.47'	601.68 212.99'	26'-5"
1510	601.53 191.26'	601.52 124.37'	601.51 60.58'	601.55 3.51'	601.58 73.48'	601.69 210.50'	26'-3"
1511	601.33 183.71'	601.37 117.53'	601.28 52.53'	601.20 11.64'	601.24 80.90'	601.39 217.91'	26'-8"
1513	601.90 233.00'	601.77 142.20'	601.59 39.69'	601.49 23.27'	601.51 47.10'	601.69 181.32'	26'-5"

BEAM REACTIONS FOR TEMPORARY SHORING AND CRIBBING

	Pier 4	Pier 9	Pier 15	Pier 21	Pier 25	Pier 29
R <sub>D</sub> (Steel only) (k)	7.6	10.3	10.3	11.5	12.7	15.9
R <sub>D</sub> (Const.) (k)	4.3	5.1	5.1	5.0	5.5	5.2
R <sub>L</sub> (Const.) (k)	5.2	5.9	5.9	6.0	6.5	5.2
R (Total) (k)	17.1	21.4	21.4	22.5	24.6	26.2

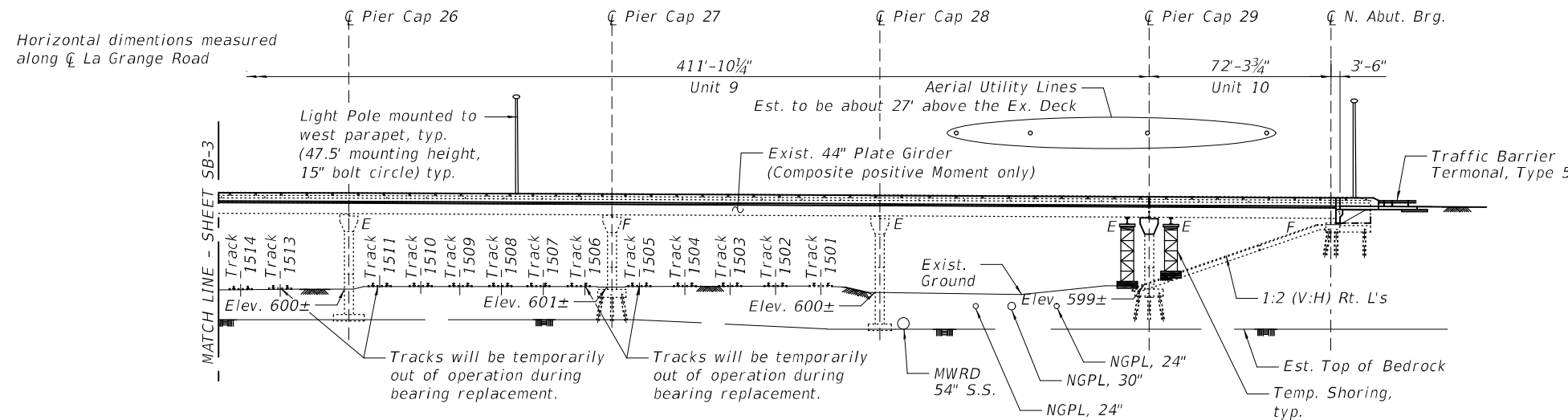
Note:

- Both dead and live construction loads 20 psf.
- The reaction loads shown above are service loads.
- The reaction loads shown above are for each beam.

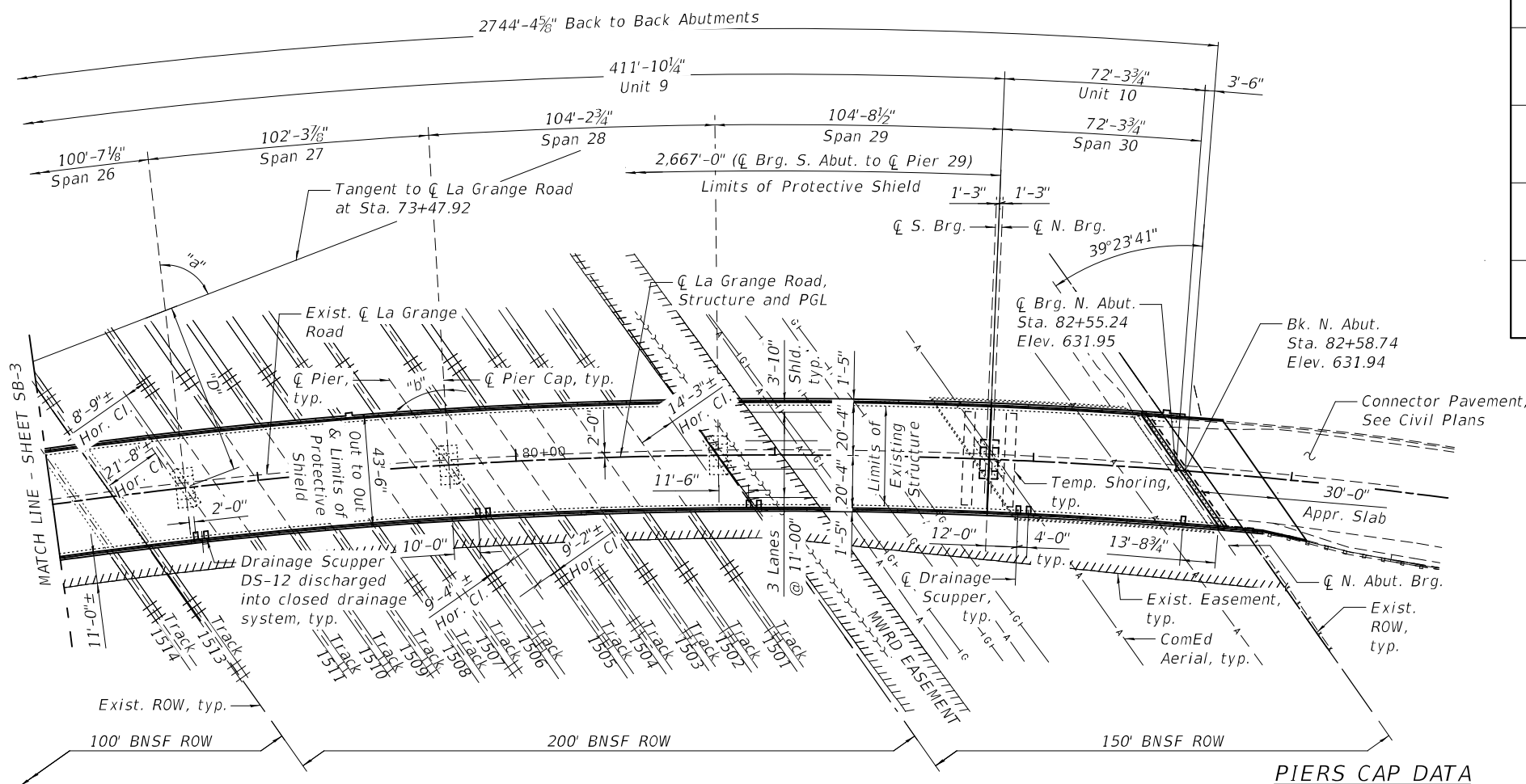
GENERAL PLAN & ELEVATION IV  
N.B. U.S. RTE 12/20/45 (LA GRANGE RD) OVER  
DES PLAINES RIVER, SANTA FE DR. & BNSF RR  
FAP 330, SEC. 2018-133-BR

COOK COUNTY  
STA. 68+86.55

STRUCTURE NUMBER 016-2467



ELEVATION  
Note:  
Horizontal and vertical clearances to the railroad tracks will be maintained.



PLAN

PIERS CAP DATA

Cap	Station	Deck Elev.	"D"	"a"	"b"
Pier 26	78+71.67	633.76	66'-8 <sup>3</sup> / <sub>4</sub> "	75°19'15"	28°32'46"
Pier 27	79+73.99	633.35	95'-1 <sup>3</sup> / <sub>8</sub> "	72°27'11"	31°24'50"
Pier 28	80+78.22	632.87	129'-0 <sup>3</sup> / <sub>4</sub> "	69°31'54"	34°20'05"
Pier 29	81+82.93	632.34	168'-2 <sup>1</sup> / <sub>8</sub> "	66°35'48"	37°16'10"

Note:  
Temporary rail crossings will be required for access to remove and replace the bearings.

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USER NAME = mc	DESIGNED - E. VAYSMAN	REVISED -
PLOT SCALE = N/A	CHECKED - G. HATLESTAD	REVISED -
PLOT DATE = 11/29/2021	DRAWN - E. VAYSMAN	REVISED -
	DATE - 10/21/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION IV  
STRUCTURE NO. 016-2467

SHEET SB-4 OF SB-104 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	191
				CONTRACT NO. 62H49

GENERAL NOTES

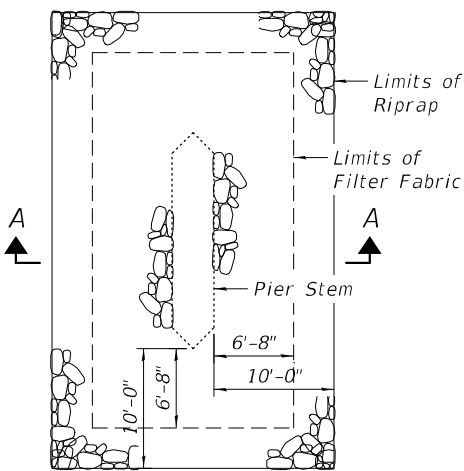
- 1. Fasteners shall be ASTM F 3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. Dia., holes 1 1/16 in. Dia., unless otherwise noted.
2. All structural steel shall be AASHTO M 270 Grade 36.
3. No field welding is permitted except as specified in the contract documents.
4. The Contractor shall test the existing welds by non-destructive methods within 2 ft. of the end of the existing cover plates for cracks after removal of the existing concrete deck.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Prior to pouring the new concrete deck, 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.
7. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications.
8. Plan dimensions and details relative to existing plans are subject to nominal construction variations.
9. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in.
10. Concrete Sealer shall be applied to the reconstructed abutment backwalls and all areas at top of the reconstructed pier caps at Piers 4, 9, 15, 21, 25 & 29.
11. Cleaning and field painting of structural steel shall be done under a separate painting contract.
12. The existing structural steel coating contains lead.
13. All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300, Type 1.

INDEX OF SHEETS

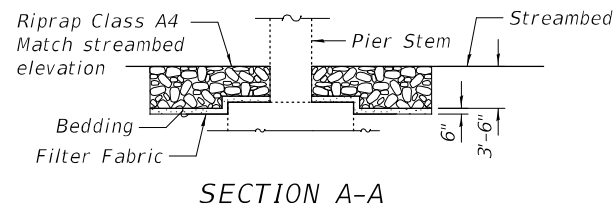
SB-1 General Plan & Elevation I
SB-2 General Plan & Elevation II
SB-3 General Plan & Elevation III
SB-4 General Plan & Elevation IV
SB-5 General Data
SB-6 to 8 Top of Deck Elevations (Unit 1)
SB-9 to 10 Top of Deck Elevations (Unit 2)
SB-11 to 12 Top of Deck Elevations (Unit 3)
SB-13 to 14 Top of Deck Elevations (Unit 4)
SB-15 to 16 Top of Deck Elevations (Unit 5)
SB-17 to 18 Top of Deck Elevations (Unit 6)
SB-19 to 20 Top of Deck Elevations (Unit 7)
SB-21 to 24 Top of Deck Elevations (Unit 8)
SB-25 to 28 Top of Deck Elevations (Unit 9)
SB-29 to 30 Top of Deck Elevations (Unit 10)
SB-31 Top of South Approach Slab Elevations
SB-32 Top of North Approach Slab Elevations
SB-33 Superstructure Plan Unit 1
SB-34 Superstructure Unit 1 Details 1
SB-35 Superstructure Unit 1 Details 2
SB-36 Superstructure Plan & Cross Section Unit 2
SB-37 Superstructure Unit 2 Details 1
SB-38 Superstructure Plan Unit 3
SB-39 Superstructure Unit 3 Details 1
SB-40 Superstructure Unit 3 Details 2
SB-41 Superstructure Plan Unit 4
SB-42 Superstructure Unit 4 Details 1
SB-43 Superstructure Plan Unit 5
SB-44 Superstructure Unit 5 Details 1
SB-45 Superstructure Plan Unit 6
SB-46 Superstructure Unit 6 Details 1
SB-47 Superstructure Plan Unit 7
SB-48 Superstructure Unit 7 Details 1
SB-49 Superstructure Plan Unit 8
SB-50 Superstructure Unit 8 Details 1
SB-51 Superstructure Unit 8 Details 2
SB-52 Superstructure Plan Unit 9
SB-53 Superstructure Unit 9 Details 1
SB-54 Superstructure Unit 9 Details 2
SB-55 Superstructure Plan & Cross Section Unit 10
SB-56 Superstructure Unit 10 Details 1
SB-57 Preformed Joint Strip Seal
SB-58 Modular Expansion Joint Details
SB-59 South Bridge Approach Slab
SB-60 South Bridge Approach Slab Details
SB-61 North Bridge Approach Slab
SB-62 North Bridge Approach Slab Details
SB-63 Cross Girder Cover Plate Retrofit Details
SB-64 Moment & Reaction Tables - Units 1 to 5
SB-65 Moment & Reaction Tables - Units 6 & 7
SB-66 Moment & Reaction Tables - Unit 8
SB-67 Moment & Reaction Tables - Unit 9
SB-68 Moment & Reaction Tables - Unit 10
SB-69 Girder Details - Units 1 to 3
SB-70 Girder Details - Units 4 & 5
SB-71 Girder Details - Unit 6
SB-72 Girder Details - Units 7 & 8
SB-73 Girder Details - Units 9 & 10
SB-74 Abutment Bearing Details
SB-75 HLMR Bearing Details 1 - Fixed
SB-76 HLMR Bearing Details 2 - Fixed
SB-77 HLMR Bearing Details 3 - Guided Expansion
SB-78 HLMR Bearing Details 4 - Guided Expansion
SB-79 HLMR Bearing Details 5 - Guided Expansion
SB-80 Abutment Removal & Repair Details
SB-81 South Abutment
SB-82 South Abutment Details
SB-83 North Abutment
SB-84 North Abutment Details 1
SB-85 North Abutment Details 2
SB-86 Pier Removal Details
SB-87 Pier Repair Details 1 - Piers 2, 4 & 6
SB-88 Pier Repair Details 2 - Piers 12 & 18
SB-89 Pier Repair Details 3 - Piers 19 & 23
SB-90 Pier Repair Details 4 - Pier 29
SB-91 Pier 4
SB-92 Pier 9
SB-93 Pier 15
SB-94 Pier 21
SB-95 Pier 25
SB-96 Pier 29
SB-97 Pier Bar Bending Diagrams
SB-98 Slope Wall Repair
SB-99 Drainage Scupper, DS-12
SB-100 Drainage System Details 1
SB-101 Drainage System Details 2
SB-102 Drainage System Details 3
SB-103 Bar Splicer Assembly
SB-104 Concrete Parapet Slipforming Option

TOTAL BILL OF MATERIAL

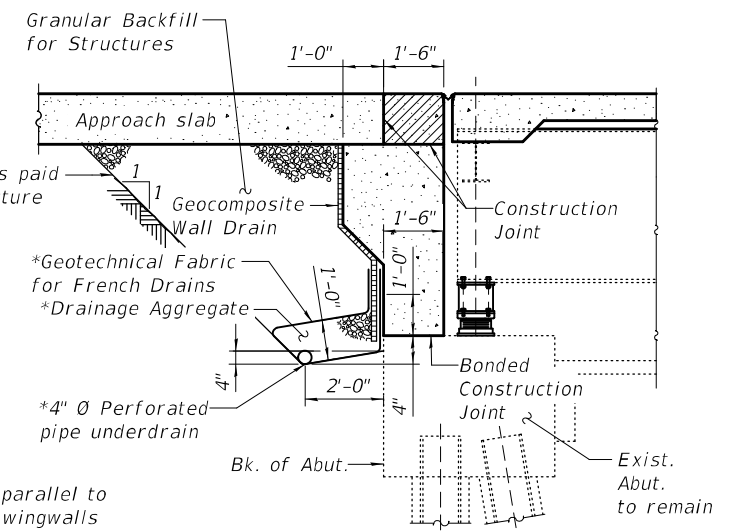
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PIER 2 RIPRAP PROTECTION



SECTION A-A



SECTION THRU ABUTMENT

- 14. This project requires a US Army Corp of Engineers (USACE) 404 permit that has been scured by IDOT. As a condition of the permit the Contractor will need to submit a in-stream work plan to the Will/South Cook Soil and Water Conservation District (SWCD) for approval.
15. Work shall conform to all provisions of the Erosion Control Plan.
16. Haul Roads, In-Stream Work Pads and Causeways, if needed, shall be constructed in accordance with the Recurring Special Provision Check Sheet #8.

\*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note: All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

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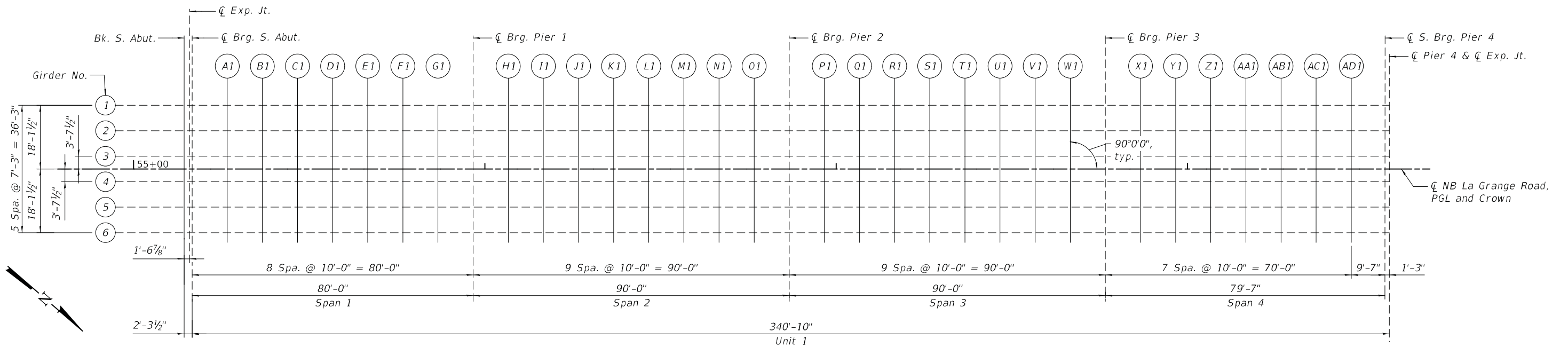
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 016-2467

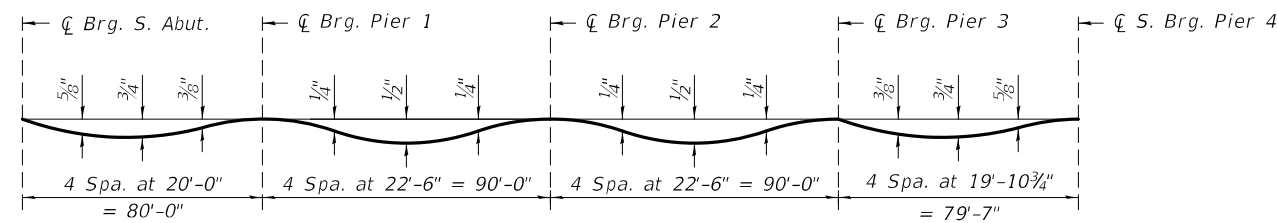
SHEET SB-5 OF SB-104 SHEETS

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PLAN - UNIT 1

GIRDER 1

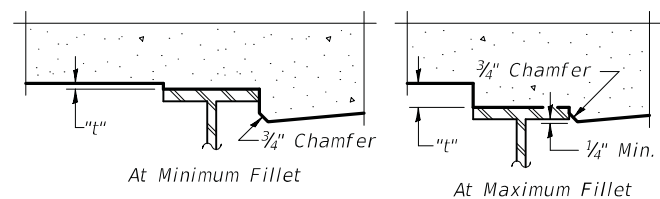


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only. Use these deflections in combination with cross girder deflections.)

Note:

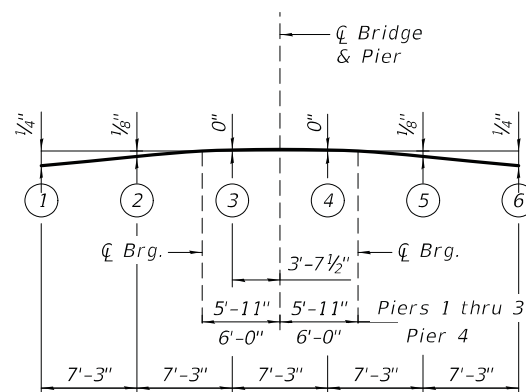
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on this sheet and on sheets SB-7 & SB-8.



FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection and Grinding" shown on this sheet and sheets SB-7 thru SB-30, minus 8 1/4" deck thickness prior to grinding, equals the fillet heights "t" above top flange of beams.

The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on this sheet and sheets SB-7 thru SB-30. For grinding the deck, see Special Provisions.



CROSS GIRDER DEAD LOAD DEFLECTION DIAGRAM OVER PIERS 1 THRU 4

(Includes weight of concrete only)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	55+14.35	-18.13	613.39	613.41
Exp. Jt.	55+15.92	-18.13	613.44	613.46
Brg. S. Abut.	55+16.64	-18.13	613.46	613.48
A1	55+26.64	-18.13	613.80	613.86
B1	55+36.64	-18.13	614.14	614.22
C1	55+46.64	-18.13	614.48	614.58
D1	55+56.64	-18.13	614.82	614.92
E1	55+66.64	-18.13	615.16	615.25
F1	55+76.64	-18.13	615.50	615.57
G1	55+86.64	-18.13	615.84	615.90
Brg. Pier 1	55+96.64	-18.13	616.18	616.23
H1	56+06.64	-18.13	616.52	616.57
I1	56+16.64	-18.13	616.86	616.92
J1	56+26.64	-18.13	617.20	617.27
K1	56+36.64	-18.13	617.54	617.62
L1	56+46.64	-18.13	617.88	617.97
M1	56+56.64	-18.13	618.22	618.30
N1	56+66.64	-18.13	618.56	618.63
O1	56+76.64	-18.13	618.90	618.95
Brg. Pier 2	56+86.64	-18.13	619.24	619.29
P1	56+96.64	-18.13	619.58	619.63
Q1	57+06.64	-18.13	619.92	619.99
R1	57+16.64	-18.13	620.26	620.34
S1	57+26.64	-18.13	620.60	620.69
T1	57+36.64	-18.13	620.94	621.02
U1	57+46.64	-18.13	621.28	621.36
V1	57+56.64	-18.13	621.62	621.68
W1	57+66.64	-18.13	621.96	622.01
Brg. Pier 3	57+76.64	-18.13	622.30	622.35
X1	57+86.64	-18.13	622.64	622.70
Y1	57+96.64	-18.13	622.98	623.06
Z1	58+06.64	-18.13	623.32	623.42
AA1	58+16.64	-18.13	623.66	623.77
AB1	58+26.64	-18.13	624.00	624.11
AC1	58+36.64	-18.13	624.34	624.43
AD1	58+46.64	-18.13	624.68	624.75
S. Brg. Pier 4	58+56.22	-18.13	625.01	625.05
Pier 4 & Exp. Jt.	58+57.47	-18.13	625.05	625.09

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PLOT DATE = 10/21/2021	DRAWN - E. VAYSMAN	REVISED -
	DATE - 06/18/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS 1 (UNIT 1)  
STRUCTURE NO. 016-2467

SHEET SB-6 OF SB-104 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	193
ILLINOIS			CONTRACT NO. 62H49	

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	55+14.35	-10.88	613.50	613.52
┆ Exp. Jt.	55+15.92	-10.88	613.56	613.58
┆ Brg. S. Abut.	55+16.64	-10.88	613.58	613.60
A1	55+26.64	-10.88	613.92	613.97
B1	55+36.64	-10.88	614.26	614.33
C1	55+46.64	-10.88	614.60	614.69
D1	55+56.64	-10.88	614.94	615.02
E1	55+66.64	-10.88	615.28	615.35
F1	55+76.64	-10.88	615.62	615.68
G1	55+86.64	-10.88	615.96	616.00
┆ Brg. Pier 1	55+96.64	-10.88	616.30	616.33
H1	56+06.64	-10.88	616.64	616.67
I1	56+16.64	-10.88	616.98	617.02
J1	56+26.64	-10.88	617.32	617.37
K1	56+36.64	-10.88	617.66	617.72
L1	56+46.64	-10.88	618.00	618.06
M1	56+56.64	-10.88	618.34	618.40
N1	56+66.64	-10.88	618.68	618.73
O1	56+76.64	-10.88	619.02	619.05
┆ Brg. Pier 2	56+86.64	-10.88	619.36	619.39
P1	56+96.64	-10.88	619.70	619.73
Q1	57+06.64	-10.88	620.04	620.09
R1	57+16.64	-10.88	620.38	620.44
S1	57+26.64	-10.88	620.72	620.79
T1	57+36.64	-10.88	621.06	621.12
U1	57+46.64	-10.88	621.40	621.45
V1	57+56.64	-10.88	621.74	621.78
W1	57+66.64	-10.88	622.08	622.11
┆ Brg. Pier 3	57+76.64	-10.88	622.42	622.45
X1	57+86.64	-10.88	622.76	622.80
Y1	57+96.64	-10.88	623.10	623.16
Z1	58+06.64	-10.88	623.44	623.51
AA1	58+16.64	-10.88	623.78	623.87
AB1	58+26.64	-10.88	624.12	624.21
AC1	58+36.64	-10.88	624.46	624.53
AD1	58+46.64	-10.88	624.80	624.85
┆ S. Brg. Pier 4	58+56.22	-10.88	625.13	625.15
┆ Pier 4 & ┆ Exp. Jt.	58+57.47	-10.88	625.17	625.19

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	55+14.35	-3.63	613.61	613.63
┆ Exp. Jt.	55+15.92	-3.63	613.66	613.69
┆ Brg. S. Abut.	55+16.64	-3.63	613.69	613.71
A1	55+26.64	-3.63	614.03	614.08
B1	55+36.64	-3.63	614.37	614.44
C1	55+46.64	-3.63	614.71	614.79
D1	55+56.64	-3.63	615.05	615.13
E1	55+66.64	-3.63	615.39	615.46
F1	55+76.64	-3.63	615.73	615.78
G1	55+86.64	-3.63	616.07	616.10
┆ Brg. Pier 1	55+96.64	-3.63	616.41	616.43
H1	56+06.64	-3.63	616.75	616.77
I1	56+16.64	-3.63	617.09	617.12
J1	56+26.64	-3.63	617.43	617.47
K1	56+36.64	-3.63	617.77	617.82
L1	56+46.64	-3.63	618.11	618.16
M1	56+56.64	-3.63	618.45	618.50
N1	56+66.64	-3.63	618.79	618.83
O1	56+76.64	-3.63	619.13	619.15
┆ Brg. Pier 2	56+86.64	-3.63	619.47	619.49
P1	56+96.64	-3.63	619.81	619.83
Q1	57+06.64	-3.63	620.15	620.19
R1	57+16.64	-3.63	620.49	620.54
S1	57+26.64	-3.63	620.83	620.88
T1	57+36.64	-3.63	621.17	621.22
U1	57+46.64	-3.63	621.51	621.55
V1	57+56.64	-3.63	621.85	621.88
W1	57+66.64	-3.63	622.19	622.21
┆ Brg. Pier 3	57+76.64	-3.63	622.53	622.55
X1	57+86.64	-3.63	622.87	622.90
Y1	57+96.64	-3.63	623.21	623.26
Z1	58+06.64	-3.63	623.55	623.61
AA1	58+16.64	-3.63	623.89	623.97
AB1	58+26.64	-3.63	624.23	624.31
AC1	58+36.64	-3.63	624.57	624.64
AD1	58+46.64	-3.63	624.91	624.96
┆ S. Brg. Pier 4	58+56.22	-3.63	625.23	625.25
┆ Pier 4 & ┆ Exp. Jt.	58+57.47	-3.63	625.28	625.30

PGL AND CROWN

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	55+14.35	0.00	613.67	613.69
┆ Exp. Jt.	55+15.92	0.00	613.72	613.74
┆ Brg. S. Abut.	55+16.64	0.00	613.74	613.76
A1	55+26.64	0.00	614.08	614.10
B1	55+36.64	0.00	614.42	614.44
C1	55+46.64	0.00	614.76	614.78
D1	55+56.64	0.00	615.10	615.12
E1	55+66.64	0.00	615.44	615.46
F1	55+76.64	0.00	615.78	615.80
G1	55+86.64	0.00	616.12	616.14
┆ Brg. Pier 1	55+96.64	0.00	616.46	616.48
H1	56+06.64	0.00	616.80	616.82
I1	56+16.64	0.00	617.14	617.16
J1	56+26.64	0.00	617.48	617.50
K1	56+36.64	0.00	617.82	617.84
L1	56+46.64	0.00	618.16	618.18
M1	56+56.64	0.00	618.50	618.52
N1	56+66.64	0.00	618.84	618.86
O1	56+76.64	0.00	619.18	619.20
┆ Brg. Pier 2	56+86.64	0.00	619.52	619.54
P1	56+96.64	0.00	619.86	619.88
Q1	57+06.64	0.00	620.20	620.22
R1	57+16.64	0.00	620.54	620.56
S1	57+26.64	0.00	620.88	620.90
T1	57+36.64	0.00	621.22	621.24
U1	57+46.64	0.00	621.56	621.58
V1	57+56.64	0.00	621.90	621.92
W1	57+66.64	0.00	622.24	622.26
┆ Brg. Pier 3	57+76.64	0.00	622.58	622.60
X1	57+86.64	0.00	622.92	622.94
Y1	57+96.64	0.00	623.26	623.28
Z1	58+06.64	0.00	623.60	623.62
AA1	58+16.64	0.00	623.94	623.96
AB1	58+26.64	0.00	624.28	624.30
AC1	58+36.64	0.00	624.62	624.64
AD1	58+46.64	0.00	624.96	624.98
┆ S. Brg. Pier 4	58+56.22	0.00	625.29	625.31
┆ Pier 4 & ┆ Exp. Jt.	58+57.47	0.00	625.33	625.35

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USER NAME = mc	DESIGNED - E. VAYSMAN	REVISED -
	CHECKED - G. HATLESTAD	REVISED -
PLOT SCALE = N/A	DRAWN - E. VAYSMAN	REVISED -
PLOT DATE = 10/21/2021	DATE - 06/18/2021	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF DECK ELEVATIONS 2 (UNIT 1)  
STRUCTURE NO. 016-2467**

SHEET SB-7 OF SB-104 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	194
			CONTRACT NO. 62H49	
ILLINOIS				

**GIRDER 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	55+14.35	3.63	613.61	613.63
┆ Exp. Jt.	55+15.92	3.63	613.66	613.69
┆ Brg. S. Abut.	55+16.64	3.63	613.69	613.71
A1	55+26.64	3.63	614.03	614.08
B1	55+36.64	3.63	614.37	614.44
C1	55+46.64	3.63	614.71	614.79
D1	55+56.64	3.63	615.05	615.13
E1	55+66.64	3.63	615.39	615.46
F1	55+76.64	3.63	615.73	615.78
G1	55+86.64	3.63	616.07	616.10
┆ Brg. Pier 1	55+96.64	3.63	616.41	616.43
H1	56+06.64	3.63	616.75	616.77
I1	56+16.64	3.63	617.09	617.12
J1	56+26.64	3.63	617.43	617.47
K1	56+36.64	3.63	617.77	617.82
L1	56+46.64	3.63	618.11	618.16
M1	56+56.64	3.63	618.45	618.50
N1	56+66.64	3.63	618.79	618.83
O1	56+76.64	3.63	619.13	619.15
┆ Brg. Pier 2	56+86.64	3.63	619.47	619.49
P1	56+96.64	3.63	619.81	619.83
Q1	57+06.64	3.63	620.15	620.19
R1	57+16.64	3.63	620.49	620.54
S1	57+26.64	3.63	620.83	620.88
T1	57+36.64	3.63	621.17	621.22
U1	57+46.64	3.63	621.51	621.55
V1	57+56.64	3.63	621.85	621.88
W1	57+66.64	3.63	622.19	622.21
┆ Brg. Pier 3	57+76.64	3.63	622.53	622.55
X1	57+86.64	3.63	622.87	622.90
Y1	57+96.64	3.63	623.21	623.26
Z1	58+06.64	3.63	623.55	623.61
AA1	58+16.64	3.63	623.89	623.97
AB1	58+26.64	3.63	624.23	624.31
AC1	58+36.64	3.63	624.57	624.64
AD1	58+46.64	3.63	624.91	624.96
┆ S. Brg. Pier 4	58+56.22	3.63	625.23	625.25
┆ Pier 4 & ┆ Exp. Jt.	58+57.47	3.63	625.28	625.30

**GIRDER 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	55+14.35	10.88	613.50	613.52
┆ Exp. Jt.	55+15.92	10.88	613.56	613.58
┆ Brg. S. Abut.	55+16.64	10.88	613.58	613.60
A1	55+26.64	10.88	613.92	613.97
B1	55+36.64	10.88	614.26	614.33
C1	55+46.64	10.88	614.60	614.69
D1	55+56.64	10.88	614.94	615.02
E1	55+66.64	10.88	615.28	615.35
F1	55+76.64	10.88	615.62	615.68
G1	55+86.64	10.88	615.96	616.00
┆ Brg. Pier 1	55+96.64	10.88	616.30	616.33
H1	56+06.64	10.88	616.64	616.67
I1	56+16.64	10.88	616.98	617.02
J1	56+26.64	10.88	617.32	617.37
K1	56+36.64	10.88	617.66	617.72
L1	56+46.64	10.88	618.00	618.06
M1	56+56.64	10.88	618.34	618.40
N1	56+66.64	10.88	618.68	618.73
O1	56+76.64	10.88	619.02	619.05
┆ Brg. Pier 2	56+86.64	10.88	619.36	619.39
P1	56+96.64	10.88	619.70	619.73
Q1	57+06.64	10.88	620.04	620.09
R1	57+16.64	10.88	620.38	620.44
S1	57+26.64	10.88	620.72	620.79
T1	57+36.64	10.88	621.06	621.12
U1	57+46.64	10.88	621.40	621.45
V1	57+56.64	10.88	621.74	621.78
W1	57+66.64	10.88	622.08	622.11
┆ Brg. Pier 3	57+76.64	10.88	622.42	622.45
X1	57+86.64	10.88	622.76	622.80
Y1	57+96.64	10.88	623.10	623.16
Z1	58+06.64	10.88	623.44	623.51
AA1	58+16.64	10.88	623.78	623.87
AB1	58+26.64	10.88	624.12	624.21
AC1	58+36.64	10.88	624.46	624.53
AD1	58+46.64	10.88	624.80	624.85
┆ S. Brg. Pier 4	58+56.22	10.88	625.13	625.15
┆ Pier 4 & ┆ Exp. Jt.	58+57.47	10.88	625.17	625.19

**GIRDER 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	55+14.35	18.13	613.39	613.41
┆ Exp. Jt.	55+15.92	18.13	613.44	613.46
┆ Brg. S. Abut.	55+16.64	18.13	613.46	613.48
A1	55+26.64	18.13	613.80	613.86
B1	55+36.64	18.13	614.14	614.22
C1	55+46.64	18.13	614.48	614.58
D1	55+56.64	18.13	614.82	614.92
E1	55+66.64	18.13	615.16	615.25
F1	55+76.64	18.13	615.50	615.57
G1	55+86.64	18.13	615.84	615.90
┆ Brg. Pier 1	55+96.64	18.13	616.18	616.23
H1	56+06.64	18.13	616.52	616.57
I1	56+16.64	18.13	616.86	616.92
J1	56+26.64	18.13	617.20	617.27
K1	56+36.64	18.13	617.54	617.62
L1	56+46.64	18.13	617.88	617.97
M1	56+56.64	18.13	618.22	618.30
N1	56+66.64	18.13	618.56	618.63
O1	56+76.64	18.13	618.90	618.95
┆ Brg. Pier 2	56+86.64	18.13	619.24	619.29
P1	56+96.64	18.13	619.58	619.63
Q1	57+06.64	18.13	619.92	619.99
R1	57+16.64	18.13	620.26	620.34
S1	57+26.64	18.13	620.60	620.69
T1	57+36.64	18.13	620.94	621.02
U1	57+46.64	18.13	621.28	621.36
V1	57+56.64	18.13	621.62	621.68
W1	57+66.64	18.13	621.96	622.01
┆ Brg. Pier 3	57+76.64	18.13	622.30	622.35
X1	57+86.64	18.13	622.64	622.70
Y1	57+96.64	18.13	622.98	623.06
Z1	58+06.64	18.13	623.32	623.42
AA1	58+16.64	18.13	623.66	623.77
AB1	58+26.64	18.13	624.00	624.11
AC1	58+36.64	18.13	624.34	624.43
AD1	58+46.64	18.13	624.68	624.75
┆ S. Brg. Pier 4	58+56.22	18.13	625.01	625.05
┆ Pier 4 & ┆ Exp. Jt.	58+57.47	18.13	625.05	625.09

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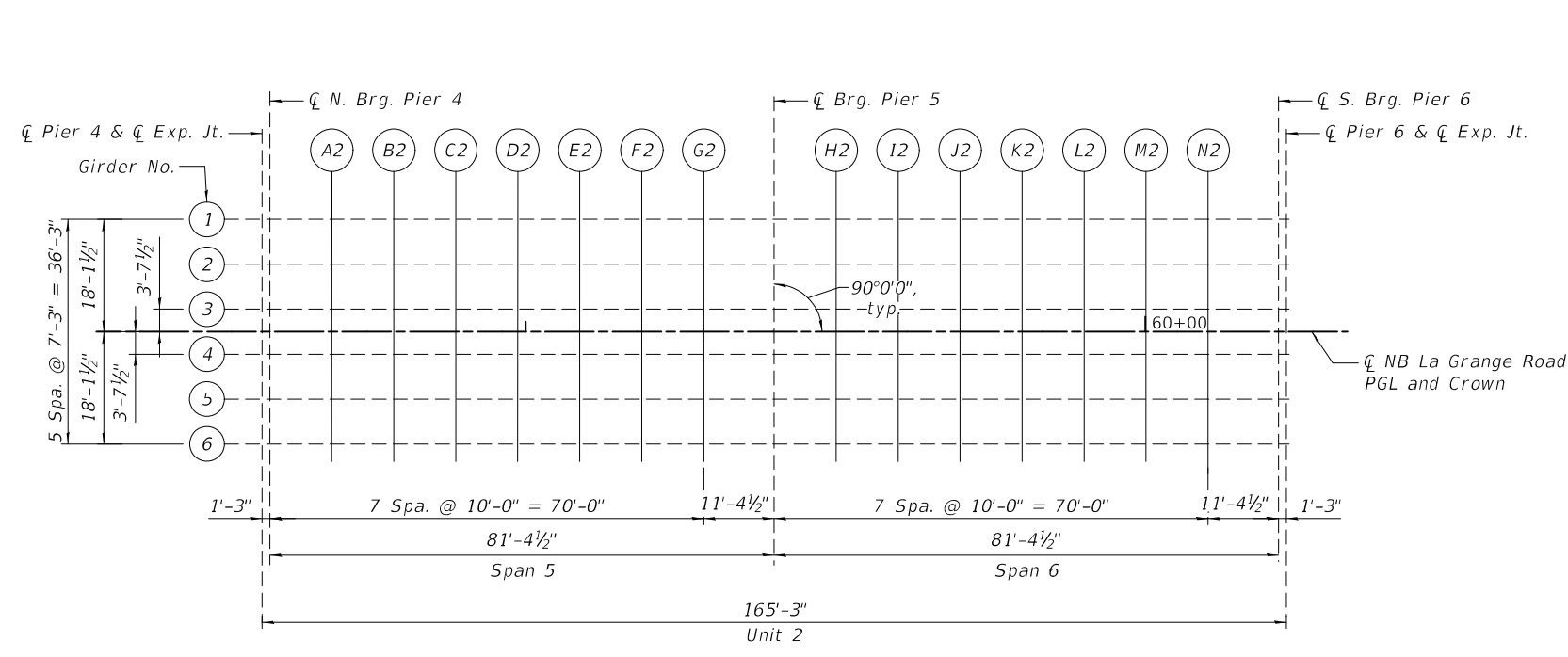
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CHECKED -	G. HATLESTAD	REVISIONS			
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PLOT DATE =	10/21/2021	DATE -	06/18/2021	REVISED -	-

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

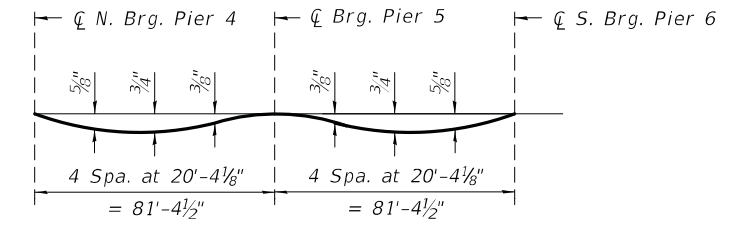
**TOP OF DECK ELEVATIONS 3 (UNIT 1)  
STRUCTURE NO. 016-2467**

SHEET SB-8 OF SB-104 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	195
ILLINOIS				CONTRACT NO. 62H49



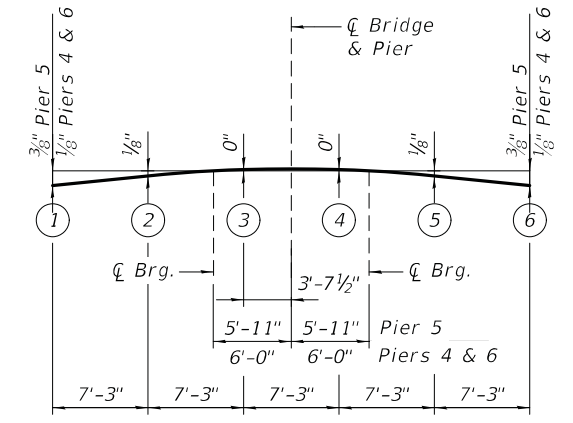
PLAN - UNIT 2



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only. Use these deflections in combination with cross girder deflections.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on this sheet and sheet SB-10.



CROSS GIRDER DEAD LOAD DEFLECTION DIAGRAM

OVER PIERS 4 THRU 6

(Includes weight of concrete only)

Note:  
For Fillet Heights Detail see sheet SB-6.

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 4 & Exp. Jt.	58+57.47	-18.13	625.05	625.09
☐ N. Brg. Pier 4	58+58.72	-18.13	625.09	625.13
A2	58+68.72	-18.13	625.43	625.50
B2	58+78.72	-18.13	625.77	625.87
C2	58+88.72	-18.13	626.11	626.22
D2	58+98.72	-18.13	626.45	626.56
E2	59+08.72	-18.13	626.79	626.89
F2	59+18.72	-18.13	627.13	627.21
G2	59+28.72	-18.13	627.46	627.52
☐ Brg. Pier 5	59+40.10	-18.13	627.83	627.88
H2	59+50.10	-18.13	628.14	628.20
I2	59+60.10	-18.13	628.45	628.52
J2	59+70.10	-18.13	628.75	628.84
K2	59+80.10	-18.13	629.04	629.14
L2	59+90.10	-18.13	629.32	629.43
M2	60+00.10	-18.13	629.60	629.69
N2	60+10.10	-18.13	629.87	629.94
☐ S. Brg. Pier 6	60+21.47	-18.13	630.16	630.20
☐ Pier 6 & Exp. Jt.	60+22.72	-18.13	630.19	630.23

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 4 & Exp. Jt.	58+57.47	-10.88	625.17	625.19
☐ N. Brg. Pier 4	58+58.72	-10.88	625.21	625.24
A2	58+68.72	-10.88	625.55	625.60
B2	58+78.72	-10.88	625.89	625.97
C2	58+88.72	-10.88	626.23	626.32
D2	58+98.72	-10.88	626.57	626.66
E2	59+08.72	-10.88	626.91	626.98
F2	59+18.72	-10.88	627.25	627.30
G2	59+28.72	-10.88	627.58	627.62
☐ Brg. Pier 5	59+40.10	-10.88	627.95	627.98
H2	59+50.10	-10.88	628.26	628.30
I2	59+60.10	-10.88	628.57	628.62
J2	59+70.10	-10.88	628.87	628.94
K2	59+80.10	-10.88	629.16	629.24
L2	59+90.10	-10.88	629.44	629.53
M2	60+00.10	-10.88	629.71	629.79
N2	60+10.10	-10.88	629.98	630.04
☐ S. Brg. Pier 6	60+21.47	-10.88	630.28	630.30
☐ Pier 6 & Exp. Jt.	60+22.72	-10.88	630.31	630.34

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 4 & Exp. Jt.	58+57.47	-3.63	625.28	625.30
☐ N. Brg. Pier 4	58+58.72	-3.63	625.32	625.34
A2	58+68.72	-3.63	625.66	625.71
B2	58+78.72	-3.63	626.00	626.07
C2	58+88.72	-3.63	626.34	626.42
D2	58+98.72	-3.63	626.68	626.76
E2	59+08.72	-3.63	627.02	627.08
F2	59+18.72	-3.63	627.36	627.40
G2	59+28.72	-3.63	627.69	627.72
☐ Brg. Pier 5	59+40.10	-3.63	628.06	628.07
H2	59+50.10	-3.63	628.37	628.40
I2	59+60.10	-3.63	628.68	628.72
J2	59+70.10	-3.63	628.97	629.04
K2	59+80.10	-3.63	629.27	629.34
L2	59+90.10	-3.63	629.55	629.63
M2	60+00.10	-3.63	629.82	629.89
N2	60+10.10	-3.63	630.09	630.14
☐ S. Brg. Pier 6	60+21.47	-3.63	630.39	630.41
☐ Pier 6 & Exp. Jt.	60+22.72	-3.63	630.42	630.44

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PLOT DATE = 10/21/2021	DRAWN - E. VAYSMAN	REVISED -
	DATE - 06/18/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS 4 (UNIT 2)  
STRUCTURE NO. 016-2467

SHEET SB-9 OF SB-104 SHEETS

F.A.I. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 196
ILLINOIS			CONTRACT NO. 62H49	



**PGL AND CROWN**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 4 & ☐ Exp. Jt.	58+57.47	0.00	625.33	625.35
☐ N. Brg. Pier 4	58+58.72	0.00	625.37	625.39
A2	58+68.72	0.00	625.71	625.76
B2	58+78.72	0.00	626.05	626.12
C2	58+88.72	0.00	626.39	626.47
D2	58+98.72	0.00	626.73	626.81
E2	59+08.72	0.00	627.07	627.14
F2	59+18.72	0.00	627.41	627.46
G2	59+28.72	0.00	627.74	627.77
☐ Brg. Pier 5	59+40.10	0.00	628.11	628.13
H2	59+50.10	0.00	628.42	628.45
I2	59+60.10	0.00	628.73	628.77
J2	59+70.10	0.00	629.03	629.09
K2	59+80.10	0.00	629.32	629.39
L2	59+90.10	0.00	629.60	629.68
M2	60+00.10	0.00	629.88	629.95
N2	60+10.10	0.00	630.15	630.19
☐ S. Brg. Pier 6	60+21.47	0.00	630.44	630.46
☐ Pier 6 & ☐ Exp. Jt.	60+22.72	0.00	630.47	630.49

**GIRDER 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 4 & ☐ Exp. Jt.	58+57.47	3.63	625.28	625.30
☐ N. Brg. Pier 4	58+58.72	3.63	625.32	625.34
A2	58+68.72	3.63	625.66	625.71
B2	58+78.72	3.63	626.00	626.07
C2	58+88.72	3.63	626.34	626.42
D2	58+98.72	3.63	626.68	626.76
E2	59+08.72	3.63	627.02	627.08
F2	59+18.72	3.63	627.36	627.40
G2	59+28.72	3.63	627.69	627.72
☐ Brg. Pier 5	59+40.10	3.63	628.06	628.07
H2	59+50.10	3.63	628.37	628.40
I2	59+60.10	3.63	628.68	628.72
J2	59+70.10	3.63	628.97	629.04
K2	59+80.10	3.63	629.27	629.34
L2	59+90.10	3.63	629.55	629.63
M2	60+00.10	3.63	629.82	629.89
N2	60+10.10	3.63	630.09	630.14
☐ S. Brg. Pier 6	60+21.47	3.63	630.39	630.41
☐ Pier 6 & ☐ Exp. Jt.	60+22.72	3.63	630.42	630.44

**GIRDER 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☐ Pier 4 & ☐ Exp. Jt.	58+57.47	10.88	625.17	625.19
☐ N. Brg. Pier 4	58+58.72	10.88	625.21	625.24
A2	58+68.72	10.88	625.55	625.60
B2	58+78.72	10.88	625.89	625.97
C2	58+88.72	10.88	626.23	626.32
D2	58+98.72	10.88	626.57	626.66
E2	59+08.72	10.88	626.91	626.98
F2	59+18.72	10.88	627.25	627.30
G2	59+28.72	10.88	627.58	627.62
☐ Brg. Pier 5	59+40.10	10.88	627.95	627.98
H2	59+50.10	10.88	628.26	628.30
I2	59+60.10	10.88	628.57	628.62
J2	59+70.10	10.88	628.87	628.94
K2	59+80.10	10.88	629.16	629.24
L2	59+90.10	10.88	629.44	629.53
M2	60+00.10	10.88	629.71	629.79
N2	60+10.10	10.88	629.98	630.04
☐ S. Brg. Pier 6	60+21.47	10.88	630.28	630.30
☐ Pier 6 & ☐ Exp. Jt.	60+22.72	10.88	630.31	630.34

**GIRDER 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 4 & ☐ Exp. Jt.	58+57.47	18.13	625.05	625.09
☐ N. Brg. Pier 4	58+58.72	18.13	625.09	625.13
A2	58+68.72	18.13	625.43	625.50
B2	58+78.72	18.13	625.77	625.87
C2	58+88.72	18.13	626.11	626.22
D2	58+98.72	18.13	626.45	626.56
E2	59+08.72	18.13	626.79	626.89
F2	59+18.72	18.13	627.13	627.21
G2	59+28.72	18.13	627.46	627.52
☐ Brg. Pier 5	59+40.10	18.13	627.83	627.88
H2	59+50.10	18.13	628.14	628.20
I2	59+60.10	18.13	628.45	628.52
J2	59+70.10	18.13	628.75	628.84
K2	59+80.10	18.13	629.04	629.14
L2	59+90.10	18.13	629.32	629.43
M2	60+00.10	18.13	629.60	629.69
N2	60+10.10	18.13	629.87	629.94
☐ S. Brg. Pier 6	60+21.47	18.13	630.16	630.20
☐ Pier 6 & ☐ Exp. Jt.	60+22.72	18.13	630.19	630.23

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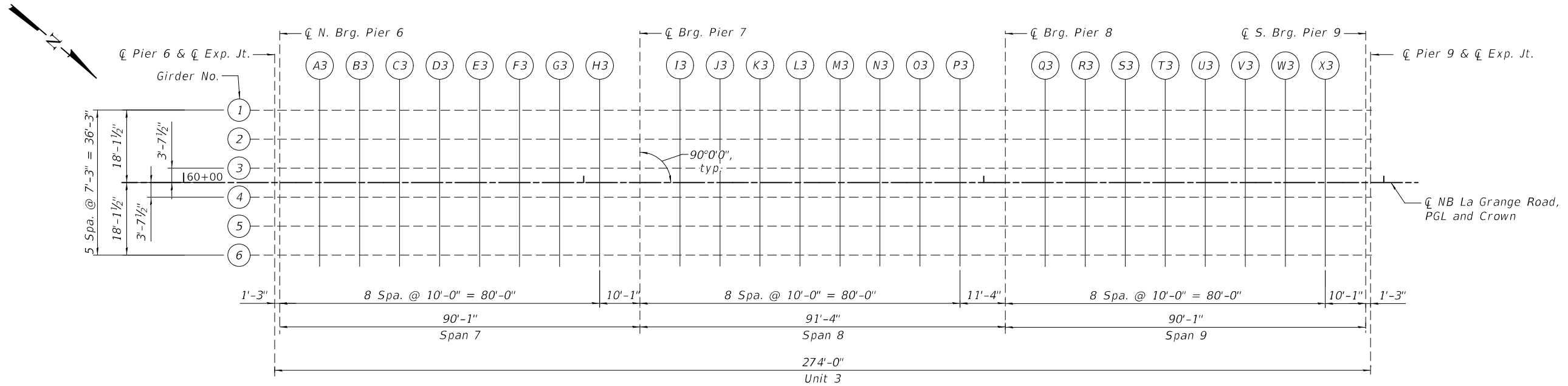
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

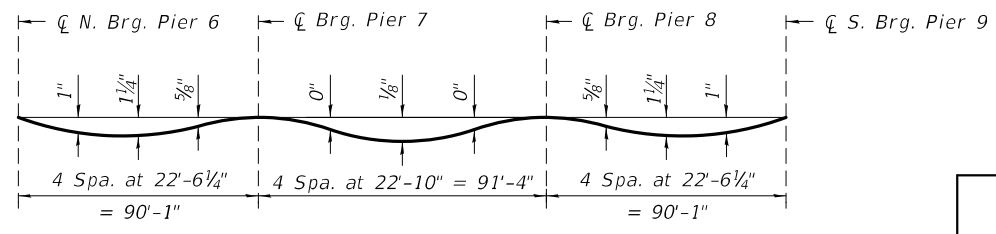
**TOP OF DECK ELEVATIONS 5 (UNIT 2)  
 STRUCTURE NO. 016-2467**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	2018-133-BR	COOK	308	197
ILLINOIS			CONTRACT NO. 62H49	

SHEET SB-10 OF SB-104 SHEETS



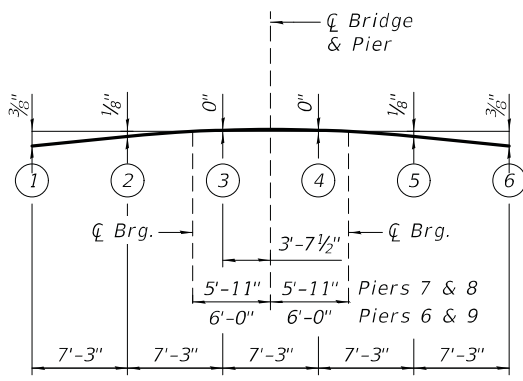
PLAN - UNIT 3



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only. Use these deflections in combination with cross girder deflections.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on this sheet and on sheet SB-12



**CROSS GIRDER DEAD LOAD DEFLECTION DIAGRAM**

**OVER PIERS 6 THRU 9**

(Includes weight of concrete only)

**GIRDER 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 6 & ☐ Exp. Jt.	60+22.72	-18.13	630.19	630.23
☐ N. Brg. Pier 6	60+23.97	-18.13	630.22	630.26
A3	60+33.97	-18.13	630.47	630.55
B3	60+43.97	-18.13	630.71	630.82
C3	60+53.97	-18.13	630.95	631.08
D3	60+63.97	-18.13	631.17	631.31
E3	60+73.97	-18.13	631.39	631.52
F3	60+83.97	-18.13	631.60	631.72
G3	60+93.97	-18.13	631.81	631.90
H3	61+03.97	-18.13	632.00	632.07
☐ Brg. Pier 7	61+14.06	-18.13	632.19	632.24
I3	61+24.06	-18.13	632.37	632.41
J3	61+34.06	-18.13	632.54	632.58
K3	61+44.06	-18.13	632.70	632.75
L3	61+54.06	-18.13	632.86	632.92
M3	61+64.06	-18.13	633.01	633.06
N3	61+74.06	-18.13	633.15	633.20
O3	61+84.06	-18.13	633.28	633.33
P3	61+94.06	-18.13	633.41	633.45
☐ Brg. Pier 8	62+05.39	-18.13	633.54	633.59
Q3	62+15.39	-18.13	633.65	633.71
R3	62+25.39	-18.13	633.75	633.84
S3	62+35.39	-18.13	633.84	633.96
T3	62+45.39	-18.13	633.93	634.06
U3	62+55.39	-18.13	634.00	634.14
V3	62+65.39	-18.13	634.07	634.20
W3	62+75.39	-18.13	634.14	634.25
X3	62+85.39	-18.13	634.19	634.27
☐ S. Brg. Pier 9	62+95.47	-18.13	634.24	634.28
☐ Pier 9 & ☐ Exp. Jt.	62+96.72	-18.13	634.24	634.28

**GIRDER 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 6 & ☐ Exp. Jt.	60+22.72	-10.88	630.31	630.34
☐ N. Brg. Pier 6	60+23.97	-10.88	630.34	630.37
A3	60+33.97	-10.88	630.59	630.66
B3	60+43.97	-10.88	630.83	630.93
C3	60+53.97	-10.88	631.07	631.19
D3	60+63.97	-10.88	631.29	631.42
E3	60+73.97	-10.88	631.51	631.64
F3	60+83.97	-10.88	631.72	631.83
G3	60+93.97	-10.88	631.92	632.00
H3	61+03.97	-10.88	632.12	632.17
☐ Brg. Pier 7	61+14.06	-10.88	632.31	632.34
I3	61+24.06	-10.88	632.49	632.51
J3	61+34.06	-10.88	632.66	632.68
K3	61+44.06	-10.88	632.82	632.85
L3	61+54.06	-10.88	632.98	633.01
M3	61+64.06	-10.88	633.12	633.16
N3	61+74.06	-10.88	633.27	633.30
O3	61+84.06	-10.88	633.40	633.42
P3	61+94.06	-10.88	633.52	633.54
☐ Brg. Pier 8	62+05.39	-10.88	633.66	633.69
Q3	62+15.39	-10.88	633.76	633.81
R3	62+25.39	-10.88	633.87	633.94
S3	62+35.39	-10.88	633.96	634.06
T3	62+45.39	-10.88	634.04	634.17
U3	62+55.39	-10.88	634.12	634.25
V3	62+65.39	-10.88	634.19	634.31
W3	62+75.39	-10.88	634.25	634.35
X3	62+85.39	-10.88	634.31	634.37
☐ S. Brg. Pier 9	62+95.47	-10.88	634.35	634.38
☐ Pier 9 & ☐ Exp. Jt.	62+96.72	-10.88	634.36	634.39

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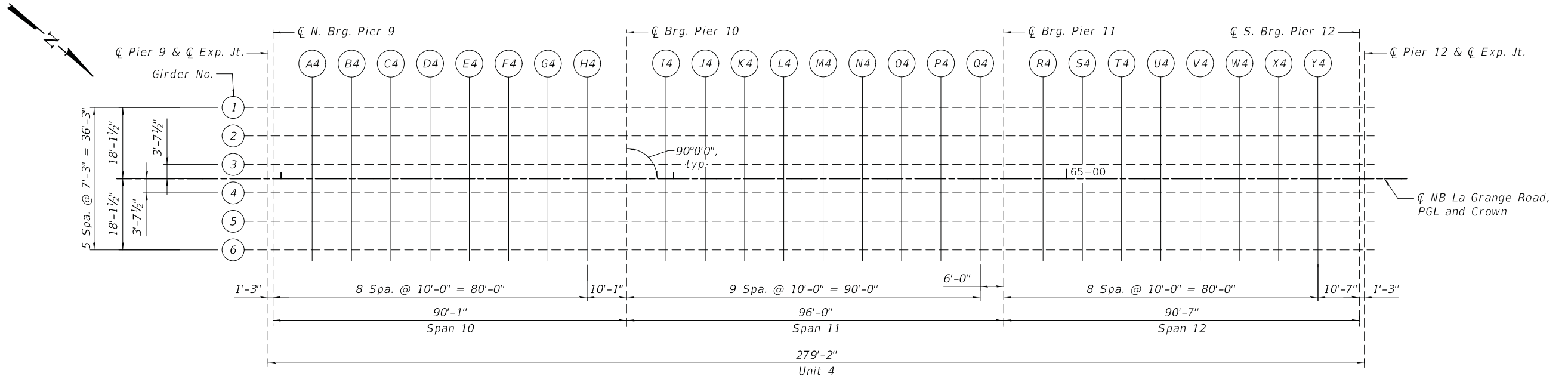
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATION 6 (UNIT 3)  
STRUCTURE NO. 016-2467

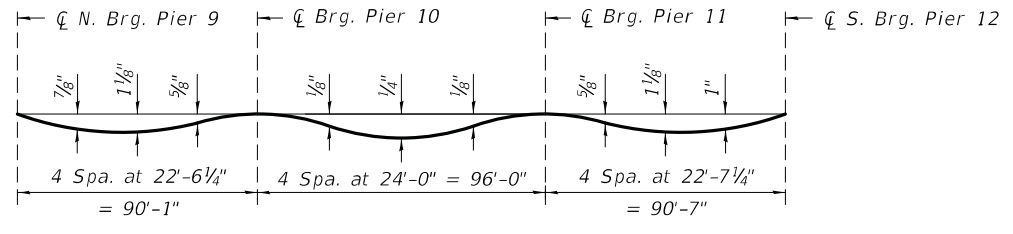
SHEET SB-11 OF SB-104 SHEETS

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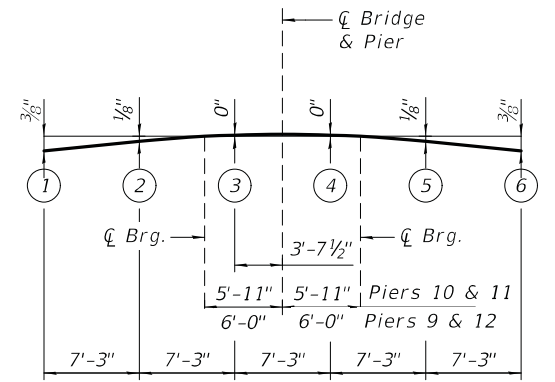


PLAN - UNIT 4



**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of concrete only. Use these deflections in combination with cross girder deflections.)

Note:  
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections and grinding as shown on this sheet and sheet SB-14.



**CROSS GIRDER DEAD LOAD DEFLECTION DIAGRAM OVER PIERS 9 THRU 12**  
(Includes weight of concrete only)

**GIRDER 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
☐ Pier 9 & ☐ Exp. Jt.	62+96.72	-18.13	634.24	634.28
☐ N. Brg. Pier 9	62+97.97	-18.13	634.25	634.29
A4	63+07.97	-18.13	634.28	634.36
B4	63+17.97	-18.13	634.31	634.43
C4	63+27.97	-18.13	634.34	634.48
D4	63+37.97	-18.13	634.37	634.52
E4	63+47.97	-18.13	634.40	634.54
F4	63+57.97	-18.13	634.43	634.55
G4	63+67.97	-18.13	634.46	634.56
H4	63+77.97	-18.13	634.49	634.56
☐ Brg. Pier 10	63+88.06	-18.13	634.53	634.57
I4	63+98.06	-18.13	634.56	634.60
J4	64+08.06	-18.13	634.59	634.64
K4	64+18.06	-18.13	634.62	634.68
L4	64+28.06	-18.13	634.65	634.72
M4	64+38.06	-18.13	634.68	634.75
N4	64+48.06	-18.13	634.71	634.77
O4	64+58.06	-18.13	634.74	634.79
P4	64+68.06	-18.13	634.77	634.81
Q4	64+78.06	-18.13	634.80	634.84
☐ Brg. Pier 11	64+84.06	-18.13	634.81	634.86
R4	64+94.06	-18.13	634.84	634.91
S4	65+04.06	-18.13	634.87	634.97
T4	65+14.06	-18.13	634.90	635.02
U4	65+24.06	-18.13	634.93	635.07
V4	65+34.06	-18.13	634.96	635.11
W4	65+44.06	-18.13	634.99	635.13
X4	65+54.06	-18.13	635.02	635.14
Y4	65+64.06	-18.13	635.05	635.15
☐ S. Brg. Pier 12	65+74.64	-18.13	635.08	635.12
☐ Pier 12 & ☐ Exp. Jt.	65+75.89	-18.13	635.09	635.13

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	DATE - 06/18/2021	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS 8 (UNIT 4)  
STRUCTURE NO. 016-2467  
SHEET SB-13 OF SB-104 SHEETS

F.A.I. RTE. 330	SECTION 2018-133-BR	COUNTY COOK	TOTAL SHEETS 308	SHEET NO. 200
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