

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB-R-1	COOK	47	1
CONTRACT NO. 60C11				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 368: PULASKI ROAD (NORTHBOUND)

OVER BRC RAILROAD

BETWEEN 75TH STREET AND 71ST STREET

SECTION: 1919 VB R-1

BRIDGE BEAM REPLACEMENT AND NEW DECK

COOK COUNTY

C-91-121-07

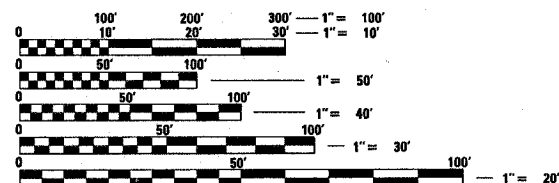
SN: 016-1020

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED IN
THE CITY OF CHICAGO IN COOK COUNTY



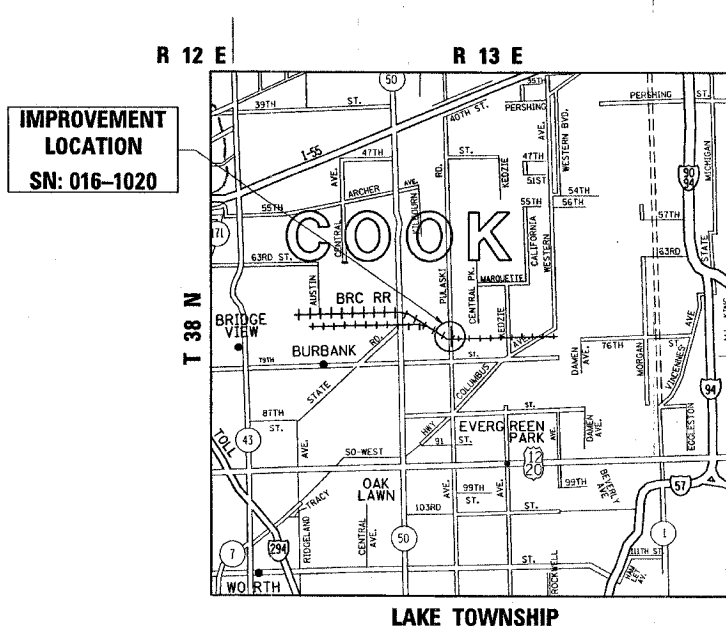
DISTRICT ONE - DESIGN AND PLAN PREPARATION ENGINEER - KEN ENGJENPAI P. CHANG (847) 705-4432



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

C.U.A.N.
CHICAGO UTILITY ALERT NETWORK
1-312-744-7000

CONTRACT NO. 60C11



TRAFFIC DATA

PULASKI RD: 2002 ADT = 52,800
POSTED SPEED LIMIT = 35 MPH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 14, 2007
Diane O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 12, 2007
Eric E. Harnik
ENGINEER OF DESIGN AND ENVIRONMENT

October 12, 2007
Milton R. See
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB-R-1	COOK	47	2
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 60C11				

INDEX OF SHEETS

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2	INDEX OF SHEETS, STATE STANDARDS, & GENERAL NOTES
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5	ROADWAY AND PAVEMENT MARKING PLANS
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40	BUTT JOINTS AND HMA TAPER
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45	ARTERIAL ROAD INFORMATION SIGN
46-47	CITY OF CHICAGO PAVEMENT MARKINGS

STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERN
420401-05	BRIDGE APPROACH PAVEMENT
503001-02	CONCRETE PARAPET SLIP-FORM OPTION
515001-02	NAME PLATE FOR BRIDGES
606001-03	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-07	STEEL PLATE BEAM GUARDRAIL
631026-03	TRAFFIC BARRIER TERMINAL TYPE 5 AND 5A
631031-06	TRAFFIC BARRIER TERMINAL TYPE 6
701101-01	OFF-RD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FORM PAVEMENT EDGE
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701601-04	URBAN LANE CLOSURE MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701801-03	LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
702001-06	TRAFFIC CONTROL DEVICES
704001-03	TEMPORARY CONCRETE BARRIER

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "C.U.A.N." AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE & GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

WHEN ARTIFICIAL LIGHT IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCES, ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS & CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION & ORDERING OF MATERIAL.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE ARTERIAL TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

A MINIMUM OF 10 DAYS BEFORE BEGINNING ANY WORK ON PULASKI RD, THE CONTRACTOR SHALL CONTACT DAVE HOVING IN TRAFFIC SIGNALS AT (847) 705-4418. IN ADDITION, THE CONTRACTOR SHALL CONTACT DAVE HOVING A MINIMUM OF ONE DAY IN ADVANCE OF THE FOLLOWING THREE STAGES: THE START OF JOB, THE POURING OF CONCRETE, AND THE COMPLETION OF THE JOB.

THE ENGINEER SHALL CONTACT WALLY CZARNY TRAFFIC FIELD ENGINEER AT (773) 685-4342 TWO (2) WEEKS PRIOR TO THE START OF THIS PROJECT SO THAT EXACT STATIONING OF NO PASSING ZONES AND OTHER PERMANENT PAVEMENT MARKINGS MAY BE ESTABLISHED

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THE PROJECT

THE RESIDENT ENGINEER SHALL CONTACT THE BUREAU OF MAINTENANCE SUPPORT SECTION, MR. STEVE HOOGHKIRK, AT (847) 705-4177 FOR AVAILABILITY OF TEMPORARY CONCRETE BARRIER, STATE OWNED. IF TEMPORARY CONCRETE BARRIER, STATE OWNED, IS AVAILABLE, IT SHALL BE UTILIZED AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL LOAD THE TEMPORARY CONCRETE BARRIER FROM THE STATE MAINTENANCE YARD, TRANSPORT, UNLOAD AND PLACE THE TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE DETAILS SHOWN IN THE PLAN. AT THE CONCLUSION OF WORK, REMOVE, TRANSPORT AND UNLOAD THE BARRIER UNITS AT THE SPECIFIED STATE MAINTENANCE YARD AS DIRECTED BY THE ENGINEER. IF TEMPORARY CONCRETE BARRIER, STATE OWNED, IS NOT AVAILABLE, THE CONTRACTOR SHALL PROVIDE TEMPORARY CONCRETE BARRIER. THE CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY CONCRETE BARRIER TERMINAL SECTIONS. AT THE COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE, TRANSPORT AND UNLOAD TEMPORARY BARRIER TERMINAL SECTIONS AT THE SPECIFIED STATE MAINTENANCE YARD AND THE TERMINAL SECTIONS SHALL BECOME THE PROPERTY OF THE DEPARTMENT OF TRANSPORTATION.

ANY SAW CUTTING REQUIRED TO REMOVE AN ITEM ADJACENT TO AN ITEM TO BE SAVED WILL BE CONSIDERED AS PART OF THE REMOVAL ITEM AND WILL NOT BE PAID FOR SEPARATELY.

ADDITIONAL SUB-BASE GRANULAR MATERIAL UNDER PROPOSED CURB AND GUTTER, AND SIDEWALK SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED AS INCLUDED IN THE COST PER SQUARE YARD (SQUARE METER) OF "SUB-BASE GRANULAR MATERIAL, TYPE B 4"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

MIXTURE TYPE	AC/PG	AIR VOIDS (%)	THICKNESS
TEMPORARY PAVEMENT (BRIDGE)			
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	PG 64-22	4%±70 GYR	3-1/2" TO 2"
TEMPORARY PAVEMENT (APPROACH)			
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm)	PG 64-22	4%±50 GYR	1-1/2"
TEMPORARY PAVEMENT (HMA BINDER IL-19 mm)	PG 64-22	4%±50 GYR	8-1/2"

NOTE:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 POUNDS PER SQUARE YARD PER INCH.

- WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

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ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAP 368: PULASKI ROAD (NB)
OVER BRC RAILROAD**
**INDEX OF SHEETS, STATE STANDARDS
AND GENERAL NOTES**

SCALE: _____ DRAWN BY _____
DATE _____ CHECKED BY _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB-R-1	COOK	47	3
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	
CONTRACT NO. 60C11				

SUMMARY OF QUANTITIES			100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		ROADWAY I000-2A	BRIDGE X180-2A			
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	267	267				
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B, 4"	SQ YD	389	389				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.1	0.1				
40600300	AGGREGATE (PRIME COAT)	TON	0.5	0.5				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	0.1	0.1				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	28	28				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	34		34			
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	51	51				
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	227	227				
42001300	PROTECTIVE COAT	SQ YD	374	374				
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	51	51				
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2260	2260				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	551	551				
44000600	SIDEWALK REMOVAL	SQ FT	2260	2260				
44000700	APPROACH SLAB REMOVAL	SQ YD	178	178				
44003100	MEDIAN REMOVAL	SQ FT	785		785			
44004610	SIDEWALK REMOVAL AND REPLACEMENT (SPECIAL)	SQ FT	150	150				
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1			
50300255	CONCRETE SUPERSTRUCTURE	CU YD	160.1		160.1			
50300260	BRIDGE DECK GROOVING	SQ YD	903		903			
50300300	PROTECTIVE COAT	SQ YD	1420		1420			
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	7328		7328			
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	4310		4310			
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	490		490			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2310		2310			
50800515	BAR SPLICERS	EACH	328		328			

SUMMARY OF QUANTITIES			100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		ROADWAY I000-2A	BRIDGE X180-2A			
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	297		297			
51500100	NAME PLATES	EACH	1		1			
52000020	PREFORMED JOINT SEAL 1 3/4"	FOOT	324		324			
52000110	PREFORMED JOINT STRIP SEAL	FOOT	307		307			
58100200	WATERPROOFING-MEMBRANE-SYSTEM	SQ YD	997		997			
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	210		210			
58700300	CONCRETE SEALER	SQ FT	2460		2460			
59000200	EPOXY CRACK INJECTION	FOOT	109		109			
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	2	2				
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	551	551				
63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	112.5	112.5				
63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1		1			
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1		1			
63200310	GUARDRAIL REMOVAL	FOOT	150	150				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	2	6			
67100100	MOBILIZATION	L SUM	1	0.5	0.5			
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	0.5	0.5			
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	0.5	1.5			
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	45	10	35			
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	230	200	30			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2276	1553	723			
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	6070	4069	2001			
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2862	1942	920			
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	900		900			
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	900		900			
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1533	1533				
78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	723		723			

* SPECIALTY ITEMS

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAP 368: PULASKI ROAD (NB) OVER BRC RAILROAD SUMMARY OF QUANTITIES
NAME	DATE	

Rev.

SUMMARY OF QUANTITIES			100% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		ROADWAY 1000-2A	BRIDGE X180-2A			
81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	332		332			
X0320047	REMOVAL OF EXISTING PRESTRESSED CONCRETE DECK BEAM	SQ FT	316		316			
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	102.8	102.8				
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	33		33			
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	16		16			
X0325528	REMOVE AND REINSTALL LIGHTING EQUIPMENT	L SUM	1		1			
X0712400	TEMPORARY PAVEMENT	SQ YD	343	343				
X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	981		981			
Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	97	97				
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	182		182			
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2	EACH	1		1			
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2	EACH	1		1			
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	0.5	0.5			

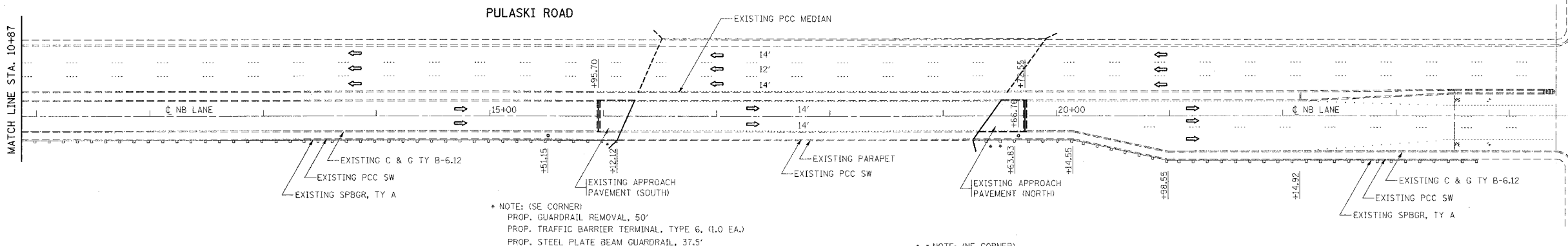
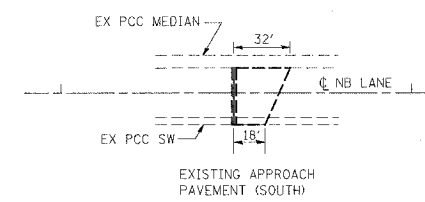
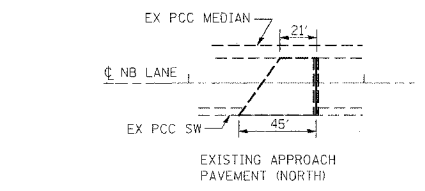
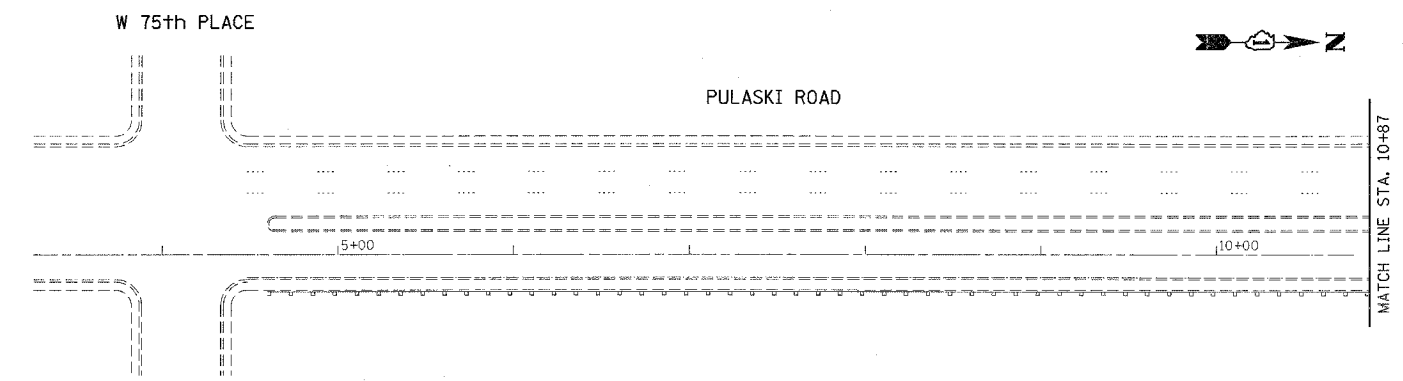
SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT						

* SPECIALTY ITEMS

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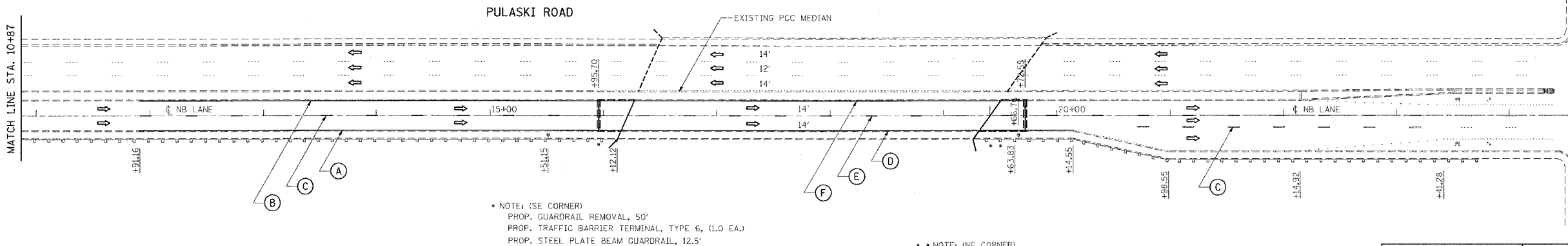
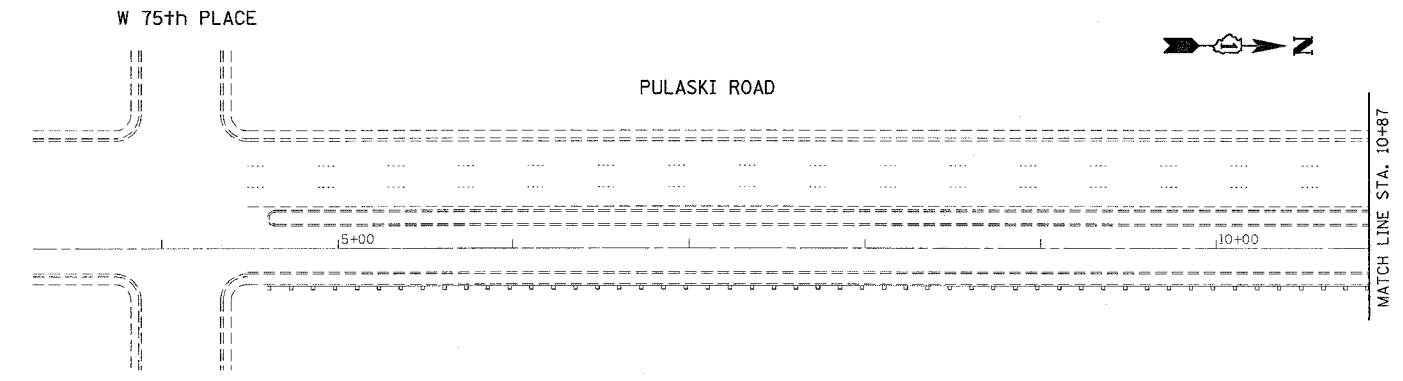
ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAP 368: PULASKI ROAD (NB)
 OVER BRC RAILROAD**
SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB-R-1	COOK	47	5
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60C11				



• NOTE: (SE CORNER)
 PROP. GUARDRAIL REMOVAL, 50'
 PROP. TRAFFIC BARRIER TERMINAL, TYPE 6, (1.0 EA.)
 PROP. STEEL PLATE BEAM GUARDRAIL, 37.5'

•• NOTE: (NE CORNER)
 PROP. GUARDRAIL REMOVAL, 100'
 PROP. TRAFFIC BARRIER TERMINAL, TYPE 5, (1.0 EA.)
 PROP. STEEL PLATE BEAM GUARDRAIL, 75'



• NOTE: (SE CORNER)
 PROP. GUARDRAIL REMOVAL, 50'
 PROP. TRAFFIC BARRIER TERMINAL, TYPE 6, (1.0 EA.)
 PROP. STEEL PLATE BEAM GUARDRAIL, 12.5'

•• NOTE: (NE CORNER)
 PROP. GUARDRAIL REMOVAL, 100'
 PROP. TRAFFIC BARRIER TERMINAL, TYPE 5, (1.0 EA.)
 PROP. STEEL PLATE BEAM GUARDRAIL, 87.5'

LEGEND

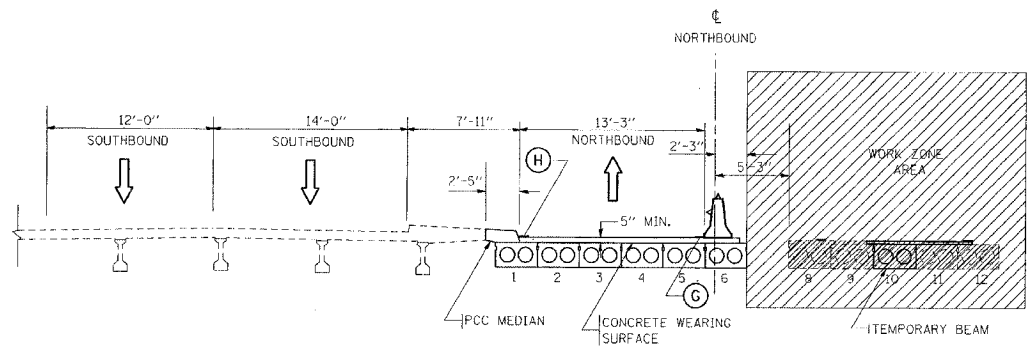
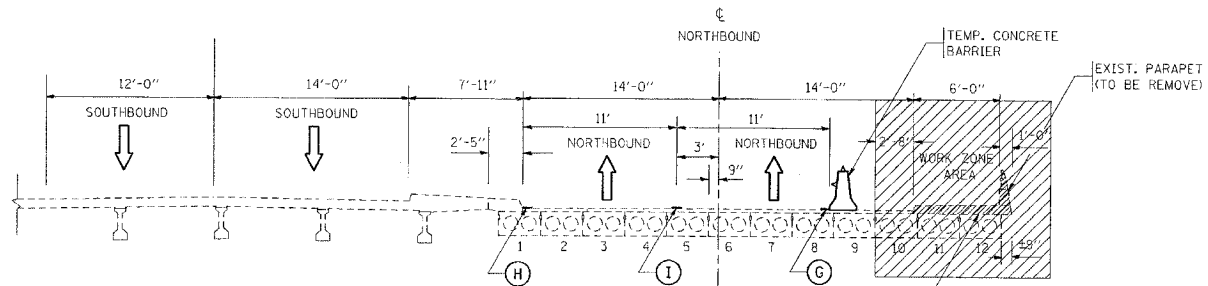
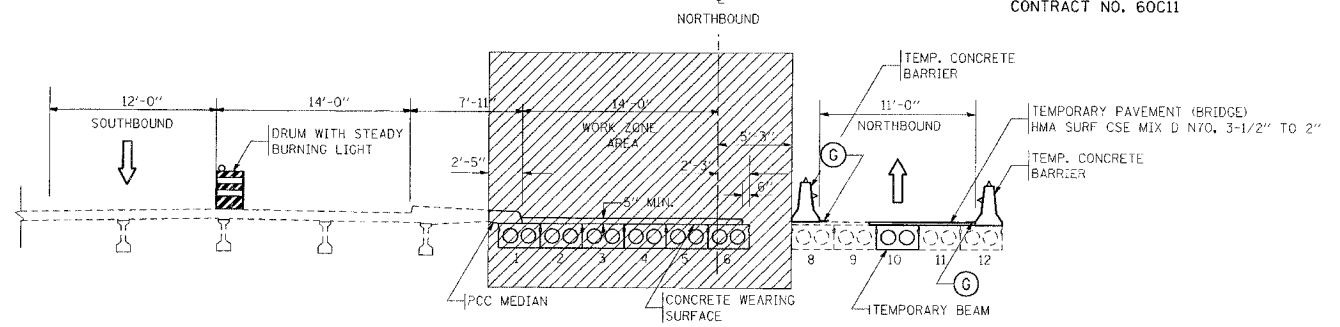
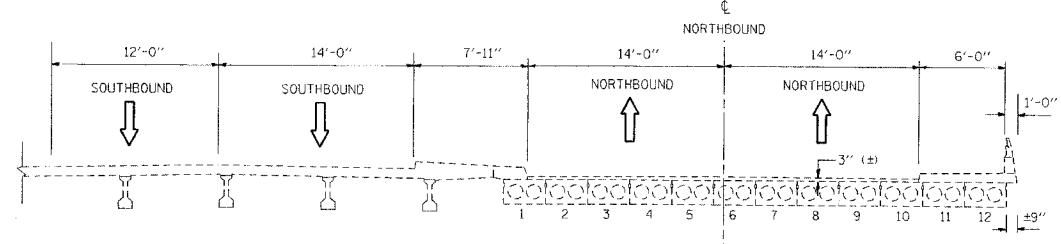
- (A) THERMOPLASTIC PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
- (B) THERMOPLASTIC PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
- (C) THERMOPLASTIC PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
- (D) POLYUREA PAVEMENT MARKING TYPE I
4" SOLID WHITE EDGE LINE
- (E) POLYUREA PAVEMENT MARKING TYPE I
4" WHITE SKIP-DASH LINE
- (F) POLYUREA PAVEMENT MARKING TYPE J
4" SOLID YELLOW EDGE LINE

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ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAP 368: PULASKI ROAD (NB)
 OVER BRC RAILROAD**
**ROADWAY AND PAVEMENT
 MARKING PLANS**

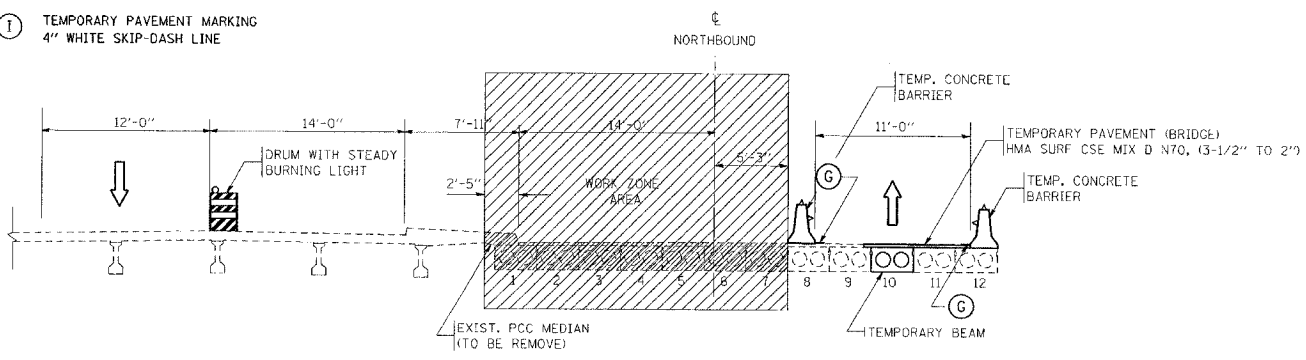
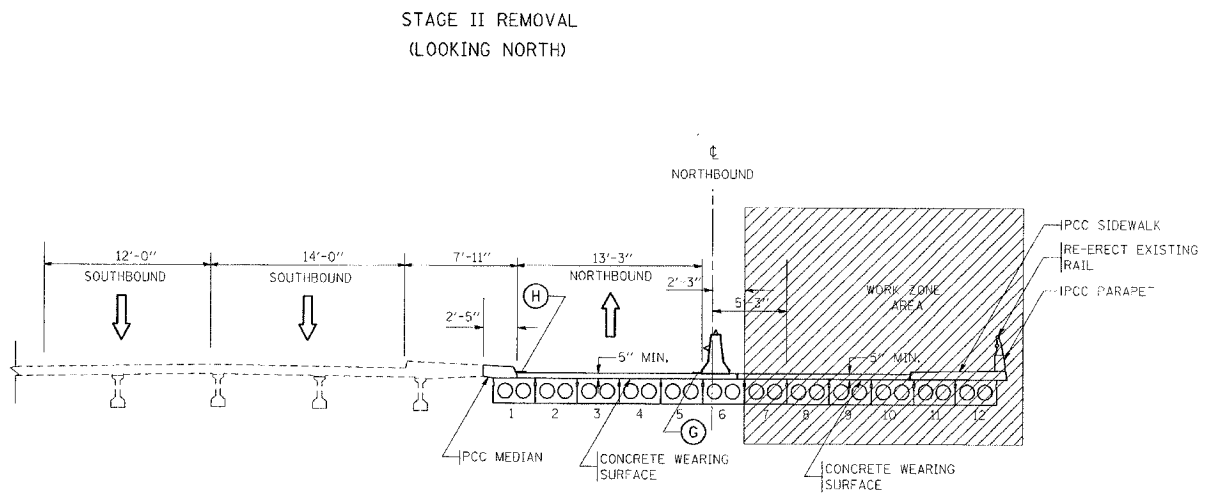
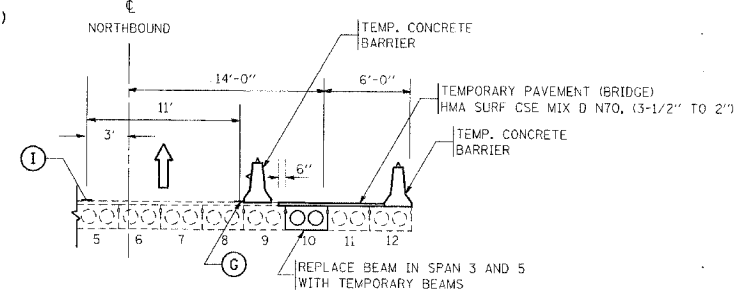
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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LEGEND

- (A) THERMOPLASTIC PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
- (B) THERMOPLASTIC PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
- (C) THERMOPLASTIC PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
- (D) POLYUREA PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
- (E) POLYUREA PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
- (F) POLYUREA PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
- (G) TEMPORARY PAVEMENT MARKING,
4" SOLID WHITE EDGE LINE
- (H) TEMPORARY PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
- (I) TEMPORARY PAVEMENT MARKING
4" WHITE SKIP-DASH LINE



STAGE 1 REMOVAL (LOOKING NORTH)

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAP 368: PULASKI ROAD (NB)
OVER BRC RAILROAD**
**TYPICAL SECTIONS FOR
MAINTENANCE OF TRAFFIC**

SCALE: _____ DRAWN BY _____
DATE _____ CHECKED BY _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB-R-1	COOK	47	7
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
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GENERAL NOTES FOR TRAFFIC CONTROL AND PROTECTION

ONE 12 FEET (AVE.) LANE SHALL BE KEPT OPEN TO THROUGH TRAFFIC AT ALL TIMES ON PULASKI ROAD FOR STAGING BRIDGE CONSTRUCTION

STAGING OPERATIONS FOR THE BEAMS REPLACEMENT AND NEW DECK CONSTRUCTION SHALL BE COORDINATED IN SEQUENCE TO FACILITATE PROGRESS OF WORK AND ENHANCE SAFETY AND TRAFFIC FLOW DURING CONSTRUCTION.

SIDEWALK CLOSURE PER STANDARD 701801

PAYMENT FOR BRIDGE RECONSTRUCTION STAGING WILL BE PAID FOR AS PART OF THE ENTIRE PROJECT STAGING UNDER PAY ITEM "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" ON A LUMP SUM BASIS

SEQUENCE OF CONSTRUCTION STAGING BRIDGE CONSTRUCTION

PRE-STAGE:

- MAINTAIN TWO LANES OF TRAFFIC ON THE BRIDGE OVER BRC RAILROAD (NORTHBOUND)
- REMOVE EXISTING CENTERLINE AND EDGE LINE ON THE NORTHBOUND SECTION OF THE BRIDGE OVER BRC RAILROAD
- ERECT THE TRAFFIC CONTROL DEVICES, PAVEMENT MARKINGS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER PRIOR TO STARTING OF ANY WORK ON THE BRIDGE OVER BRC RAILROAD
- INSTALL TEMPORARY CONCRETE BARRIER (STATE OWNED)
- REPLACE BEAM 10 IN SPAN 3 AND 5 WITH TEMPORARY BEAMS
- REMOVE EXISTING PCC SIDEWALK, CURB & GUTTER AND PARAPET ON THE EAST EDGE OF THE BRIDGE AND PULASKI ROAD AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- REMOVE AND STORE EXISTING ALUMINUM RAILS AND LIGHT POLES.
- CONSTRUCT THE HMA SURFACE ON THE BRIDGE DECK AND TEMPORARY PAVEMENT ON THE COMPLETED EMBANKMENT AREA IN PRE-STAGE.




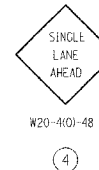


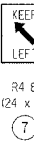
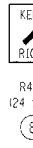
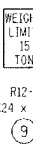
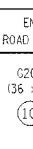
STAGE I:

- CLOSE INSIDE LANE OF THREE LANES (NORTHBOUND), SOUTH OF 71ST STREET PER STANDARD 701601 AND ALLOW LEFT TURN AT 71ST STREET PER DISTRICT STANDARD "TRAFFIC CONTROL AND PROTECTION AT TURN BAYS"
- TEMPORARY LANE CLOSURE AS NEEDED FOR CRANE.
- CLOSE INSIDE LANE (SOUTHBOUND), NORTH OF 75TH STREET PER STANDARD 701601 AND ALLOW LEFT TURN AT 75TH STREET PER DISTRICT STANDARD "TRAFFIC CONTROL AND PROTECTION AT TURN BAYS"
- RELOCATE TEMPORARY CONCRETE BARRIER TO MAINTAIN ONE LANE OF NORTH BOUND TRAFFIC ON THE BRIDGE OVER BRC RAILROAD
- REMOVE PAVEMENT MARKING TAPE AND INSTALL TEMPORARY PAVEMENTS AS SHOWN ON THE PLANS.
- REMOVE THE HMA DECK SURFACE AND A PORTION OF THE PCC MEDIAN AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER
- REMOVE AND REPLACE THE BEAMS OF THE WEST HALF OF THE BRIDGE.
- CONSTRUCT PORTION OF THE EXISTING PCC MEDIAN AND THE CONCRETE WEARING SURFACE.

STAGE II:

- ERECT ALL TRAFFIC CONTROL DEVICES AND RELOCATE TEMPORARY CONCRETE BARRIER FOR STAGE II TRAFFIC CONTROL AND PROTECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- CLOSE OUTSIDE LANE (NORTHBOUND), NORTH OF 74TH STREET AND MERGE INSIDE AND MIDDLE LANES AS PER STANDARD 701601
- INSTALL/ERECT VERTICAL PANELS AT 25 FEET ON CENTERS WITH STEADY BURNING MONODIRECTIONAL LIGHTS
- TRAFFIC ON THE NORTHBOUND HALF ON THE BRIDGE WILL BE MAINTAINED UTILIZING THE NEWLY CONSTRUCTED PCC SURFACE.
- REMOVE EXISTING PAVEMENT AND REPLACE EXISTING BEAMS INCLUDING TEMPORARY BEAMS ON PULASKI BRIDGE OVER BRC RAILROAD.
- REMOVE TEMPORARY PAVEMENT AND CONSTRUCT CURB AND GUTTER, PCC SIDEWALK AND PARAPET.
- CONSTRUCT CONCRETE WEARING SURFACE FOR THE BRIDGE DECK
- INSTALL/RE-ERECT SALVAGE ALUMINUM RAILS AND LIGHT POLES
- ATTACH NEW TRAFFIC BARRIER TERMINALS TYPE 5 & 6
- COMPLETE ROADWAY IMPROVEMENT INCLUDING PERMANENT PAVEMENT MARKINGS, SIGNING, ETC. AS SHOWN AND AS DIRECTED BY THE ENGINEER.

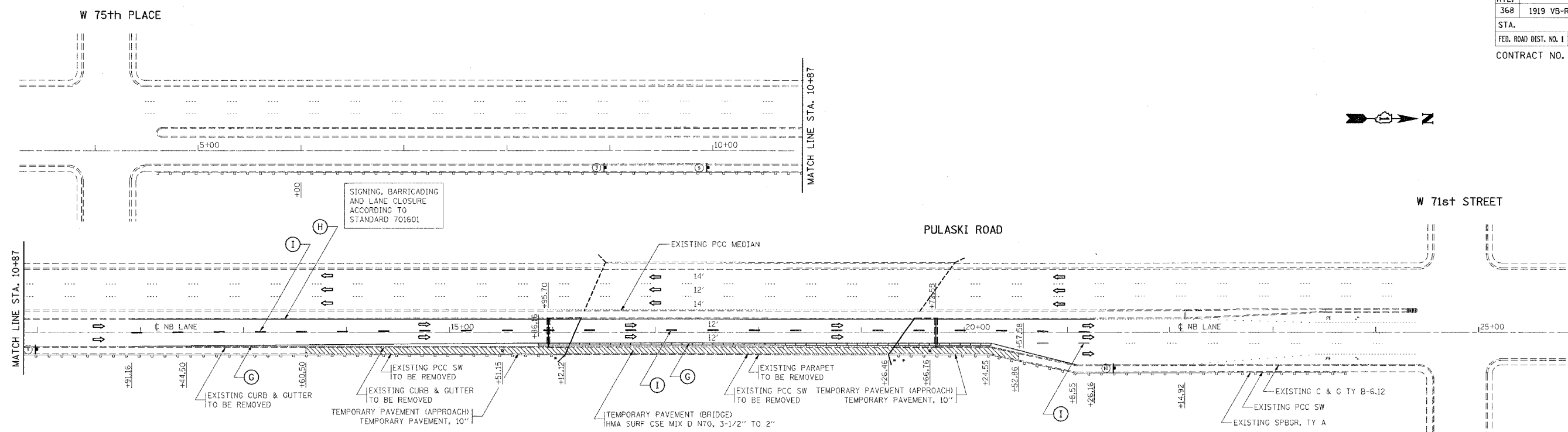
TRAFFIC CONTROL SIGNS

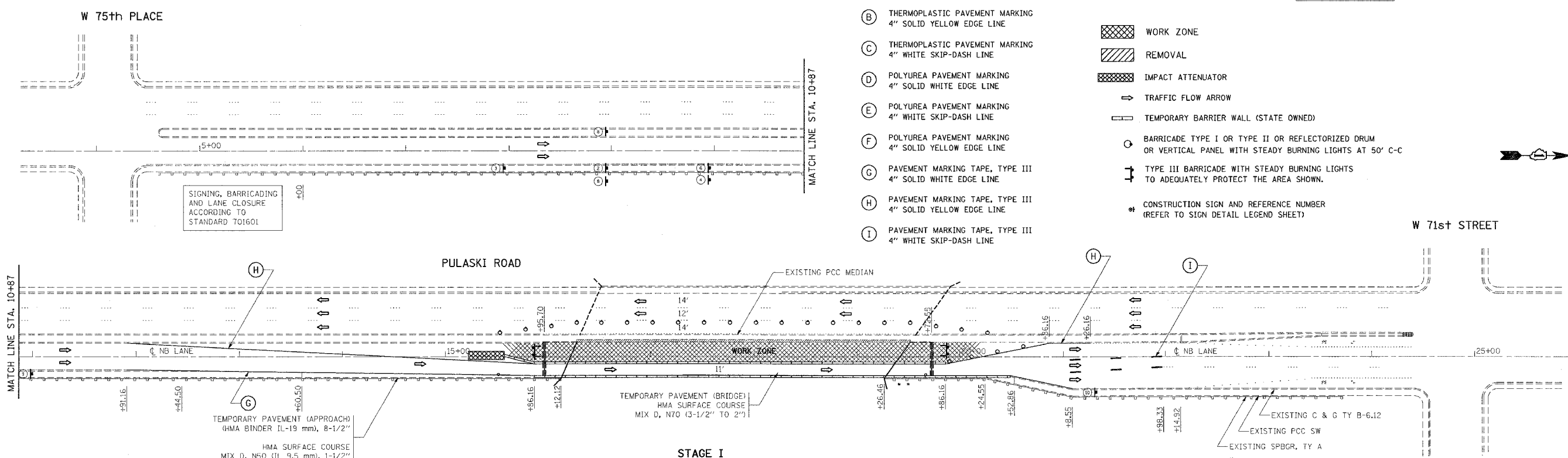
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAP 368: PULASKI ROAD (NB)
OVER BRC RAILROAD**
**STAGE CONSTRUCTION AND
TRAFFIC CONTROL GENERAL NOTES**
SCALE: _____ DRAWN BY _____
DATE _____ CHECKED BY _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB-R-1	COOK	47	8
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 60C11				



PRELIMINARY STAGE



STAGE I (REMOVAL AND CONSTRUCTION)

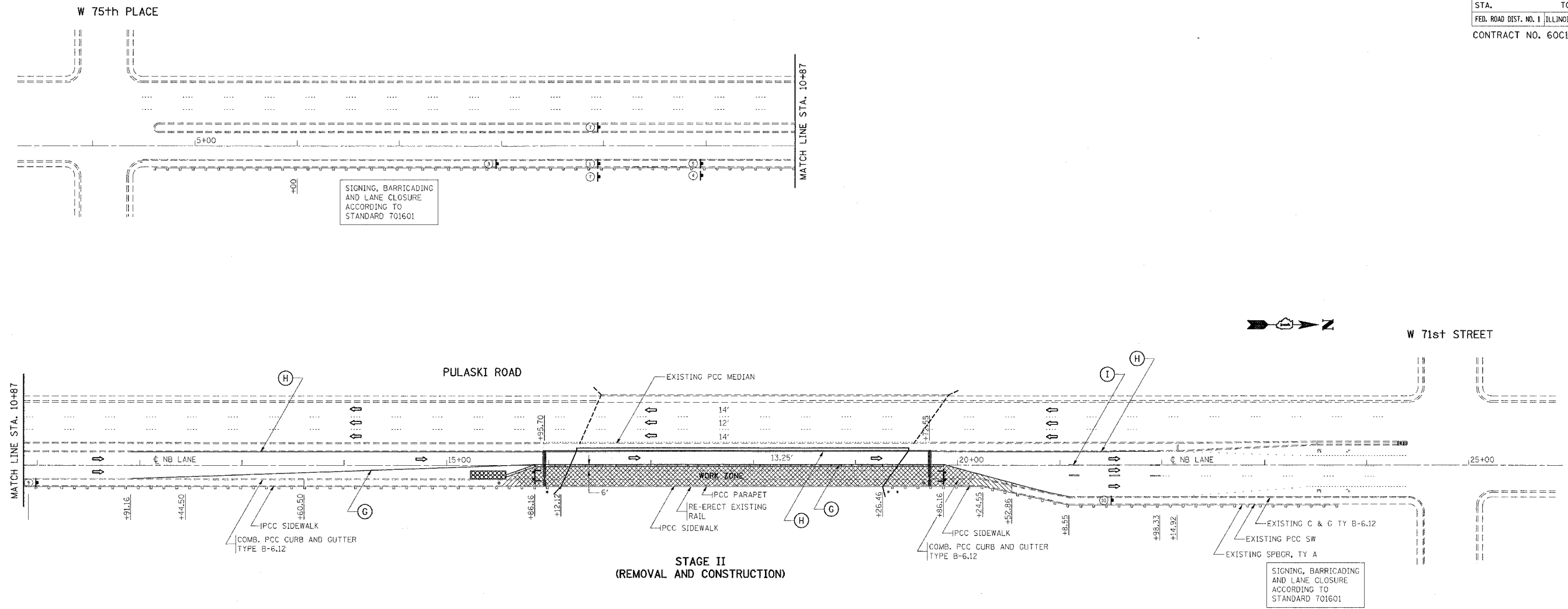
- LEGEND**
- (A) THERMOPLASTIC PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (B) THERMOPLASTIC PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (C) THERMOPLASTIC PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (D) POLYUREA PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (E) POLYUREA PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (F) POLYUREA PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (G) PAVEMENT MARKING TAPE, TYPE III
4" SOLID WHITE EDGE LINE
 - (H) PAVEMENT MARKING TAPE, TYPE III
4" SOLID YELLOW EDGE LINE
 - (I) PAVEMENT MARKING TAPE, TYPE III
4" WHITE SKIP-DASH LINE

- WORK ZONE
- REMOVAL
- IMPACT ATTENUATOR
- TRAFFIC FLOW ARROW
- TEMPORARY BARRIER WALL (STATE OWNED)
- BARRICADE TYPE I OR TYPE II OR REFLECTORIZED DRUM OR VERTICAL PANEL WITH STEADY BURNING LIGHTS AT 50' C-C
- TYPE III BARRICADE WITH STEADY BURNING LIGHTS TO ADEQUATELY PROTECT THE AREA SHOWN.
- CONSTRUCTION SIGN AND REFERENCE NUMBER (REFER TO SIGN DETAIL LEGEND SHEET)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAP 368: PULASKI ROAD (NB)
OVER BRC RAILROAD**
**SUGGESTED STAGES OF TRAFFIC CONSTRUCTION
AND TRAFFIC CONTROL**
SCALE: DRAWN BY
DATE CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB-R-1	COOK	47	9
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 60C11				



LEGEND

- | | |
|--|---|
| (A) THERMOPLASTIC PAVEMENT MARKING
4" SOLID WHITE EDGE LINE | [Cross-hatch pattern] WORK ZONE |
| (B) THERMOPLASTIC PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE | [Diagonal lines] REMOVAL |
| (C) THERMOPLASTIC PAVEMENT MARKING
4" WHITE SKIP-DASH LINE | [Dotted pattern] IMPACT ATTENUATOR |
| (D) POLYUREA PAVEMENT MARKING
4" SOLID WHITE EDGE LINE | ⇨ TRAFFIC FLOW ARROW |
| (E) POLYUREA PAVEMENT MARKING
4" WHITE SKIP-DASH LINE | [Barrier symbol] TEMPORARY BARRIER WALL (STATE OWNED) |
| (F) POLYUREA PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE | [Barricade symbol] BARRICADE TYPE I OR TYPE II OR REFLECTORIZED DRUM
OR VERTICAL PANEL WITH STEADY BURNING LIGHTS AT 50' C-C |
| (G) PAVEMENT MARKING TAPE, TYPE III
4" SOLID WHITE EDGE LINE | [Barricade symbol] TYPE III BARRICADE WITH STEADY BURNING LIGHTS
TO ADEQUATELY PROTECT THE AREA SHOWN. |
| (H) PAVEMENT MARKING TAPE, TYPE III
4" SOLID YELLOW EDGE LINE | [Sign symbol] CONSTRUCTION SIGN AND REFERENCE NUMBER
(REFER TO SIGN DETAIL LEGEND SHEET) |
| (I) PAVEMENT MARKING TAPE, TYPE III
4" WHITE SKIP-DASH LINE | |

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAP 368: PULASKI ROAD (NB)
OVER BRC RAILROAD**

**SUGGESTED STAGES OF TRAFFIC CONSTRUCTION
AND TRAFFIC CONTROL**

SCALE: _____ DRAWN BY _____
DATE _____ CHECKED BY _____

Benchmark: Brass Disk labeled "CREATE AAR 2004" in sidewalk 18' south of south abutment. Elev. 100.00

Existing Structure: No. 016-1020 built in 1943 as SA Rte. 051, Sec. 1919 VB at Sta. 17+81.60. Seven spans with concrete piers and abutments. Superstructure replaced with PPC Deck Beams with bit. surf in 1980. Structure has sidewalk, parapet and alum rail on east and median on west. 37'-5" out to out. Contractor shall remove existing superstructure and replace with PPC Dk. Bms in kind, conc wearing surface, sidewalk, parapet, re-erected alum rail and median.

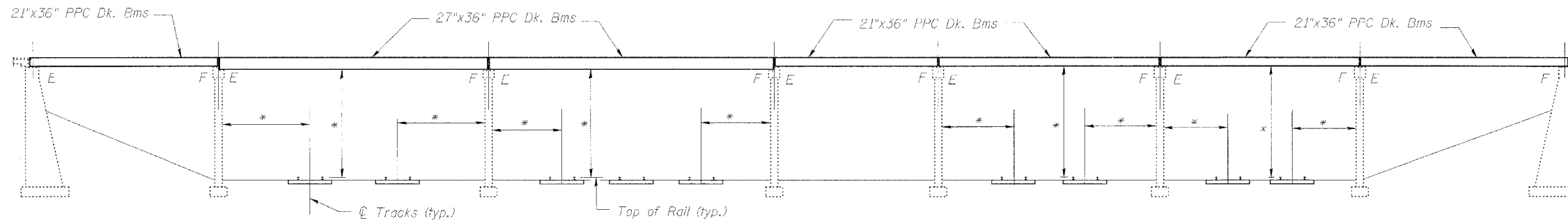
Salvage: Remove and re-erect alum rail, remove and store existing light poles.

Traffic to be maintained at all times utilizing stage construction.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

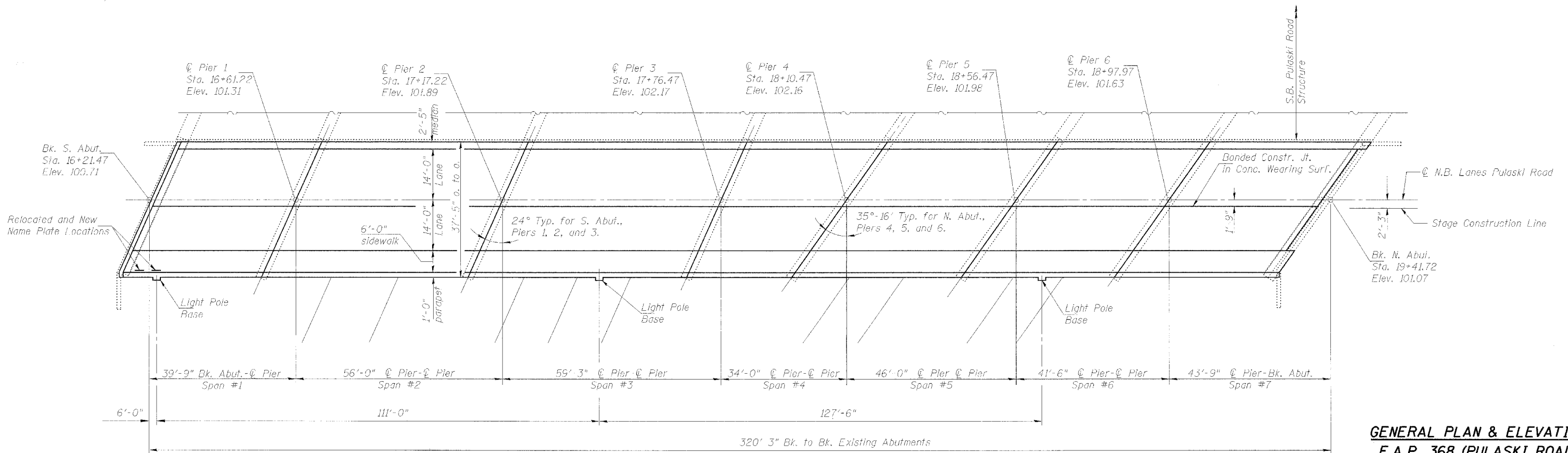
ROUTE NO.	SECTION	COUNTY	LISTED SHEETS	SHEET NO.	SHEET NO. 1 28 SHEETS
F.A.P. 368	1919 VB-R-1	Cook	47	10	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT DIV.		

Contract # 60C11



ELEVATION

*Note: Existing clearances shall be maintained

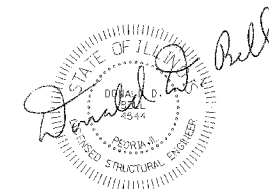


PLAN

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Relvia E. Anderson (I.T.D.)
ENGINEER OF BRIDGES AND STRUCTURES



License Expires: 11/30/08
Date Signed: 8-20-07

GENERAL PLAN & ELEVATION
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

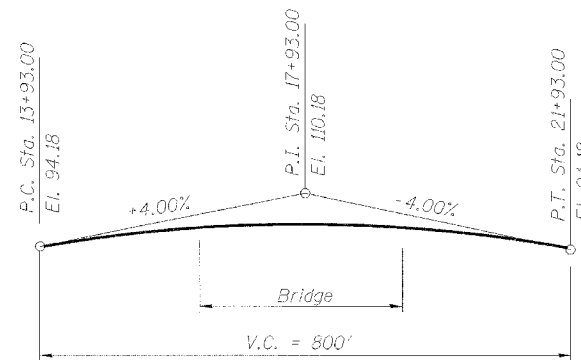
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	28
FED. ROAD EST. NO. 7	ILLINOIS	FED. AID PROJECT 986		

Contract # 60C11

INDEX OF SHEETS

1. General Plan & Elevation
2. General Notes and Total Bill of Material
3. Stage Construction
4. Temporary Beams - Plan and Details
5. 27" Temporary Beam - Span 3
6. 21" Temporary Beam - Span 5
7. Temporary Concrete Barrier
8. Superstructure Cross Sections
9. Superstructure Details - Span 1
10. Superstructure Details - Span 2
11. Superstructure Details - Span 3
12. Superstructure Details - Span 4
13. Superstructure Details - Span 4
14. Superstructure Details - Span 5
15. Superstructure Details - Span 6
16. Superstructure Details - Span 7
17. Sections through Abutments and Piers
18. Concrete Wearing Surface
19. Sidewalk & Median Plan Views
20. Sidewalk & Median Sections
21. Parapet Details
22. Parapet Details
23. Light Pole Bases
24. Railing
25. Expansion Joint Details
26. Bar Splicer Assembly Details
27. Substructure Repairs
28. Substructure Repairs



PROFILE GRADE

N.B. Pulaski Rd.
(Use for Bridge CWS only)

STATION 17+81.60
REBUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RTE. 368
LOADING HS20
STR. NO. 016 1020

NAME PLATE

See Sta. 515001

Relocate existing name plate next to rebuilt name plate,
cost included in Name Plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq. Yd.	1420		1420
Removal of Existing Superstructures	Each	1		1
Bridge Deck Grooving	Sq. Yd.	903		903
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	7328		7328
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	4310		4310
Reinforcement Bars, Epoxy Coated	Pound	25,110		25,110
Name Plates	Each	1		1
Concrete Wearing Surface, 5"	Sq. Yd.	981		981
Asbestos Bearing Pad Removal	Each	182		182
Bar Splicers	Each	328		328
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.		33	33
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.		16	16
Epoxy Crack Injection	Foot		109	109
Preformed Joint Strip Seal	Foot	307		307
Removing and Re-erecting Existing Railing	Foot	297		297
Concrete Superstructure	Cu. Yd.	160.1		160.1
Preformed Joint Seal, 1 1/2"	Foot	324		324
Concrete Sealer	Sq. Ft.		2460	2460
Conduit Embedded in Structures, 2" Dia. PVC	Foot	332		332
Portland Cement Mortar Fairing Course	Foot	210		210
Removal of Existing Precast Prestressed Concrete Deck Beams	Sq. Ft.	316		316
Furnishing and Erecting Structural Steel	Pound	490		490
Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	27		27

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A706 GR 60 (IL Modified). See special provisions.
2. Plan dimensions and details relative to existing plans are subject to routine variations. The contractor shall field verify existing dimension 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
3. The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
4. Repair of the pier caps and abutment shall be completed prior to placement of the new deck beams.
5. The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
6. If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats, the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum, and after grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.
7. The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirement of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.
8. The three existing light poles on the bridge shall be removed and stored as directed by the Engineer.
9. The contractor shall coordinate all construction work with railroad prior to commencing work.
10. Concrete Sealer shall be applied to the designated areas of the abutments and piers.

LOADING HS20-44

No Allowance for future wearing surface

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

DESIGN STRESSES

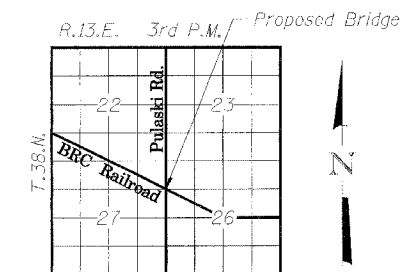
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax strands)
 $f'_{si} = 201,960$ psi (1/2" ϕ low lax strands)

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB



LOCATION SKETCH

**GENERAL NOTES AND
TOTAL BILL OF MATERIAL
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020**

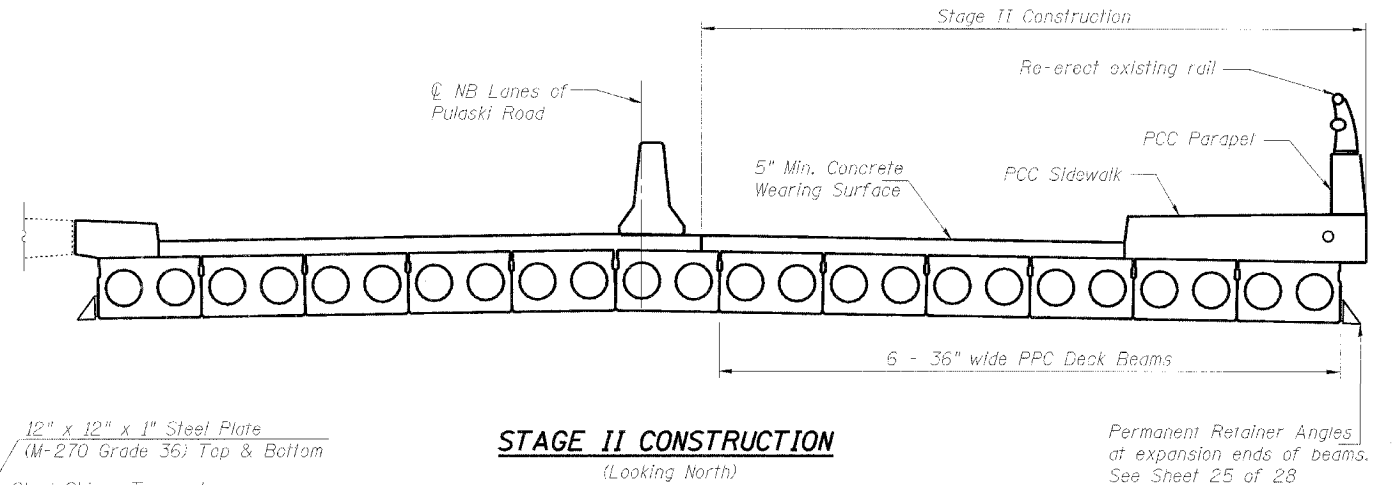
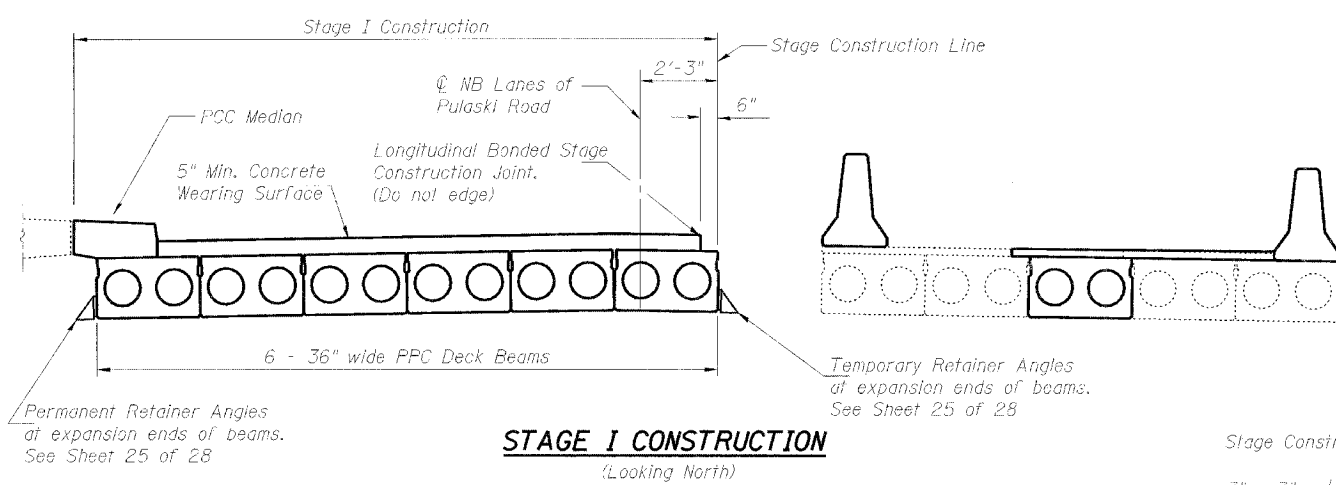
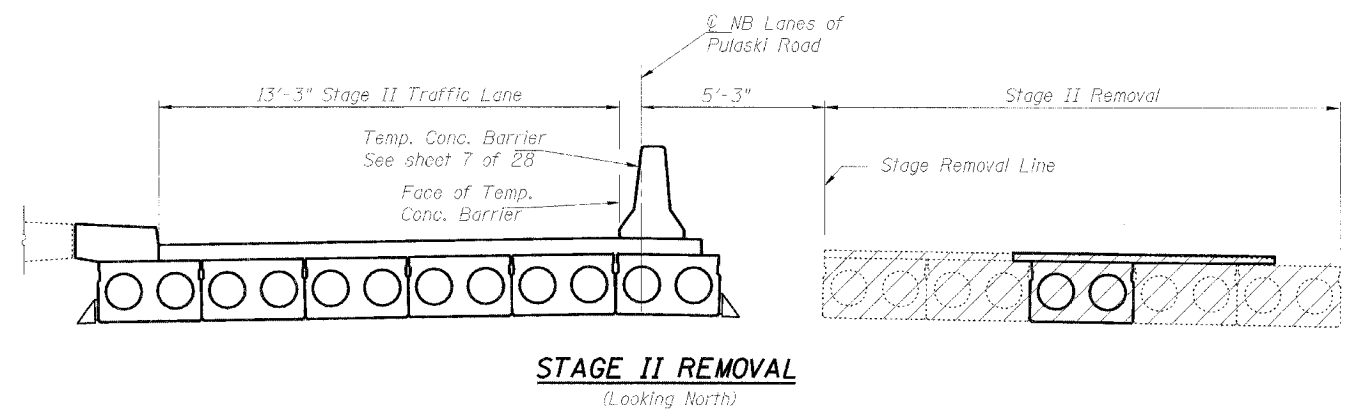
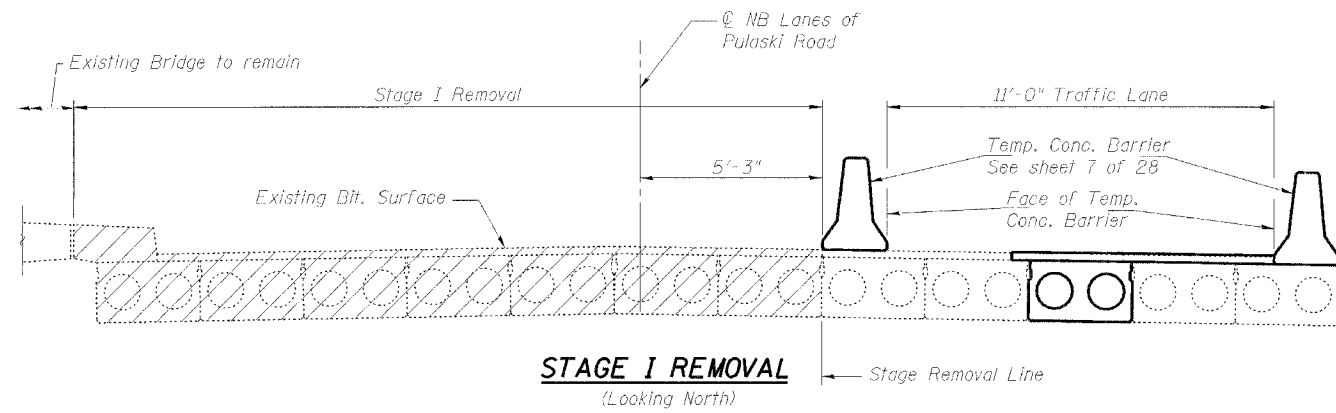
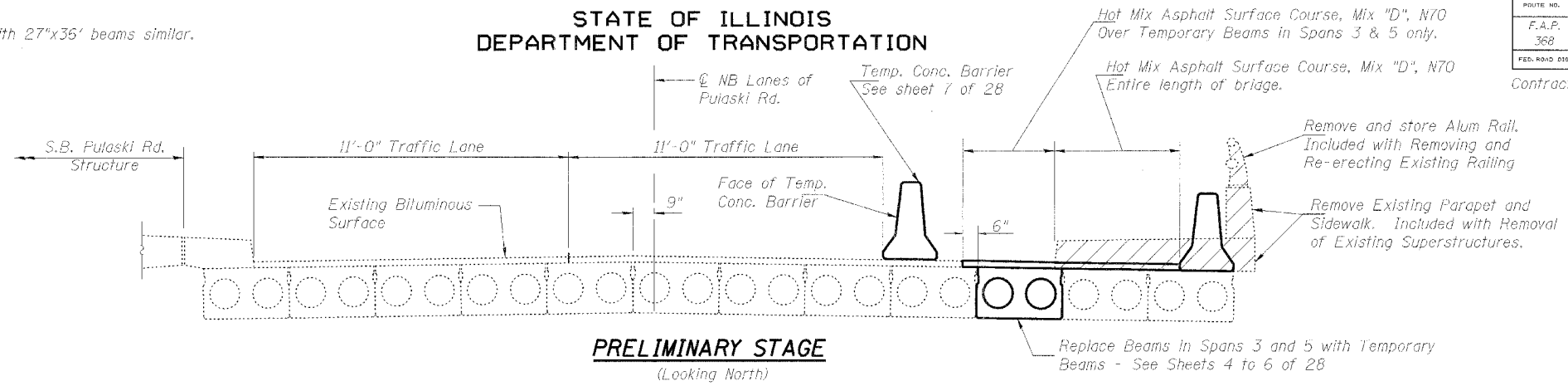
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

Spans 1, 4, 5, 6 & 7 with 21"x36" beams shown. Spans 2 & 3 with 27"x36" beams similar.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

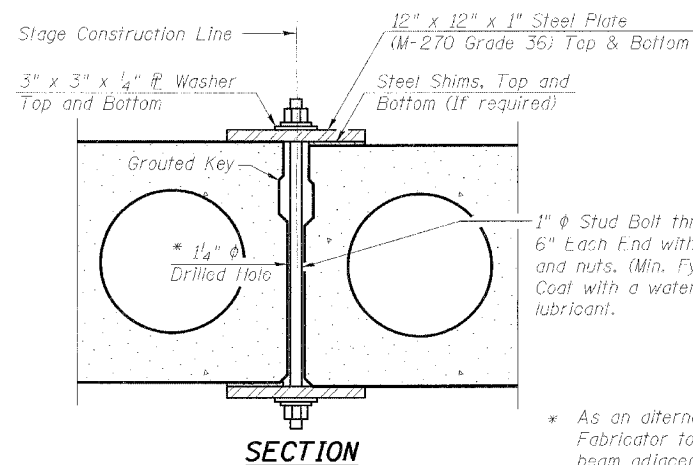
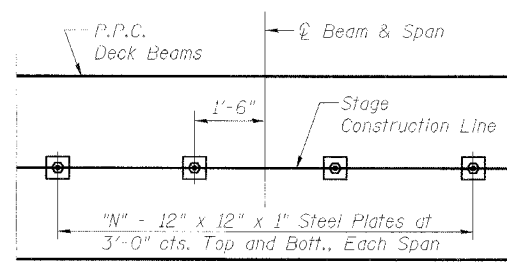
ROUTE NO.	SECTION	COUNTY	DATE SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	COOK	47	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 60C11

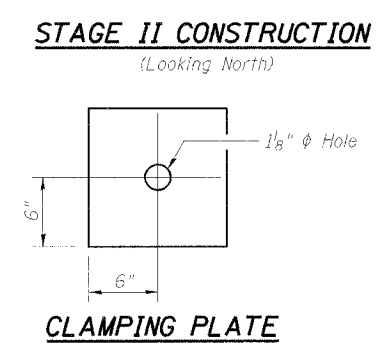


SHEAR KEY CLAMPING NOTES

1. See Standard Specifications for Stage Construction of Precast Prestressed Concrete Deck Beams.
2. Cost included with "Precast Prestressed Concrete Deck Beams".
3. See Stage Construction Details on Roadway Plans for traffic lanes.



SHEAR KEY CLAMPING DETAILS AT STAGE CONSTRUCTION JOINT



* As an alternate to the drilled holes, the Contractor may request the Fabricator to cast 2" diameter semi-circular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts. If the Contractor elects to use this alternate, the details shall be identified on the shop drawings.

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

"N" = 6 for spans 1,4,5,6 & 7
"N" = 8 for spans 2 & 3

STAGE CONSTRUCTION
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

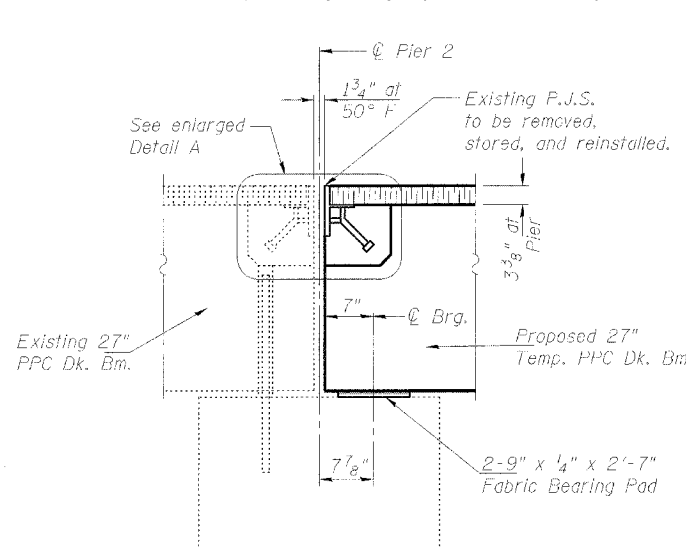
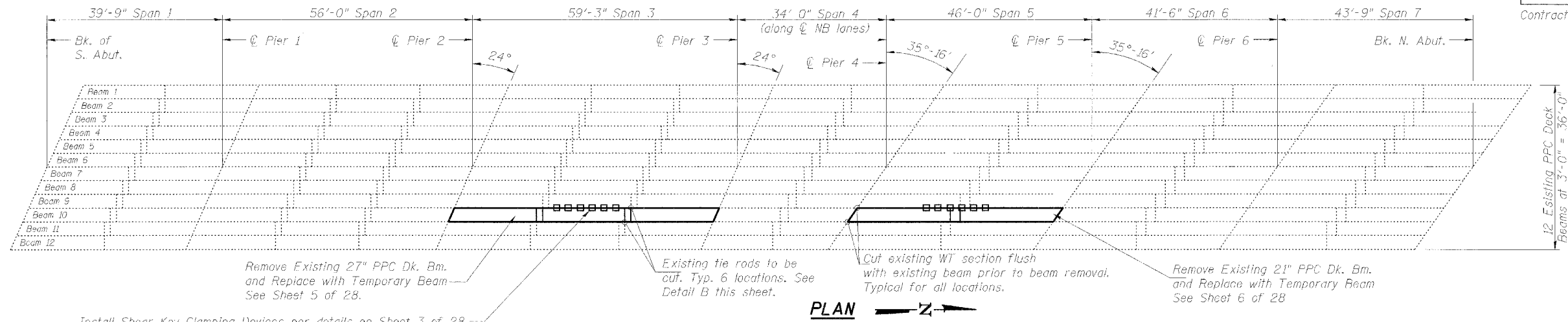
STS CONSULTANTS
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Peoria, Illinois 61602
Ph(309)676-8464
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IL Design Firm Reg. No. 184-001618

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

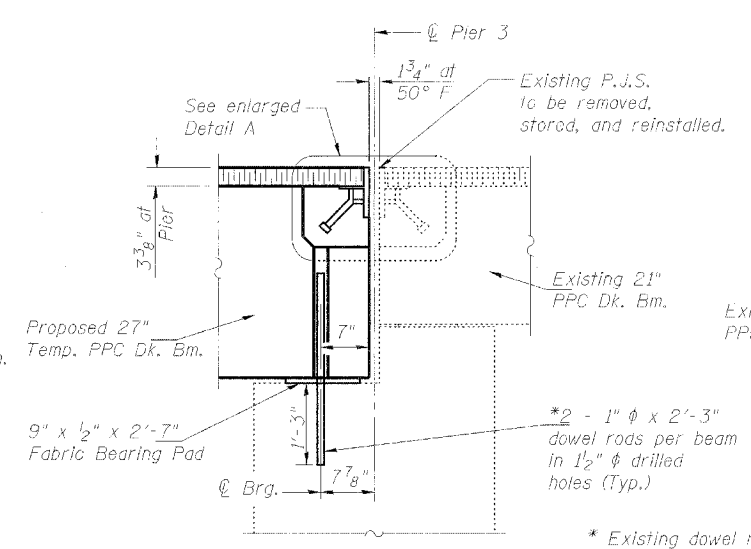
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT JOB		

SHEET NO. 1
28 SHEETS

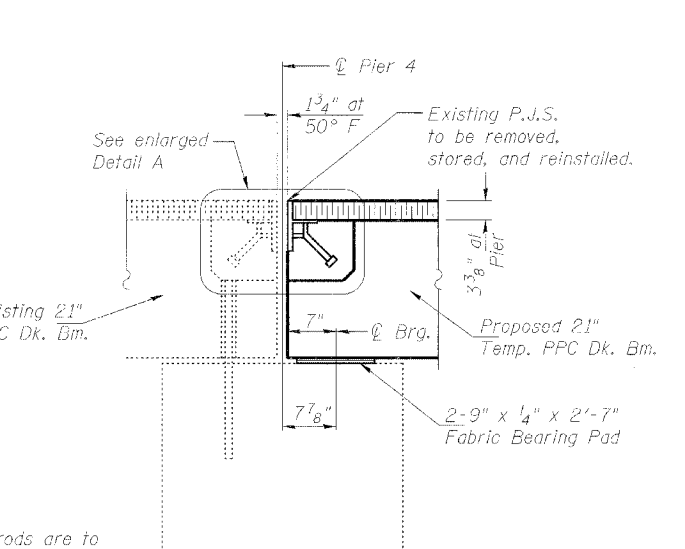
Contract # 60C11



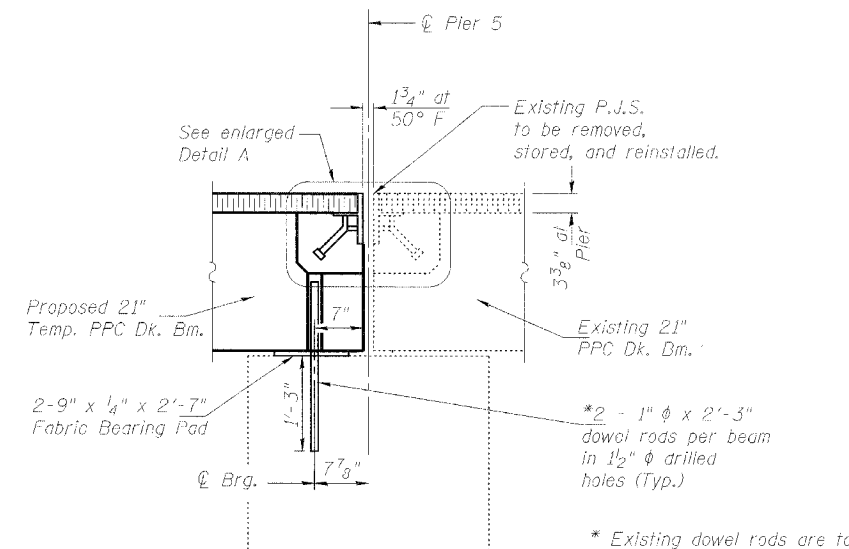
SECTION AT PIER 2
Dimensions at right angle to Pier



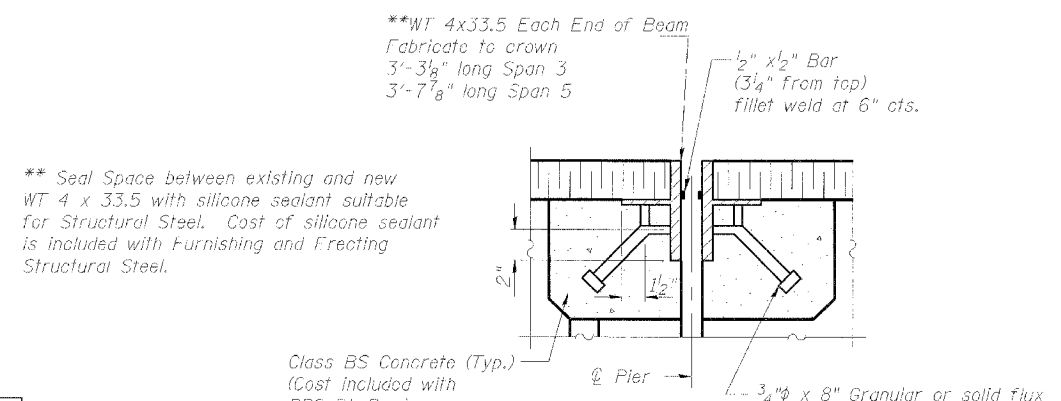
SECTION AT PIER 3
Dimensions at right angle to Pier



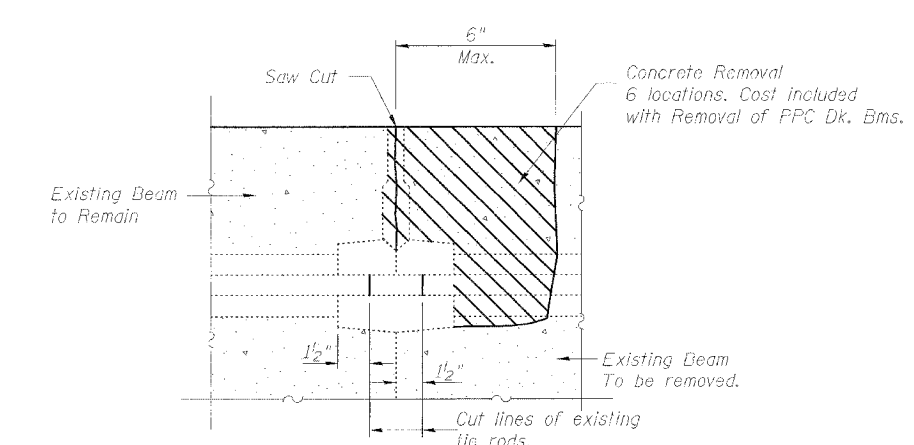
SECTION AT PIER 4
Dimensions at right angle to Pier



SECTION AT PIER 5
Dimensions at right angle to Pier



Existing 2 1/2" P.J.S. to be removed, stored and re-installed - (Cost included with PPC Bk Bms)



DETAIL B

TEMPORARY BEAMS-PLAN & DETAILS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

DESIGNED	CDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: (309) 676-8464
FAX: (309) 676-8445
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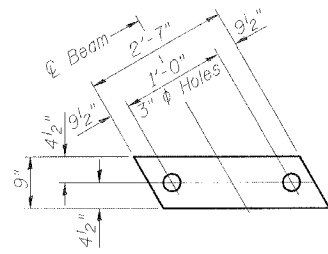
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 368	1919 VB R 1	Cook	47	14	28 SHEETS
FED. HIGHWAY DIST. NO. 7	ILLINOIS	FED. AID PROJECT 355			

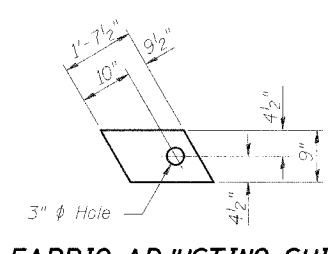
Expected Beam Camber = 1/8"

*0.2 x Length of beam

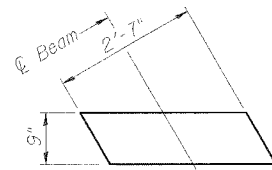
Contract # 60C11



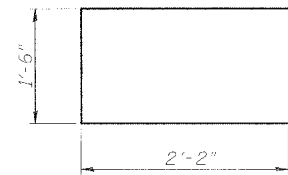
FABRIC BEARING PAD
(Fixed)



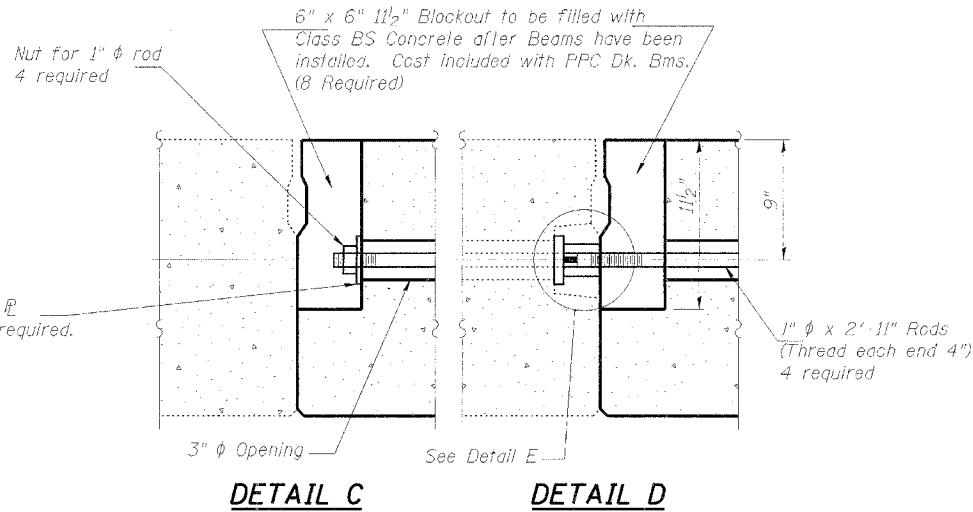
FABRIC ADJUSTING SHIM
(Fixed shown, Expansion similar except without hole)



FABRIC BEARING PAD
(Expansion)

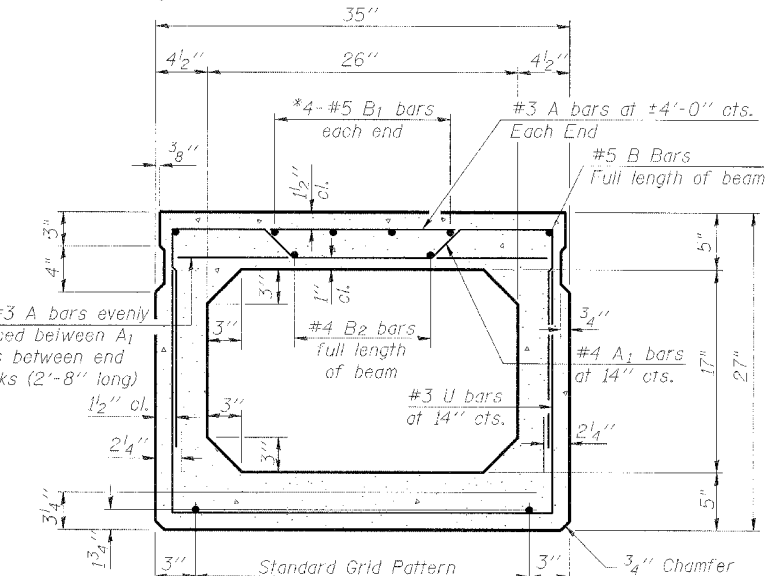


BAR U1



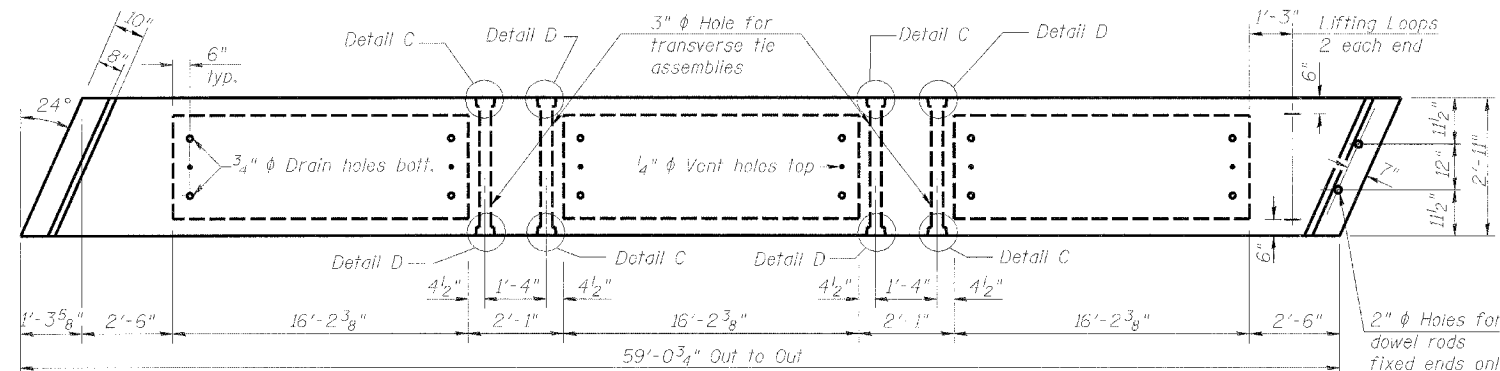
DETAIL C

DETAIL D



TYPICAL SECTION

13 - 1/2 phi Strands, Each Strand Stressed to 30,900 Lbs.
7 - Strands 1 3/4 inch up, 4 - Strands 3/4 inch up, 2 - Strands 1/2 inch up
Note: Place strands symmetrically about center of beam.



PLAN

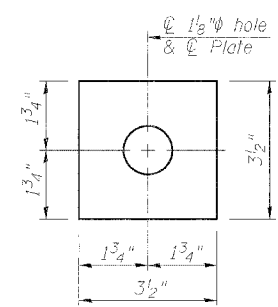
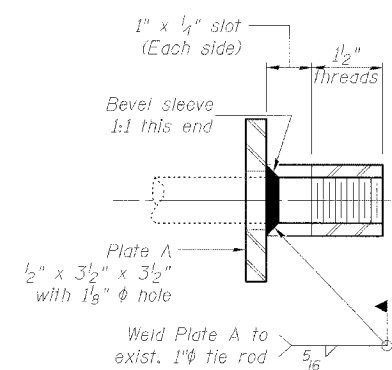
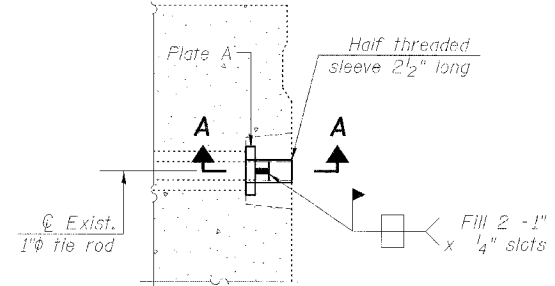


PLATE A
(4 Required)



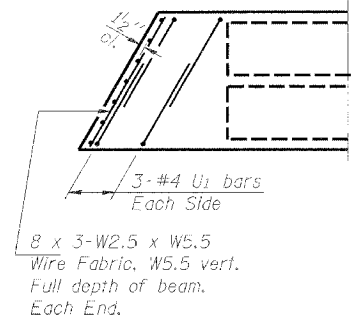
SECTION A-A
(4 Required)



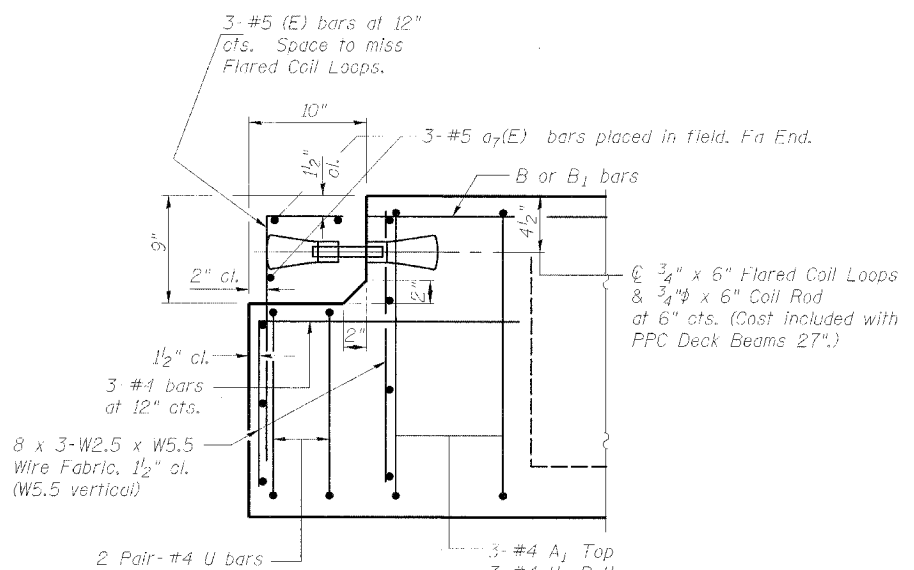
DETAIL E

BILL OF MATERIAL

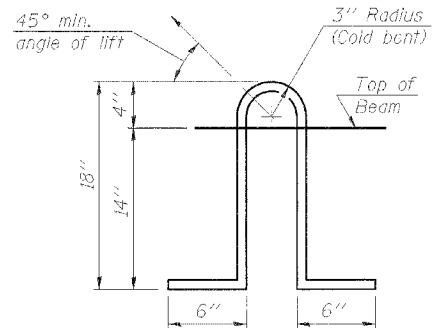
Bar	No.	Size	Length	Shape
a7(E)	6	#5	3'-0"	—
Precast Prestressed Conc. Deck Bms. (27" Depth)		Sq. Ft.	173	
Reinforcing Bars, Epoxy Coated		Pound	20	



END PLAN



END OF BEAM DETAIL - BOTH ENDS



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" phi-270 ksi strands, as shown.
The 1" phi rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Required Release Strength, f'ci, shall be 4000 p.s.i.

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

27" TEMPORARY BEAM-SPAN 3
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: (309) 676-8464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

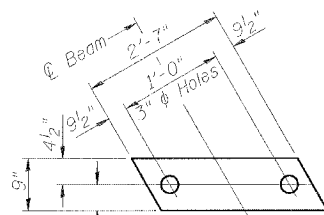
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	15
FED. ROAD DIST. NO. 7	FLASHING	TED. PROJ. PROJECT 369		

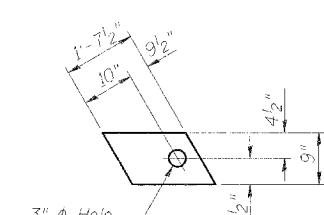
SHEET NO. 15
28 SHEETS

Contract # 60C11

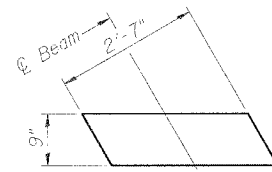
Expected Beam Camber = 1"



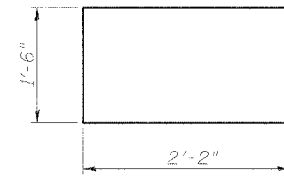
FABRIC BEARING PAD
(Fixed)



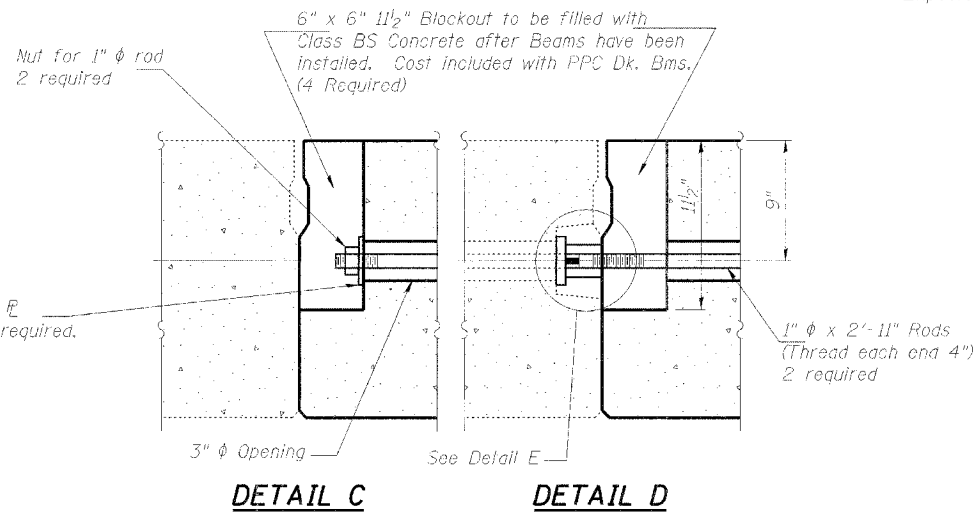
FABRIC ADJUSTING SHIM
(Fixed shown. Expansion similar except without hole)



FABRIC BEARING PAD
(Expansion)

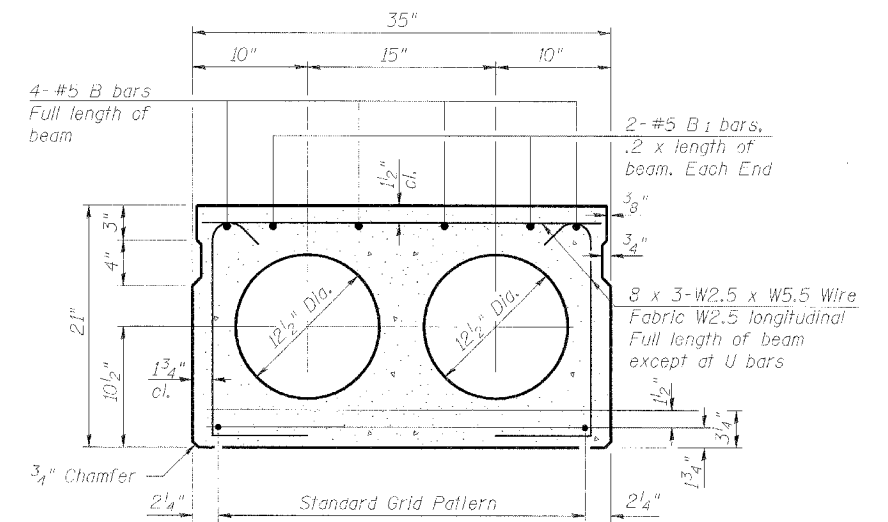


BAR U₁



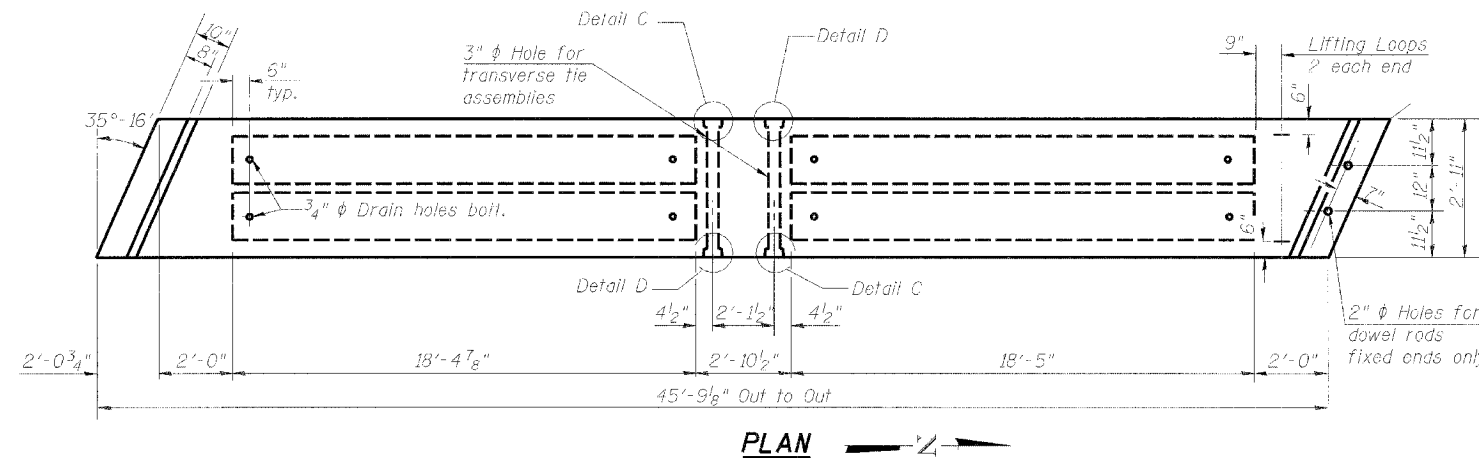
DETAIL C

DETAIL D



TYPICAL SECTION

14 - 1/2" dia Strands, Each Strand Stressed to 30,900 Lbs.
8 - Strands 1 3/4" up, 4 - Strands 3/4" up, 2 - Strands 9" up
Note: Place strands symmetrically about center of beam.



PLAN

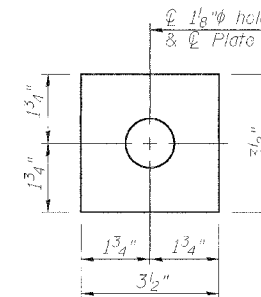
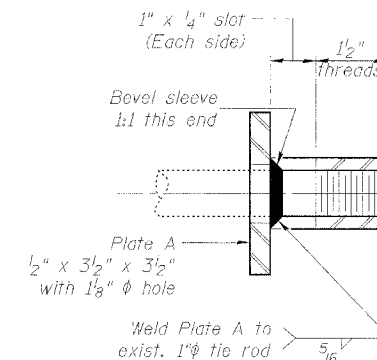
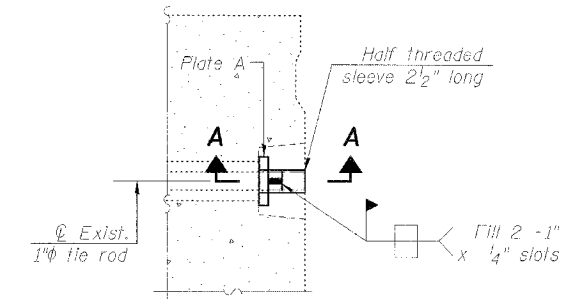


PLATE A
(2 Required)



SECTION A-A
(2 Required)



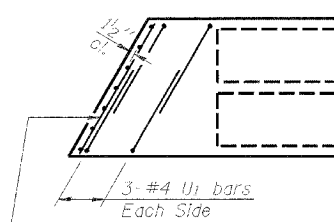
DETAIL E

BILL OF MATERIAL

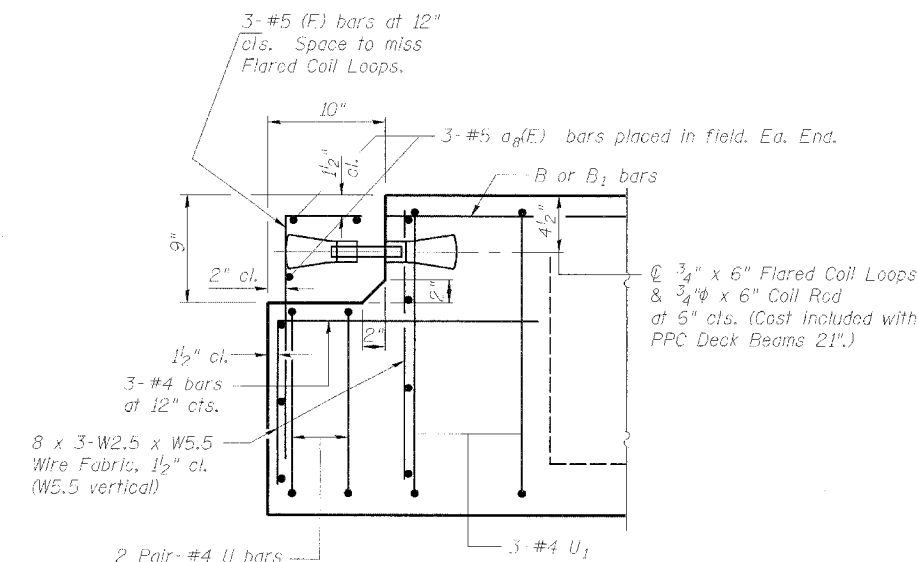
Bar	No.	Size	Length	Shape
a _g (E)	6	#5	3'-5"	—
Precast Prestressed Conc. Deck Bms. (21" Depth)		Sq. Ft.	134	
Reinforcing Bars, Epoxy Coated		Pound	20	

21" TEMPORARY BEAM-SPAN 5
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

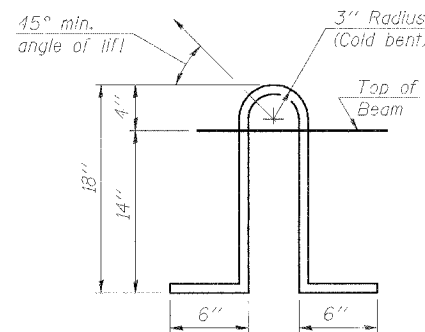
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph (309) 676-8464
FAX (309) 676-5445
IL Design Firm Reg. No. 184-001518



END PLAN



END OF BEAM DETAIL-BOTH ENDS



LIFTING LOOP DETAIL

NOTES

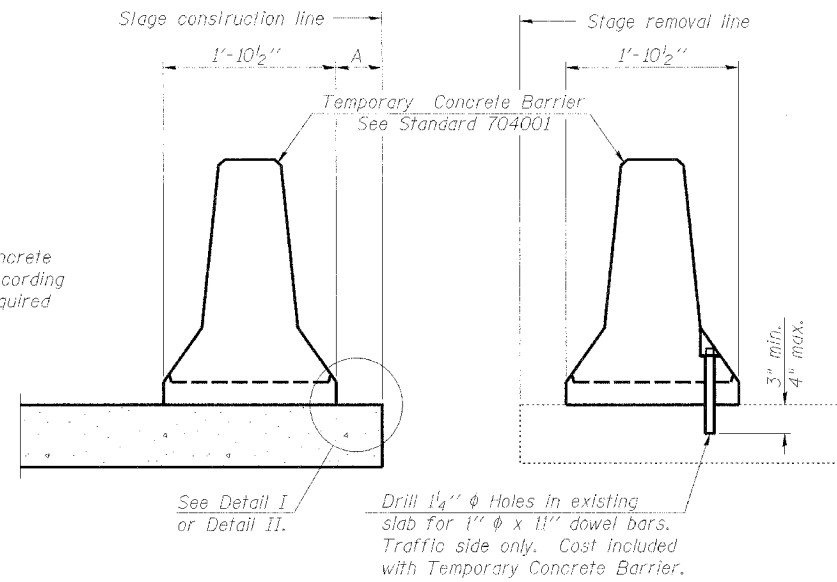
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" dia-270 ksi strands, as shown.
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to ASTM A 706 (II. MOD), Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Required Release Strength, f'ci, shall be 4000 p.s.i.

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 60C11



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

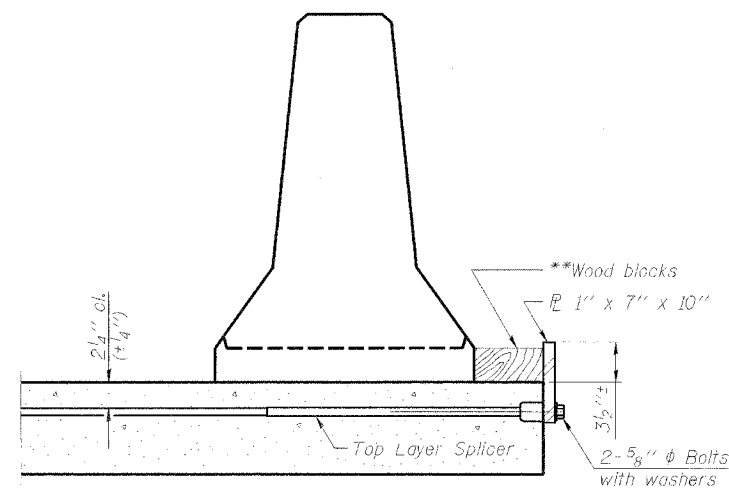
NEW SLAB

EXISTING SLAB

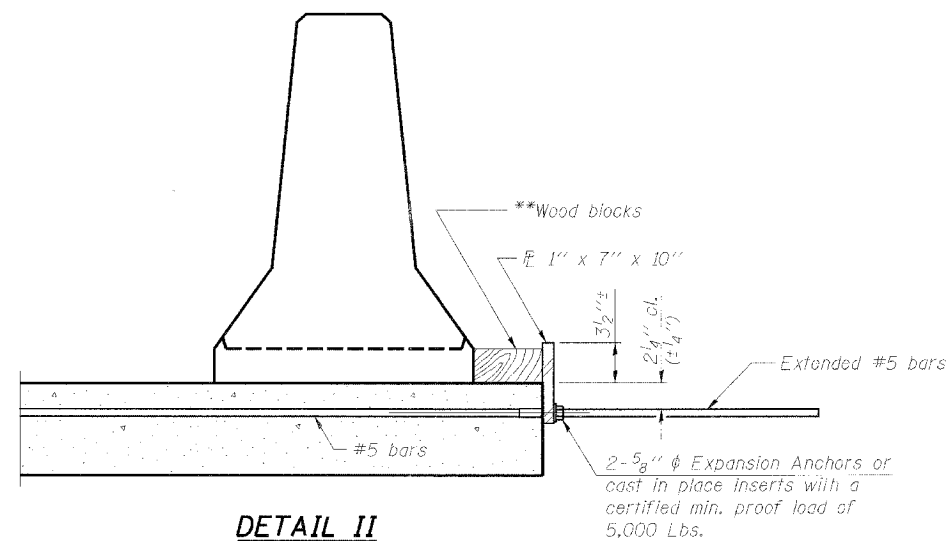
SECTIONS THRU SLAB

NOTES

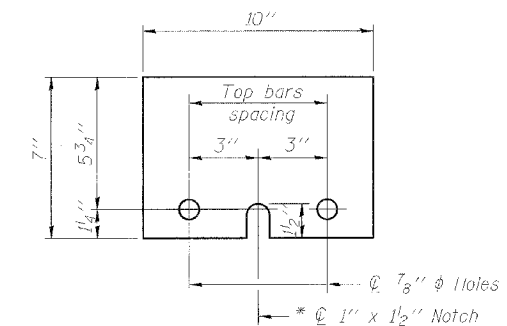
- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



DETAIL I



DETAIL II



STEEL RETAINER \bar{P} 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

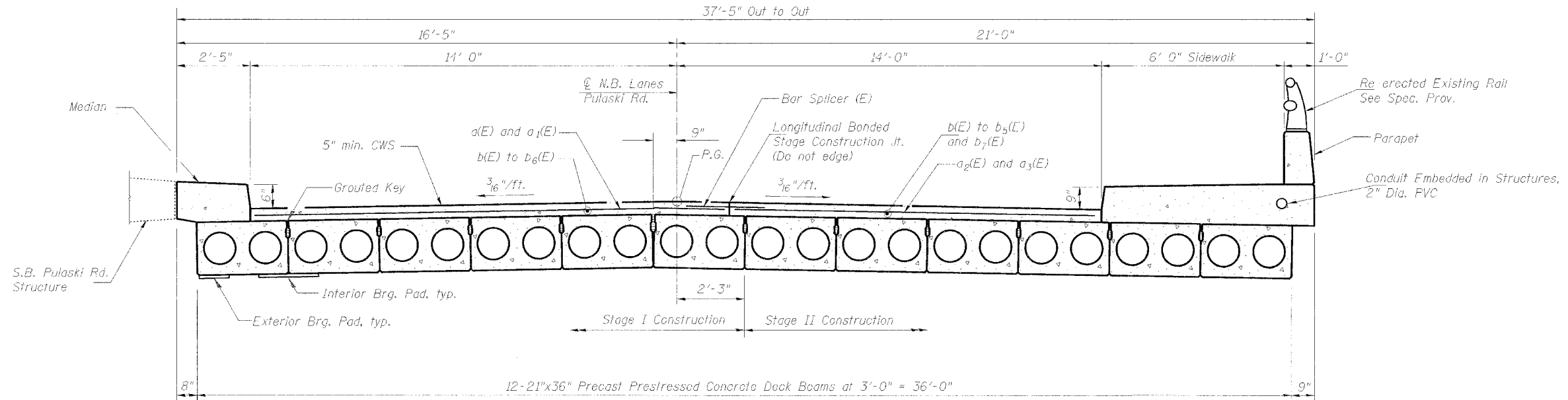
** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: (309) 676-3464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

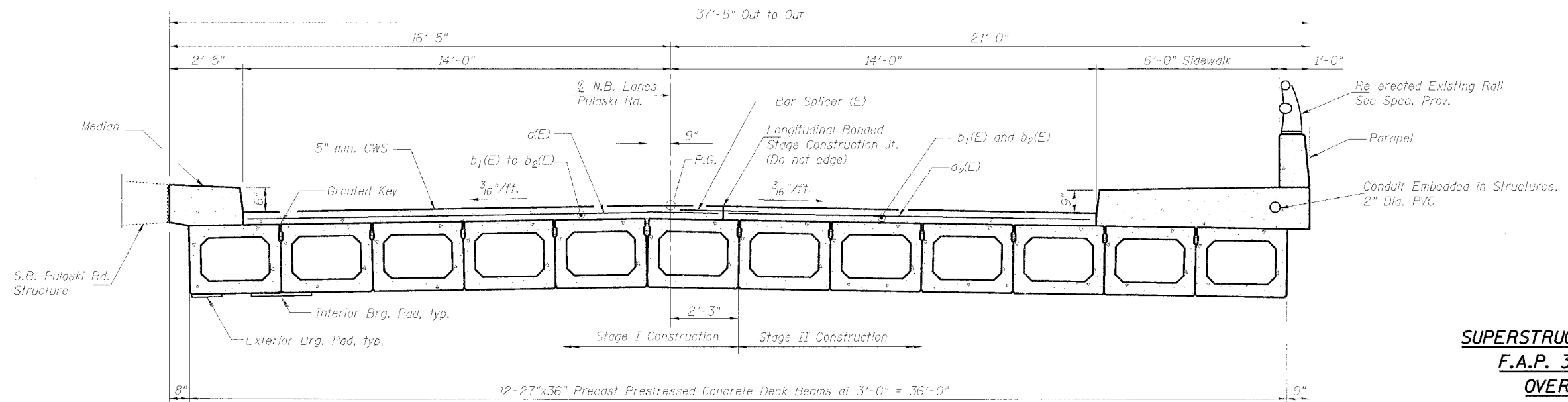
ROUTE NO.	SECTION	COUNTY	LEGAL PAPERS	SHEET NO.	SHEET NO. 8 28 SHEETS
F.A.P. 368	1919 VB-R-1	Cook	47	17	
FILE/ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 60C11



CROSS SECTION

Span 1, Span 4, Span 5, Span 6, and Span 7
(Looking North)



CROSS SECTION

Span 2 and Span 3
(Looking North)

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

SUPERSTRUCTURE CROSS SECTIONS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

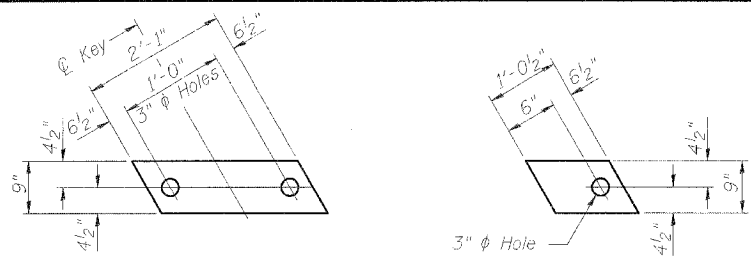
STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-8445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	CONTRACT	DATE	SHEET
F.A.P. 368	1919 VB-R-1	Cook	47	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

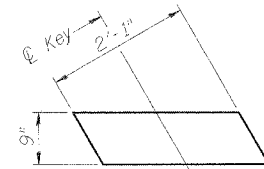
SHEET NO. 9
28 SHEETS

Contract # 60C11



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

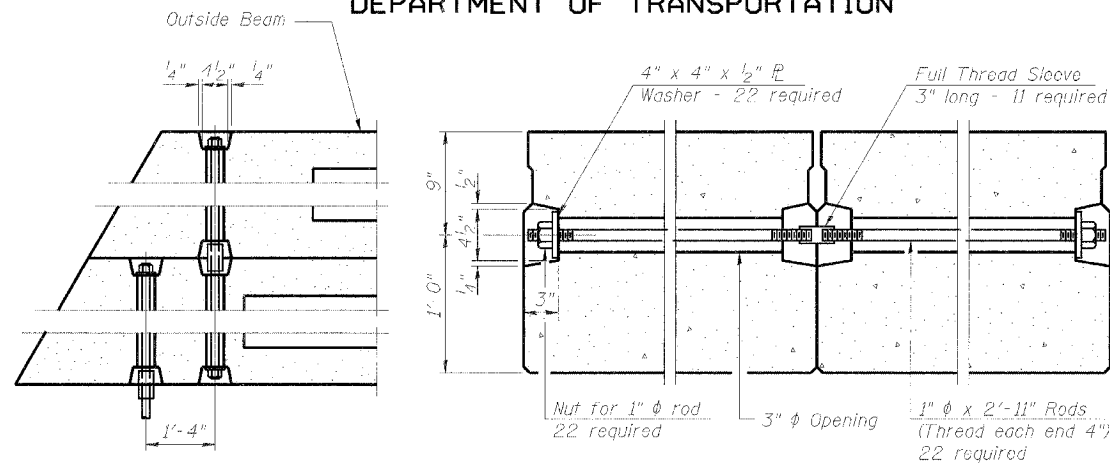


FABRIC BEARING PAD
(Interior)

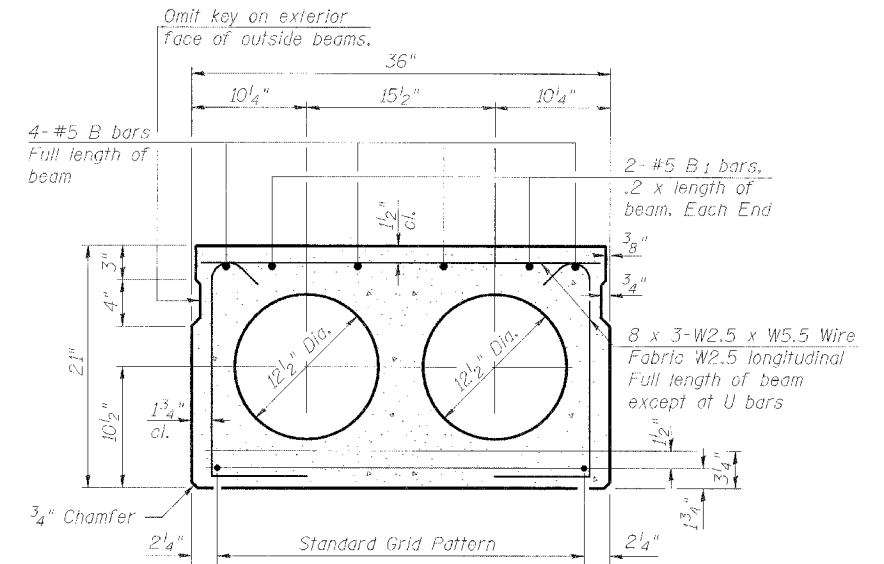
FABRIC BEARING PAD
(Exterior)

FIXED

EXPANSION

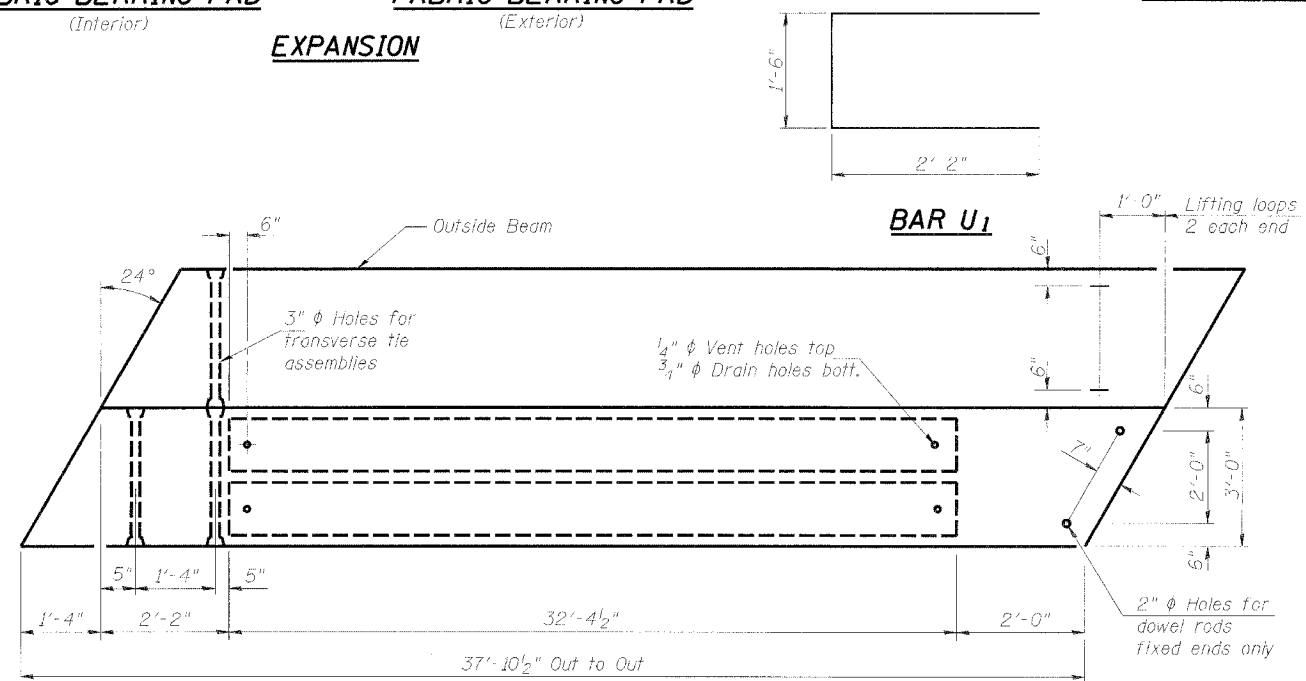


TYPICAL TRANSVERSE TIE ASSEMBLY

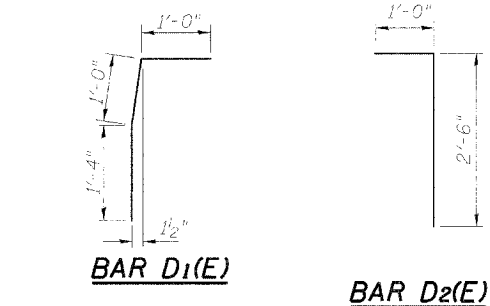


TYPICAL SECTION

10 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6 - Strands 1 3/4" up, 4 - Strands 3/4" up
Note: Place strands symmetrically about ϕ of beam.

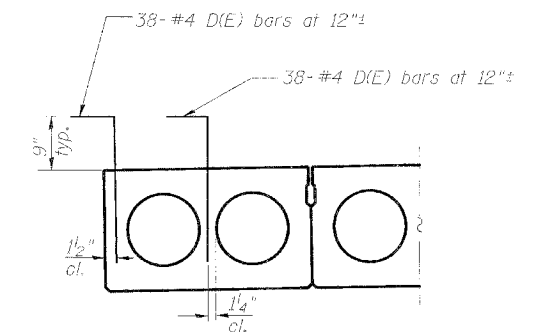


PLAN

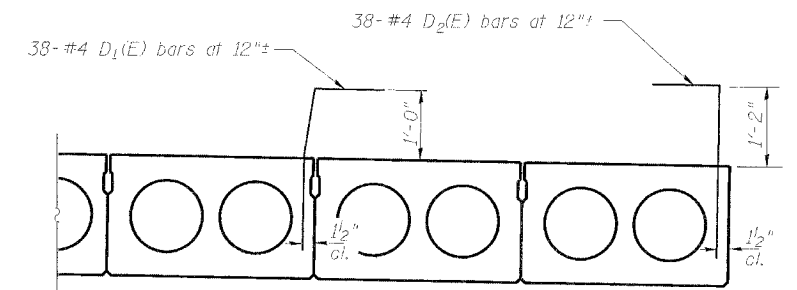


BAR D1(E)

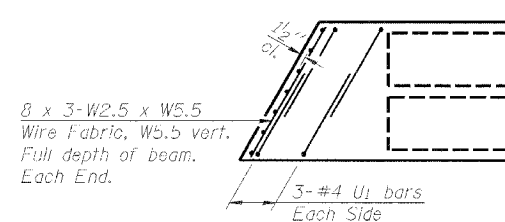
BAR D2(E)



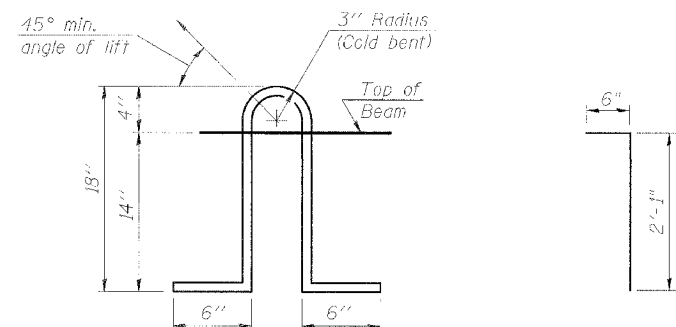
SECTION THRU WEST EXTERIOR BEAMS



SECTION THRU EAST EXTERIOR BEAMS



END PLAN



LIFTING LOOP DETAIL

BAR D1(E)

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" ϕ 270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1364
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SUPERSTRUCTURE DETAILS: SPAN 1
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
PH: (309) 676-8464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

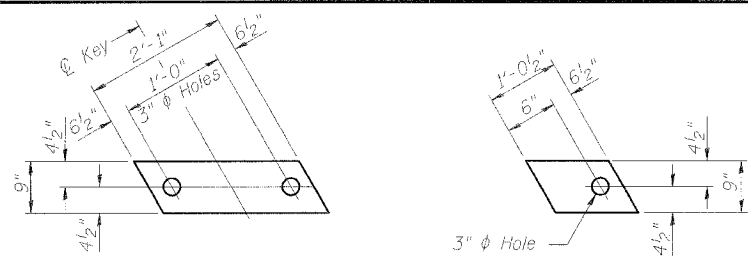
DESIGNED	DDB
CHECKED	IV
DRAWN	MGM
CHECKED	DDB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SUBSECTION	JOINT	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	19
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract # 60C11

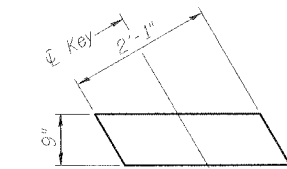
SHEET NO. 10
28 SHEETS



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

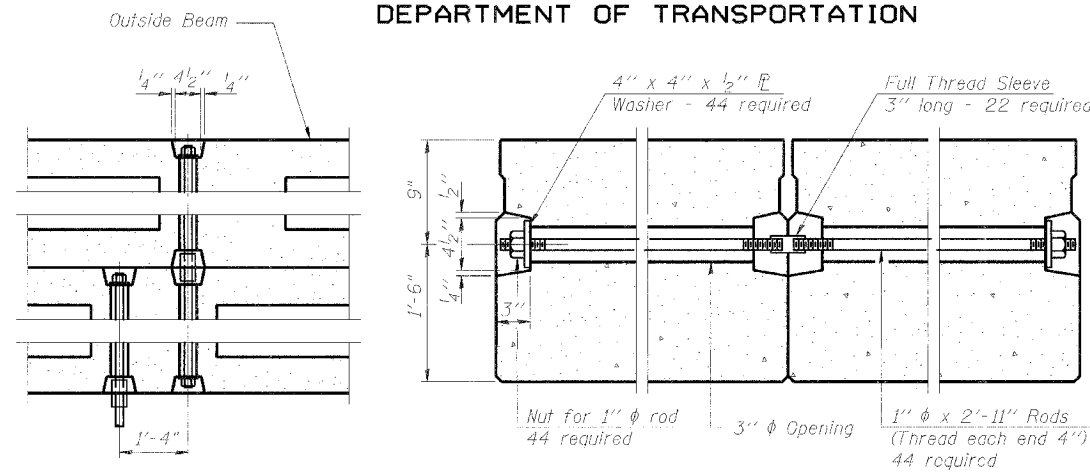
FIXED



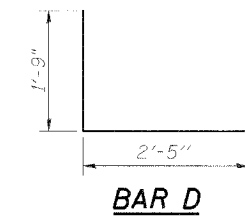
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

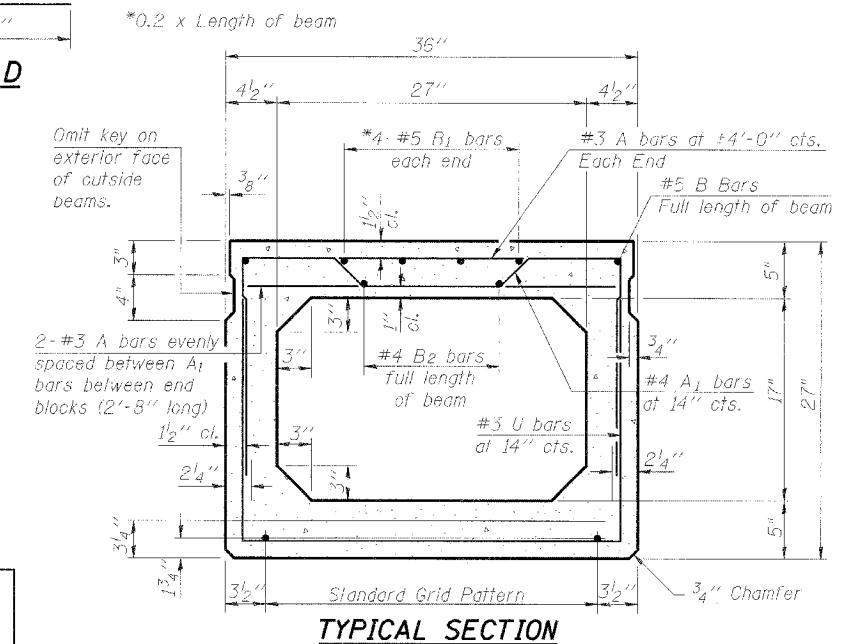
EXPANSION



TYPICAL TRANSVERSE TIE ASSEMBLY

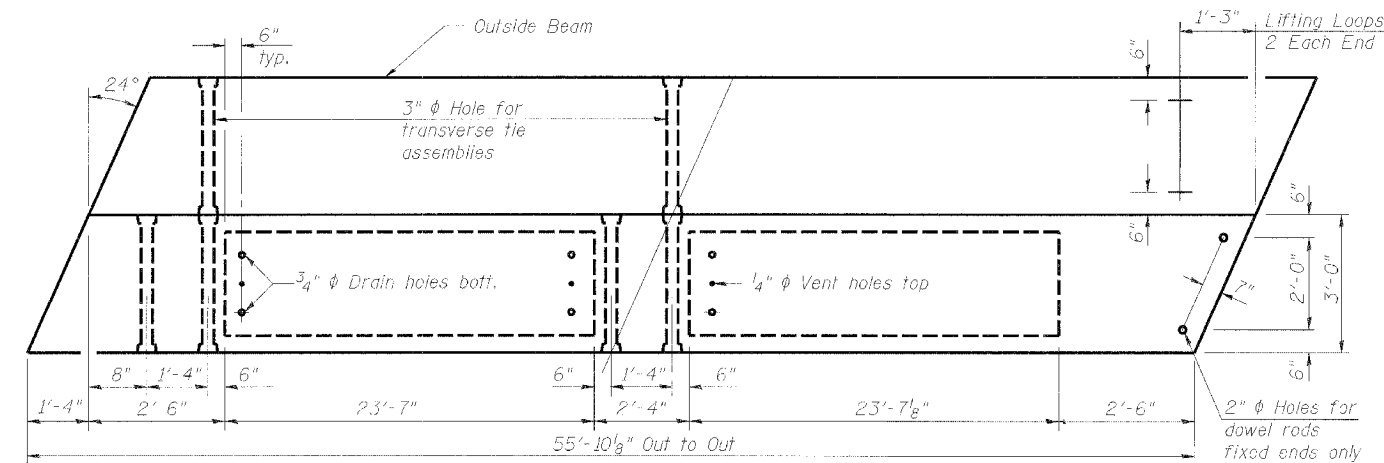


BAR D

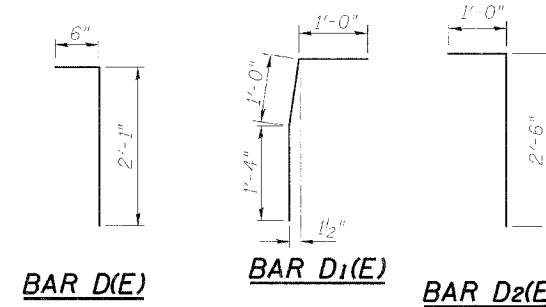


TYPICAL SECTION

13 - 1/2" φ Strands, Each Strand Stressed to 30,900 Lbs.
7 - Strands 1 3/4" up, 4 - Strands 3 1/4" up, 2 - strands 4 1/2" up.
Note: Place strands symmetrically about C of beam.



PLAN

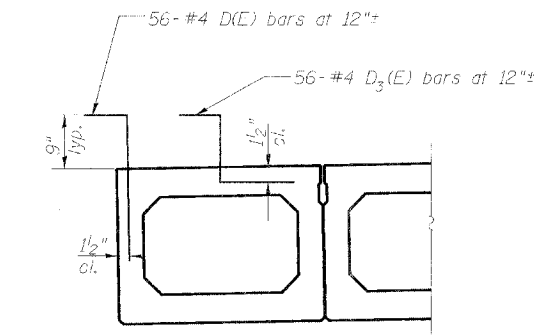


BAR D(E)

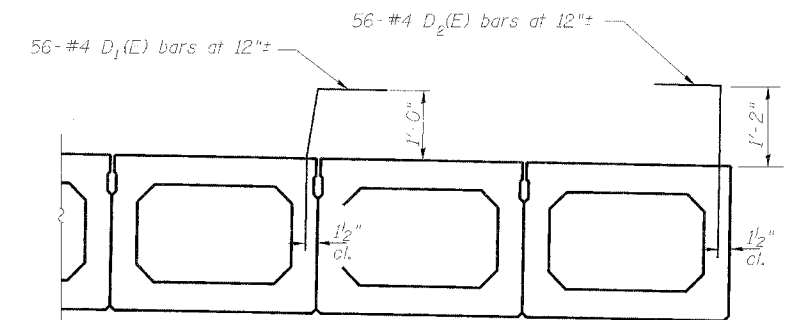
BAR D1(E)

BAR D2(E)

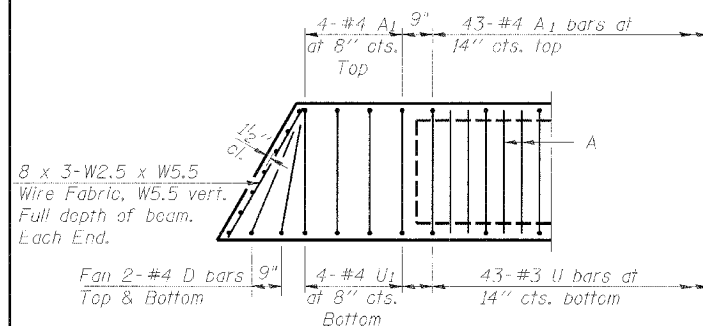
BAR D3(E)



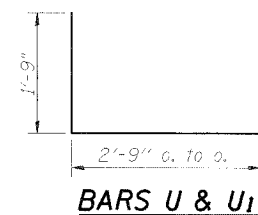
SECTION THRU WEST EXTERIOR BEAMS



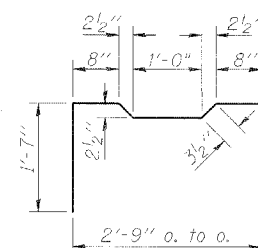
SECTION THRU EAST EXTERIOR BEAMS



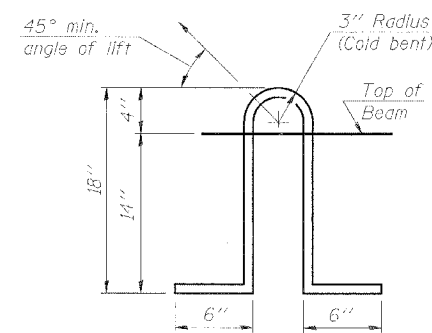
END PLAN



BARS U & U1



BAR A1



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" φ-270 ksi strands, as shown. The 1" φ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" Depth)	Sq. Ft.	2010
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SUPERSTRUCTURE DETAILS: SPAN 2
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

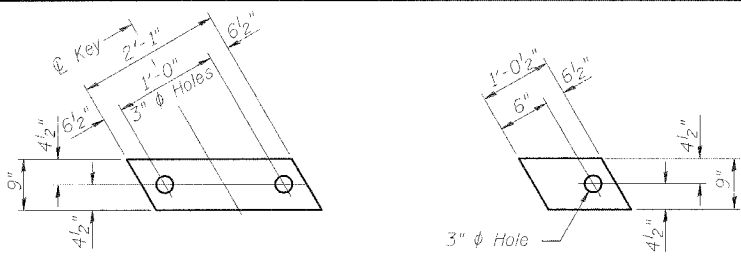
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CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919	Cook	47	20
FED. ROAD DIST. NO. 7	VD-R-1	3-DIMED	FED. AID PROJECT	

SHEET NO. 11
28 SHEETS

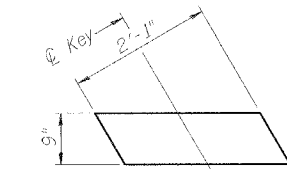
Contract # 60C11



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

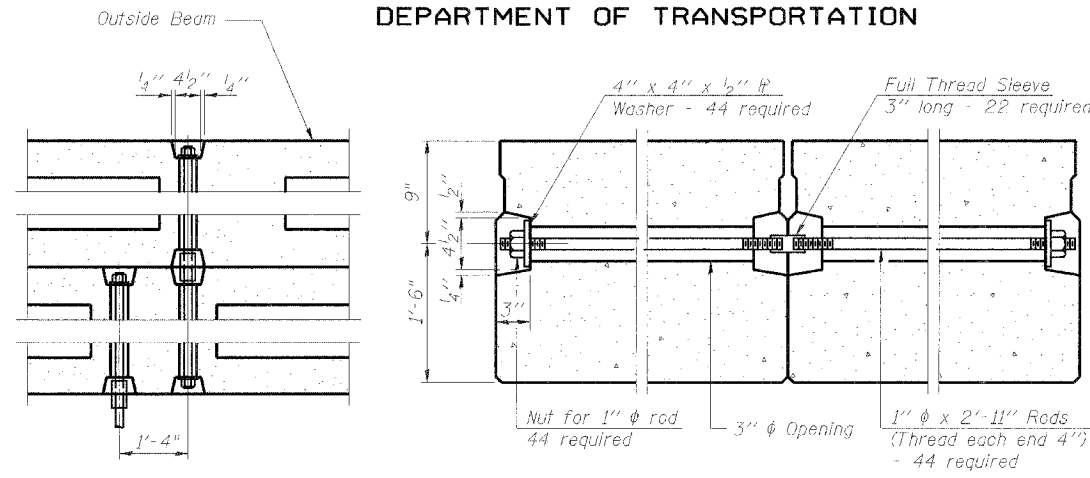
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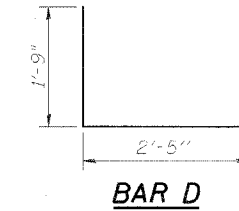
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(Interior)

FABRIC BEARING PAD
(Exterior)

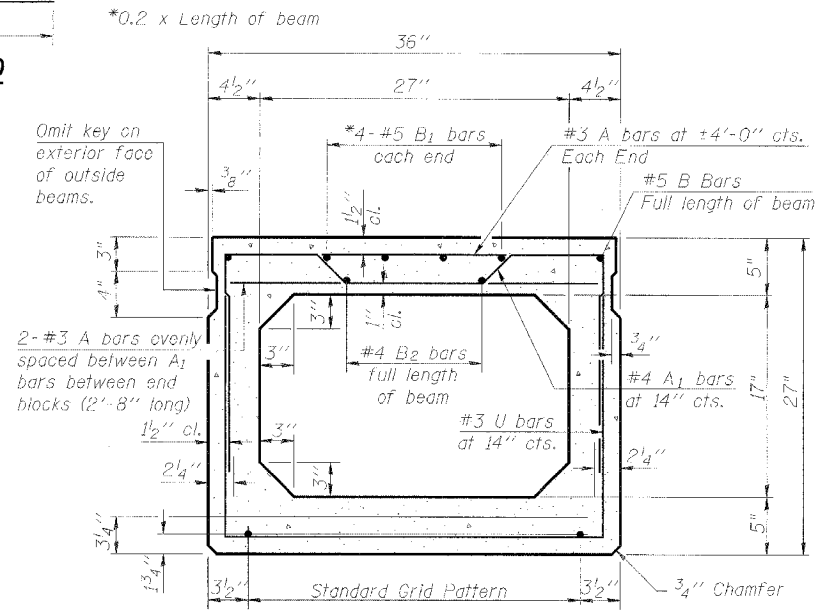
EXPANSION



TYPICAL TRANSVERSE TIE ASSEMBLY

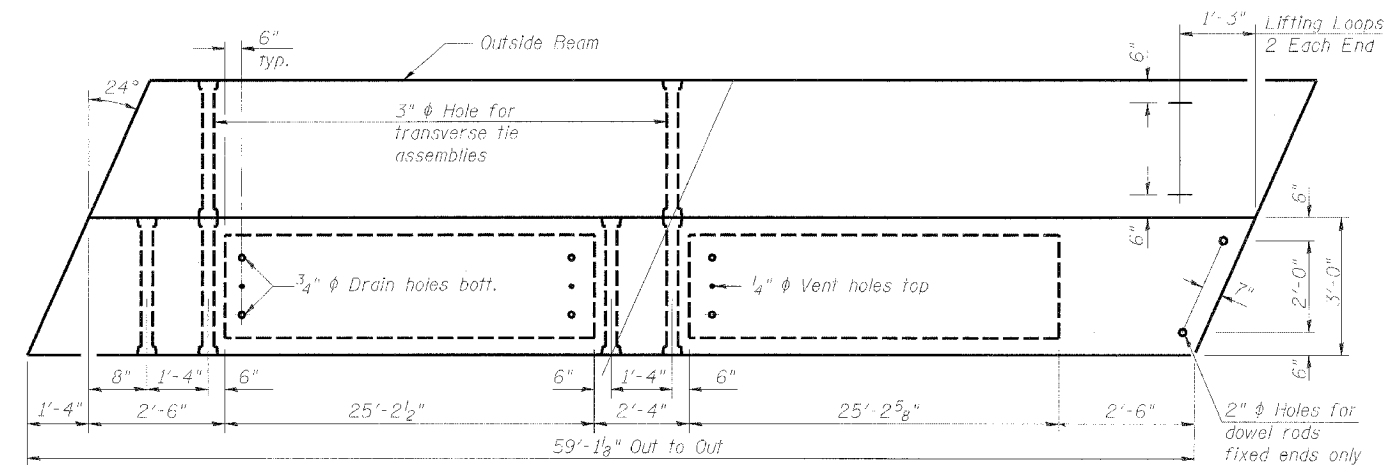


BAR D

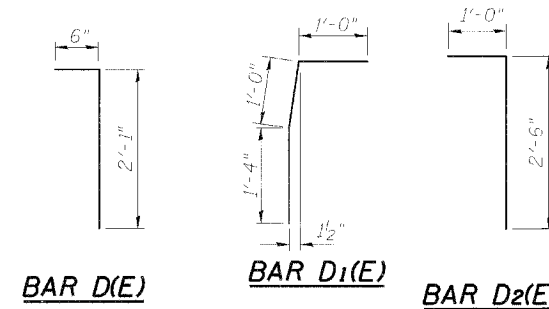


TYPICAL SECTION

13 - 1/2" Strands, Each Strand Stressed to 30,900 Lbs.
7 - Strands 3/4" up, 4 - Strands 3/4" up, 2 - strands 4 1/2" up
Note: Place strands symmetrically about center of beam.



PLAN

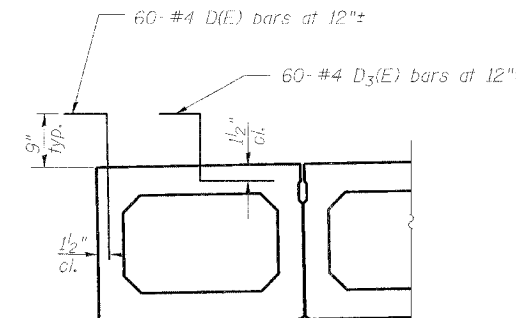


BAR D(E)

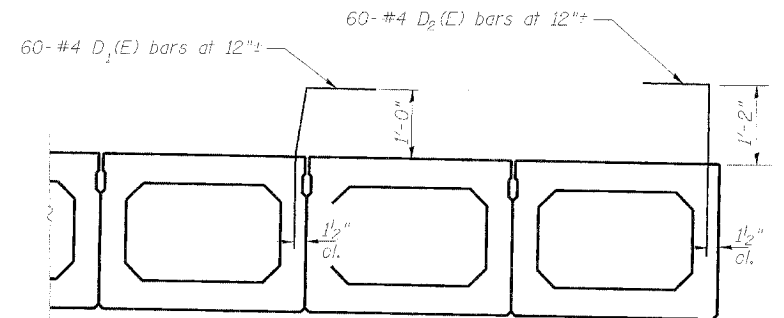
BAR D1(E)

BAR D2(E)

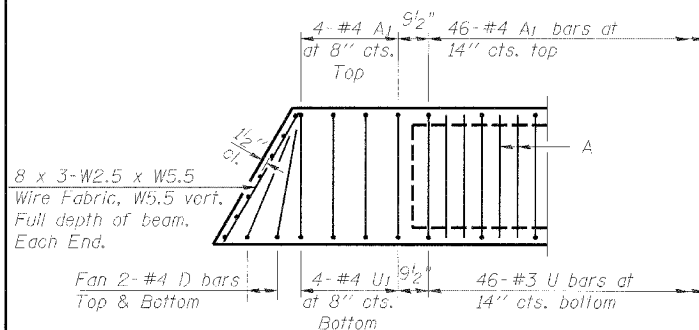
BAR D3(E)



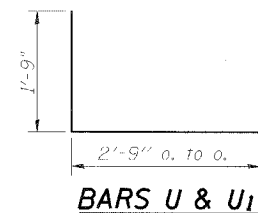
SECTION THRU WEST EXTERIOR BEAMS



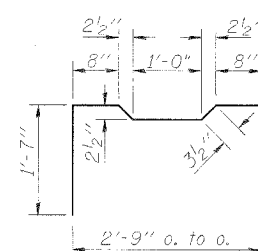
SECTION THRU EAST EXTERIOR BEAMS



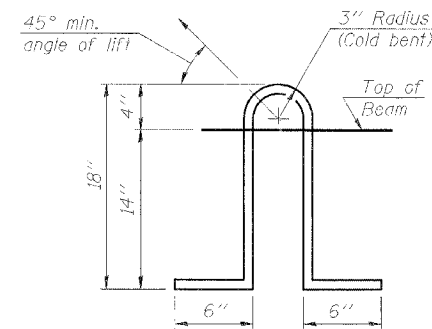
END PLAN



BARS U & U1



BAR A1



LIFTING LOOP DETAIL

NOTES

- 1. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" diameter 270 ksi strands, as shown.
- 2. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- 3. Non prestressing steel shall conform to ASTM A 706 (U1 MOD), Grade 60.
- 4. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
- 5. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- 6. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- 7. Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" Depth)	Sq. Ft.	2127
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SUPERSTRUCTURE DETAILS: SPAN 3

**F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020**

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: (309) 676-8464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

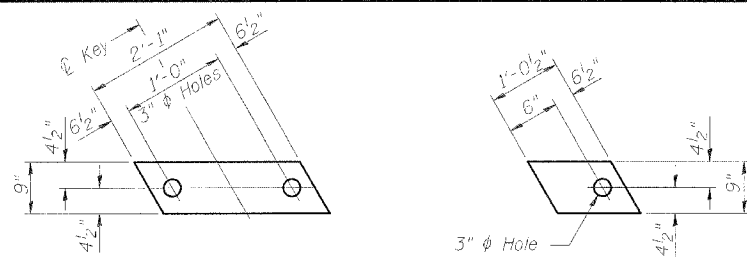
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CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SUBSECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919	Cook	47	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 60C11

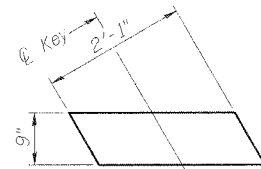
SHEET NO. 12
28 SHEETS



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

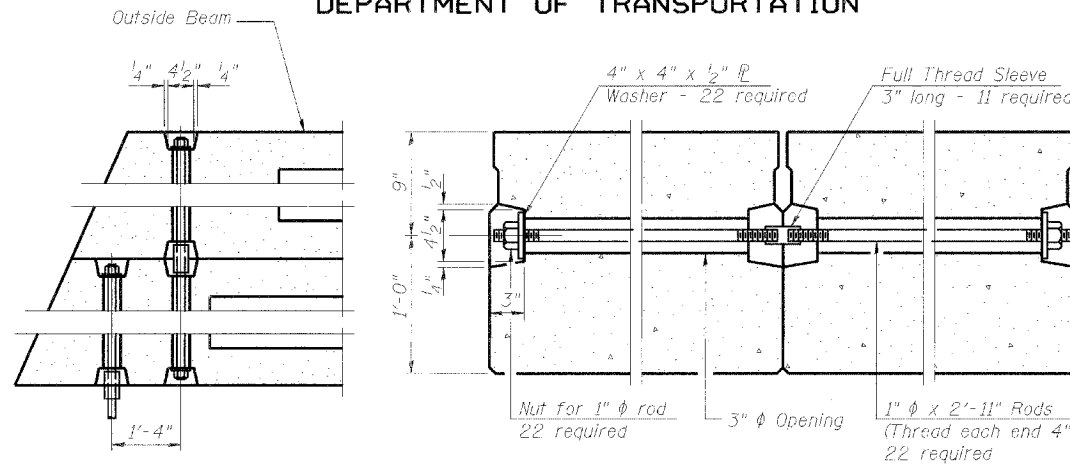
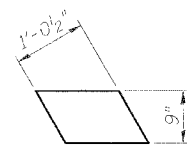
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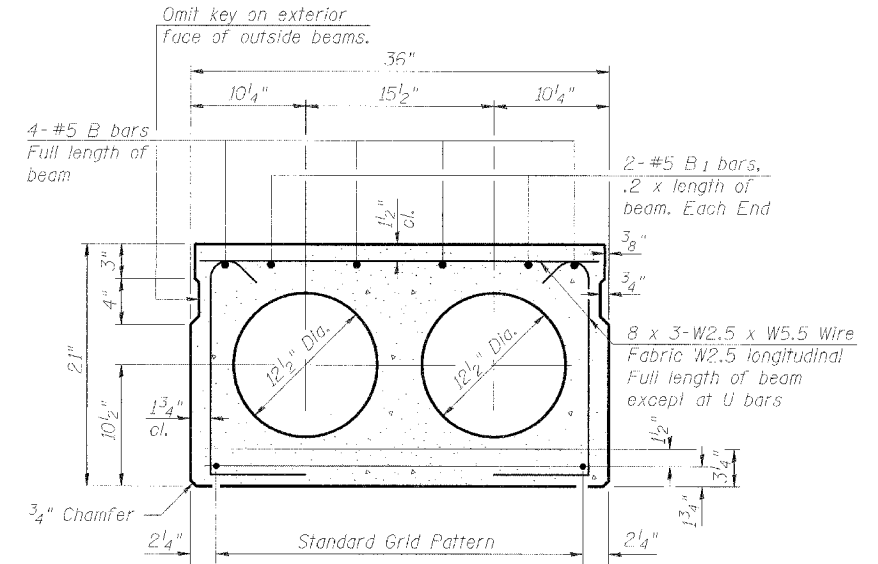
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

EXPANSION

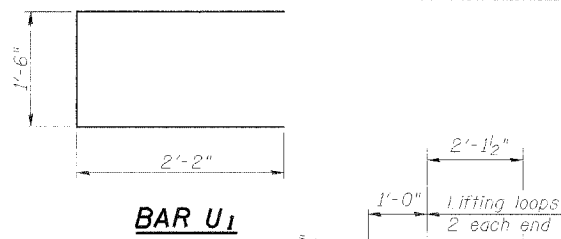


TYPICAL TRANSVERSE TIE ASSEMBLY

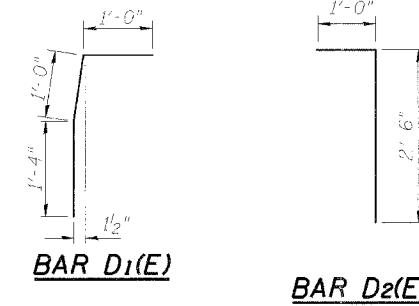


TYPICAL SECTION

10 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6 - Strands 1 3/4" up, 4 - Strands 3/4" up
Note: Place strands symmetrically about ϕ of beam.

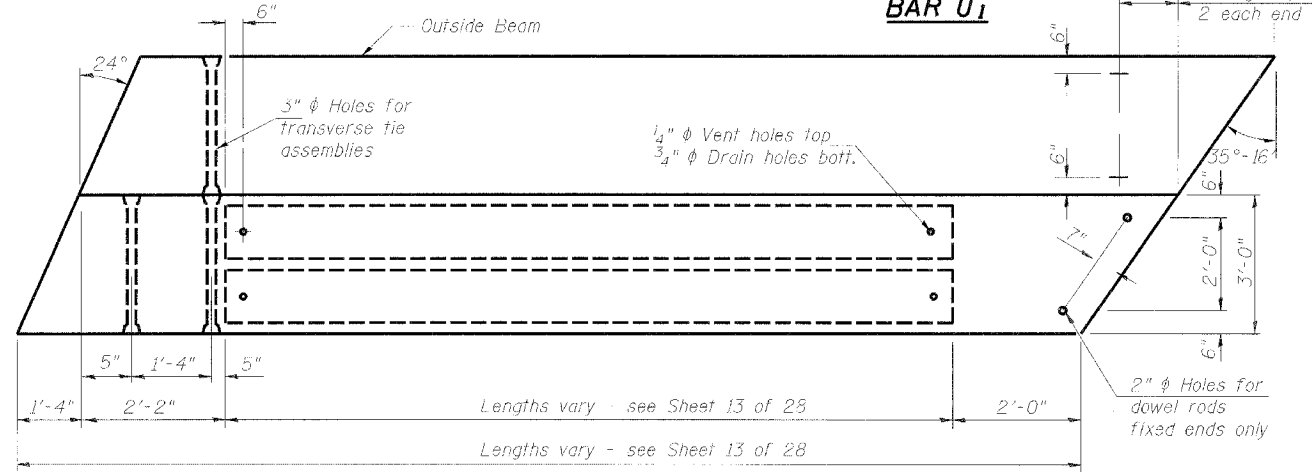


BAR U1

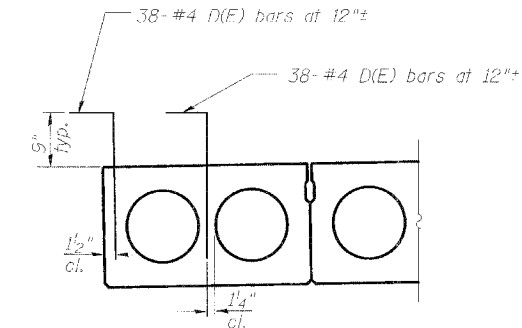


BAR D1(E)

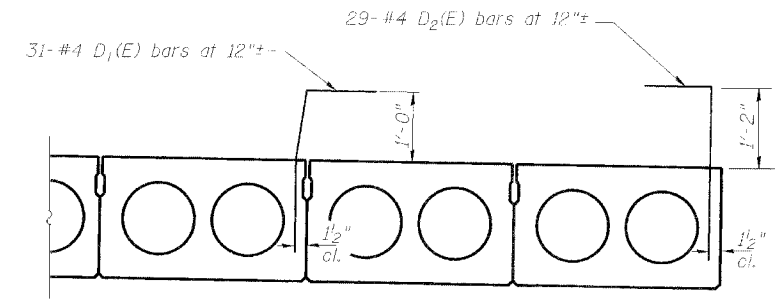
BAR D2(E)



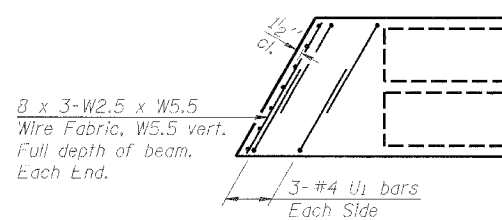
PLAN



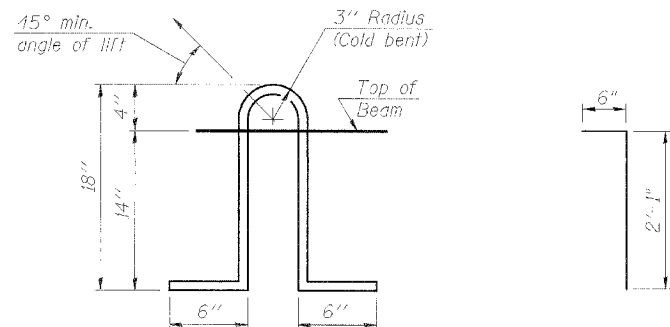
SECTION THRU WEST EXTERIOR BEAMS



SECTION THRU EAST EXTERIOR BEAMS



END PLAN



LIFTING LOOP DETAIL

BAR D1(E)

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be lightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'_{ci} , shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1197
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SUPERSTRUCTURE DETAILS: SPAN 4
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

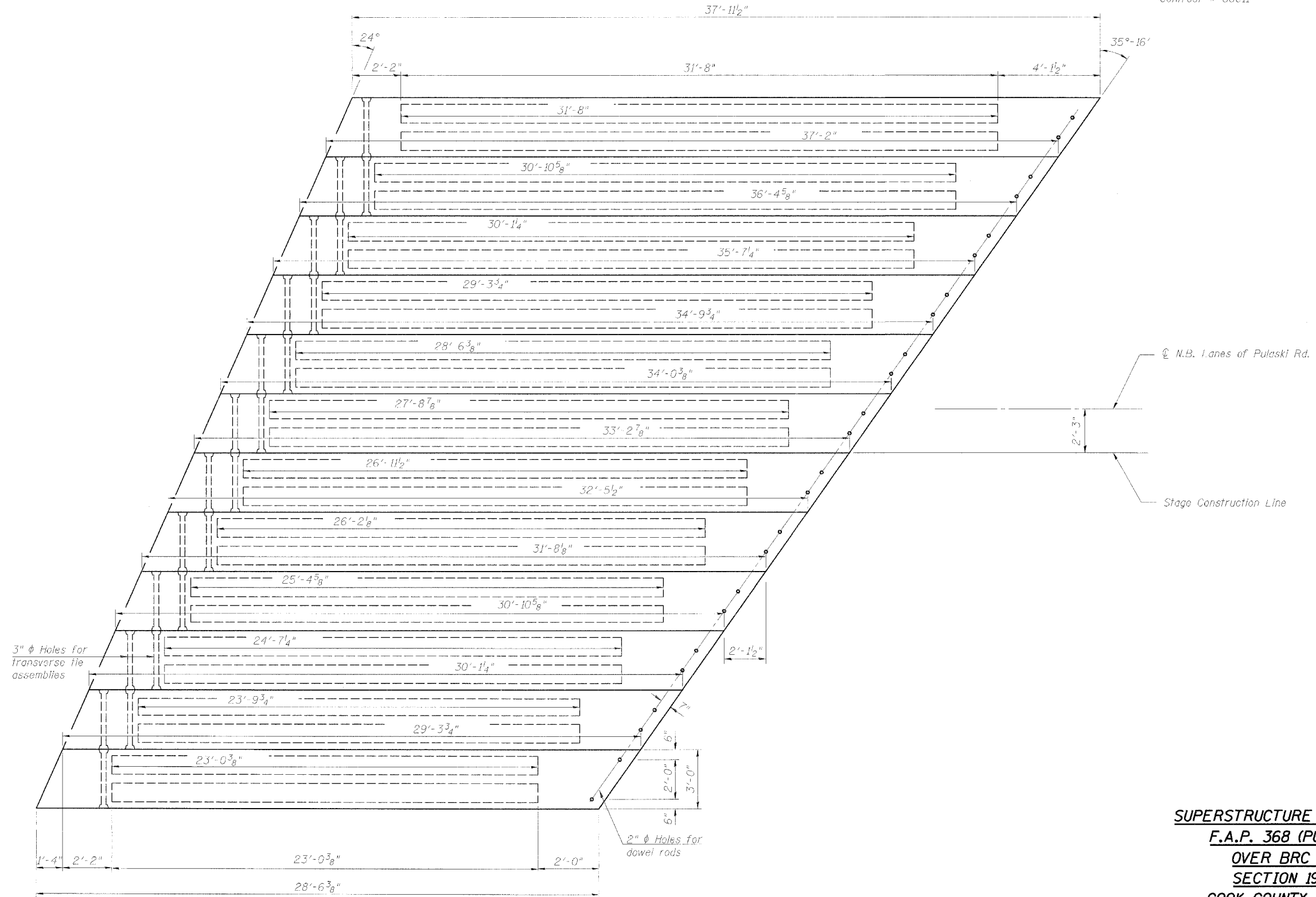
DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
PH: (309) 676-8484
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 368	1919 VB-R-1	COOK	47	22	13
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract # 60C11



PLAN



DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

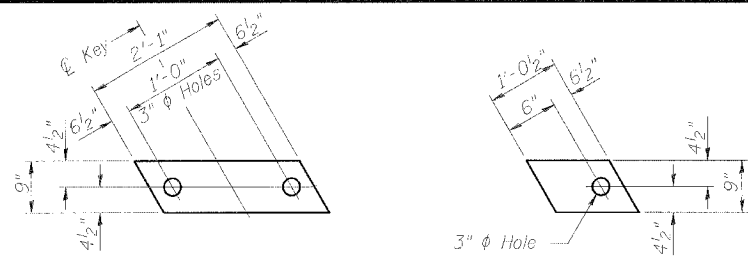
SUPERSTRUCTURE DETAILS: SPAN 4
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 368	SECTION 1919 VB-R-1	COUNTY Cook	PIERS 47	SHEET NO. 23	SHEET NO. 14 28 SHEETS
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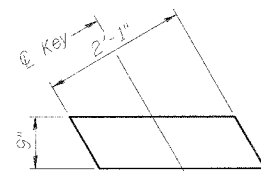
Contract # 60C11



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

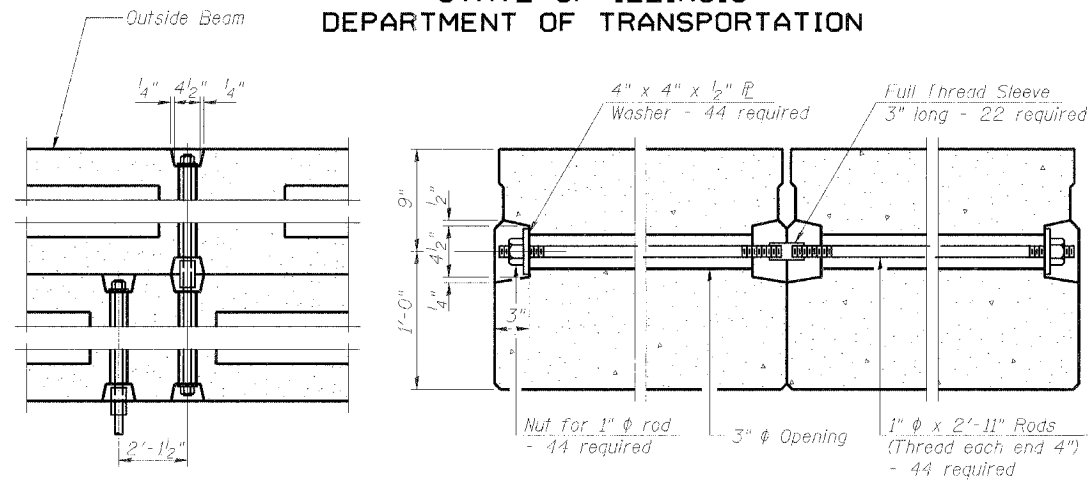
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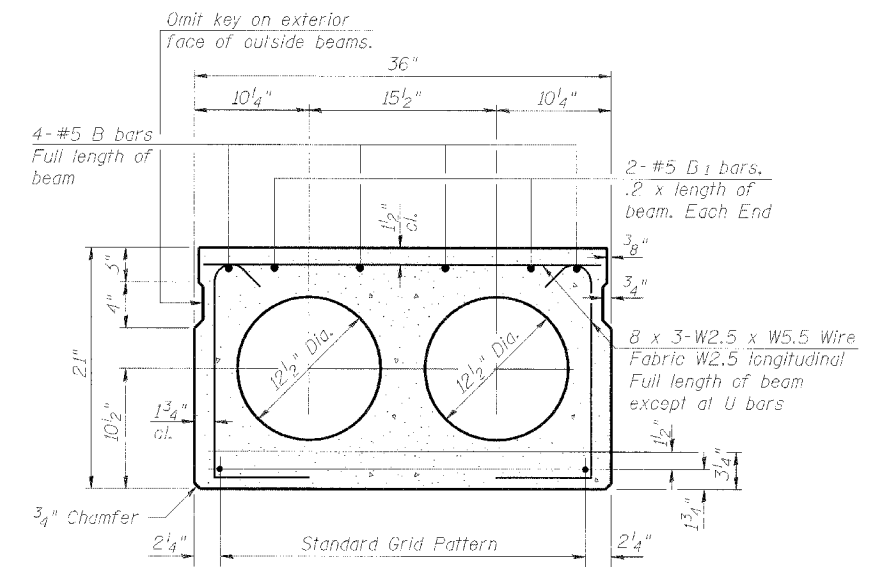
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

EXPANSION

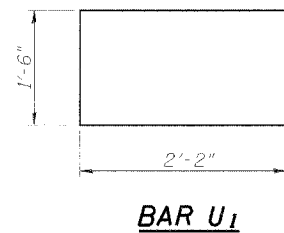


TYPICAL TRANSVERSE TIE ASSEMBLY

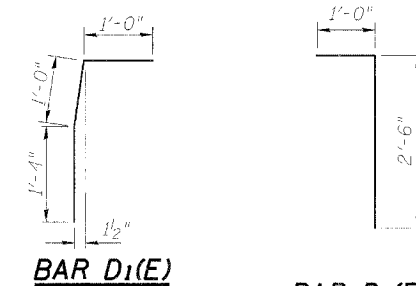


TYPICAL SECTION

14 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
8 - Strands 1 3/4" up, 4 - Strands 3 1/4" up, 2 - Strands 9" up
Note: Place strands symmetrically about \bar{C} of beam.

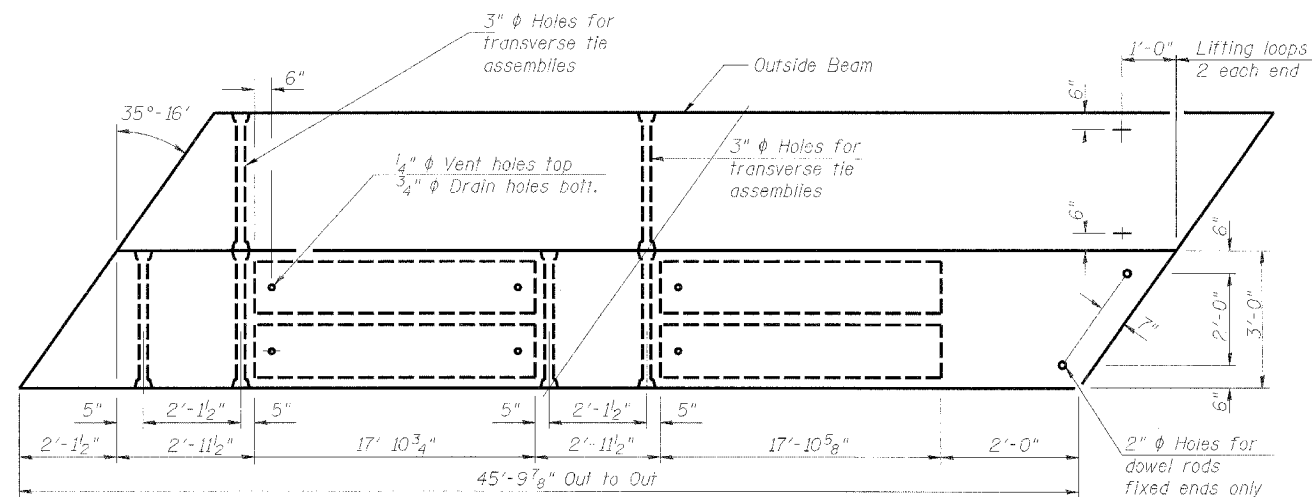


BAR U1

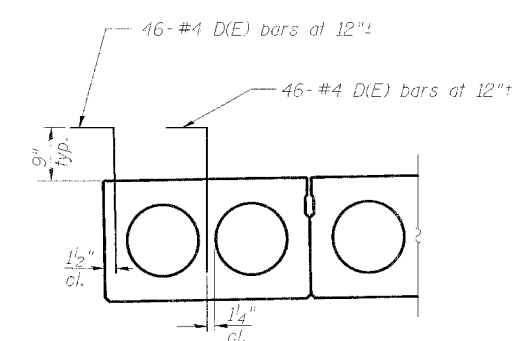


BAR D1(E)

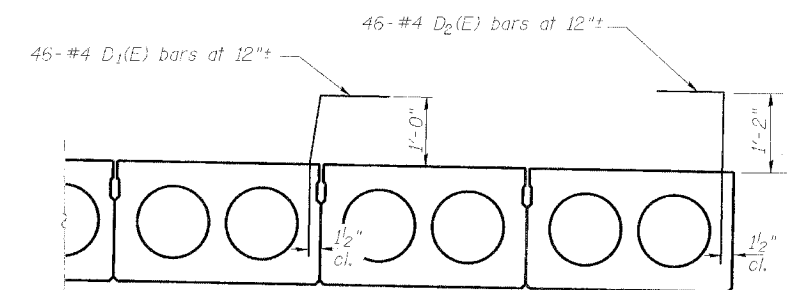
BAR D2(E)



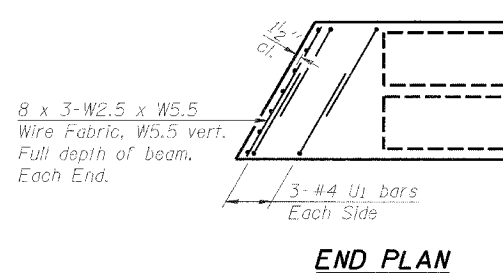
PLAN



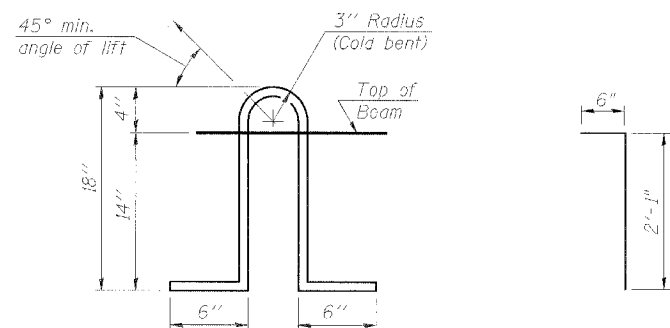
SECTION THRU WEST EXTERIOR BEAMS



SECTION THRU EAST EXTERIOR BEAMS



END PLAN



LIFTING LOOP DETAIL

BAR D(E)

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'_{ci} , shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1650
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SUPERSTRUCTURE DETAILS: SPAN 5
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

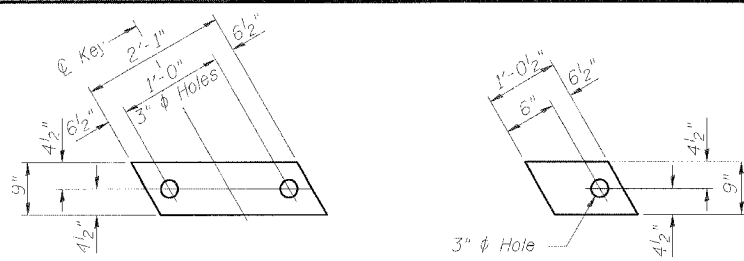
STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: (309) 676-8464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	24
FEDERAL EST. NO. 7	ILLINOIS	FED. AID PROJECT		

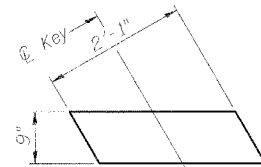
Contract # 60C11



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

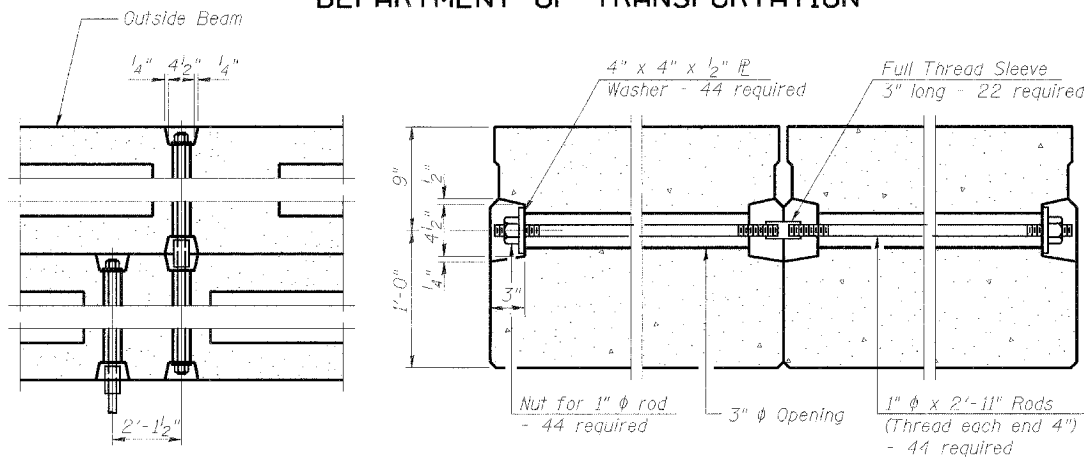
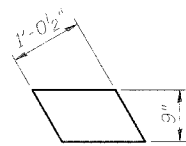
FIXED



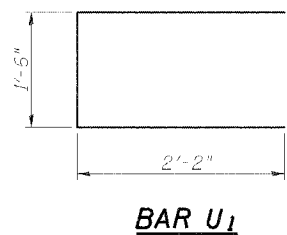
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

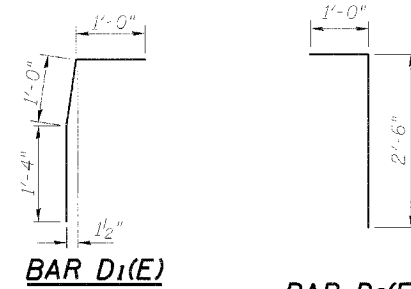
EXPANSION



TYPICAL TRANSVERSE TIE ASSEMBLY

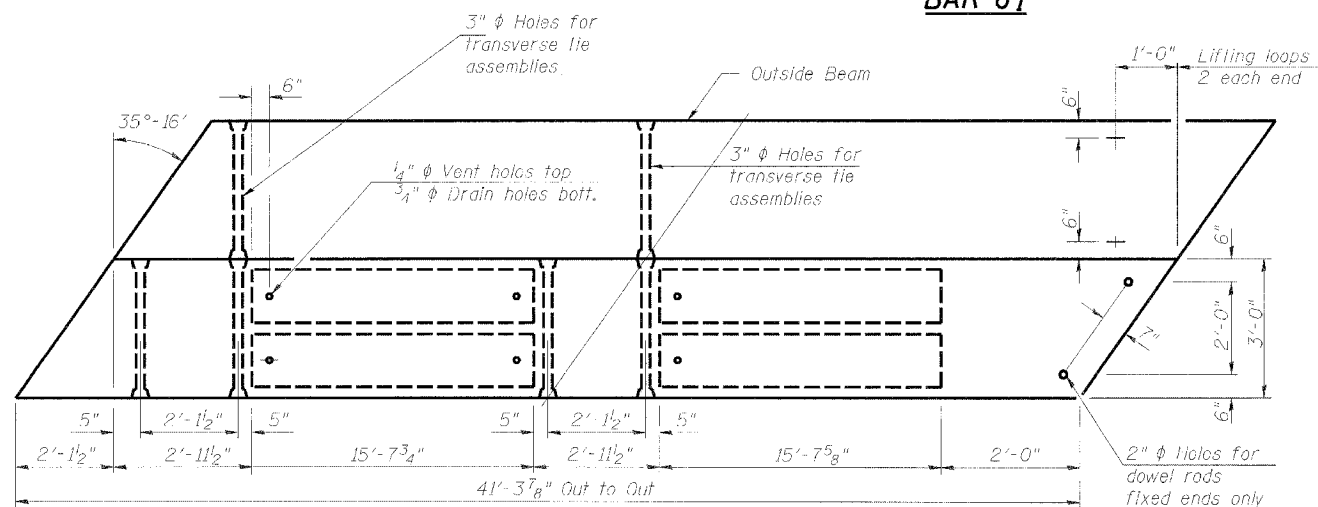


BAR U1



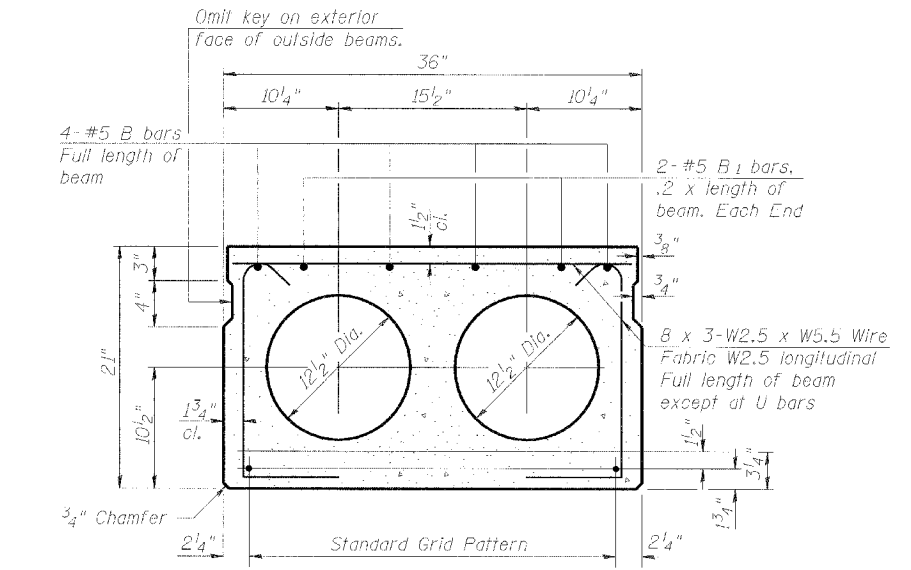
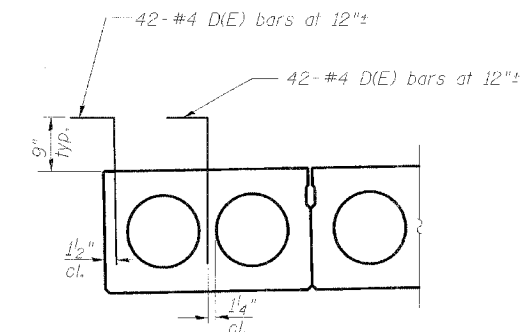
BAR D1(E)

BAR D2(E)



PLAN

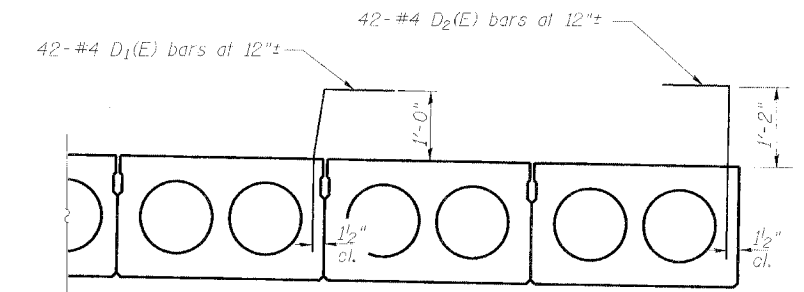
SECTION THRU WEST EXTERIOR BEAMS



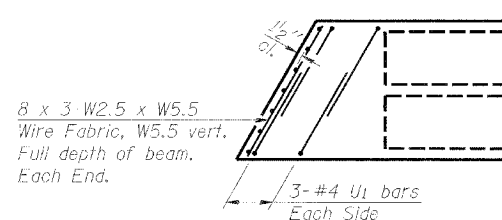
TYPICAL SECTION

10 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6 - Strands 1 3/4" up, 4 - Strands 3/4" up

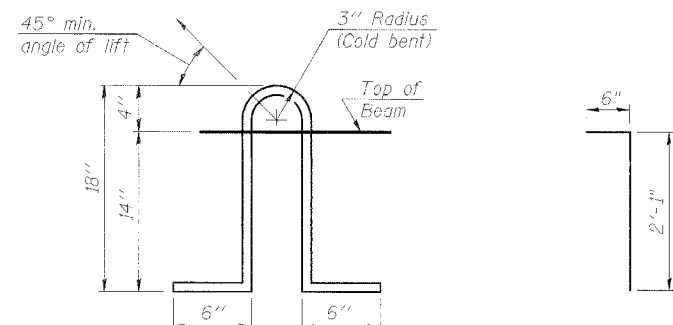
Note: Place strands symmetrical about ϕ of beam.



SECTION THRU EAST EXTERIOR BEAMS



END PLAN



LIFTING LOOP DETAIL

BAR D(E)

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" ϕ -270 ksi strands, as shown.
- The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.
- The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
- Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Required Release Strength, f'ci, shall be 4000 p.s.i.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1488
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SUPERSTRUCTURE DETAILS: SPAN 6
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

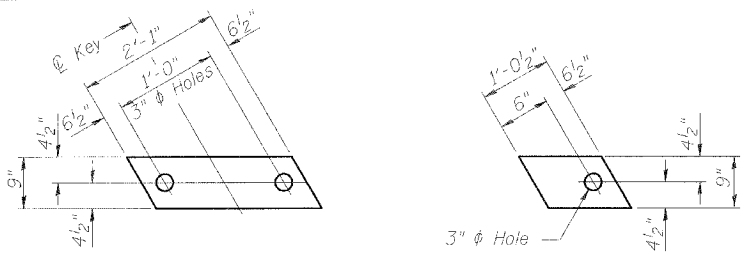
DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: (309) 676-8464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 368	SECTION VB-R-1	COUNTY Cook	TOTAL SHEETS 47	SHEET NO. 25	SHEET NO. 16 28 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

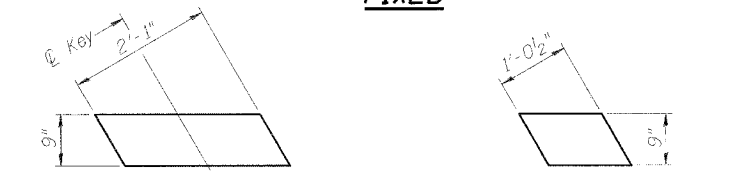
Contract # 60C11



FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

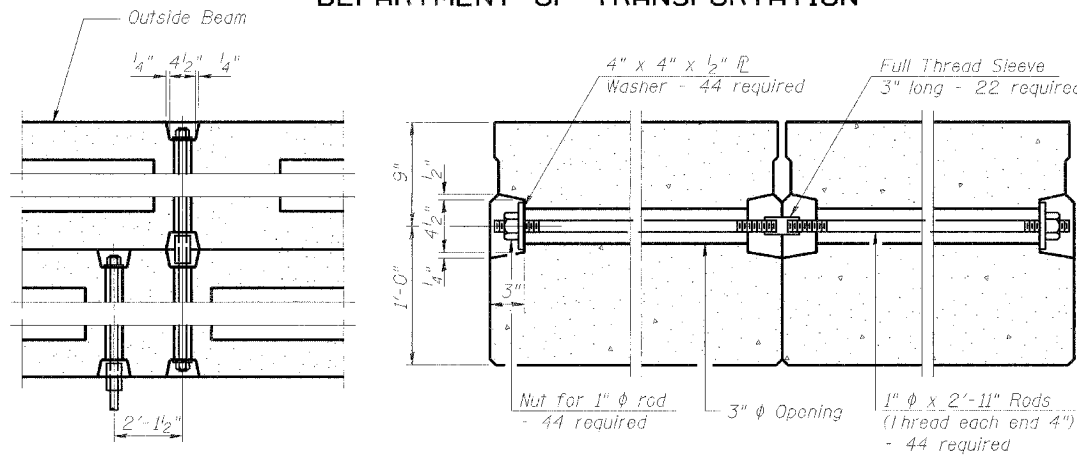
FIXED



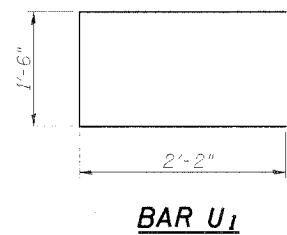
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

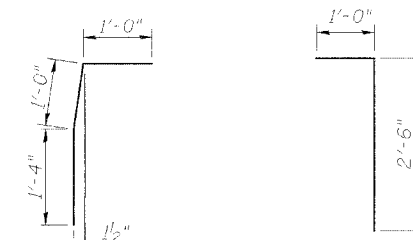
EXPANSION



TYPICAL TRANSVERSE TIE ASSEMBLY

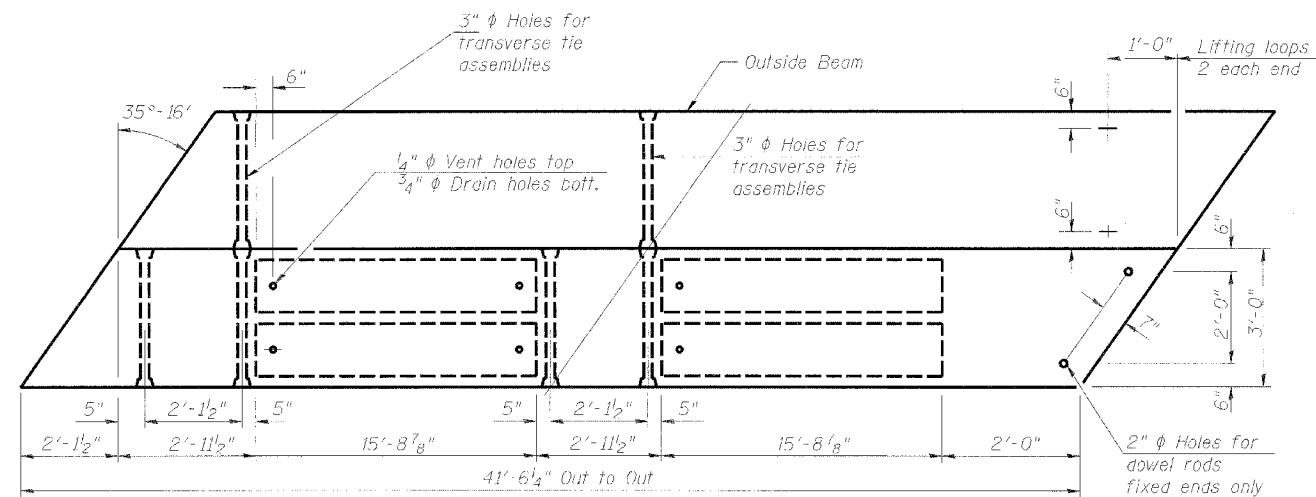


BAR U1

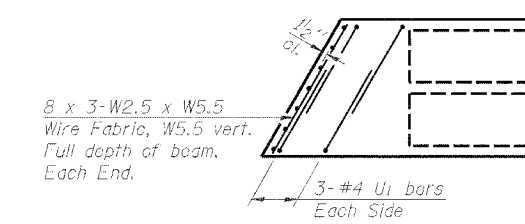


BAR D1(E)

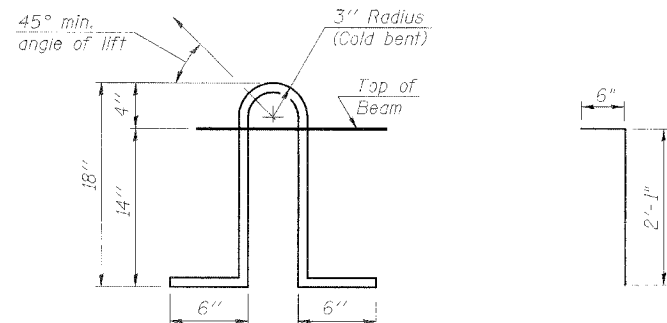
BAR D2(E)



PLAN

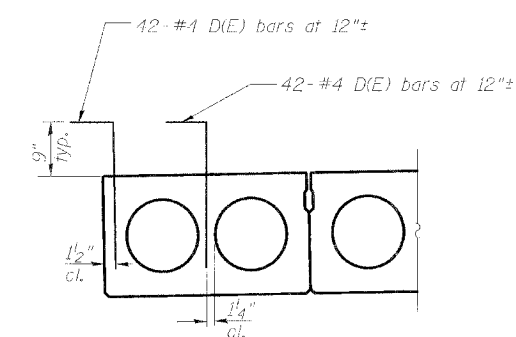


END PLAN



LIFTING LOOP DETAIL

BAR D(E)



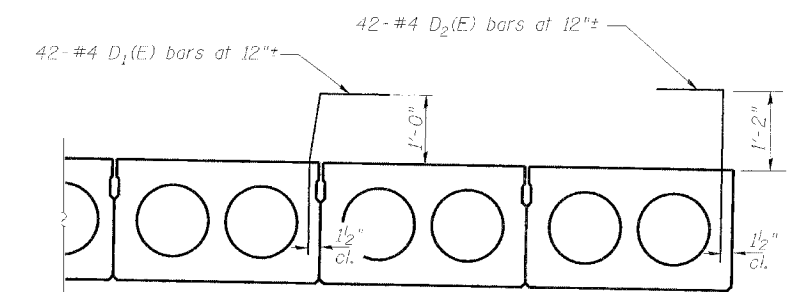
SECTION THRU WEST EXTERIOR BEAMS



TYPICAL SECTION

10 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6 - Strands 1 3/4" up, 4 - Strands 3/4" up

Note: Place strands symmetrically about ϕ of beam.



SECTION THRU EAST EXTERIOR BEAMS

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" Depth)	Sq. Ft.	1495
---	---------	------

SUPERSTRUCTURE DETAILS: SPAN 7

**F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020**

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Lifting loops shall be 2-1/2" ϕ -270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'_{ci} , shall be 4000 p.s.i.

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

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Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

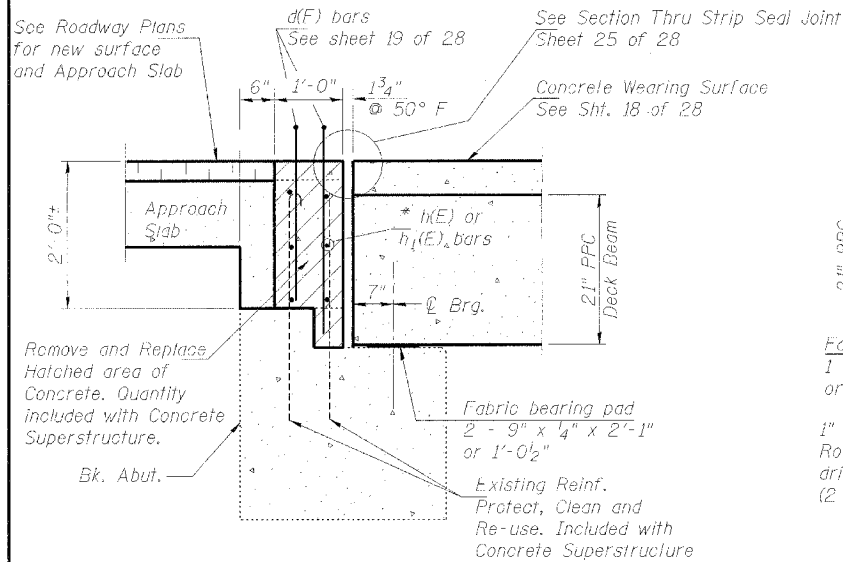
NOTES

1. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
2. All horizontal dimensions are at right angles to beam ends.
3. See Sht. 9 to 16 of 28 for Bearing Pad Details.

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

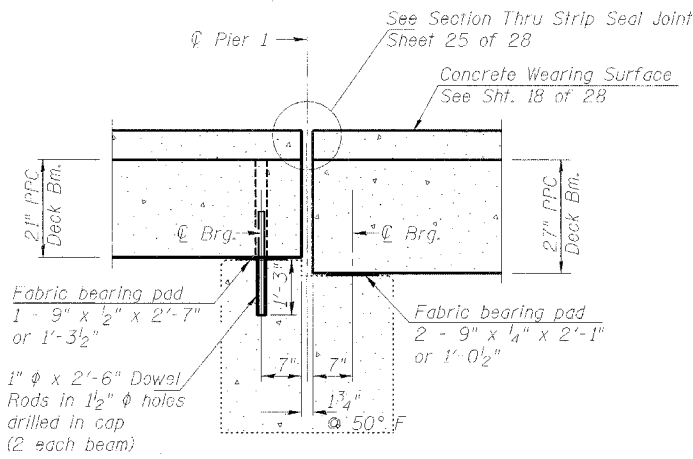
ROUTE NO. F.A.P. 368	SECTION 1919 VB-R-1	COUNTY Cook	SHEETS 47	SHEET NO. 28	SHEET NO. 17 28 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 60C11

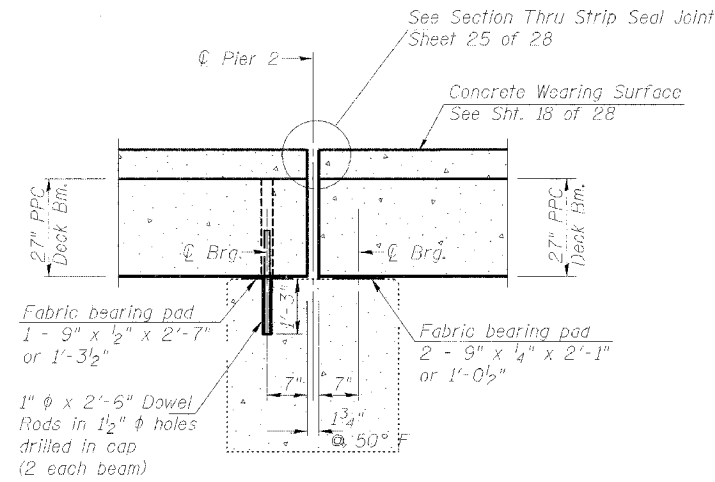


SECTION THRU SOUTH ABUTMENT
(at right angles to abut.)

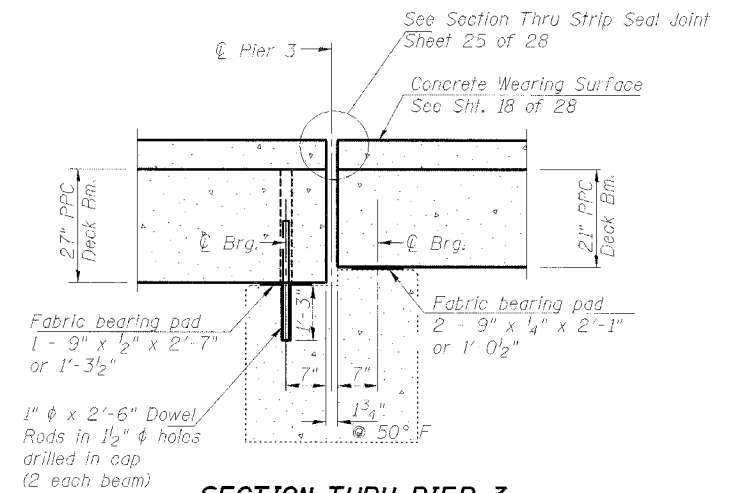
* Provide 6 Bar splicers (E) for #5 bars at Stage Construction Joint.



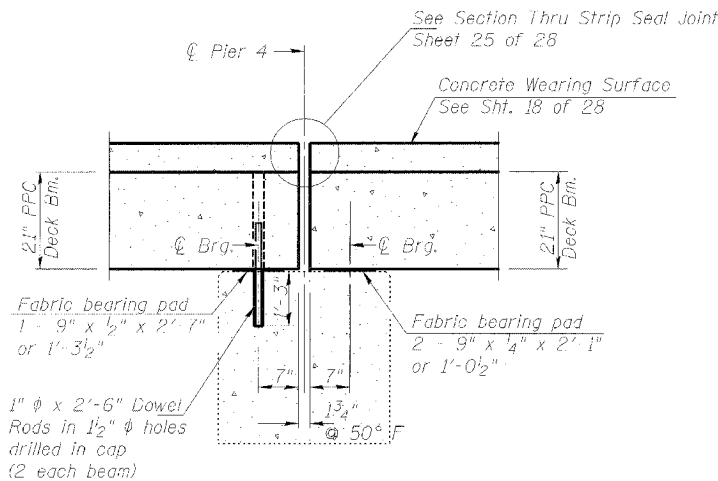
SECTION THRU PIER 1
(at right angles to pier)



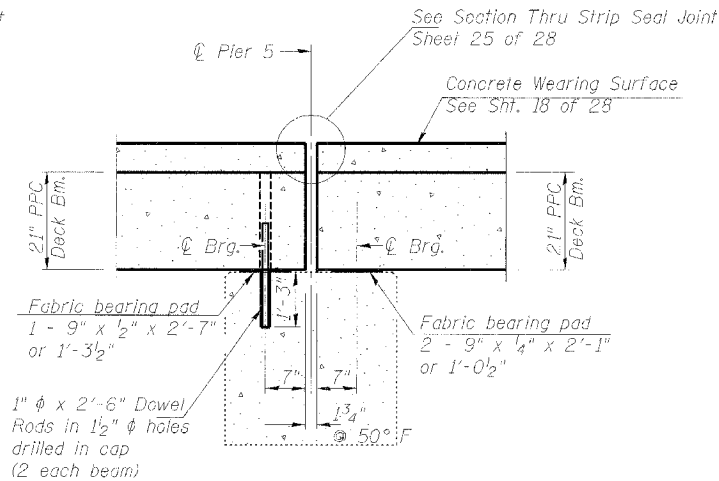
SECTION THRU PIER 2
(at right angles to pier)



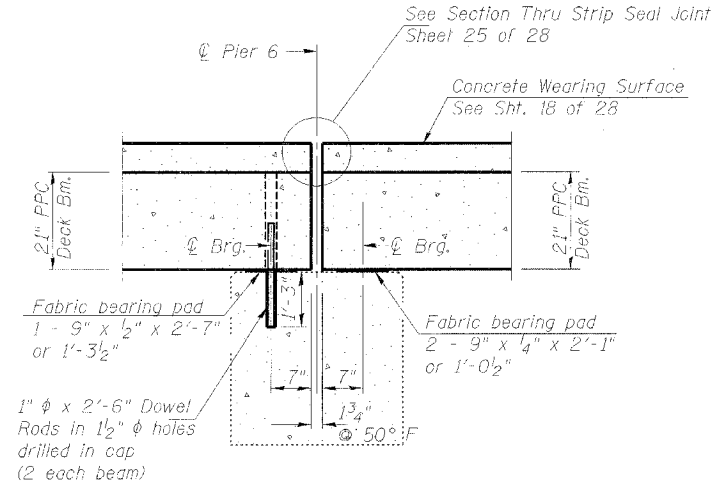
SECTION THRU PIER 3
(at right angles to pier)



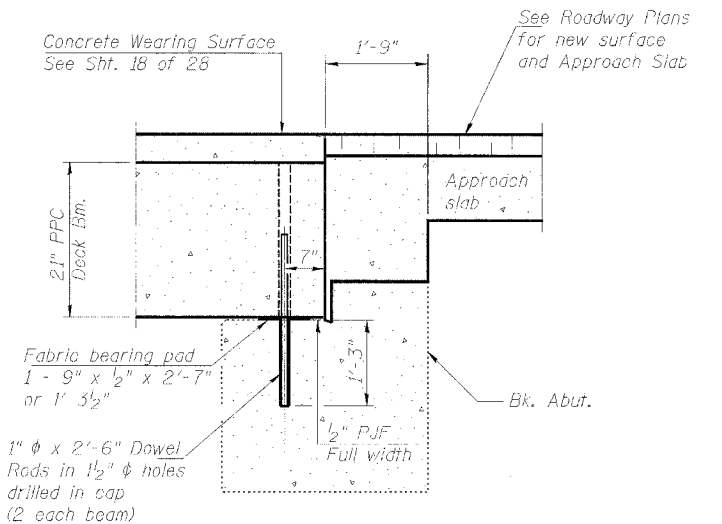
SECTION THRU PIER 4
(at right angles to pier)



SECTION THRU PIER 5
(at right angles to pier)



SECTION THRU PIER 6
(at right angles to pier)



SECTION THRU NORTH ABUTMENT
(at right angles to abut.)

**SECTIONS THROUGH
ABUTMENTS AND PIERS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020**

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

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111 NE Jefferson Ave.
Peoria, Illinois 61602
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FAX (309) 676-5445
IL Design Firm Reg. No. 184-001518

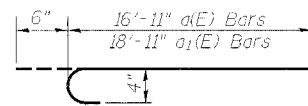
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 368	SECTION 1919 VB-R-1	COUNTY Cook	SHEET NO. 47	SHEET NO. 21	SHEET NO. 18 28 SHEETS
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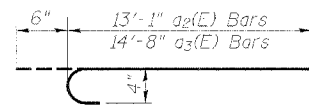
Contract # 60C11

CONCRETE WEARING SURFACE THICKNESS TABLE

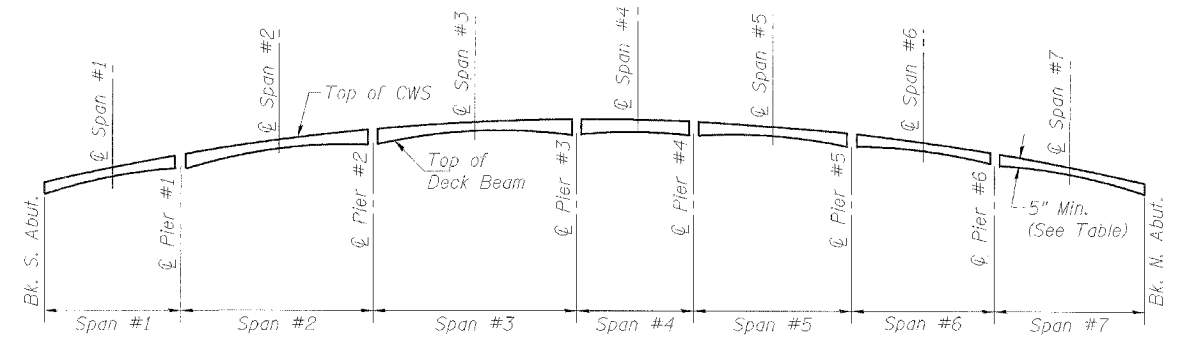
Location	☉ Brg. S. Abut.	☉ Span #1	☉ Pier #1	☉ Span #2	☉ Pier #2	☉ Span #3	☉ Pier #3	☉ Span #4	☉ Pier #4	☉ Span #5	☉ Pier #5	☉ Span #6	☉ Pier #6	☉ Span #7	☉ Brg. N. Abut.
14' Left of ☉ Roadway	6 1/8"	5 5/8"	6 1/8"	6"	6 5/8"	6 1/8"	5 1/4"	5"	5 5/8"	5 1/2"	5 3/4"	5 3/8"	6"	5 3/8"	5 3/4"
☉ Rdwy. (Profile Grade)	6"	5 1/2"	6 1/8"	6"	6 3/8"	6"	5 1/8"	5"	5 3/4"	5 5/8"	6"	5 5/8"	6 1/4"	5 5/8"	6"
CWS Stage Constr. It	6 1/4"	5 3/4"	6 3/8"	6 1/4"	6 7/8"	6 3/8"	5 1/4"	5 1/8"	6 1/8"	6"	6 3/8"	6"	6 3/8"	6"	6 3/8"
14' Right of ☉ Roadway	6 1/4"	5 3/4"	6 1/4"	6 1/8"	6 3/4"	6 1/4"	5 1/4"	5"	5 3/4"	5 5/8"	5 7/8"	5 1/2"	6 1/8"	5 3/8"	5 3/4"



a1(E) AND a1(E) BARS

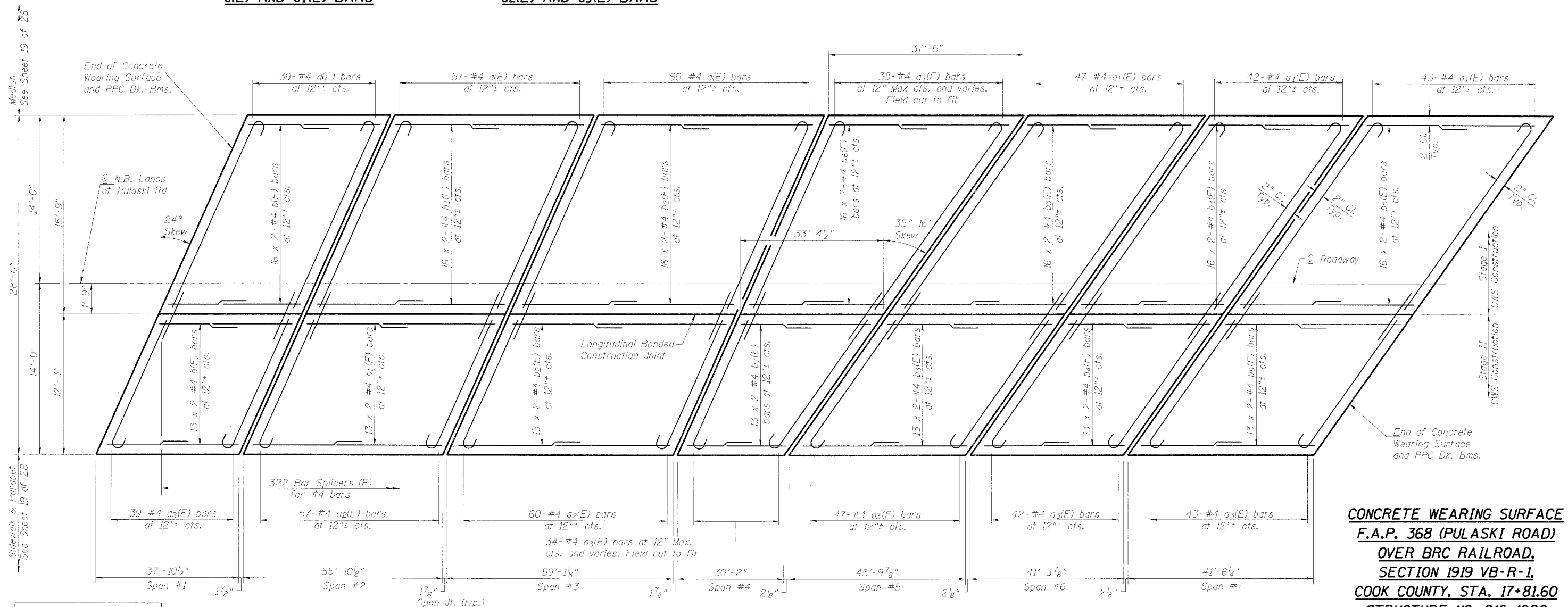


a2(E) AND a3(E) BARS



CONCRETE WEARING SURFACE PROFILE

See Table for Location and Thickness



CONCRETE WEARING SURFACE PLAN

DESIGNED	GDB
CHECKED	LLV
DRAWN	MGH
CHECKED	DDH

BAR LAPS
#4 bars - 1'-4"

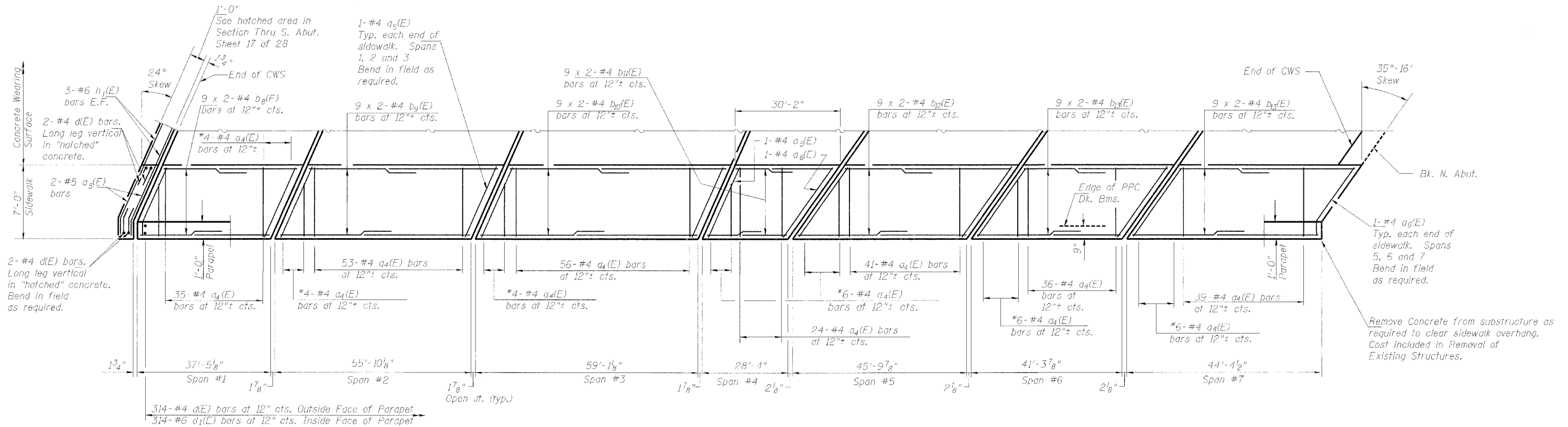
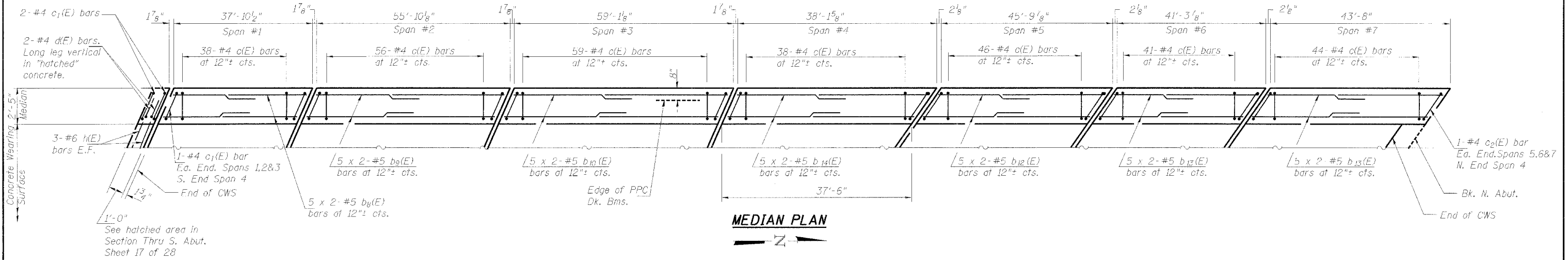
CONCRETE WEARING SURFACE
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS Consultants
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SPANS	SHEET NO.	SHEET NO. 19
F.A.P. 368	1919 VB-R-1	Cook	47	28	28 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 60C11



*Order a4(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.

BAR LAPS

#4 bars - 1'-4"

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDR

SIDEWALK & MEDIAN PLAN VIEWS

F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

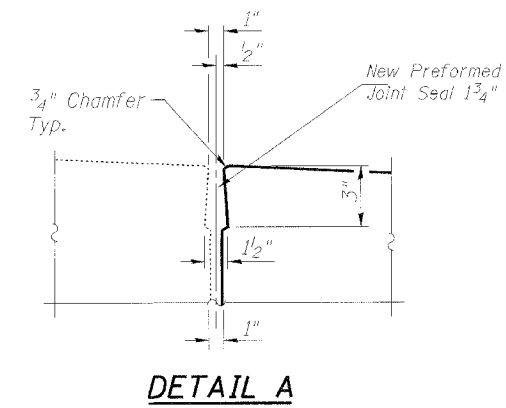
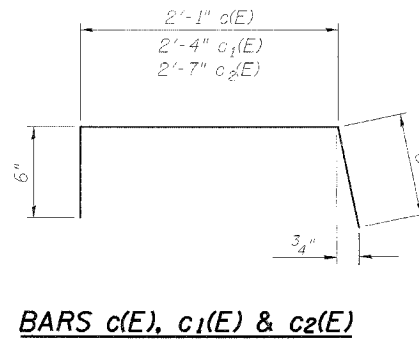
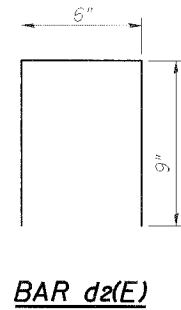
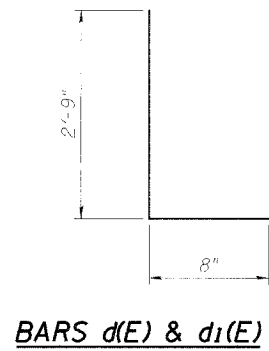
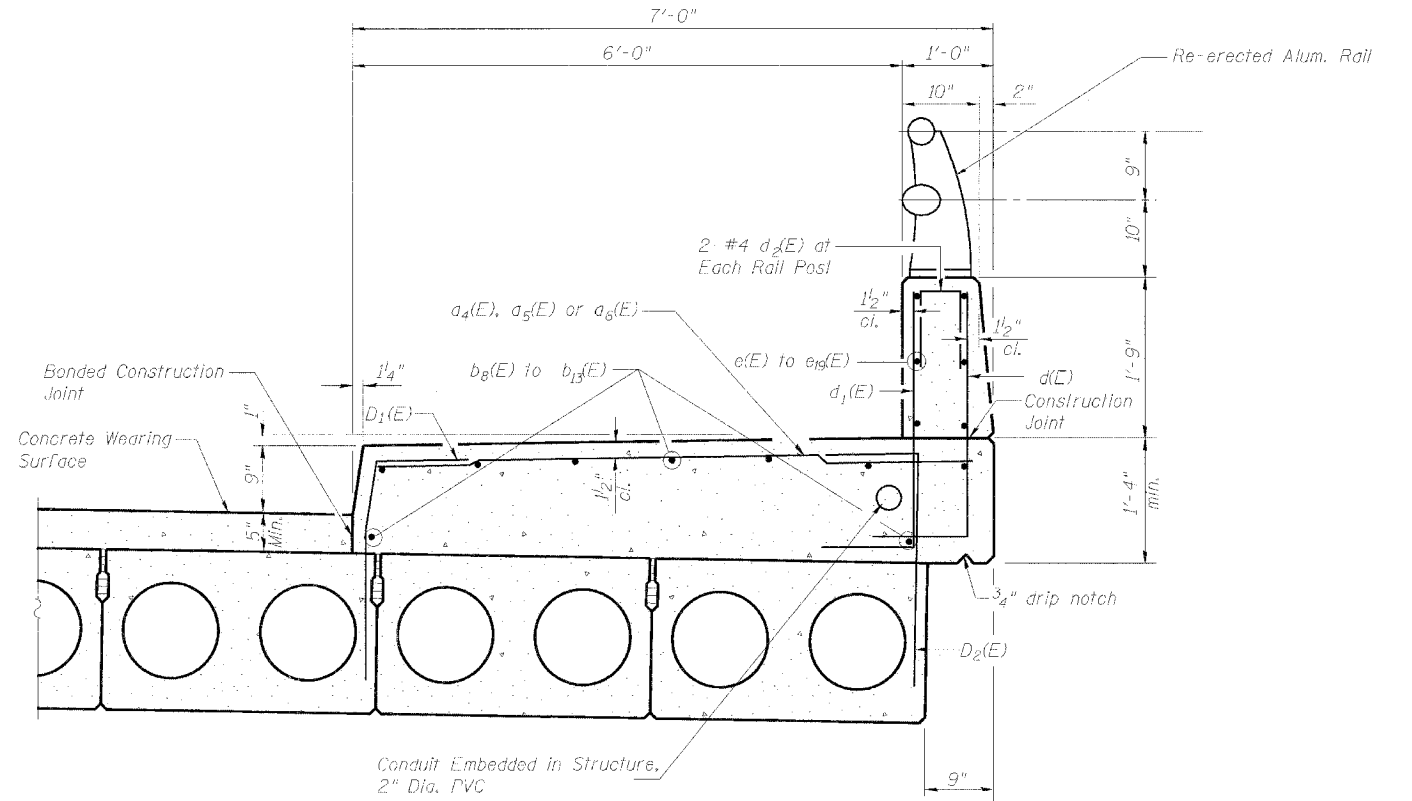
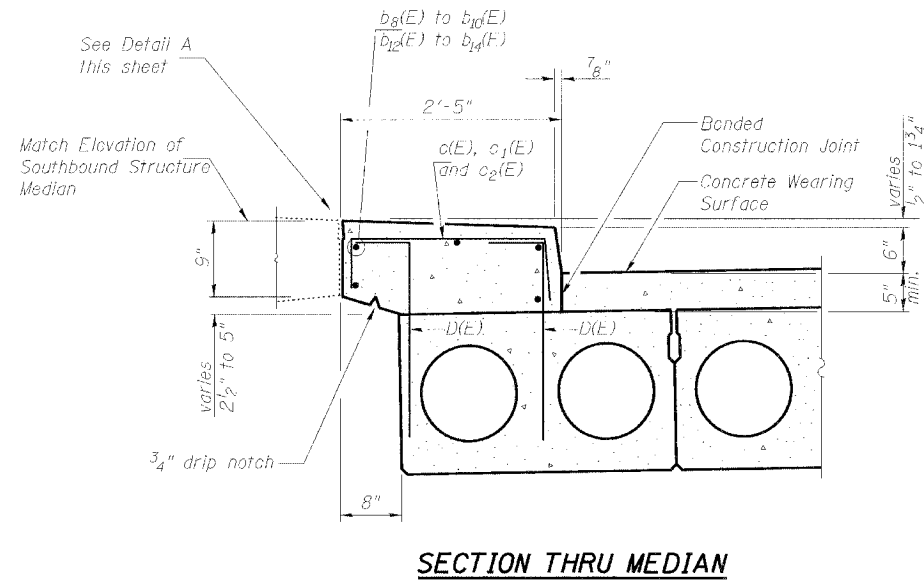
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Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.	SHEET NO. 20 28 SHEETS
F.A.P. 368	1919 VB-R-1	Cook	47	29	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 60C11

Notes:
See Sheets 9 to 16 of 28 for D(E), D₁(F) and D₂(E) bars.
Spans 1, 4, 5, 6 & 7 with 21" x 36" beams shown.
Spans 2 & 3 with 27" x 36" beams similar.



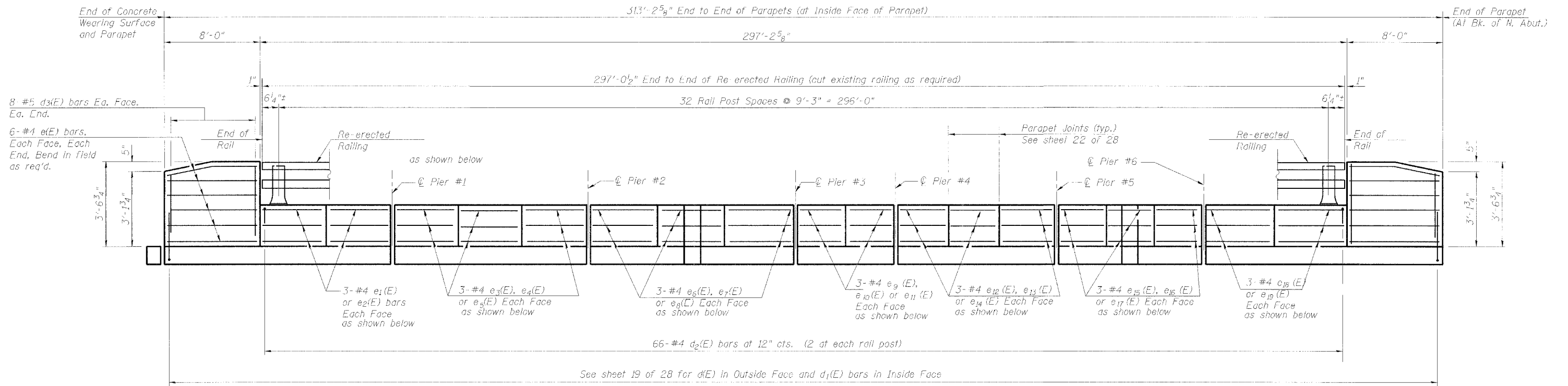
DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

SIDEWALK & MEDIAN SECTIONS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

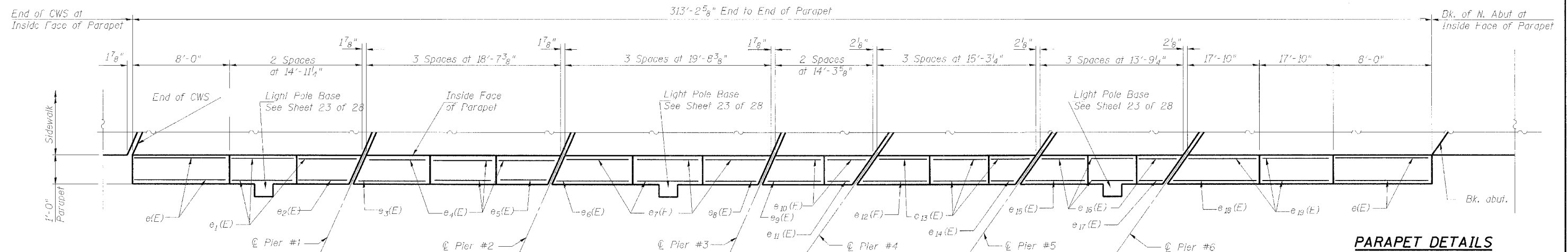
STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
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FAX(309)676-5445
Ill. Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	COOK	47	30
ILLINOIS		FED. AID PROJECT #6A		
Contract # 60C11				



OUTSIDE ELEVATION OF PARAPET
Looking West



PLAN OF PARAPET

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

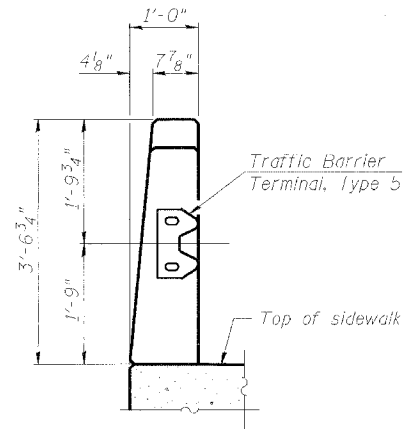
PARAPET DETAILS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS CONSULTANTS
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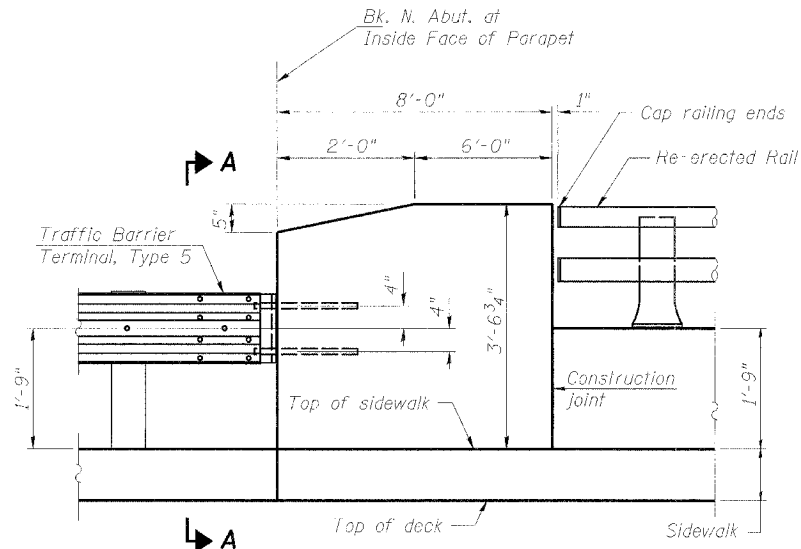
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	CONTRACT	TOTAL SHEETS	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

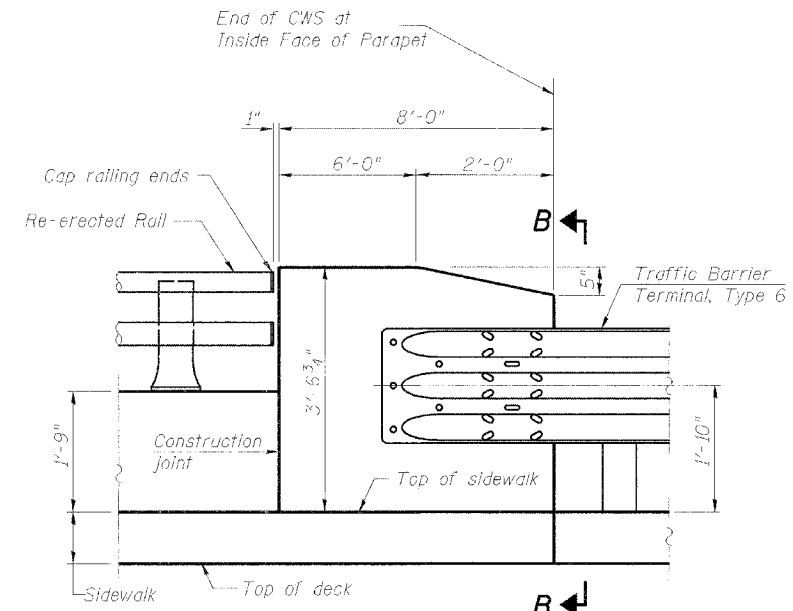
Contract # 60C11



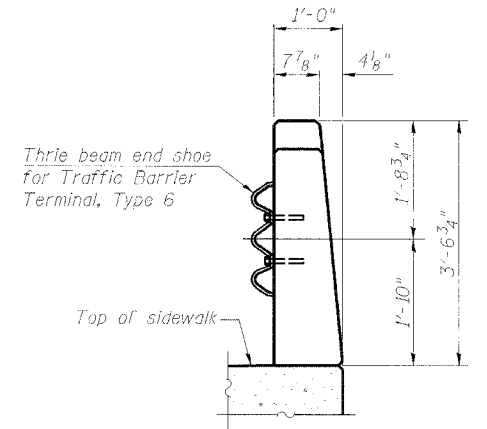
SECTION A-A



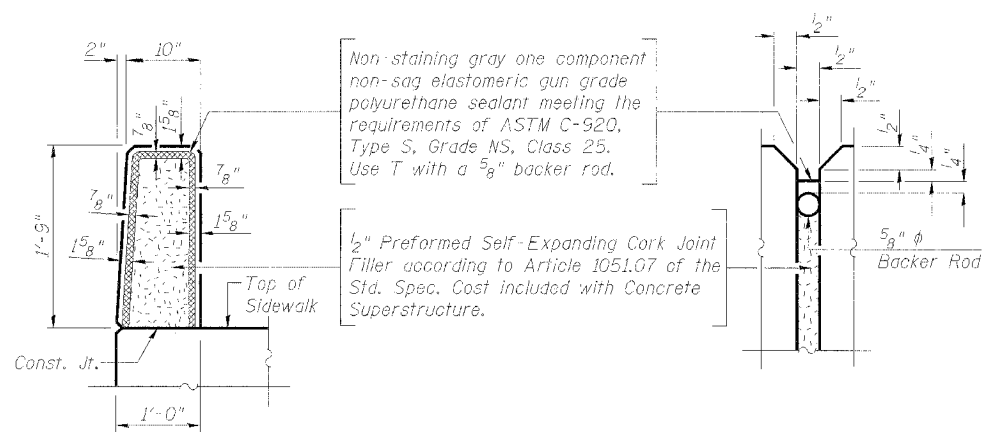
INSIDE ELEVATION OF PARAPET AT NE CORNER
(Looking East)



INSIDE ELEVATION OF PARAPET AT SE CORNER
(Looking East)



SECTION B-B



PARAPET JOINT DETAILS

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

PARAPET DETAILS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE -
BILL OF MATERIAL**

Includes Sheets 18 to 23 of 28

Bar	No.	Size	Length	Shape
a(E)	156	#4	17'-5"	U
a1(E)	170	#4	19'-5"	U
a2(E)	156	#4	13'-7"	U
a3(E)	166	#4	15'-2"	U
a4(E)	320	#4	6'-8"	U
a5(E)	9	#4	7'-4"	U
a6(E)	7	#4	8'-3"	U
b(E)	58	#4	19'-5"	U
b1(E)	58	#4	28'-5"	U
b2(E)	58	#4	30'-1"	U
b3(E)	58	#4	23'-5"	U
b4(E)	58	#4	21'-2"	U
b5(E)	58	#4	21'-3"	U
b6(E)	32	#4	19'-3"	U
b7(E)	26	#4	17'-2"	U
b8(E)	28	#4	19'-5"	U
b9(E)	28	#4	28'-5"	U
b10(E)	28	#4	30'-1"	U
b11(E)	18	#4	15'-7"	U
b12(E)	28	#4	23'-5"	U
b13(E)	56	#4	22'-4"	U
b14(E)	10	#4	19'-7"	U

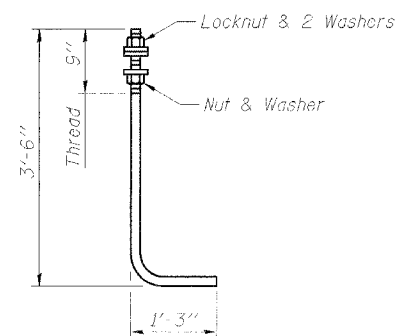
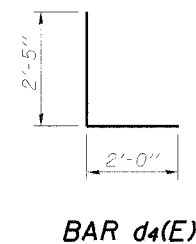
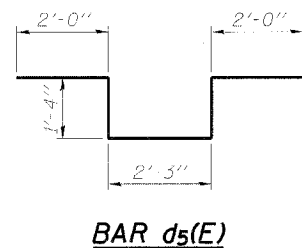
SUPERSTRUCTURE - BILL OF MATERIAL CONTINUED

c(E)	322	#4	3'-3"	U
c1(E)	9	#4	3'-6"	U
c2(E)	7	#4	3'-9"	U
d(F)	318	#4	3'-5"	U
d1(E)	314	#6	3'-5"	U
d2(E)	66	#4	2'-0"	U
d3(E)	32	#5	2'-11"	U
d4(E)	6	#6	4'-5"	U
d5(E)	21	#6	8'-11"	U
e(E)	24	#4	7'-8"	U
e1(F)	9	#4	14'-7"	U
e2(E)	3	#4	14'-3"	U
e3(E)	3	#4	18'-7"	U
e4(E)	12	#4	18'-3"	U
e5(E)	3	#4	17'-11"	U
e6(E)	3	#4	19'-8"	U
e7(E)	12	#4	19'-4"	U
e8(E)	3	#4	19'-0"	U
e9(F)	3	#4	14'-4"	U
e10(F)	6	#4	14'-0"	U
e11(E)	3	#4	13'-6"	U
e12(F)	3	#4	15'-5"	U
e13(E)	12	#4	14'-11"	U
e14(E)	3	#4	14'-3"	U
e15(E)	3	#4	13'-11"	U
e16(E)	12	#4	13'-5"	U
e17(E)	3	#4	12'-11"	U
e18(E)	3	#4	18'-0"	U
e19(L)	9	#4	17'-6"	U
h(E)	6	#5	20'-3"	U
h1(E)	6	#5	19'-3"	U
Reinforcement Bars, Epoxy Coated	Pound		23,070	
Concrete Superstructure	Cu. Yds.		160.1	
Concrete Wearing Surface, 5"	Sq. Yd.		981	
Preformed Joint Seal, 1 3/4"	Foot		324	
Conduit Embedded in Structure, 2" Dia. PVC	Foot		332	

Bars indicated thus 1 x 2 - #5 etc. indicates 1 line of bars with 2 lengths per line.

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

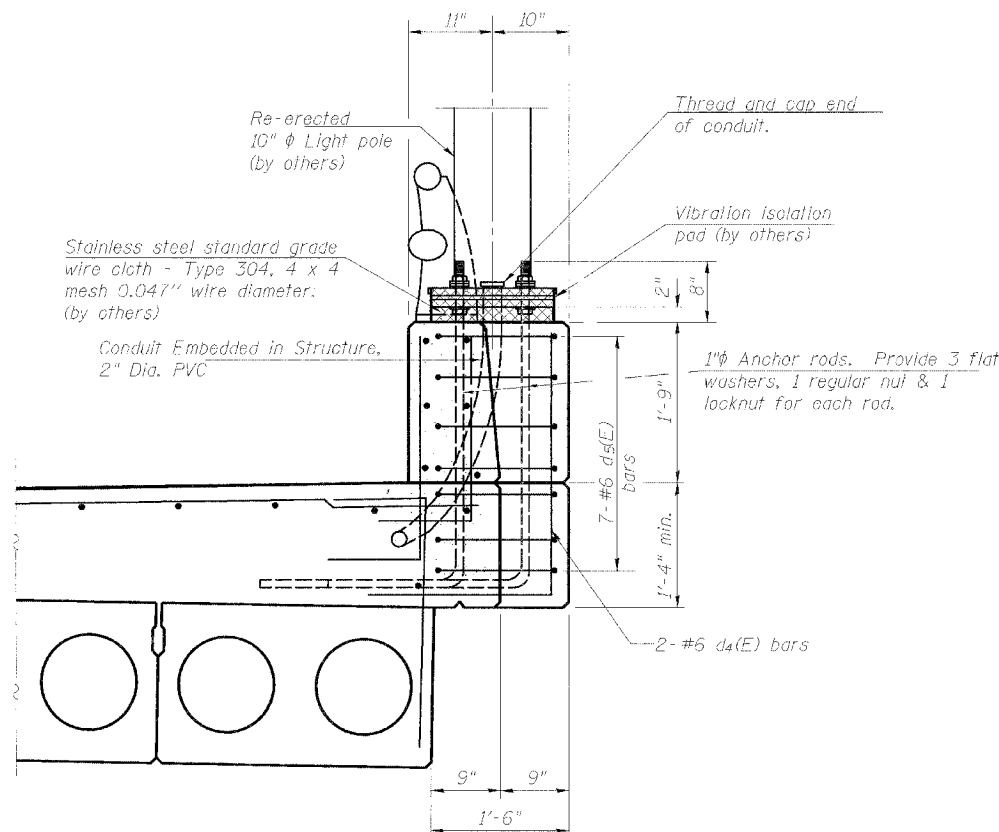
See Sheet 1 of 28 for locations of Light Pole Bases. Three required.



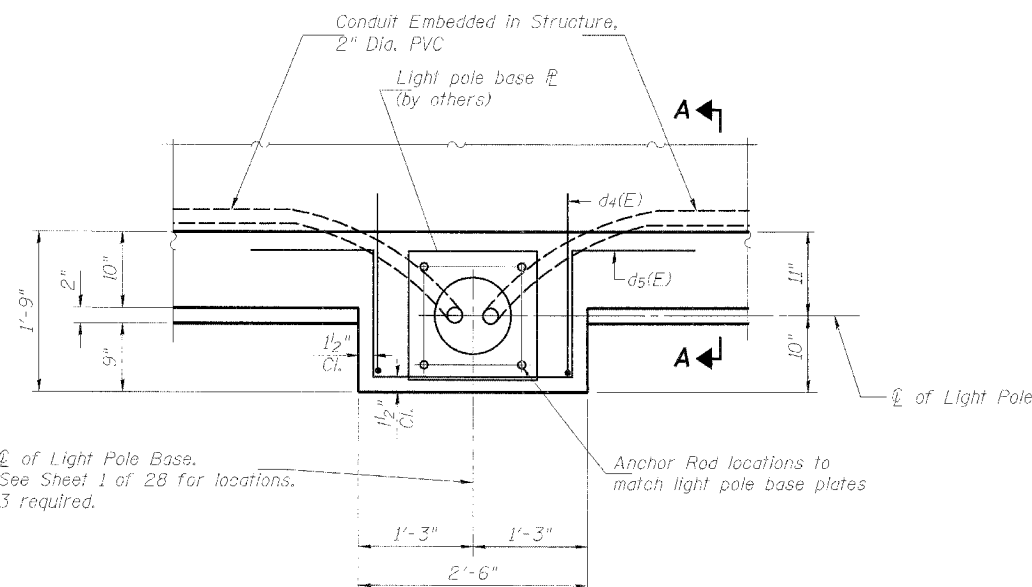
(ASTM F 1554 Grade 105)

Included in cost of Concrete Superstructure

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB



SECTION A-A



PLAN

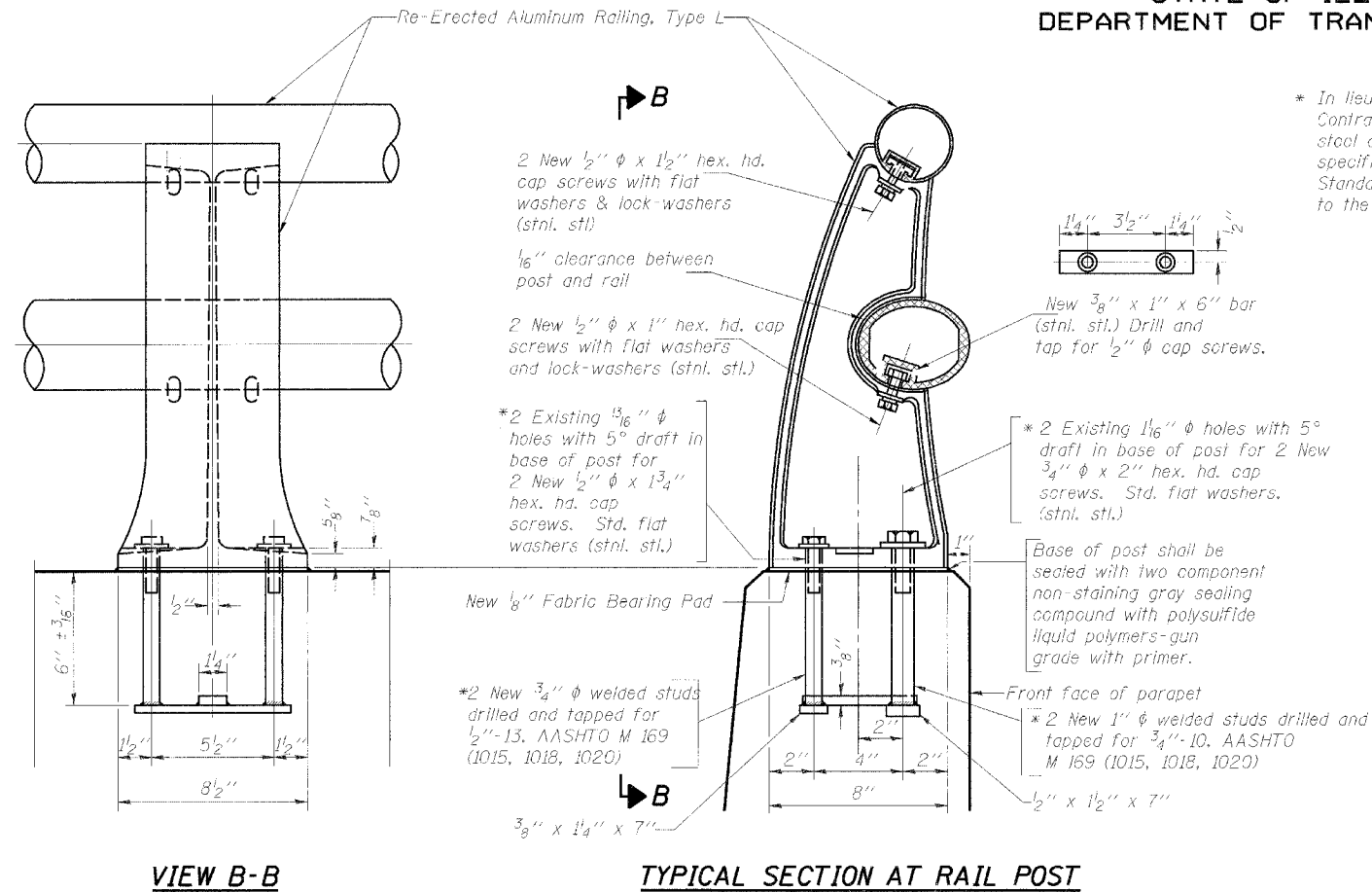
LIGHT POLE BASES
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

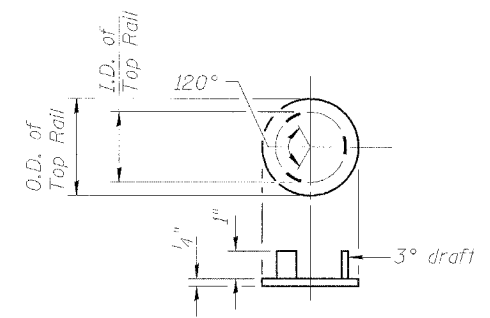
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. F.A.P. 368	SECTION 1919 VB-R-1	COUNTY Cook	JOINT SHEETS 47	SHEET NO. 33	SHEET NO. 24 28 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

Contract # 60C11

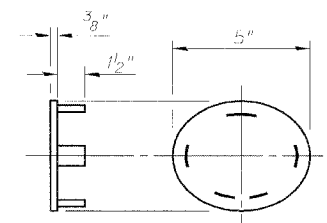


* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



NEW CAST END CAP

Included in cost of Removing and Re-erecting Existing Railing For Top Rail (2 Required)



NEW CAST END CAP

Included in cost of Removing and Re-erecting Existing Railing For Bottom Rail DRIVE FIT TYPE (2 Required)

BILL OF MATERIAL

Item	Unit	Quantity
Removing and Re-erecting Existing Railing.	Foot	297

RAILING

**F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020**

Notes:

All Posts shall be normal to parapet.

Provide 1-1/8" and 2-1/8" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade high spots will be ground and low spots shimmed.

See sheet 21 of 28 for rail post spacing.

See Special Provision for Removing and Re-erecting Existing Railing.

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

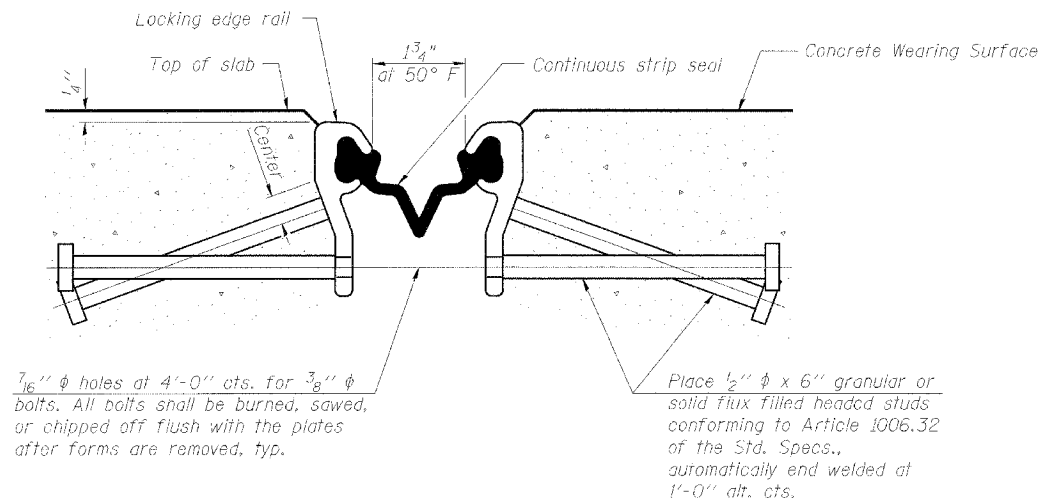
(7'-0" to 10'-0" Post spacing)

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FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 368	1919 VB-R-1	Cook	47	34
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

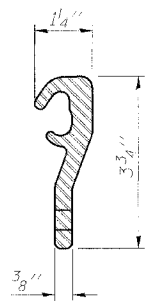
Contract # 60C11



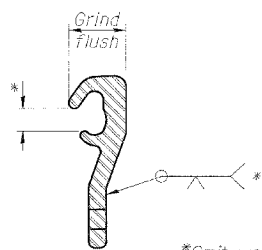
7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place 1/2" φ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS



LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

*Omit weld at seal opening.

Notes for Strip Seal:

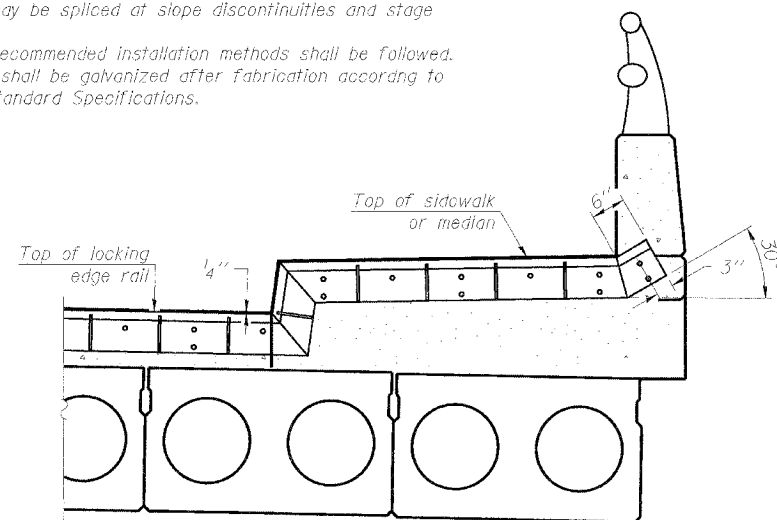
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

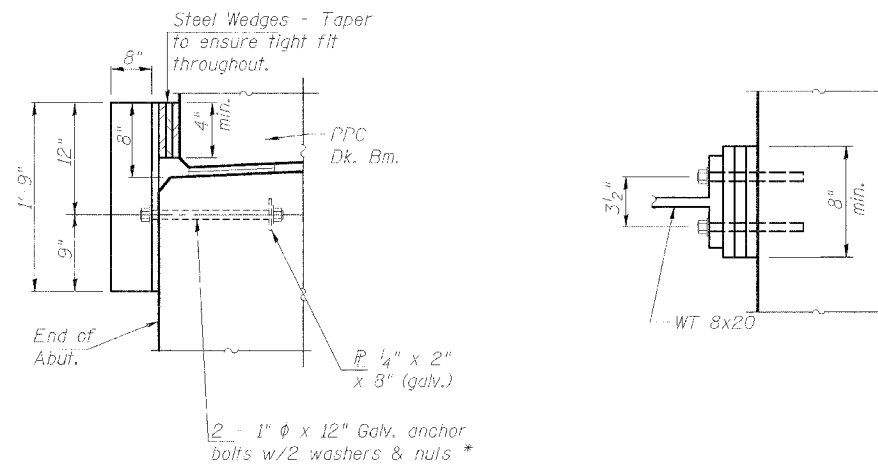
The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

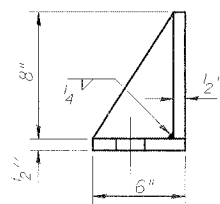


TYPICAL END TREATMENTS AT SIDEWALK OR MEDIAN

STRIP SEAL AT EXPANSION JOINTS

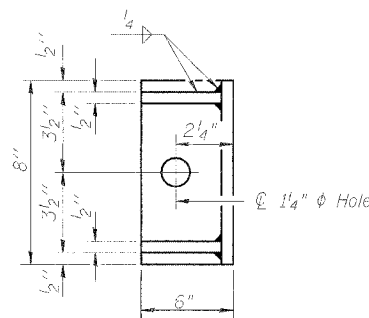


ALTERNATE RETAINER

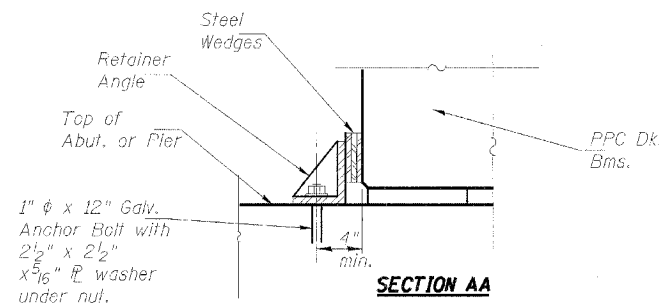


RETAINER ANGLE

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

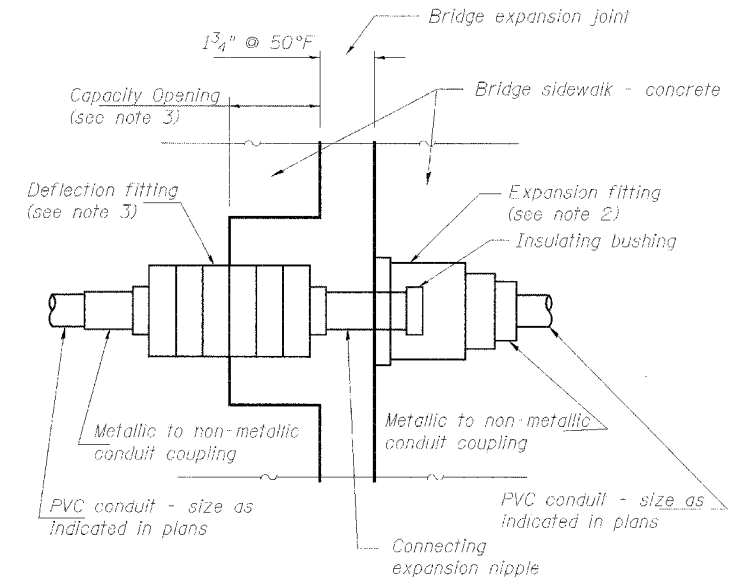


SECTION AA



PLAN

PERMANENT AND TEMPORARY RETAINER ANGLES



Notes for Conduit Expansion Coupling:

1. The contractor shall install a conduit expansion/deflection coupling at the joints in the concrete sidewalk on the bridge capable of accepting the longitudinal movement. The coupling shall be made of stainless steel and subject to approval by the Engineer. The cost of the coupling shall be a part of and incidental to the conduit system.
2. The barrel in the expansion fitting shall be fully embedded in the concrete on one side of the expansion joint.
3. One half of the length of the deflection fitting shall be embedded in the concrete on the other side of the expansion joint. A cavity opening 3" larger than the diameter of the deflection sleeve length shall be provided to ensure proper performance of the coupling.
4. Careful attention to joint movement over a range of temperatures shall be coordinated with the selection and installation of the coupling to ensure the range of movement of the coupling is not exceeded at temperature extremes.
5. All manufacturer's installation instructions shall be carefully followed to ensure optimum performance of the expansion/deflection coupling.
6. The contractor shall install couplings at all expansion joints.

CONDUIT EXPANSION COUPLING

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	307

**EXPANSION JOINT DETAILS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020**

STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
PH: (309) 676-5464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

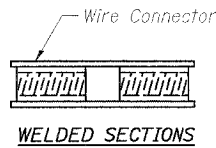
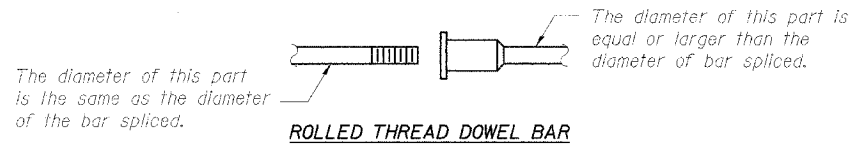
DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET TOTAL
F.A.P. 368	1919 VB-R-1	Cook	47	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

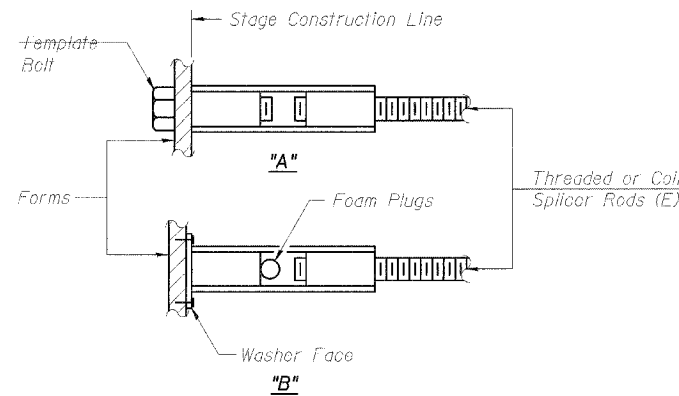
Contract # 60C11

SHEET NO. 26
28 SHEETS



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

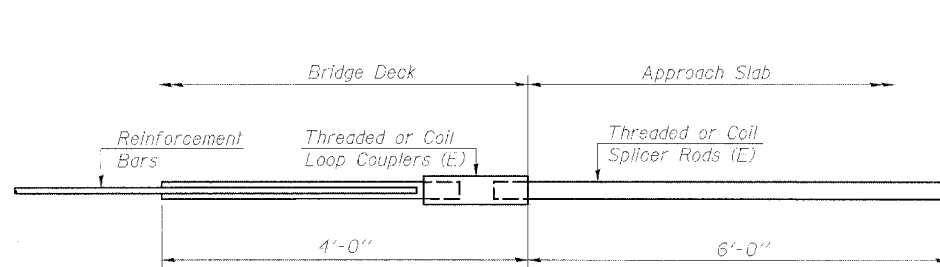
"A": Set bar splicer assembly by means of a template bolt.
"B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E): Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

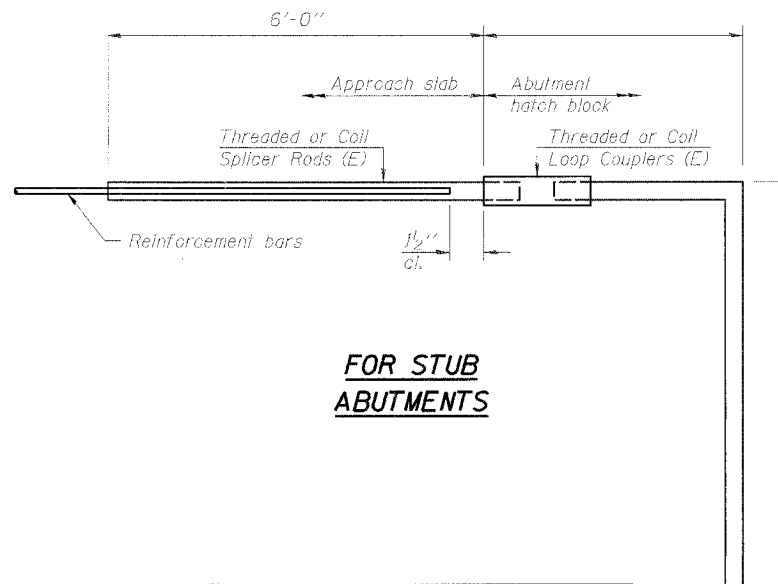
- Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



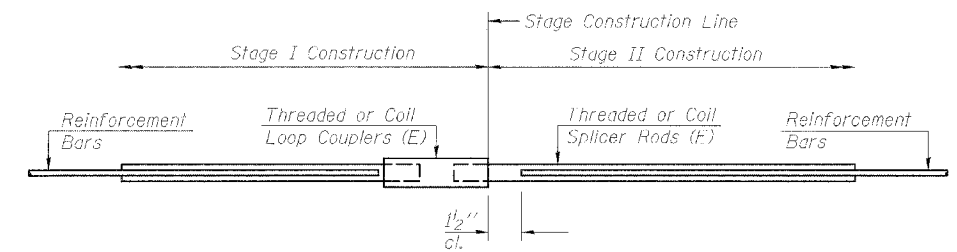
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 0



STANDARD

Bar Size	No. Assemblies Required	Location
#4	322	Wearing Surface
#5	6	S. Abut.

BAR SPLICER ASSEMBLY DETAILS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB

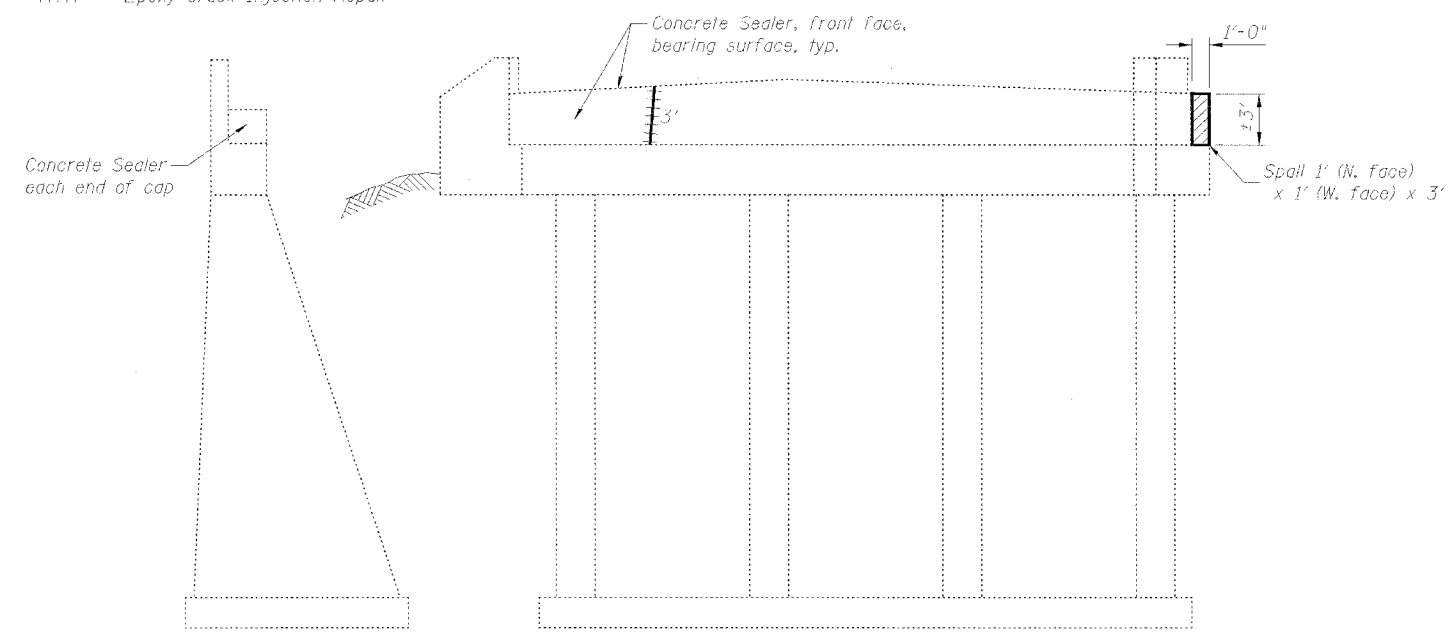
STS Consultants
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

Contract # 60C11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

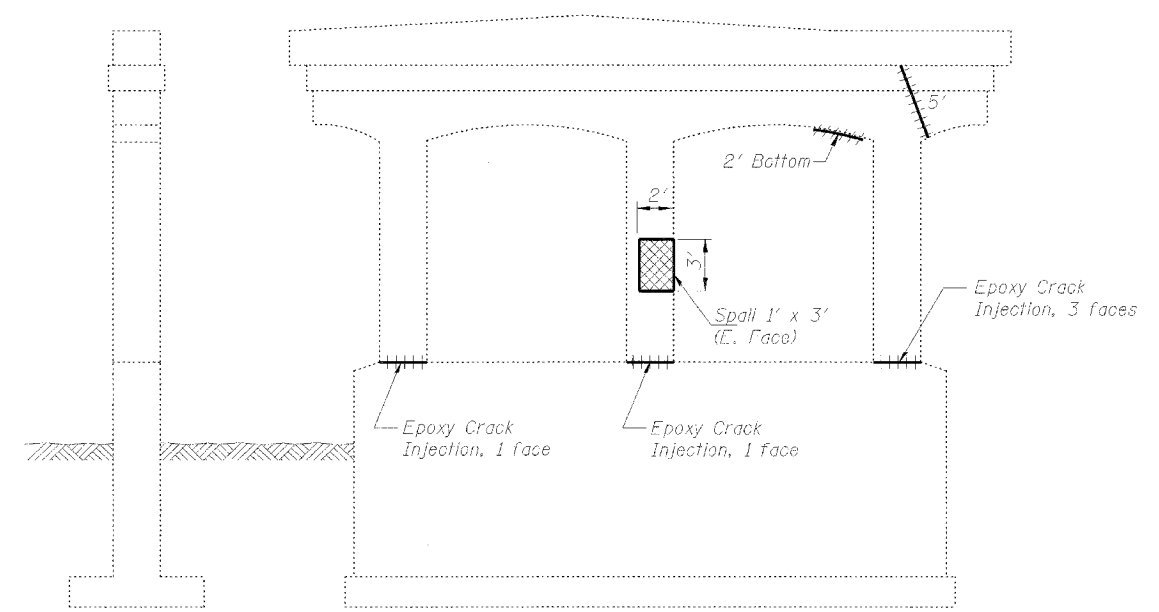
LEGEND

- Structural Repair of Concrete (Depth Equal to or Less than 5")
- Structural Repair of Concrete (Depth Greater than 5")
- Epoxy Crack Injection Repair



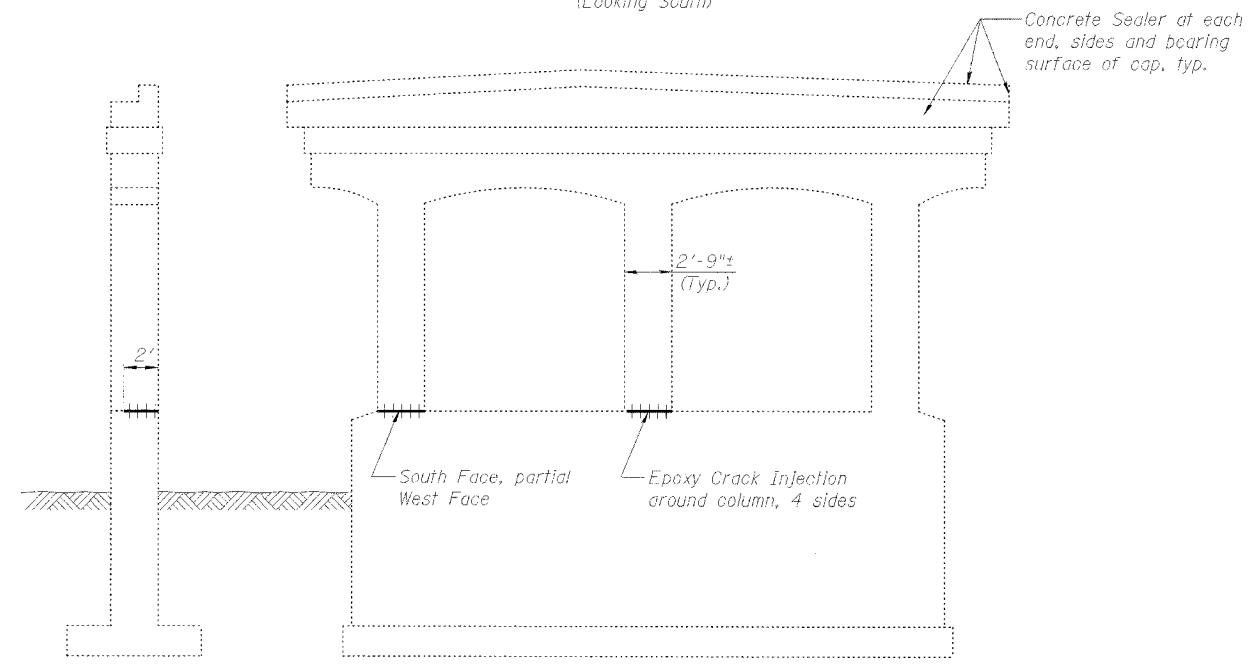
EAST ELEVATION

SOUTH ABUTMENT
(Looking South)



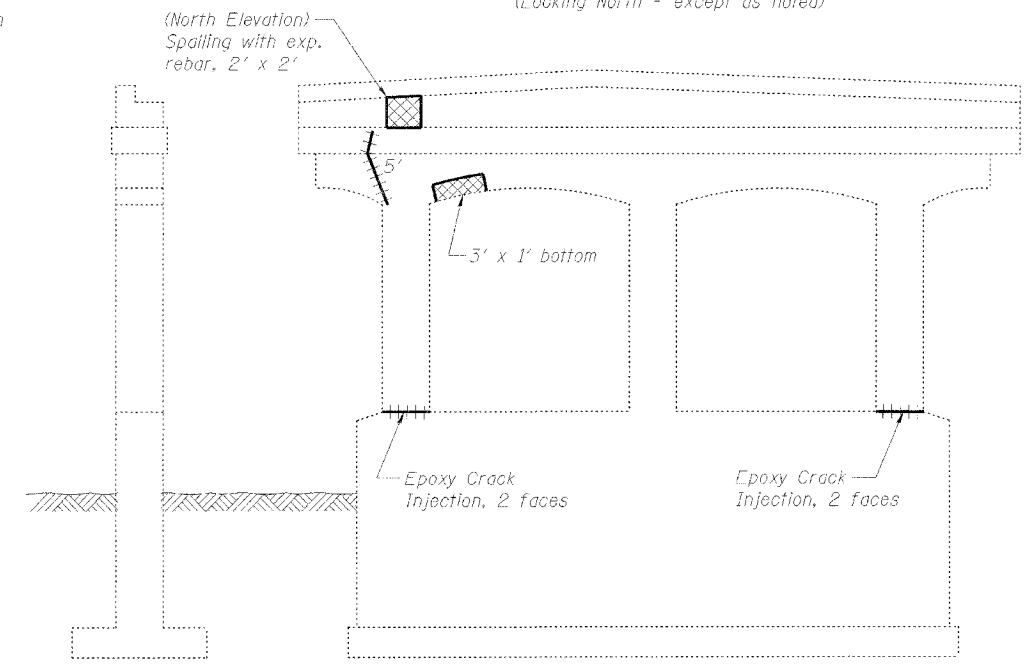
WEST ELEVATION

PIER 2
(Looking North - except as noted)



WEST ELEVATION

PIER 1
(Looking North)



WEST ELEVATION

PIER 3
(Looking South)

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGH
CHECKED	DDB

Note:
Do not apply Concrete Sealer until all other concrete repairs have been completed.

BILL OF MATERIAL - THIS SHEET

Item	Unit	Quantity
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	16
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	6
Epoxy Crack Injection	Foot	56
Concrete Sealer	Sq. Ft.	1,110

SUBSTRUCTURE REPAIRS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

STS Consultants
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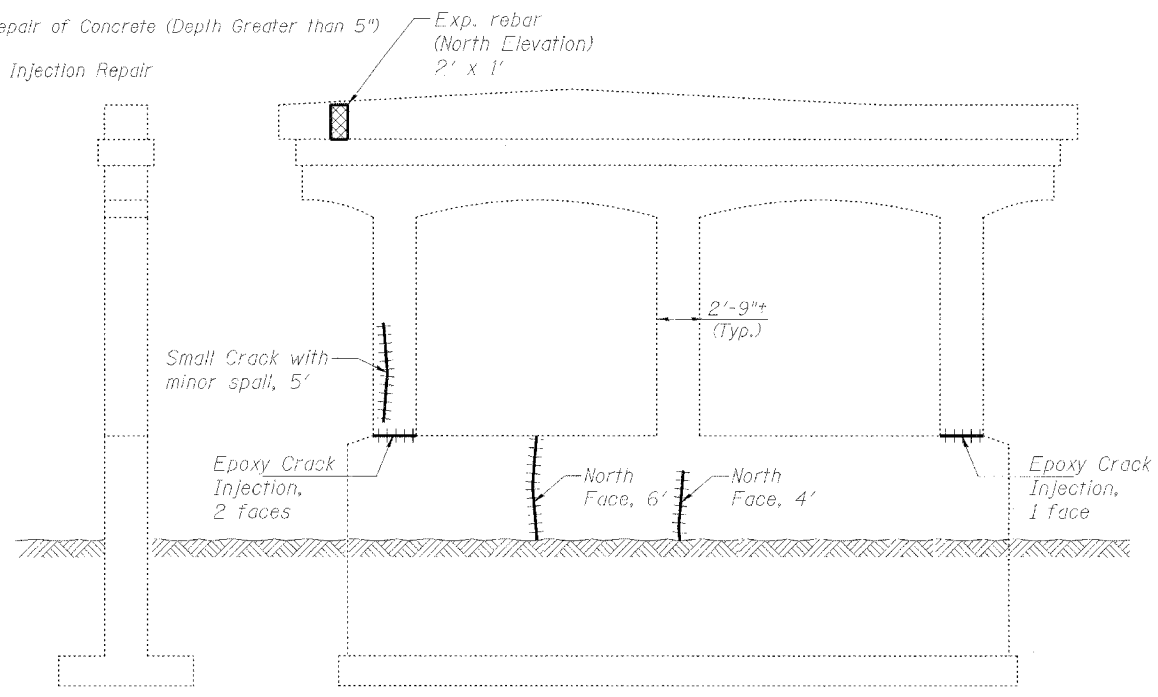
LEGEND

-  Structural Repair of Concrete (Depth Equal to or Less than 5")
-  Structural Repair of Concrete (Depth Greater than 5")
-  Epoxy Crack Injection Repair

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

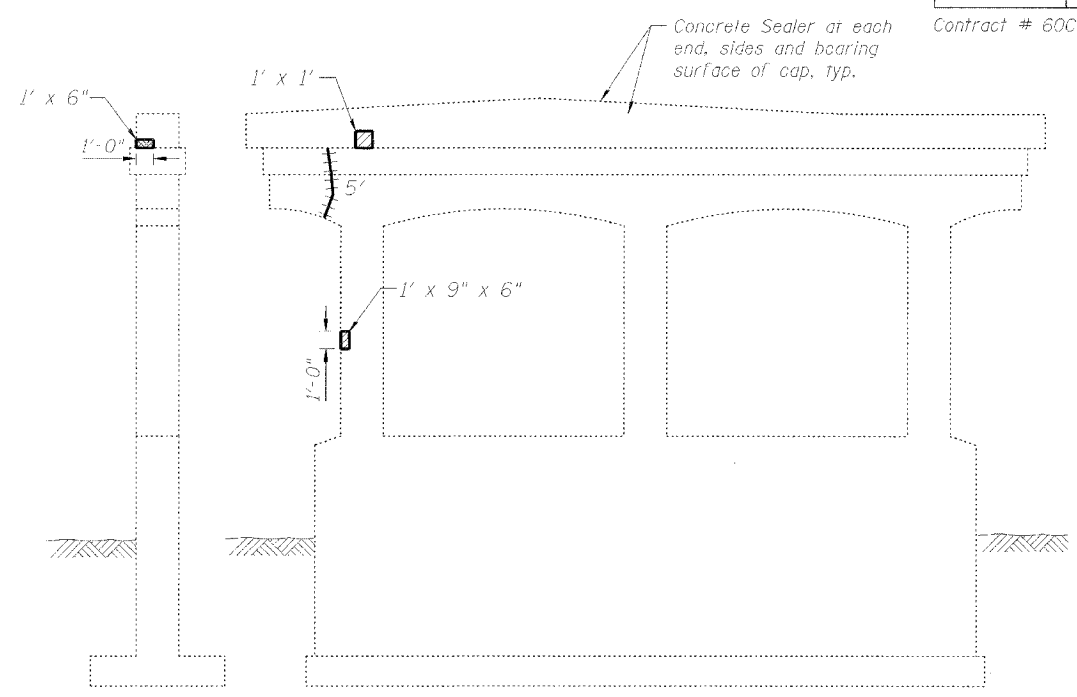
ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO. 28 28 SHEETS
F.A.P. 368	1919 VB-R-1	Cook	47	37	
FED. ROAD EST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 60C11



PIER 4

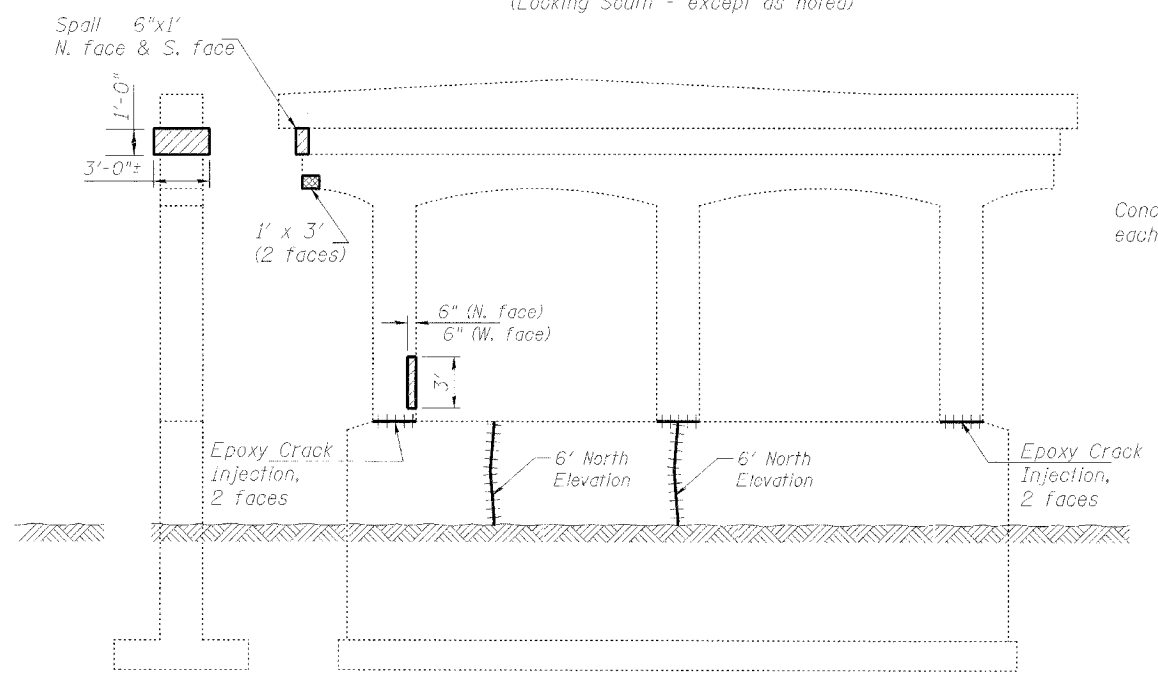
(Looking South - except as noted)



EAST ELEVATION

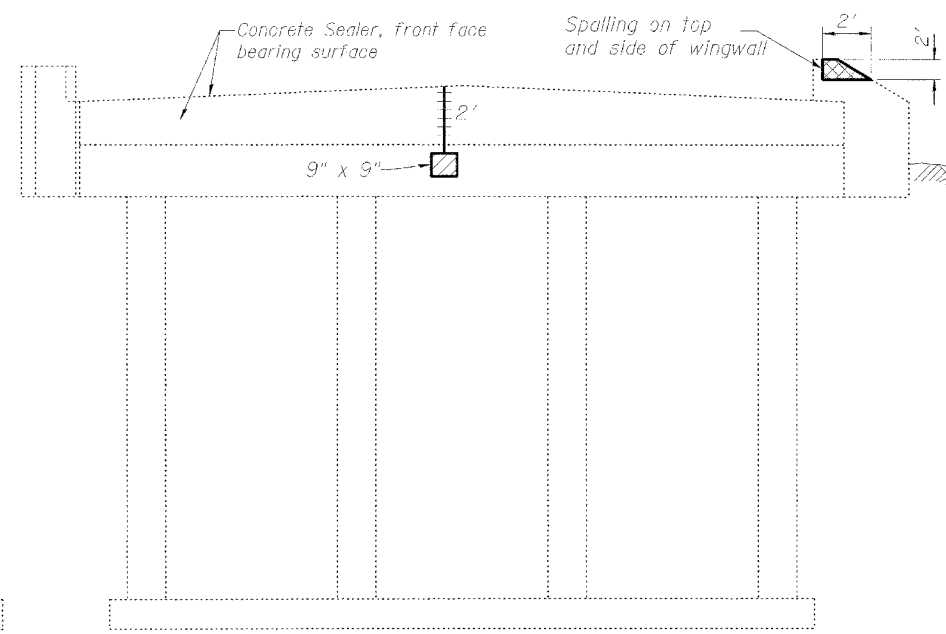
PIER 6

(Looking South)



PIER 5

(Looking South - except as noted)



NORTH ABUTMENT


(Looking North)

BILL OF MATERIAL - THIS SHEET

Item	Unit	Quantity
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	17
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	10
Epoxy Crack Injection	Foot	53
Concrete Sealer	Sq. Ft.	1,320

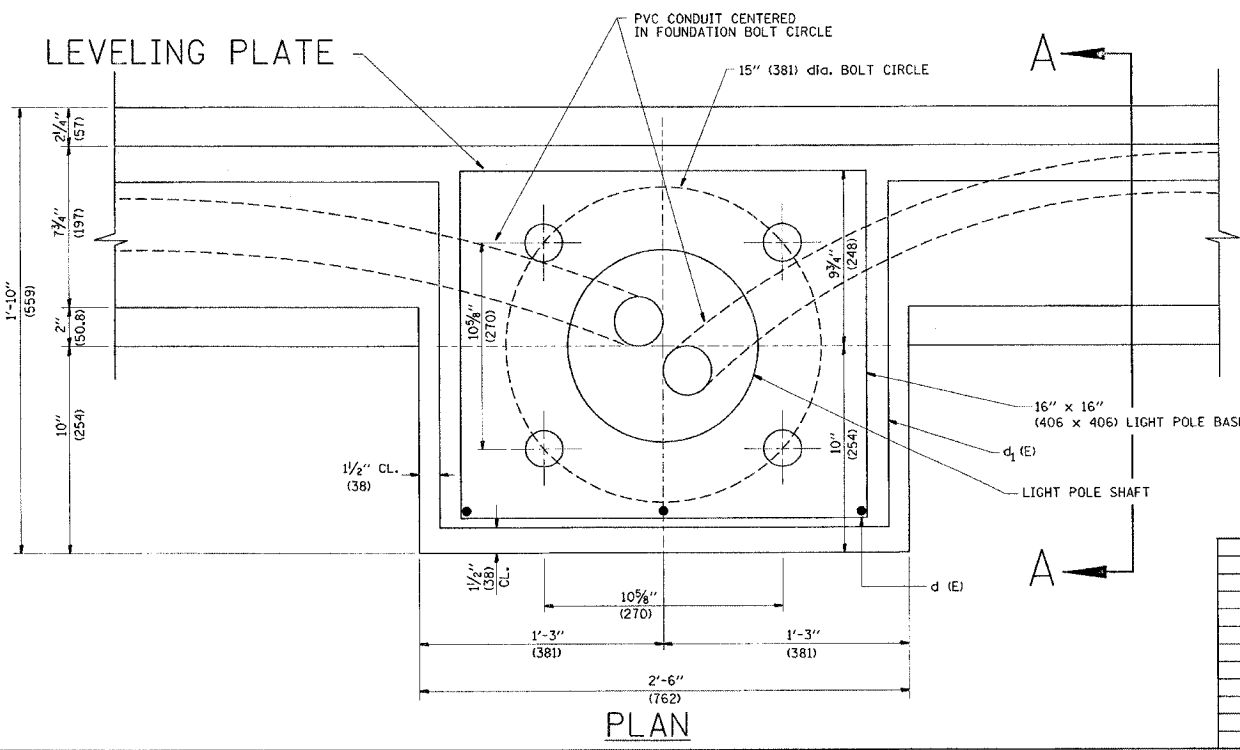
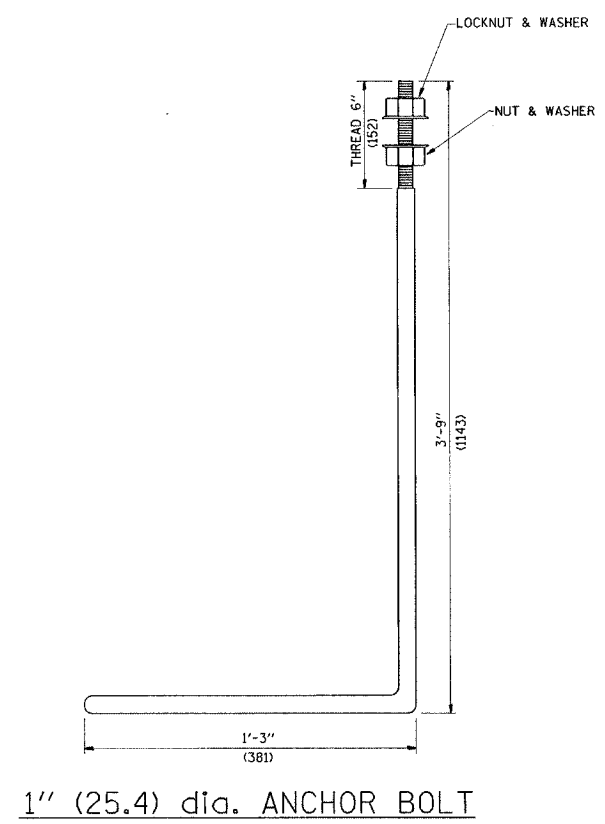
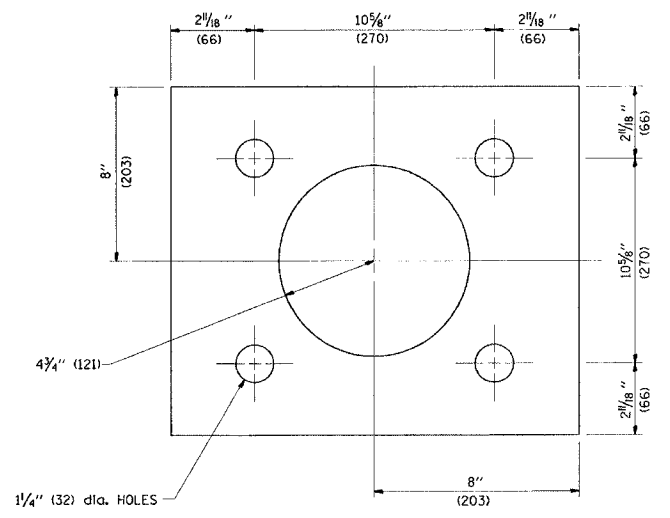
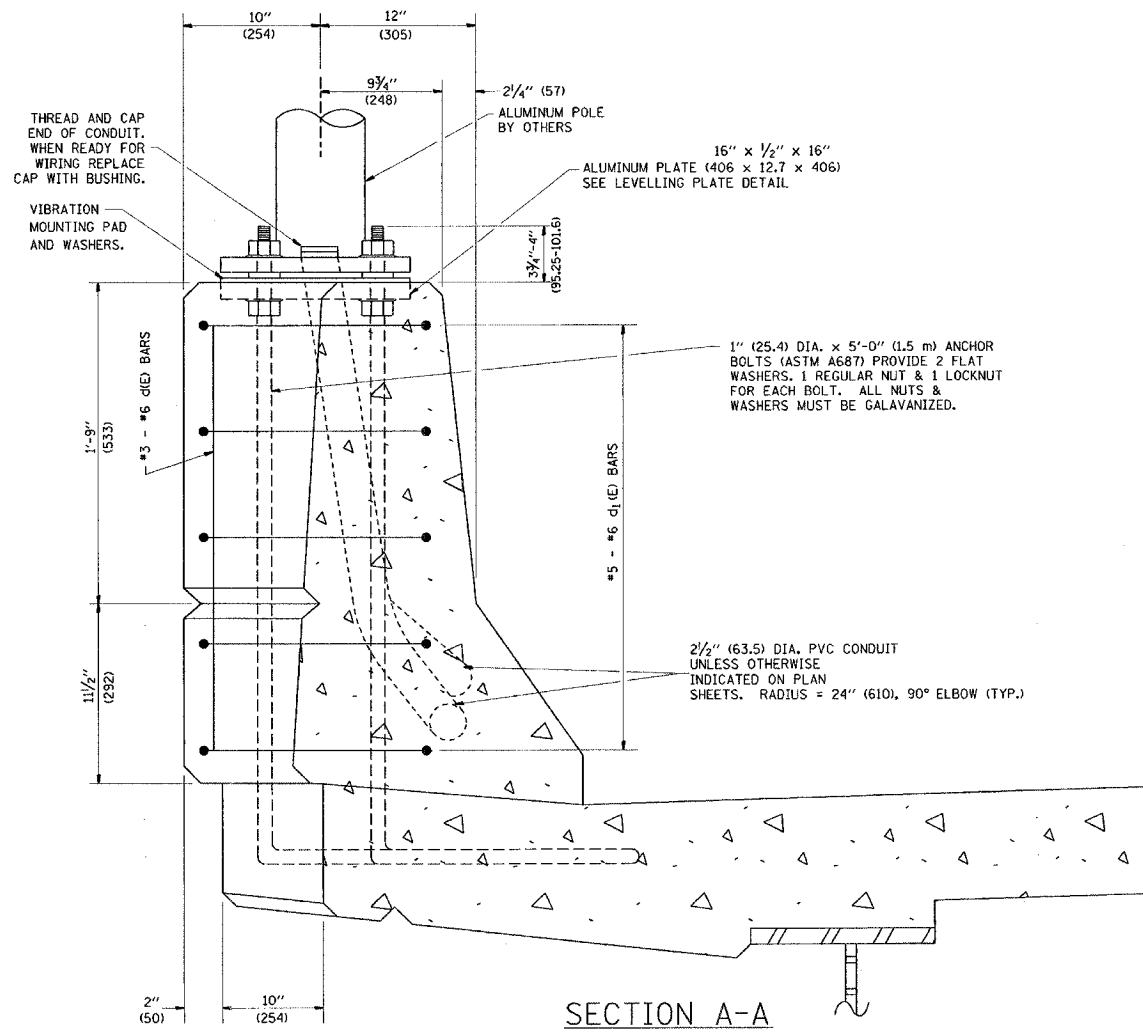
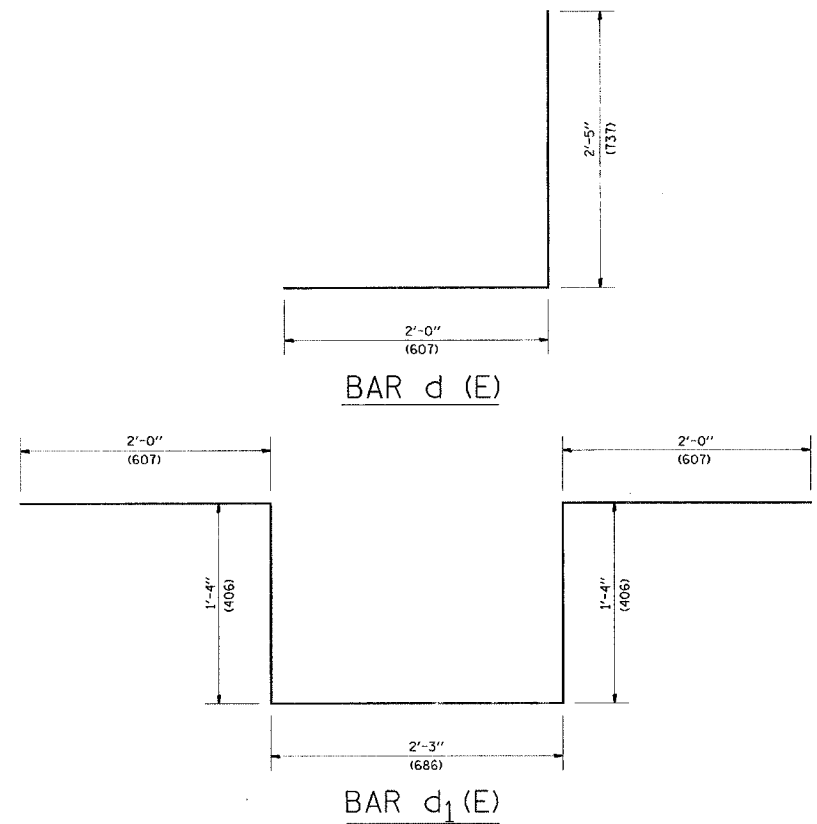
SUBSTRUCTURE REPAIRS
F.A.P. 368 (PULASKI ROAD)
OVER BRC RAILROAD,
SECTION 1919 VB-R-1,
COOK COUNTY, STA. 17+81.60
STRUCTURE NO. 016-1020

DESIGNED	DDB
CHECKED	LLV
DRAWN	MGM
CHECKED	DDB



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FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	38
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60C11				



- 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.

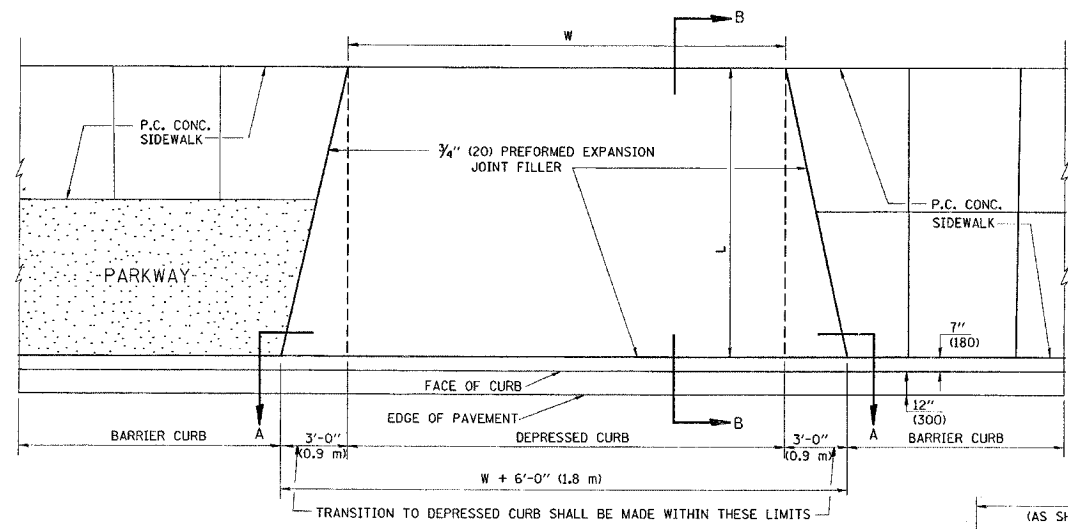
REVISIONS	
NAME	DATE
	04/22/02

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL
15" (381 mm) BOLT CIRCLE
 SCALE: NONE
 DRAWN BY: BE-330
 CHECKED BY:
 BE-330

PLOT DATE = 8/28/2007
 FILE NAME = \\nashville\p2\user\p2\user\p2\checktop\be330.dgn
 PLOT SCALE = 50.0000 / 1"
 USER NAME = gator

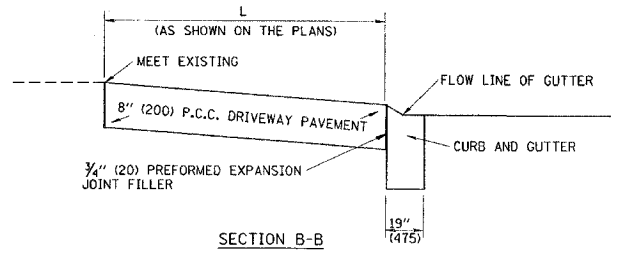
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	39
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 60C11

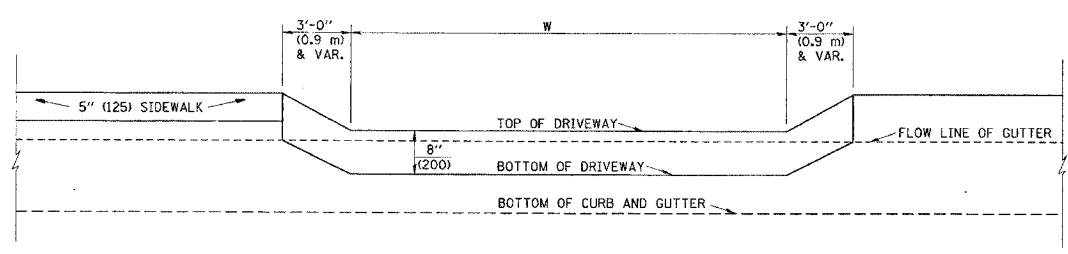


PLAN VIEW

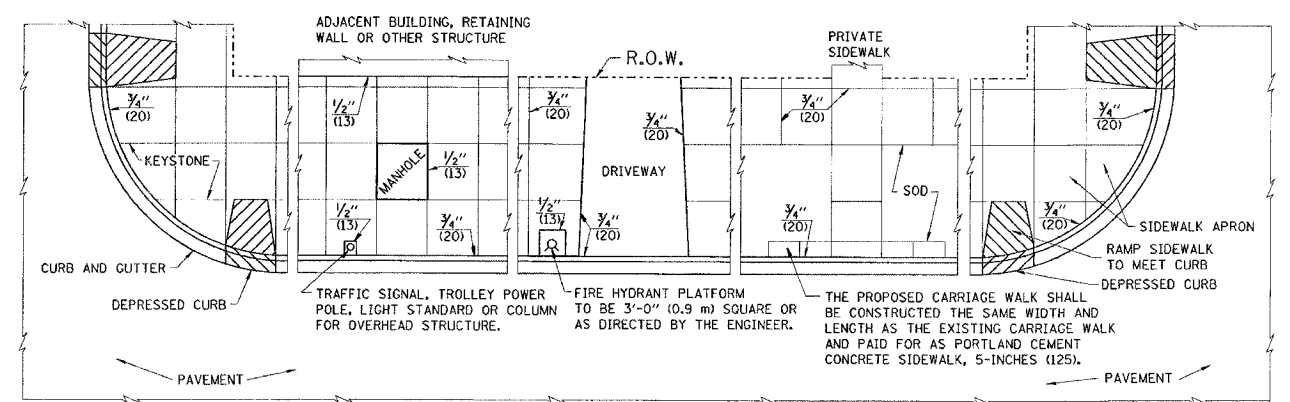
- NOTES:
1. EXPANSION JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE DETAILS FOR P.C.C. SIDEWALK.
 2. THE CURB BETWEEN ADJACENT DRIVEWAYS SHALL BE FULL HEIGHT FOR A DISTANCE OF AT LEAST FOUR FEET (1.2 METERS)
 3. P.C. CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
 4. 3/4" (20) PREFORMED EXPANSION JOINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO P.C.C. DRIVEWAY PAVEMENT 8" (200).
 5. COMBINATION CONC. CURB AND GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE TRANSITION CURB AND GUTTER.



SECTION B-B

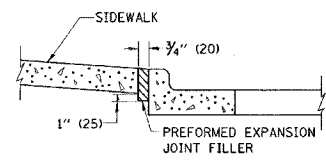


P.C.C. DRIVEWAY PAVEMENT DETAIL



NOTES:

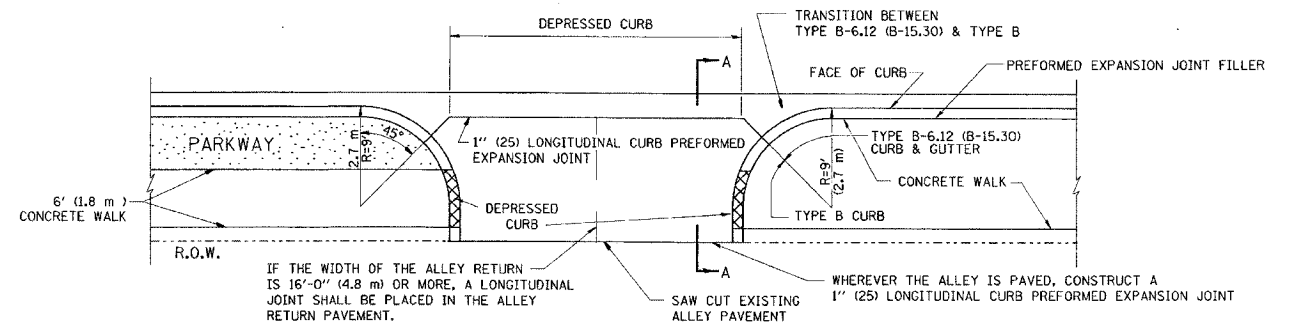
1. ONE-HALF INCH THICK EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK AND ALL STRUCTURES SUCH AS LIGHT STANDARDS, TRAFFIC LIGHT STANDARDS, MANHOLES, WHICH EXTEND THROUGH THE SIDEWALK.
2. 3/4" (20) THICK EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 100 FEET (30 METERS) IN THE SIDEWALK. WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS, THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED OPPOSITE THE EXISTING EXPANSION JOINTS AS NEARLY AS PRACTICABLE. EXPANSION JOINTS SHALL ALSO BE PLACED WHERE THE SIDEWALK ABUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK AND CURBS WHERE THE SIDEWALK ABUTS A CURB.



SLOPE FOR SIDEWALK
1" (25) IN 3'-0" (0.9 m) IN CHICAGO

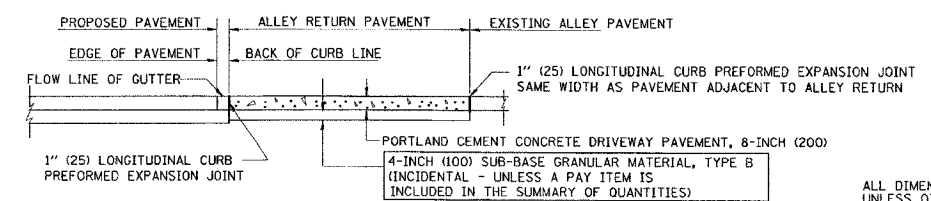
PORTLAND CEMENT CONCRETE SIDEWALK DETAILS

NOTES: NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE GUTTER FLARE



IF THE WIDTH OF THE ALLEY RETURN IS 16'-0" (4.8 m) OR MORE, A LONGITUDINAL JOINT SHALL BE PLACED IN THE ALLEY RETURN PAVEMENT.

WHEREVER THE ALLEY IS PAVED, CONSTRUCT A 1" (25) LONGITUDINAL CURB PREFORMED EXPANSION JOINT



SECTION A-A

ALLEY RETURN DETAIL

REVISIONS	
NAME	DATE
M. DE YONG	06/13/90

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

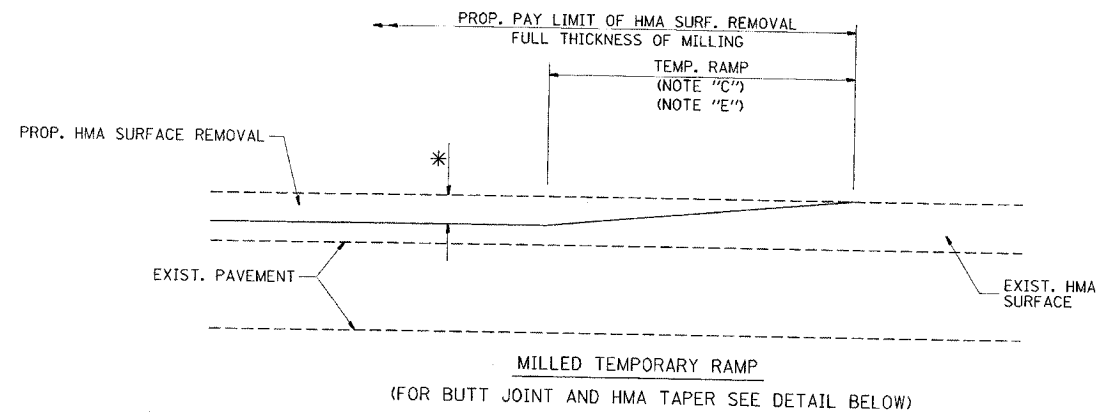
ILLINOIS DEPARTMENT OF TRANSPORTATION
CITY OF CHICAGO
DETAILS FOR P.C. CONCRETE DRIVEWAY, ALLEY RETURN AND SIDEWALK

SCALE: VERT. NONE
HORIZ.

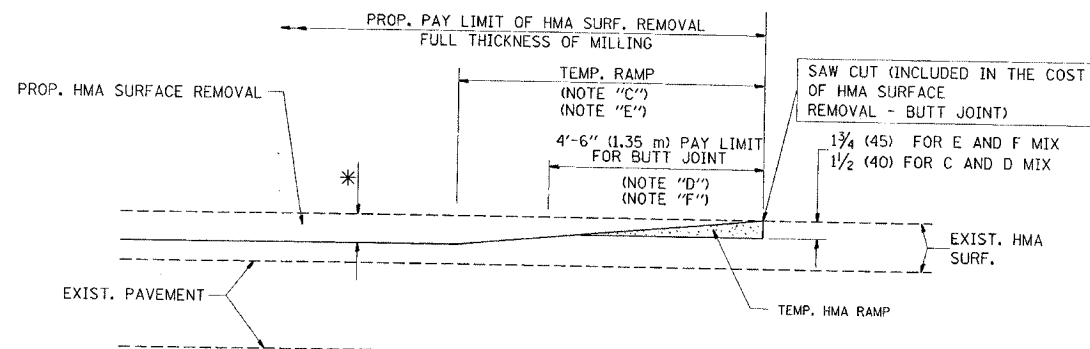
DRAWN BY
CHECKED BY

PLOT DATE = 8/28/2007
FILE NAME = \\nas11nfrs2\users\ygelbawb\chektop\bd17.dgn
USER NAME = ygelbawb

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	40
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 60C11				

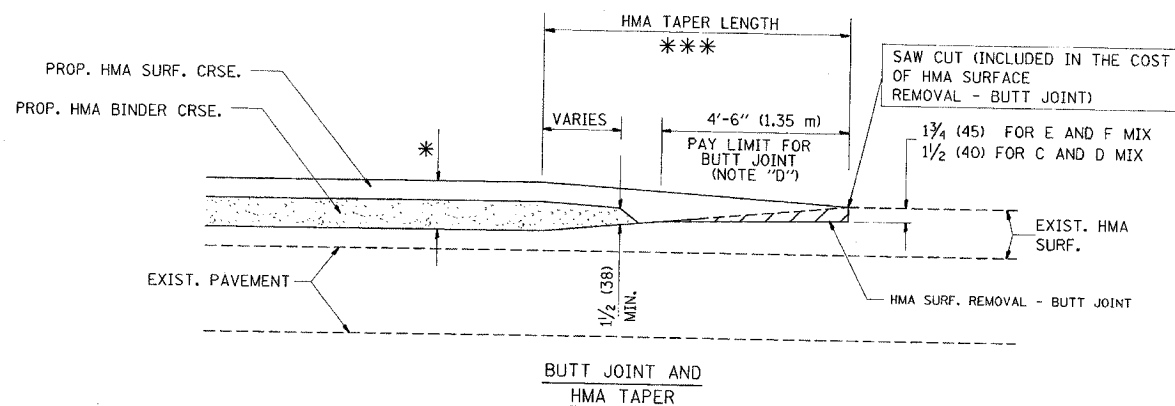


OPTION 1

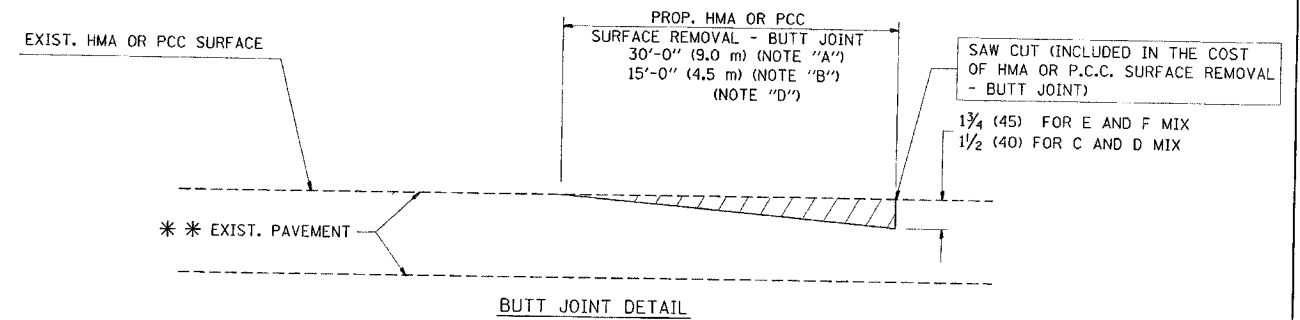


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

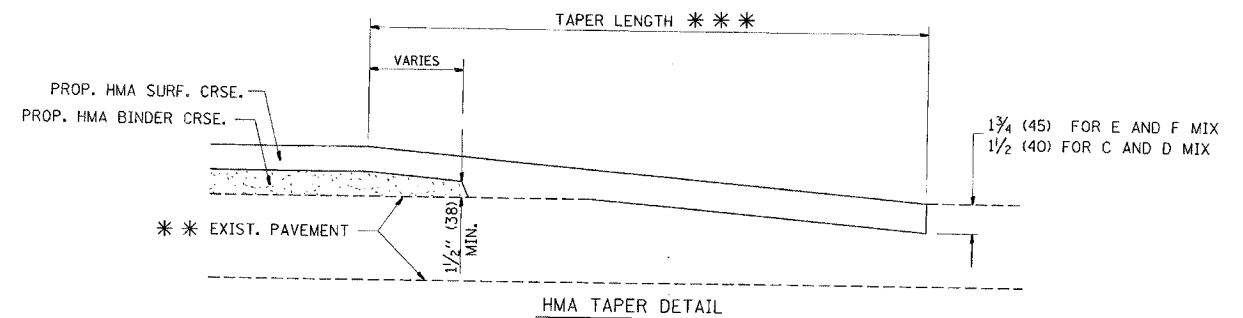
OPTION 2
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

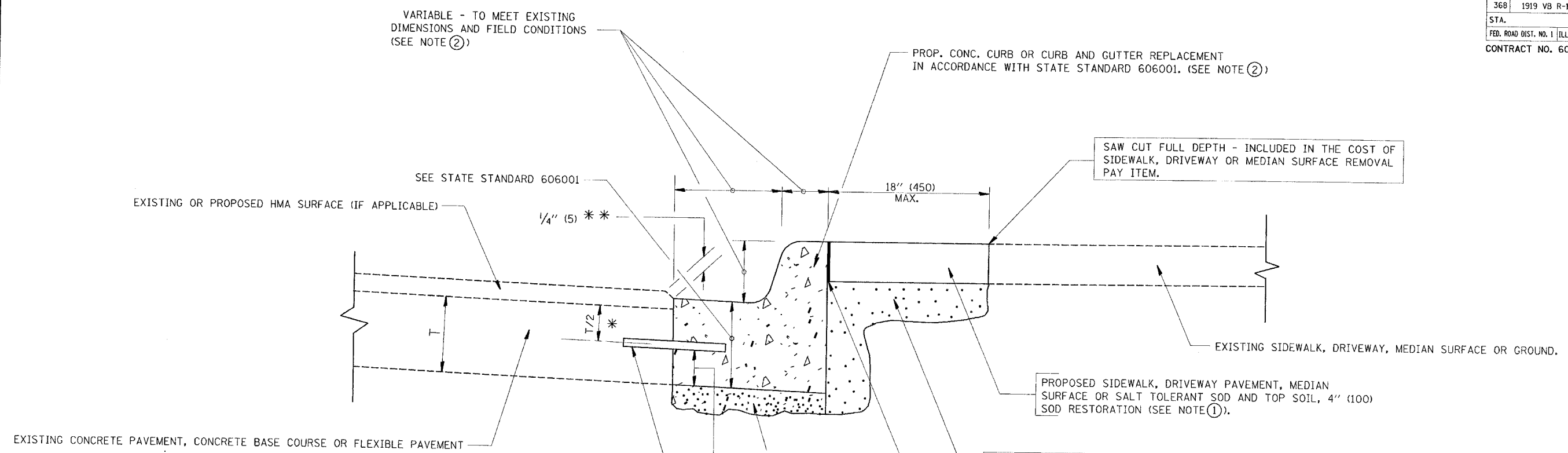
BUTT JOINT AND
HMA TAPER
DETAILS

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

BD400-05 (VI=BD32)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	41
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 60C11				



- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- ** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

- ② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/96
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01
R. BORO	01/01/07

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

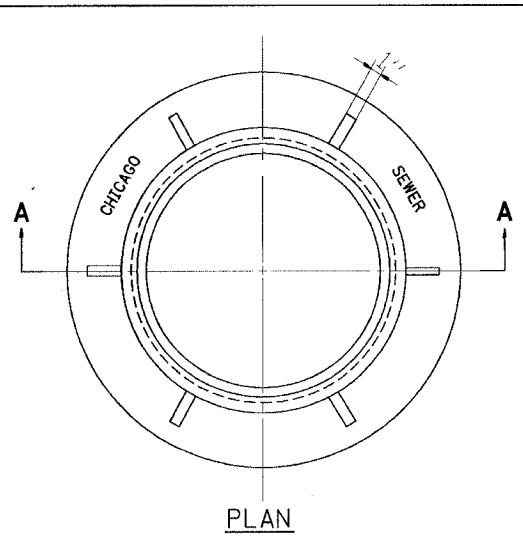
ILLINOIS DEPARTMENT OF TRANSPORTATION
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE
HORIZ.
DRAWN BY
CHECKED BY
BD600-06 (BD-24)

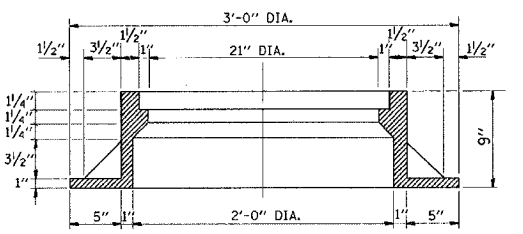
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

PLOT DATE = 8/28/2007
PLOT SCALE = 1/8" = 1'-0"
USER NAME = galsborab

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	42
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60C11				



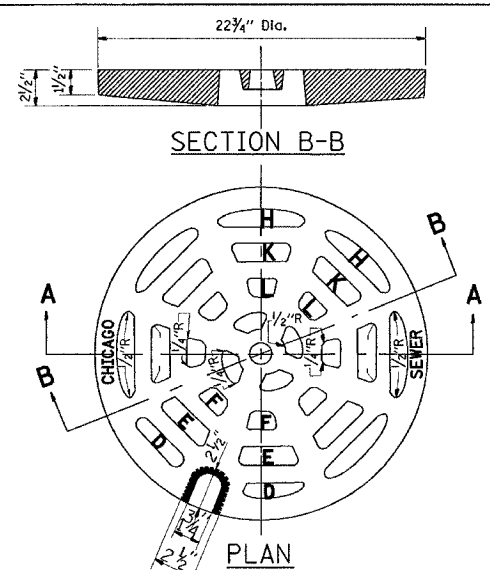
PLAN



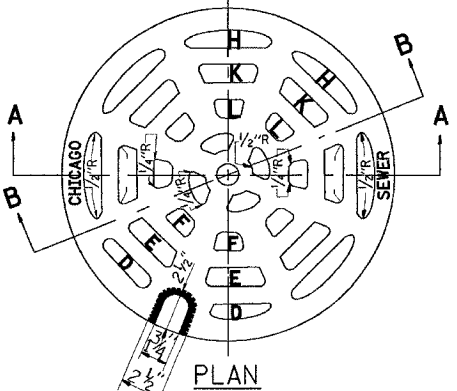
SECTION A-A

NOTE: METAL PLATES MUST BE FURNISHED FOR PERFORATED LIDS ON MANHOLES

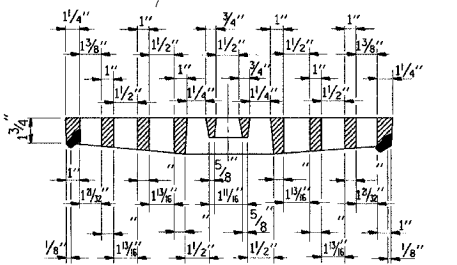
CHICAGO STANDARD MANHOLE FRAME
SCALE: 1/2"=1'-0"
MATERIAL: CAST IRON



SECTION B-B

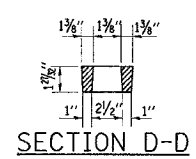


PLAN

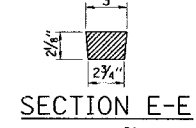


SECTION A-A

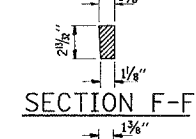
PERFORATED LID FOR CATCH BASINS & MANHOLES
SCALE: 2"=1'-0"
MATERIAL: CAST IRON



SECTION D-D



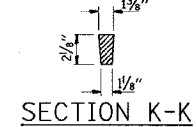
SECTION E-E



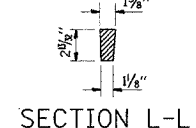
SECTION F-F



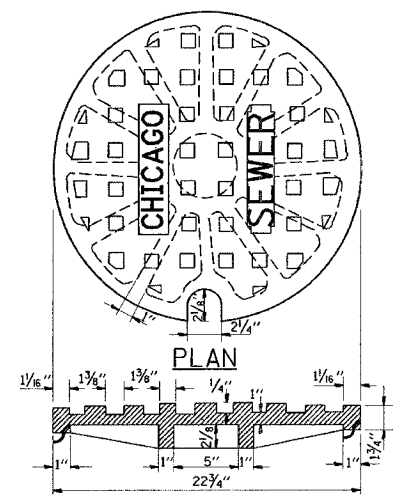
SECTION H-H



SECTION K-K



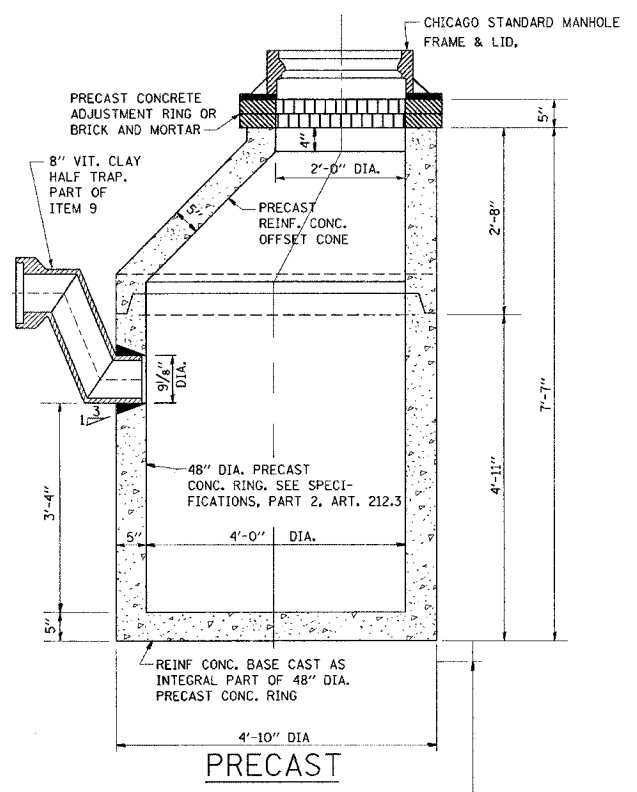
SECTION L-L



PLAN

SECTION

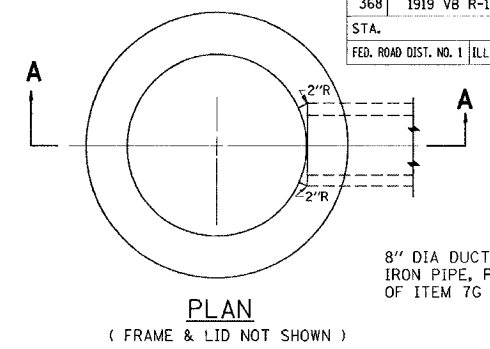
SOLID LID FOR MANHOLES
SCALE: NONE
MATERIAL: CAST IRON



PRECAST

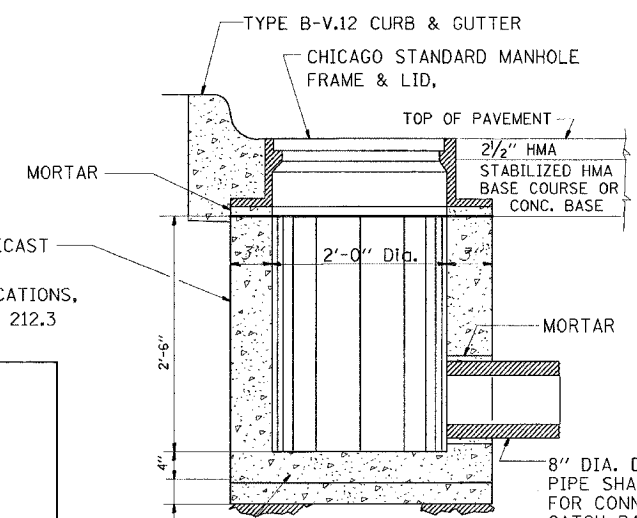
NOTE: 6" MINIMUM GRANULAR EMBEDMENT UNDER ALL CATCH BASINS

STANDARD CATCH BASINS
SCALE: 3/4"=1'-0"
ITEM 9



PLAN

(FRAME & LID NOT SHOWN)



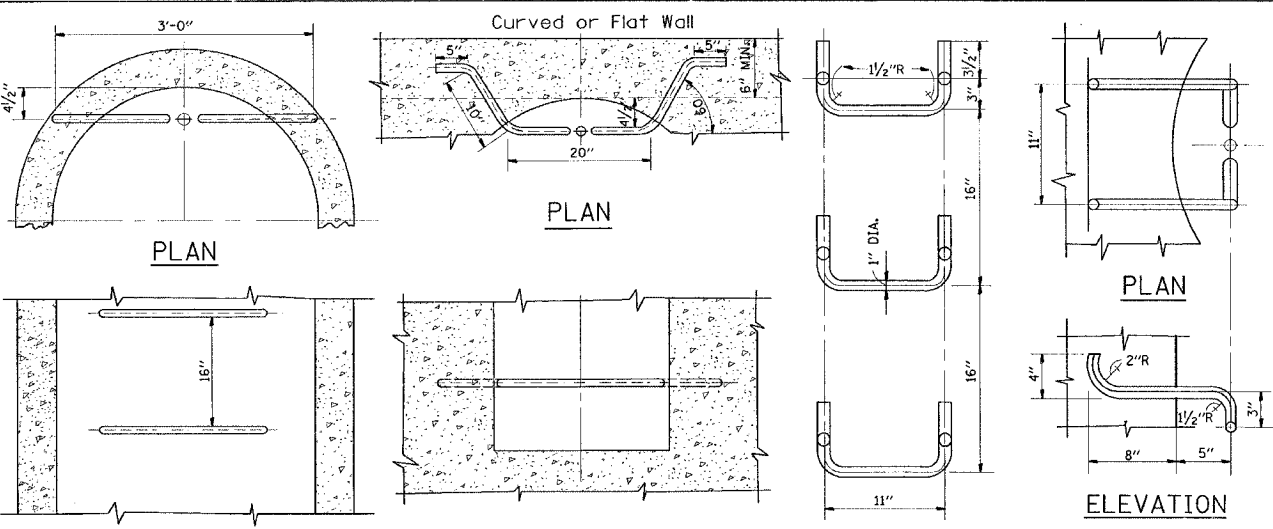
SECTION A-A

REINF. CONC. BASE CAST AS INTEGRAL PART OF 24" DIA. PRECAST CONC. RING
6" MINIMUM GRANULAR EMBEDMENT UNDER ALL INLETS. FURNISHING AND INSTALLING GRANULAR EMBEDMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 12

STANDARD INLETS
SCALE 1"=1'-0"
ITEM 12

THIS INLET DETAIL IS SOMETIMES REFERRED TO AS "CHICAGO STANDARD INLET, TYPE A"

NOTE: INLETS SHALL NOT BE CONSTRUCTED UNLESS IT IS IMPOSSIBLE TO CONSTRUCT A CATCH BASIN. THE CONTRACTOR SHALL HAVE THE DEPARTMENT OF SEWERS APPROVAL BEFORE CONSTRUCTING INLETS.



ELEVATION TYPE X
SCALE: 1"=1'-0"

ELEVATION TYPE Y
SCALE: 1"=1'-0"

SPACING HANDHOLD-TYPE Z RUNG
Scale: 1/2"=1'-0"

STANDARD LADDER RUNGS

ALL LADDER RUNGS SHALL BE ALUMINUM OR GALVANIZED WROUGHT IRON AS SPECIFIED IN THE SPECIFICATIONS, PART 2, ARTICLE 214.2. RUNGS SHALL BE 1" DIAMETER OR OF A SHAPE HAVING AN EQUIVALENT CROSS-SECTIONAL AREA.

REVISIONS	
NAME	DATE
M. GOMEZ	01/25/01

CITY OF CHICAGO
DEPARTMENT OF SEWERS
ENGINEERING DIVISION

ILLINOIS DEPARTMENT OF TRANSPORTATION

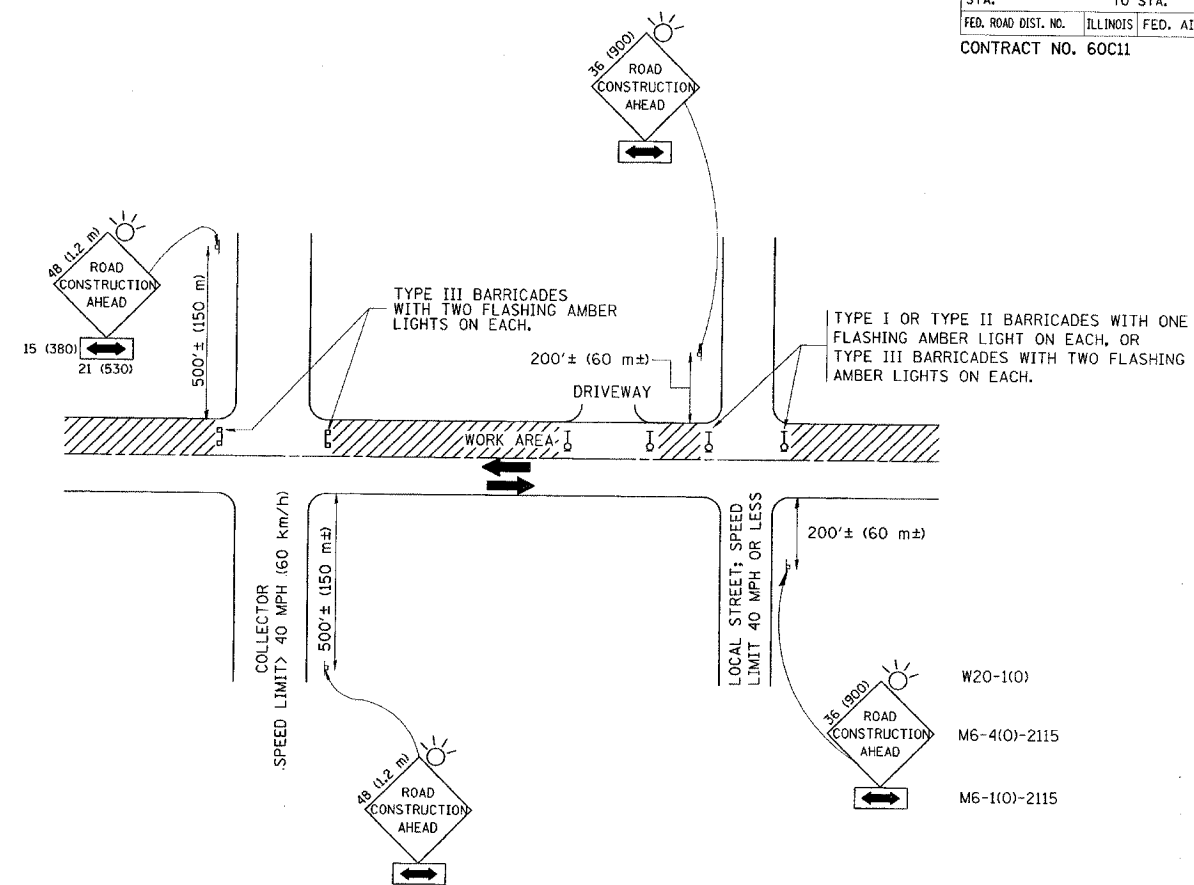
CITY OF CHICAGO
CATCH BASIN, INLET AND
MANHOLE DETAILS

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

PLOT DATE = 8/29/2007
 PLOT SCALE = 80.0000
 USER NAME = golbamb

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	43
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 60C11				



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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

- 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:
 - ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - 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.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - 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.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

REVISIONS	
NAME	DATE
LHA	6/789
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

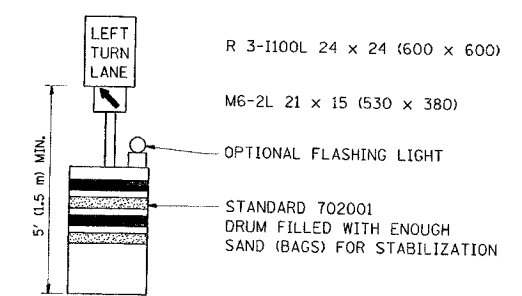
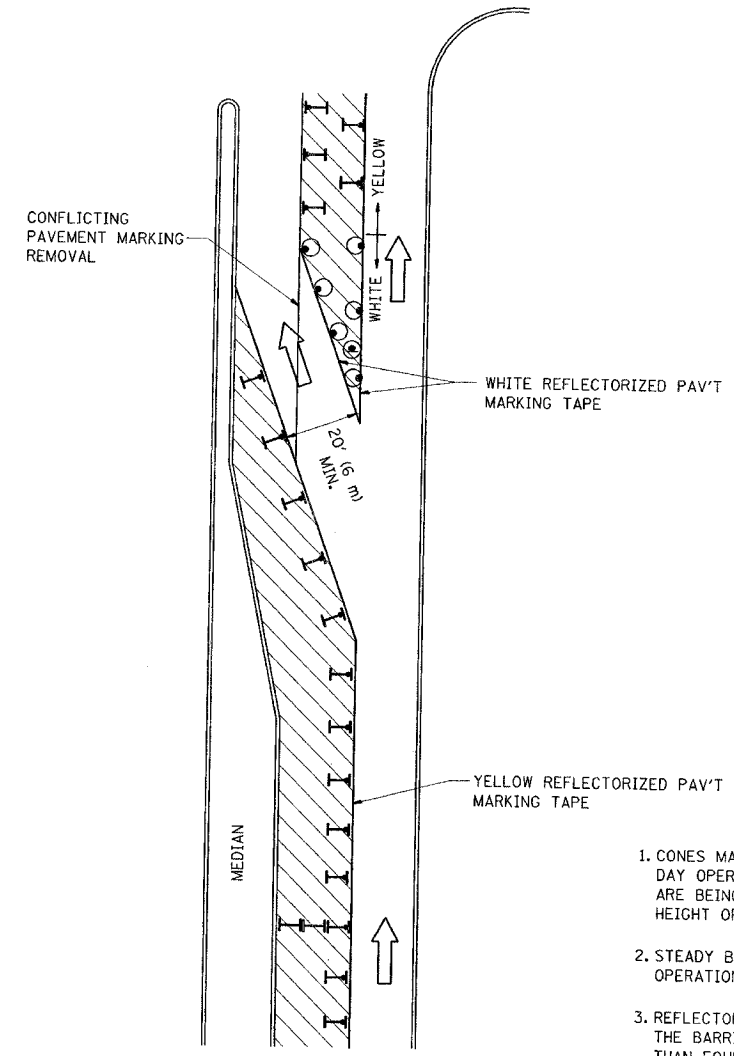
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE

DRAWN BY
 CHECKED BY
 TC-10

PLOT DATE = 8/28/2007
 FILE NAME = \\nas01ncf2\user\galbemb\06aktop\td\tdgn
 PLOT SCALE = 30.0000 / IN.
 USER NAME = galbemb







F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36B	1919 VB R-1	COOK	47	44
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 60C11				



GENERAL NOTES

1. 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. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09/08/94
A. HOUSEH	11/07/95
A. HOUSEH	10/12/96
T. RAMMACHER	01/06/00

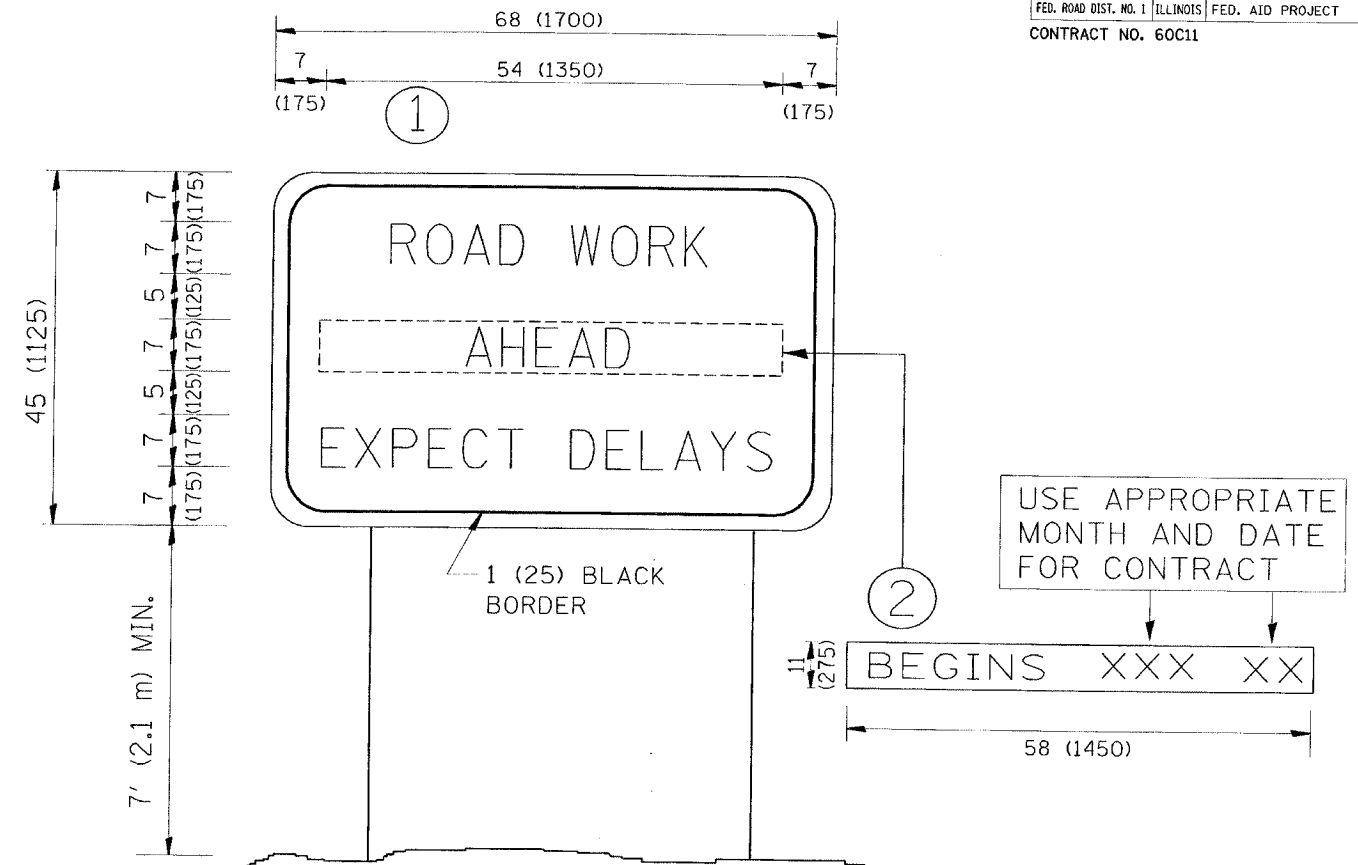
ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL AND PROTECTION
 AT TURN BAYS
 (TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE

DRAWN BY
 CHECKED BY LHA

PLOT DATE = 8/28/2007
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = galbanob

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	45
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 60C11				



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.

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION

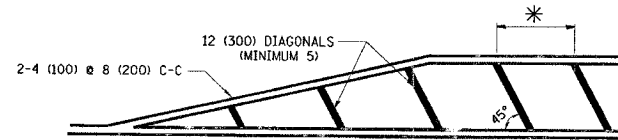
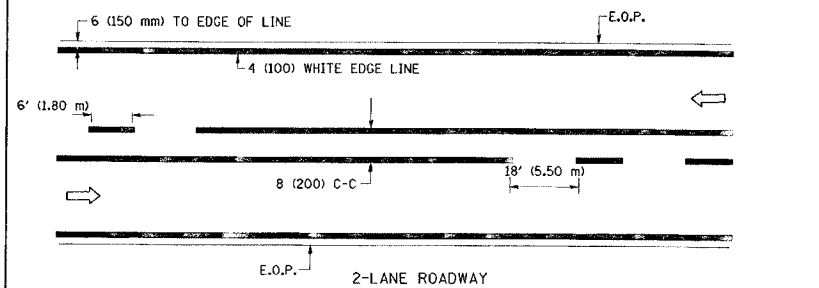
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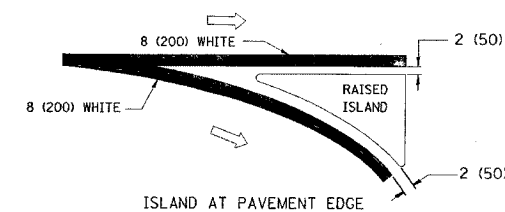
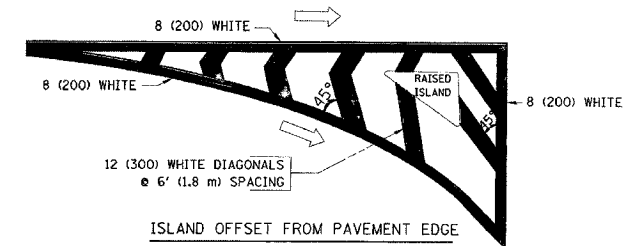
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CHECKED BY

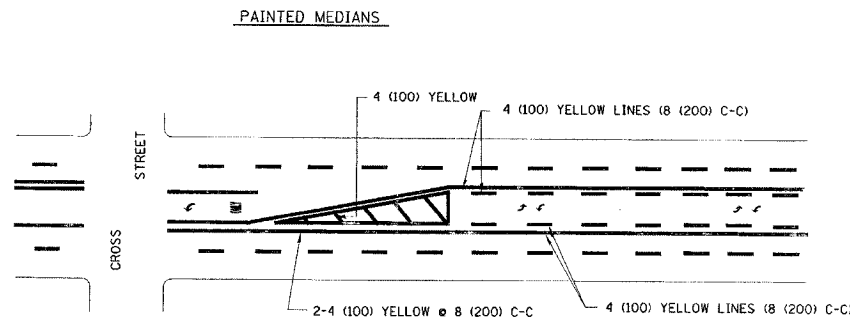
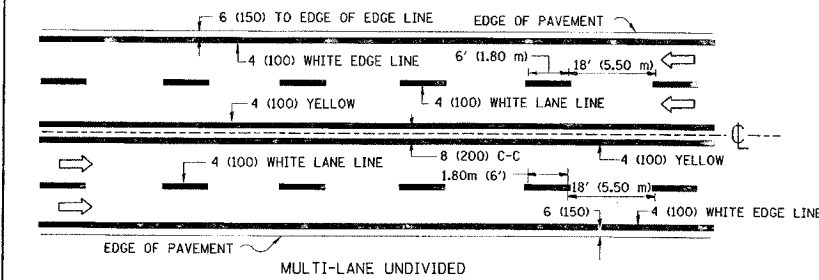
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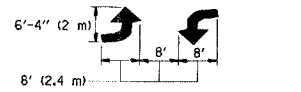
*FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
* DIAGONAL LINE SPACING: 20' (6.1 m) C-C



TYPICAL ISLAND MARKING

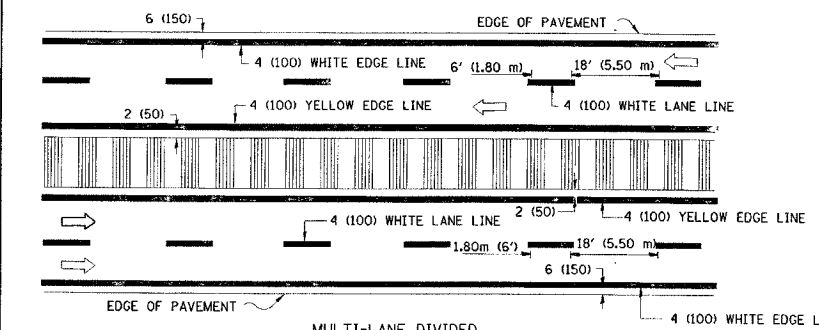


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



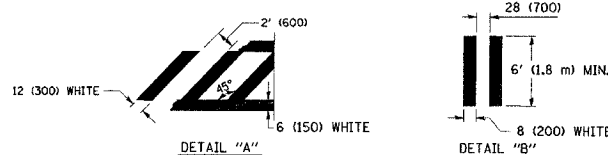
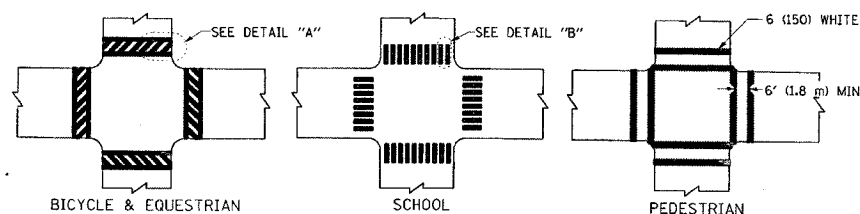
MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

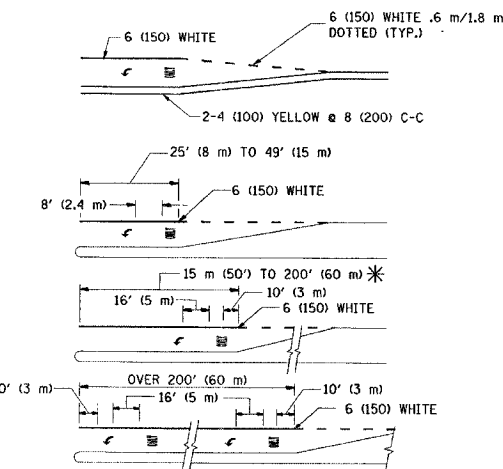


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.8 SQ. FT. (1.47 m²) ONLY AREA = 22.9 SQ. FT. (2.13 m²)

* 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".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	6' (1.80 m) LINE WITH 18' (5.50 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	8 (200) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	8 (200) C-C
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	6' (1.80 m) LINE WITH 18' (5.50 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) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	6' (1.8 m) LINE WITH 18' (5.50 m) SPACE FOR SKIP-DASH @ 200' 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) 12 (300) @ 45° 8 (200) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2'-4" (700) 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°	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	8 (200) 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; 20' (6.1 m) (LESS THAN 30 MPH (50 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF "R"=3.6 SQ. FT. (0.33m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STREET MARKING STANDARDS, PRINTED BY CITY OF CHICAGO, DEPARTMENT OF TRANSPORTATION, BUREAU OF TRAFFIC.

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

REVISIONS	
NAME	DATE
T. RAMMACHER	12/07/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
CITY OF CHICAGO
TYPICAL PAVEMENT MARKINGS

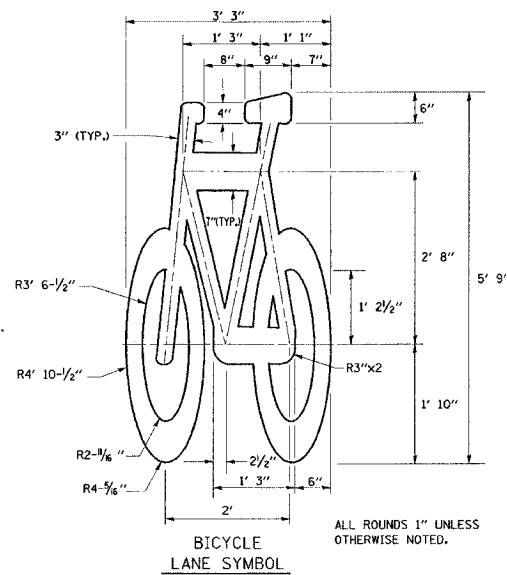
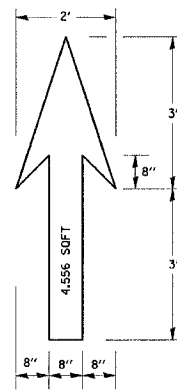
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DRAWN BY CADD

CHECKED BY

TC-24

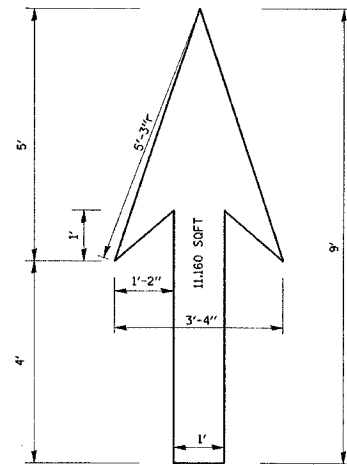
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
368	1919 VB R-1	COOK	47	47
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 60C11				



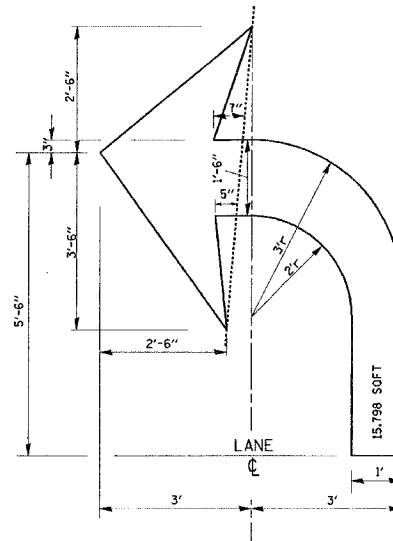
NOTE:
 1.) FOR BIKE LANE SYMBOLS ONLY, USE PRE-FORMED THERMOPLASTIC WITH A MINIMUM THICKNESS OF 90 MILS, MINIMUM SKID RESISTANCE VALUE OF 60 BPN, & A MINIMUM INDEX OF REFRACTION OF 1.50.
 2.) THE RESIDENT ENGINEER SHALL CONTACT MR. BEN COMBERG AT 312-744-8093 AT LEAST ONE CALENDAR WEEK PRIOR TO INSTALLING BIKE LANE SYMBOLS.

TYPICAL BIKE LANE SYMBOLS
DRAWING #28

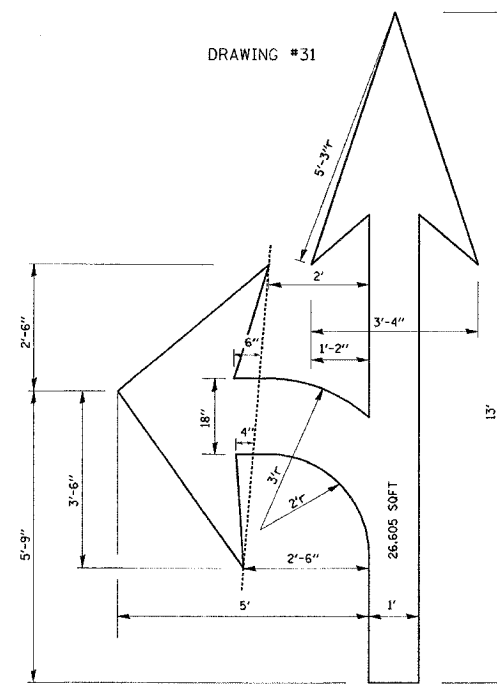
DRAWING #29



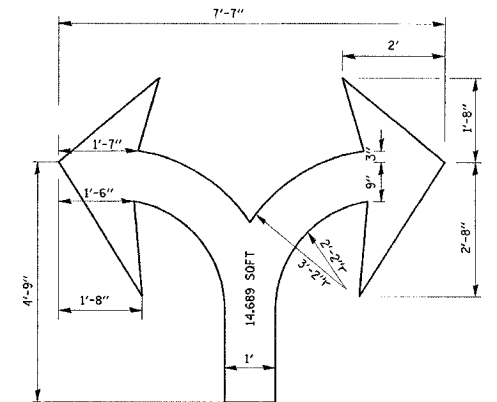
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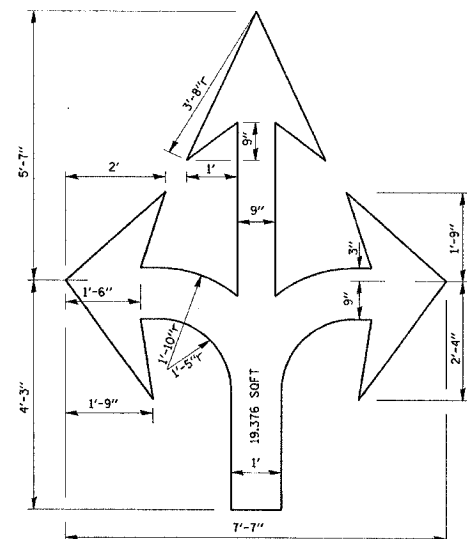
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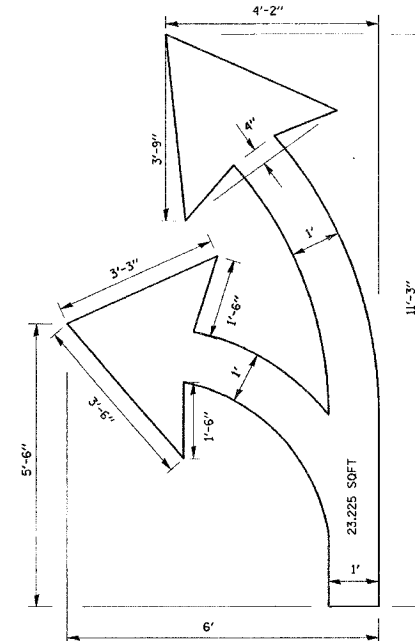
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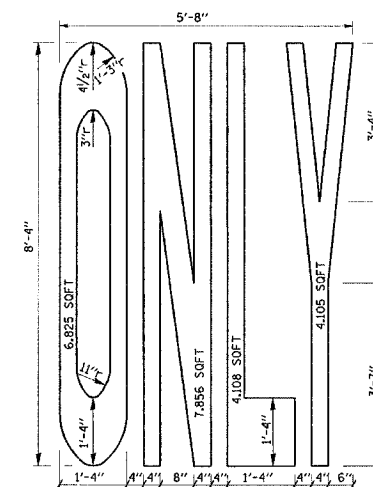
DRAWING #33



DRAWING #34



DRAWING #35



NOTE:
ALL MARKINGS SHALL BE SOLID WHITE UNLESS OTHERWISE NOTED IN THE PLANS

PLOT DATE = 8/26/2007
 FILE NAME = \\nas1mf2\users\galbanob\Desktop\28.dgn
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = galbanob

REVISIONS	
NAME	DATE
T. RAMMACHER	12/07/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CITY OF CHICAGO
 TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY
 CHECKED BY
 TC-24