1-20-2012 LETTING ITEM 029

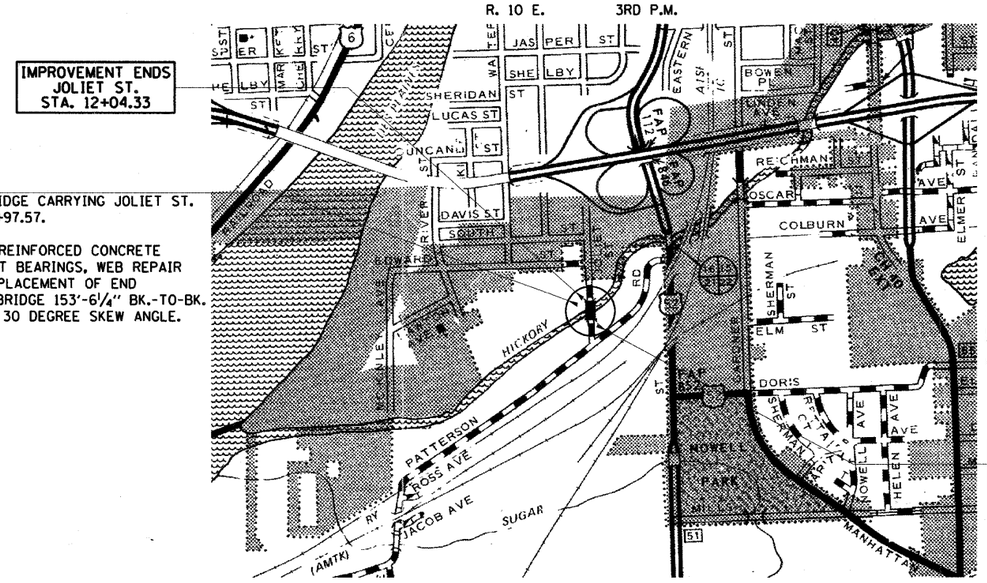
RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	07-10117-00-BR	WILL	36	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 63642		

FOR INDEX OF SHEETS, SEE SHEET NO. 2.

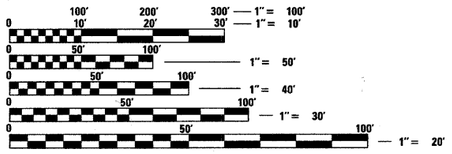
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

JOLIET ST. OVER HICKORY CREEK
BRIDGE DECK REHABILITATION
SECTION 07-10117-00-BR
PROJECT BHM-8003(939)
JOLIET TOWNSHIP
WILL COUNTY
JOB C-91-190-08



PROPOSED IMPROVEMENT:
REHABILITATION OF EXISTING BRIDGE CARRYING JOLIET ST. OVER HICKORY CREEK AT STA. 9+97.57.
REHABILITATION CONSISTS OF:
REPLACEMENT OF DECK WITH 8" REINFORCED CONCRETE DECK, REPLACEMENT OF ABUTMENT BEARINGS, WEB REPAIR OF EXISTING STEEL GIRDERS, REPLACEMENT OF END DIAPHRAGMS. TOTAL LENGTH OF BRIDGE 153'-6 1/4" BK.-TO-BK. ABUTMENTS, 37'-7" DECK WIDTH, 30 DEGREE SKEW ANGLE. STRUCTURE NO. 099-3290.



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.

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

PROJECT ENGINEER: GREGG MOUNTS
PROJECT MANAGER: ROGER WRIGHT

CONTRACT NO. 63642

Hutchison Engineering, Inc.
JACKSONVILLE ILLINOIS
SHOREWOOD ILLINOIS

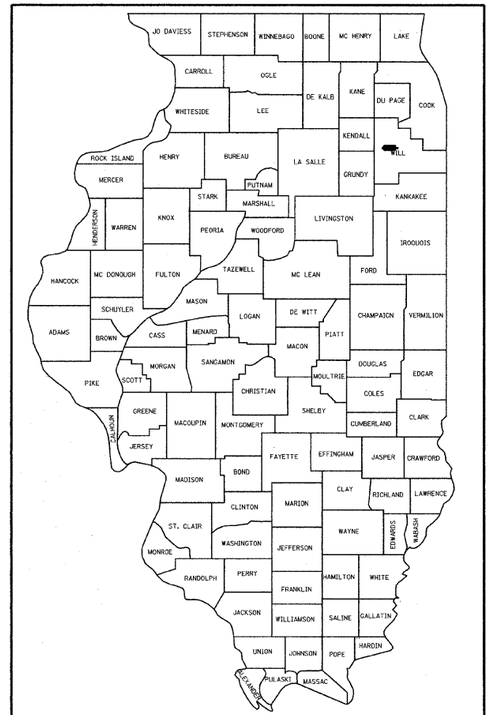
2011 JOB#2882

LOCATION MAP

1" 0 1/8 MI
APPROXIMATE SCALE

NET LENGTH OF PROJECT = 428.45 FEET = 0.081 MILES

DESIGN CLASSIFICATION: MINOR-COLLECTOR (NON-URBAN)
DESIGN ADT = 2,550 (2030)
DESIGN SPEED = 30 MPH



LOCATION OF SECTION INDICATED THUS: -■-

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
APPROVED	October 6 20 11 James J. Maffeo JOLIET TOWNSHIP, HIGHWAY COMMISSIONER
PASSED	October 31 20 11 Christopher Hoer DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	November 1, 20 11 Diane M. O'Keefe DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

GREGORY L. MOUNTS
42660
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
10/5/11
EXPIRES 11/30/11
ENGINEERS SEAL

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847) 705-4406, SCHAUMBURG, ILLINOIS

FILE NAME = W:\2882\2882c00l.dgn
USER NAME = hutchinson
PLOT DATE = 10/4/2011

GENERAL NOTES

THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING AIR, WATER AND NOISE POLLUTION. HE WILL NOT BE ALLOWED TO BUILD FIRES ON THE SITE.

ALL CONSTRUCTION PERSONNEL WILL BE REQUIRED TO WEAR FLUORESCENT ORANGE VESTS AND HARD HATS AT ALL TIMES WHILE ON THE CONSTRUCTION SITE. COMPLIANCE WITH THIS REQUIREMENT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

IT IS THE CONTRACTOR'S RESPONSIBILTY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT, SPECIFICALLY AS THEY RELATE TO THE LUMP SUM PAY ITEMS.

THE LOCATIONS OF KNOWN UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE AND DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THESE UTILITIES AND THE EXISTENCE AND LOCATION OF ANY UTILITY NOT SHOWN ON THE PLANS.

THE CONTRACTOR SHALL NOTIFY THE UTILITIES AT LEAST TEN (10) DAYS PRIOR TO ANY CONSTRUCTION IN THE AREA AND SHALL COMPLY WITH ALL RESTRICTIONS FOR EQUIPMENT MOVEMENTS AND CLEARANCES AS REGARDS TO THEIR FACILITIES.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR MUST CALL J.U.L.I.E. AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRICAL, TELEPHONE, GAS FACILITIES, AND ALL PUBLIC UTILITIES. A 48 HOUR NOTIFICATION IS REQUIRED.

ELECTRIC

COMMONWEALTH EDISON
ATTN: MR. TIM COSLET
1910 SOUTH BRIGGS STREET
JOLIET, IL. 60433-9599
(815) 724-5010

GAS

NICOR GAS
ATTN: MS CONNIE LANE
1844 FERRY ROAD
NAPERVILLE, IL. 60563
(630) 983-8676

TELEPHONE

A.T.&T.
ATTN: MR. DENNIS VOLTAREL
65 WEST WEBSTER STREET
JOLIET, IL. 60431
(815) 774-6762

CABLE T.V.

COMCAST CABLE COMMUNICATIONS
ATTN: MS. MARY STEFAN
688 INDUSTRIAL DRIVE
ELMHURST, IL. 60126
(630) 600-6346

WATER & SEWER

CITY OF JOLIET
ATTN: MS. SHARON BURGIE
PUBLIC WORKS AND UTILITIES
921 E. WASHINGTON ST.
JOLIET, IL. 60433-1267

THE CONTRACTOR SHALL USE ALL NECESSARY PRECAUTIONS AND PROTECTIVE MEASURES REQUIRED TO MAINTAIN EXISTING UTILITIES, SEWER AND APPURTENANCES THAT MUST BE KEPT IN OPERATION. IN PARTICULAR, THE CONTRACTOR WILL TAKE ADEQUATE MEASURES TO PREVENT THE UNDERMINING OF UTILITIES AND SEWERS WHICH ARE STILL IN SERVICE.

IT IS THE CONTRACTOR'S RESPONSIBILTY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

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

IF ANY LOOSE MATERIAL IS DEPOSITED DURING CONSTRUCTION OPERATIONS IN THE FLOW LINE OF DITCHES, GUTTERS OR DRAINAGE STRUCTURES SO THAT IT RESTRICTS THE NATURAL FLOW OF WATER, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SO AFFECTED SHALL BE FREE FROM ALL DEBRIS. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THIS CONTRACT.

ALL FRAMES, GRATES, SIGNS, FENCES AND DELINEATORS, NEW OR EXISTING, DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

THE FOLLOWING SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST TEN (10) DAYS PRIOR TO THE START OF CONSTRUCTION:

JOLIET TWP. H.S. CENTRAL CAMPUS	815-727-6890
JOLIET TWP. H.S. WEST CAMPUS	815-727-6950
LARAWAY SCHOOL BUS BARN	815-727-5196
JOLIET - EAST FIRE DISTRICT	815-723-1504
WILL CO. SHERIFF	815-727-6191

NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.

THE CROSS SECTIONS INDICATE THE FINISHED GRADE OF TOPSOIL.

TOPSOIL SHALL NOT BE STOCKPILED WITHIN THE LIMITS OF CONSTRUCTION. THE LOCATIONS OF TOPSOIL TO BE STOCKPILED WITHIN THE RIGHT-OF-WAY MUST BE APPROVED BY THE ENGINEER.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN ASSUMED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS/CU YD
BITUMINOUS MATERIALS PRIME COAT	0.08	GAL/SQ YD OR
	0.375	GAL/SQ YD
AGGREGATE PRIME COAT	0.002	TONS/SQ YD.
HOT-MIX ASPHALT SURFACE COURSE	112	LBS/SQ YD/INCH
HOT-MIX ASPHALT BINDER COURSE	112	LBS/SQ YD/INCH
NITROGEN FERTILIZER NUTRIENT	60	LBS/ACRE (SODDING) 90 LBS/ACRE (SEEDING)
PHOSPHOROUS FERTILIZER NUTRIENT	60	LBS/ACRE (SODDING) 90 LBS/ACRE (SEEDING)
POTASSIUM FERTILIZER NUTRIENT	60	LBS/ACRE (SODDING) 90 LBS/ACRE (SEEDING)
SHORT TERM PAVEMENT MARKING	10	FT/100 FT OF FINAL APPLICATION
LEVELING BINDER (MACHINE METHOD)	112	LBS/SQ YD/INCH
MULCH	2	TONS/ACRE

LEGEND

- PROPOSED PCC SIDEWALK
- PROPOSED HOT-MIX ASPHALT ENTRANCE
- PERIMETER EROSION BARRIER
- TEMPORARY EROSION CONTROL SEEDING (ENTIRE DISTURBED AREA AS DIRECTED BY THE ENGINEER.)

INDEX OF SHEETS

TIE POINT COORDINATES

TYPE	STA.	NORTHING	EASTING
P.O.T.	7+00.00	9,616.25	9,983.61
P.I.	8+92.20	9,808.45	9,982.55
P.I.	11+05.38	10,021.62	9,982.79
P.O.T.	12+50.00	10,166.20	9,986.57

LIST OF STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-06	TEMPORARY EROSION CONTROL SYSTEMS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
515001-03	NAME PLATE FOR BRIDGES
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
609006-05	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-10	TRAFFIC BARRIER TERMINAL, TYPE 6
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701901-02	TRAFFIC CONTROL DEVICES
780001-03	TYPICAL PAVEMENT MARKINGS

FILE NAME = V:\2882\2882g001.dgn	USER NAME = bdecraene	DESIGNED -	REVISED - 10/20/2011
		DRAWN -	REVISED -
	PLOT SCALE = 1.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 10/21/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST.
INDEX OF SHEETS, LIST OF STANDARDS, GENERAL NOTES & LEGEND

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	07-10117-00-BR	WILL	36	2
		CONTRACT NO. 63642		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SPECIALTY ITEM &/OR SPECIAL PROVISION	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE 0004 ROADWAY	CONSTRUCTION CODE 0014 STRUCTURE
	20200100	EARTH EXCAVATION	CU YD	62	62	
SP	20400800	FURNISHED EXCAVATION	CU YD	9	9	
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	242	242	
	25000210	SEEDING, CLASS 2A	ACRE	0.5	0.5	
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45	
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45	
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45	
	25100115	MULCH, METHOD 2	ACRE	1	1	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	200	200	
	28000400	PERIMETER EROSION BARRIER	FOOT	258	258	
	31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	1164	1164	
	35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	331	331	
SP	40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	114	114	
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	530	530	
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	127	127	
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	3	3	
	40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	34	34	
	42001300	PROTECTIVE COAT	SQ YD	32	32	
	42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	533	533	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	574	574	
	44000100	PAVEMENT REMOVAL	SQ YD	797	797	
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	242	242	
	48101200	AGGREGATE SHOULDERS, TYPE B	TON	66	66	
	48203035	HOT-MIX ASPHALT SHOULDERS, 9 1/2"	SQ YD	52	52	
	50102400	CONCRETE REMOVAL	CU YD	13.3		13.3
	50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1
	50200100	STRUCTURE EXCAVATION	CU YD	48		48
	50300225	CONCRETE STRUCTURES	CU YD	35.4		35.4
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	328.8		328.8
	50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	16900		16900
	50500505	STUD SHEAR CONNECTORS	EACH	2160		2160
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	77900		77900
	50800515	BAR SPLICERS	EACH	74		74
SI	50900105	ALUMINUM RAILING, TYPE L	FOOT	143		143
	51500100	NAME PLATES	EACH	1		1
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	85		85
	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12		12
	52100520	ANCHOR BOLTS, 1"	EACH	24		24
	54210182	PIPE ELBOW, 12"	EACH	2	2	
	54215547	METAL END SECTIONS 12"	EACH	2	2	
	58700300	CONCRETE SEALER	SQ FT	400		400
	60103500	PIPE DRAINS, CORRUGATED STEEL 12"	FOOT	32	32	
	60608300	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-2.12	FOOT	184	184	
	60900140	TYPE B INLET BOX, STANDARD 609006	EACH	2	2	
SI	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1	
SI	63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1	1	
SI	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2	2	
SI	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	
SP	63200310	GUARDRAIL REMOVAL	FOOT	34	34	
SP, SI	63300725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	41.5	41.5	
	67100100	MOBILIZATION	L SUM	1	1	
BDE, SI	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	110	110	
SP, SI	78200410	GUARDRAIL MARKERS, TYPE A	EACH	16	16	
SP, SI	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	
GBSP	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	36		36
SP	X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1	
GBSP	Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	12		12
GBSP, SI	Z0007112	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES	L SUM	1		1
GBSP, SI	Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
SP	Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	2		2
BDE	Z0076600	TRAINEES*	HOUR	500		500

SP=SPECIAL PROVISION SI=SPECIALITY ITEM BDE=BUREAU OF DESIGN AND ENVIRONMENT GBSP=GUIDE BRIDGE SPECIAL PROVISION

*(TRAINEES) CONSTRUCTION CODE IS "0042"

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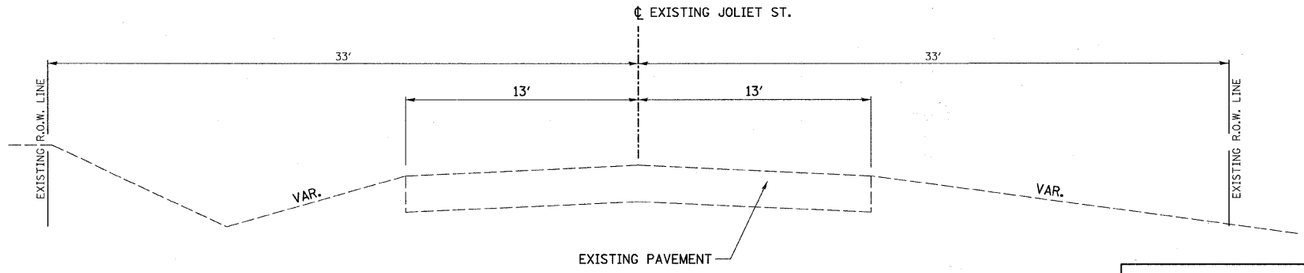
		DRAWN -	REVISED -
	PLOT SCALE = 1.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 10/21/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST., SUMMARY OF QUANTITIES

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	07-10117-00-BR	WILL	36	3
		CONTRACT NO. 63642		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.			
MIXTURE TYPE	AIR VOIDS	LIFT THICKNESS	USE
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50,	4% @ 70 GYR	1½"	SURFACE
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 8"	4% @ 70 GYR	2"	BINDER
INCIDENTAL HOT-MIX ASPHALT SURFACING, MIX "D", N50, 2"	4% @ 70 GYR	2"	SIDEROADS & ENTRANCES
HOT-MIX ASPHALT SHOULDERS, (HMA BINDER, IL-19.0), N50, 9½"	4% @ 70 GYR	2"	SHOULDERS

NOTES: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

EXISTING TYPICAL SECTION
JOLIET ST.

STA. 7+75.88 TO STA. 9+22.37
STA. 10+74.96 TO STA. 12+04.33

JOLIET ST. STRUCTURAL PAVEMENT DESIGN

STRUCTURAL DESIGN TRAFFIC (S.D.T.) YEAR 2020

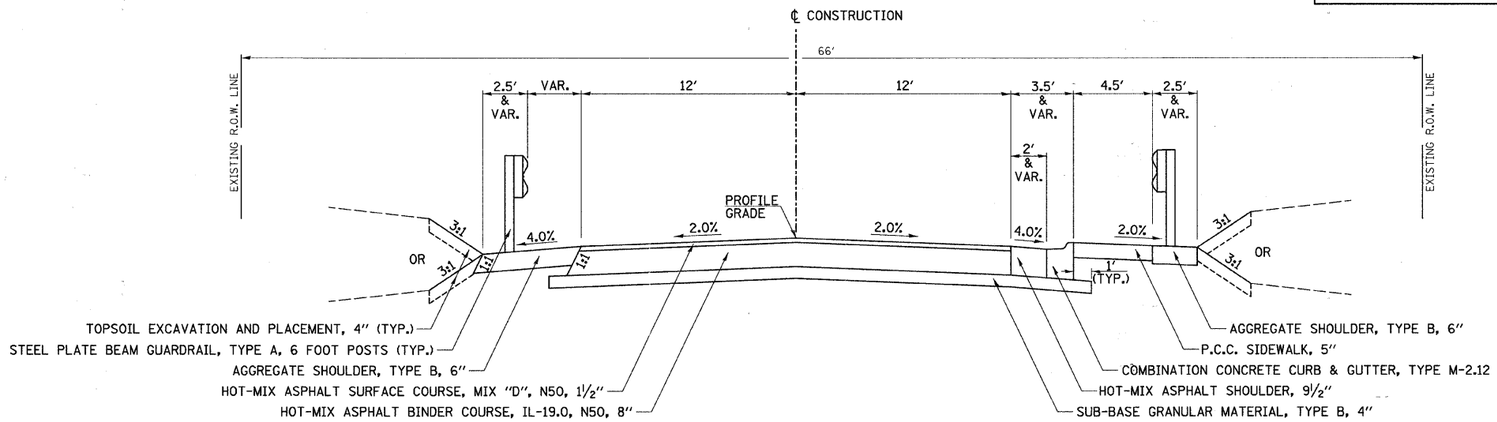
PV = 2574 SU = 117 MU = 234

CLASS II ROAD
SUB-GRADE SUPPORT RATING: POOR
PERCENT OF S.D.T. IN DESIGN LANE: 50%

TRAFFIC FACTOR = 0.84

PAVEMENT STRUCTURE MATERIALS RECONSTRUCTION:

SURFACE COURSE TYPE: HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1½"
BASE COURSE TYPE: HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 8"
SUB-BASE TYPE: SUB-BASE GRANULAR MATERIAL, TYPE B, 4"



PROPOSED TYPICAL SECTION
JOLIET ST.

STA. 7+75.88 TO STA. 7+90.81 (NO CURB & GUTTER OR SIDEWALK)

BRIDGE APPROACH PAVEMENT CONNECTOR
STA. 7+90.81 TO STA. 8+90.81
STA. 11+04.33 TO STA. 12+04.33

(SEE BRIDGE PLANS FOR TYPICAL SECTION.)

PROPOSED TYPICAL BRIDGE CROSS SECTION

STA. 8+90.81 TO STA. 9+20.81 (BRIDGE APPROACH)
STA. 9+20.81 TO STA. 10+74.33 (BRIDGE)
STA. 10+74.33 TO STA. 11+04.33 (BRIDGE APPROACH)

FILE NAME = V:\2882\2882s001.dgn	USER NAME = bdecrsene	DESIGNED -	REVISED - 10/20/2011	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	JOLIET ST., TYPICAL SECTIONS		RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -				N/A	07-10117-00-BR	WILL	36	4
	PLOT SCALE = 4.000 ' / IN.	CHECKED -	REVISED -						CONTRACT NO. 63642		
	PLOT DATE = 10/21/2011	DATE -	REVISED -		SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

TOPSOIL, SEEDING, MULCH & NUTRIENTS

STATION +/-	TO	STATION +/-	SIDE	TOPSOIL FURNISH AND PLACE, 4"	SEEDING, CLASS 2A	MULCH, METHOD 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT
				SQ YD	ACRE	ACRE	POUND	POUND	POUND
7+75.9	TO	12+04.3	LT & RT	241.5	0.5	0.5	45.0	45.0	45.0
			TOTAL	242	0.5	0.5	45	45	45

FERTILIZER NUTRIENTS ARE FIGURED AT THE RATE OF APPLICATION OF 90 POUNDS/ACRE.

EARTHWORK

1			2	3	4	5
STATION	TO	STATION	EARTH EXCAVATION	EARTH EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE(+) OR SHORTAGE(-)
			CU YD			
7+75.9	TO	12+04.3	62.0	52.7	62.0	-9.3
		TOTAL	62	53	62	-9

SHRINKAGE FACTORS: 15%
EARTH EXCAVATION:
COLUMN 1, 2, 3 & 4 - LOCATION AND QUANTITIES FROM CROSS SECTIONS.
CUT = EARTH EXCAVATION AND FILL = EMBANKMENT
COLUMN 3 = COLUMN 2 x (1 - EARTH EXCAVATION SHRINKAGE FACTOR)
COLUMN 5 = COLUMN 3 - COLUMN 4

PAY ITEMS:
COLUMN 2 IS EARTH EXCAVATION = 62 CU YD
COLUMN 5 IS FURNISHED EXCAVATION = 9 CU YD

COMPENSATION STORAGE AREA IS INCLUDED IN THE EARTH EXCAVATION.

TEMPORARY EROSION CONTROL SEEDING

STATION +/-	TO	STATION +/-	SIDE	ACRES	POUNDS PER APPLICATION PER ACRE	NUMBER OF APPLICATIONS	TOTAL	MULCH, METHOD 2
							POUND	ACRE
7+75.9	TO	12+04.3	LT & RT	0.5	100.0	4	200	0.5
						TOTAL	200	0.5

MULCH METHOD 2 IS USED FOR TEMPORARY MULCHING, ONLY ONE APPLICATION OF MULCHING HAS BEEN INCLUDED.
SEEDING CLASS 7 WILL BE USED FOR TEMPORARY EROSION CONTROL SEEDING.

PIPE DRAINS

STATION	SIDE	PIPE DRAINS, CORRUGATED STEEL, 12"	PIPE ELBOW, 12"	METAL END SECTIONS, 12"	TYPE B INLET BOX, STANDARD 609006
		FOOT	EACH	EACH	EACH
9+05.74	LT	6	1		1
9+11.19	LT	6		1	
9+24.36	RT	12	1		1
9+31.83	RT	8		1	
	TOTAL	32	2	2	2

PERIMETER EROSION BARRIER

STATION	TO	STATION	SIDE	LENGTH
				FOOT
8+50.00	TO	9+11.22	LT	60.0
8+75.00	TO	9+32.24	RT	57.0
10+86.44	TO	11+92.40	RT	90.0
11+29.70	TO	11+75.00	LT	51.0
			TOTAL	258

PERIMETER EROSION BARRIER IS SILT FENCE.

THERMOPLASTIC PAVEMENT MARKING

STATION	TO	STATION	LINE 4" DOUBLE YELLOW CENTERLINE
			FOOT
7+75.9	TO	12+04.3	110
		TOTAL	110

ENTRANCE AND SIDE ROAD

STATION	SIDE	TYPE	AGGREGATE BASE COURSE, TYPE B, 4"	HOT MIX ASPHALT BINDER COURSE, IL-19.0, N70	INCIDENTAL HOT-MIX ASPHALT SURFACING	BITUMINOUS MATERIALS (PRIME COAT) 0.375 G/SY
			SQ YD	TON	TON	GAL
11+31.0	LT	SIDEROAD	260.6	85.4	27.1	97.7
11+56.6	RT	PE	69.8	22.4	6.9	26.2
		SUB-TOTAL	330.4	107.8	34.0	123.9
		TOTAL	331	108	34	124

PAVEMENT

STATION	TO	STATION	BITUMINOUS MATERIALS (PRIME COAT) (0.375 GAL/SY)	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 8"	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1-1/2"	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SUB-BASE GRANULAR MATERIAL, TYPE B, 4"	AGGREGATE SHOULDERS, TYPE B, 6"	HOT-MIX ASPHALT SHOULDERS, 9-1/2"	COMMENTS
			GALLON	TON	TON	SQ YD	SQ YD	TON	SQ YD	
7+57.88	TO	7+90.81	154.4	19	3		493	3	5	
7+90.81	TO	8+90.80	126.1			267	336	39	26	AGGREGATE SHOULDER EXTENDS TO BRIDGE
11+04.33	TO	12+04.33	125.3			267	334	24	21	AGGREGATE SHOULDER FROM BRIDGE TO END
		TOTAL	406	19	3	533	1164	66	52	

PAVEMENT REMOVAL

LOCATION			AREA
STATION	TO	STATION	SQ YD
7+75.88	TO	9+22.37	423.2
10+74.96	TO	12+04.33	373.7
		TOTAL	797

REMOVAL OF ANY SUB-BASE IS TO BE CONSIDERED INCLUDED IN THE COST OF THE PAVEMENT REMOVAL.

AGGREGATE FOR TEMPORARY ACCESS

STATION	SIDE	WIDTH	LENGTH	THICKNESS	TON
		FOOT			
11+31.0	LT	10	132	0.75	75.2
11+56.6	RT	10	68	0.75	38.7
				SUB-TOTAL	113.9
				TOTAL	114

DRIVEWAY PAVEMENT REMOVAL

STATION	SIDE	HOT-MIX ASPHALT
		SQ YD
11+05.4	LT	241.9
	TOTAL	242

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH

LOCATION	WIDTH	SIDE	PCC SIDEWALK, 5 INCH
	FOOT		SQ FT
SOUTHEAST QUADRANT	4.5	RT	477.0
NORTHEAST QUADRANT	4.5	RT	96.8
		SUB-TOTAL	573.8
		TOTAL	574

COMBINATION CONCRETE CURB AND GUTTER

LOCATION	SIDE	TYPE M-2.12	PROTECTIVE COAT
		FOOT	SQ YD
SOUTHEAST QUADRANT	RT	104.7	17.5
NORTHEAST QUADRANT	RT	72.9	12.2
• OUTLET	RT	6.0	1.8
	TOTAL	184	32

•SEE SPECIAL PROVISIONS AND SPECIAL DETAILS.

STEEL PLATE BEAM GUARDRAIL

LOCATION	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 2	TRAFFIC BARRIER TERMINAL, TYPE 5	TRAFFIC BARRIER TERMINAL, TYPE 6	TERMINAL MARKER DIRECT APPLIED	REFLECTOR MARKERS, TYPE A	GUARDRAIL REMOVAL
	FOOT	EACH	EACH	EACH	EACH	EACH	EACH	FOOT
SOUTHWEST SIDE		1			1	1	4	
SOUTHEAST SIDE		1			1	1	4	
NORTHWEST SIDE	41.5						4	34
NORTHEAST SIDE			1	1			4	
TOTAL	41.5	2	1	1	2	2	16	34

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST., SCHEDULES OF QUANTITIES

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	07-10117-00-BR	WILL	36	5
		CONTRACT NO. 63642		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLAN | SURVEYED | PLOTTED | DESIGN CHECKED | QUANTITY CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO. | BY | DATE

PROPOSED VARIABLE WIDTH AGGREGATE SHOULDER

PROPOSED TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL)

PROPOSED TRAFFIC BARRIER TERMINAL TYPE 6

PI STA. 8+92.20

HICKORY CREEK

PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A (SPECIAL) ATTACH TO STRUCTURE WITH ALTERNATE END SHOE (R=24')

TBR EXISTING STEEL PLATE BEAM GUARD RAIL

EXISTING R.O.W. LINE

AGG

SANITARY ACCESS DRIVE

℄ +31.0 BIT

EXISTING R.O.W. LINE

JOLIET TOWNSHIP ROAD DISTRICT (PIN 07-21-208-005)

N

PROPOSED CONSTRUCTION LIMITS (TYP.)

PERIMETER EROSION BARRIER (TYP.)

PROPOSED 3' AGGREGATE SHOULDER

POT STA. 7+00.00

STA. 7+75.88 12.00' LT.

PROPOSED VARIABLE WIDTH AGGREGATE SHOULDER

EXISTING R.O.W. LINE

PROPOSED DRAINAGE SCUPPER, DS-11

PI STA. 11+05.38

POT STA. 12+50.00

STA. 12+04.33 12.00' LT.

BIT

8 150:1 TAPER

12'

JOLIET ST. | 10+00

STA. 11+05.38 12.00' LT. 40:1 TAPER

12'

12

IMPROVEMENT BEGINS JOLIET ST. STA. 7+75.88

STA. 8+33.99 14.00' RT.

179°36'57"

99'

CONC

15'

15'

178°34'04"

STA. 11+11.67 12.00' RT.

12'

BIT

IMPROVEMENT ENDS JOLIET ST. STA. 12+04.33

STA. 7+75.88 12.00' RT.

+94.5

STA. 7+75.88 15.39' RT.

℄ CONSTRUCTION

EXISTING R.O.W. LINE

CB

PROPOSED TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL)

PROPOSED TRAFFIC BARRIER TERMINAL TYPE 6

PROPOSED DRAINAGE SCUPPER, DS-11

PROPOSED TRAFFIC BARRIER TERMINAL TYPE 5

+38.9

℄ +56.6 AGG PE

℄ +06.8 AGG PE

STA. 12+04.33 12.00' RT.

PROPOSED CURB & GUTTER OUTLET, SPECIAL (SEE SPECIAL DETAIL SHEET)

PROPOSED 2' HOT-MIX ASPHALT SHOULDER

PROPOSED 2.5' & VAR. AGGREGATE SHOULDER

PROPOSED 4.5' PCC SIDEWALK

PROPOSED COMBINATION CONCRETE CURB & GUTTER, TYPE M-2.12

TRANSITION FROM BRIDGE APPROACH PAVEMENT TO M-2.12 CURB & GUTTER IN 10' (SEE SPECIAL PROVISION)

PROPOSED 2' & VAR. HOT-MIX ASPHALT SHOULDER

PROPOSED CONSTRUCTION LIMITS (TYP.)

PATTERSON RD.

HICKORY CREEK

PROPOSED TRAFFIC BARRIER TERMINAL TYPE 2

TRANSITION FROM BRIDGE APPROACH PAVEMENT TO M-2.12 CURB & GUTTER IN 10' (SEE SPECIAL PROVISION)

PROPOSED 4.5' PCC SIDEWALK

PROPOSED COMBINATION CONCRETE CURB & GUTTER, TYPE M-2.12

PROPOSED 2.5' AGGREGATE SHOULDER

PERIMETER EROSION BARRIER (TYP.)

① PROPOSED TYPE B INLET BOX, STANDARD 609006
STA. 9+05.74, 15.92' LT.
GRATE ELEV. 534.63
INV. 532.55

② PROPOSED PIPE DRAIN W/ 12" DIA. ELBOW 90° BEND
STA. 9+05.74, 22.17' LT.
12"x6' CORRUGATED STEEL
INV. 531.28

③ PROPOSED PIPE DRAIN W/ END SECTION (STD. 542401)
STA. 9+11.19, 22.15' LT.
12"x6' CORRUGATED STEEL
INV. 530.01

④ PROPOSED TYPE B INLET BOX, STANDARD 609006
STA. 9+24.36, 15.00' RT.
GRATE ELEV. 533.97
INV. 531.89

⑤ PROPOSED PIPE DRAIN W/ 12" DIA. ELBOW 90° BEND
STA. 9+24.36, 27.23' RT.
12"x12' CORRUGATED STEEL
INV. 530.89

⑥ PROPOSED PIPE DRAIN W/ END SECTION (STD. 542401)
STA. 9+31.83, 27.26' RT.
12"x8' CORRUGATED STEEL
INV. 530.57

PROFILE | SURVEYED | PLOTTED | DESIGN CHECKED | QUANTITY CHECKED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO. | BY | DATE

BM - CHISELED "□" ON TOP OF THE WEST END OF THE SOUTHEAST WINGWALL OF JOLIET ST. BRIDGE OVER HICKORY CREEK. ELEV. 534.14

60.00' V.C.

-2.62%

VPI STA. 8+10.00 ELEVATION 537.06

-2.00%

VPI STA. 8+70.00 ELEVATION 535.86

PROPOSED PROFILE GRADE LINE

EXISTING PROFILE GRADE LINE

60.00' V.C.

VPI STA. 9+20.00 ELEVATION 534.37

-2.97%

VPI STA. 10+75.00 ELEVATION 529.78

70.00' V.C.

VPI STA. 11+05.00 ELEVATION 528.89

-4.45%

50.00' V.C.

VPI STA. 11+65.00 ELEVATION 526.22

-2.01%

540 535 530 525 520

537.95 538.63 +75.88 537.32 537.34 535.78 536.25 534.30 534.97 532.75 533.49 531.31 532.00 529.81 530.52 528.14 528.98 526.61 526.96 525.40 525.52 +04.33 525.43

7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00

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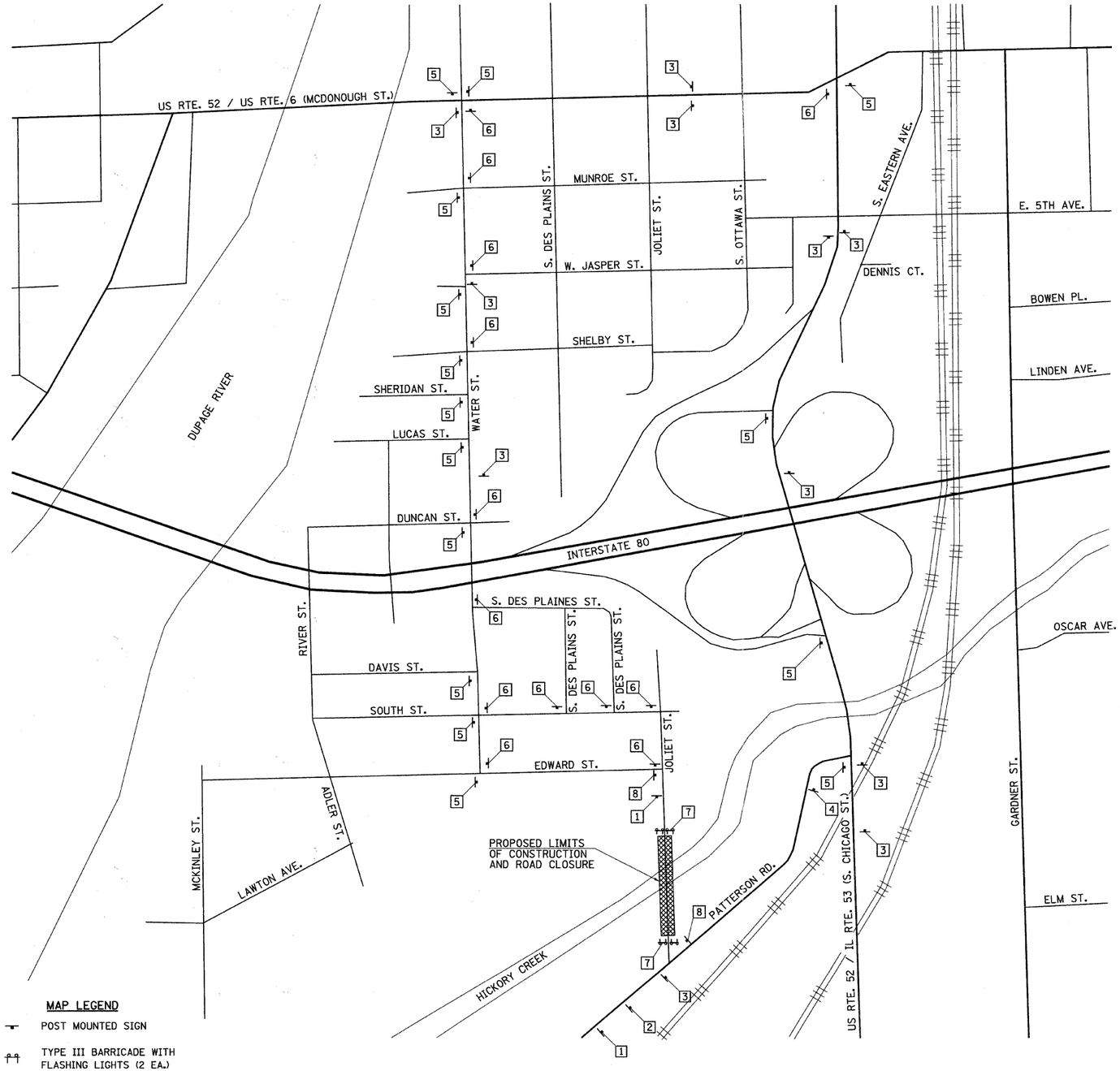
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST. PLAN & PROFILE

SCALE: H=20 V=5 | SHEET NO. 1 OF 1 SHEETS | STA. 7+00 TO STA. 13+00

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	07-10117-00-BR	WILL	36	6
		CONTRACT NO. 63642		
	ILLINOIS FED. AID PROJECT			



MAP LEGEND

- POST MOUNTED SIGN
- TYPE III BARRICADE WITH FLASHING LIGHTS (2 EA.)
- ROAD CLOSURE LOCATION

1 — FLASHING WARNING LIGHT; ROAD CLOSED AHEAD (W20-3, 36"x36"); JOLIET STREET (W17-I 101, 12"x24")

2 — FLASHING WARNING LIGHT; ROAD CLOSED 500 FT (W20-3(0), 36"x36"); JOLIET STREET (W17-I 101, 12"x24")

3 — JOLIET STREET (W17-I 101, 12"x24"); DETOUR (M4-8, 24"x12"); M6-3, 21"x15"

4 — JOLIET STREET (W17-I 101, 12"x24"); DETOUR (M4-8, 24"x12"); M5-1L, 21"x15"

5 — JOLIET STREET (W17-I 101, 12"x24"); DETOUR (M4-8, 24"x12"); M6-1L, 21"x15"

6 — JOLIET STREET (W17-I 101, 12"x24"); DETOUR (M4-8, 24"x12"); M6-1R, 21"x15"

7 — ROAD CLOSED (R11-2, 48"x30")

8 — END DETOUR (M4-8A, 24"x18")

GENERAL NOTES

1.) THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE ROAD IS TO BE CLOSED.

2.) THE CONTRACTOR SHALL SUPPLY TO THE ENGINEER THE NAMES TELEPHONE NUMBERS OF HIS OR HER REPRESENTATIVES RESPONSIBLE FOR THE ROAD CLOSURE PRIOR TO THE START OF WORK.

3.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS AND OTHER DEVICES INSTALLED BY HIM OR HER ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE CLOSURE IS IN EFFECT.

4.) THE CONTRACTOR SHALL MAKE ALL CHANGES IN SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER.

5.) THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC.

6.) THE COST OF THE ITEMS ASSOCIATED WITH THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE LUMP SUM ITEM FOR TRAFFIC CONTROL & PROTECTION.

7.) EMERGENCY SERVICES AND SCHOOLS ARE TO BE NOTIFIED A WEEK BEFORE ROAD CLOSURE AS NOTED IN THE SPECIAL PROVISIONS.

8.) A CHANGEABLE MESSAGE BOARD WILL BE PLACED NORTH AND SOUTH OF THE EXISTING BRIDGE FOR SEVEN CALENDAR DAYS IN ADVANCE OF THE CLOSURE TO NOTIFY MOTORISTS OF THE SCHEDULED CLOSURE.

9.) ALL TYPE ONE, TYPE TWO, AND TYPE THREE BARRICADES WILL REQUIRE BALLAST (MINIMUM 2 SANDBAGS PER BARRICADE) TO HOLD THEM IN PLACE "SANDBAGS WILL BE PLACED ON BARRICADE LEGS, OVER STRIPED BOTTOM RAILS NOT FACING TRAFFIC, OVER UNSTRIPED BOTTOM RAILS, OR SUSPENDED FROM THE BARRICADE RAIL OR FRAME IN SUCH A MANNER SO THE BULK OF THE SAND IS AT LEAST 18 INCHES BELOW THE TOP OF THE BARRICADE."

10.) THE INITIAL ERECTION OF A TRAFFIC CONTROL INSTALLATION SHALL NOT INCLUDE DEVICES THAT ARE BENT, SCRATCHED, FADED, WORN DIRTY, OR OTHERWISE PRESENT A WORN AND SHABBY APPEARANCE. THE CONTRACTOR IS REQUIRED TO CONDUCT ROUTINE INSPECTIONS OF THE WORKSITE AT A FREQUENCY THAT WILL ALLOW FOR THE PROMPT REPLACEMENT OF ANY TRAFFIC CONTROL DEVICE THAT HAS BECOME DISPLACED, WORN, OR DAMAGED TO THE EXTENT IT NO LONGER CONFORMS TO THE SHAPE, DIMENSIONS, COLOR, AND OPERATIONAL REQUIREMENTS OF THE MUTCD/ILLINOIS SUPPLEMENT, AND THE TRAFFIC CONTROL STANDARDS OR NO LONGER PRESENTS A NEAT APPEARANCE TO MOTORISTS. A SUFFICIENT QUANTITY OF REPLACEMENT DEVICES, BASED ON VULNERABILITY TO DAMAGE, SHALL BE READILY AVAILABLE TO MEET THIS REQUIREMENT.

11.) IF THE CONTRACTOR FAILS TO RESPOND WITHIN TWO (2) HOURS ON THE INITIAL ATTEMPT OF NOTIFICATION BY THE ENGINEER, AND/OR FAILS TO RESTORE THE TRAFFIC CONTROL AND PROTECTION IN COMPLIANCE WITH THIS POLICY AT THE EARLIEST OPPORTUNITY, BUT IN NO CASE GREATER THAN EIGHT (8) HOURS OF THE ORIGINAL ATTEMPT OF NOTIFICATION, THE ENGINEER MAY EXECUTE SUCH WORK AS DEEMED NECESSARY TO CORRECT THE DEFICIENCIES.

NOTE: THIS WORK SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION (SPECIAL)".

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	PLOT DATE = 10/3/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST., DETOUR PLAN

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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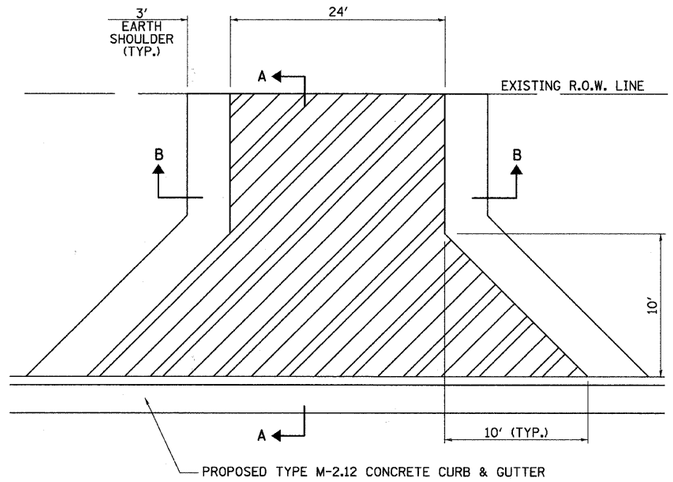
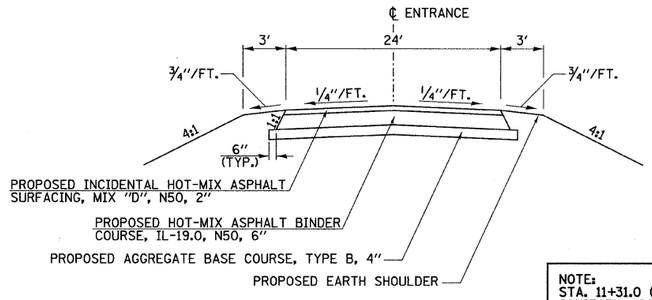
		CONTRACT NO. 63642		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



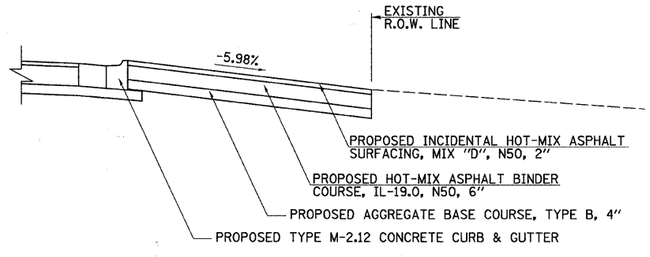
PLAN

(ONLY APPLIES TO STA. 11+56.6)



SECTION B-B

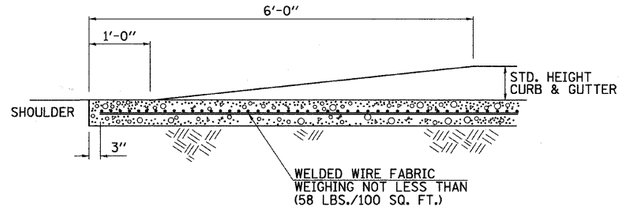
NOTE:
STA. 11+31.0 (ON SKEW) LT. SANITARY ACCESS DRIVE WILL MATCH EXISTING WIDTH AND IS THE SAME PAVEMENT THICKNESS AS SECTION A-A. ALSO SEE CROSS SECTION.



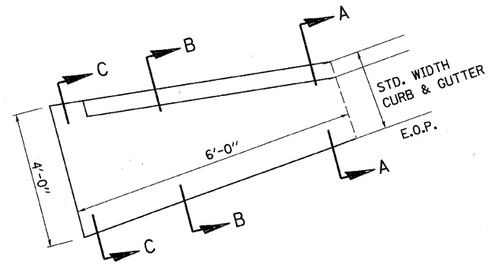
SECTION A-A

PRIVATE ENTRANCE WITH CURB & SIDEROAD DETAILS

STA. 11+31.0 (LT. (SEE NOTE))
STA. 11+56.6 (RT.)



CURB DETAIL



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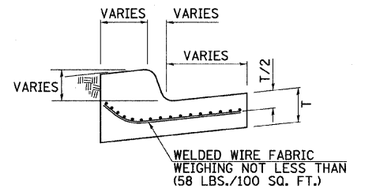
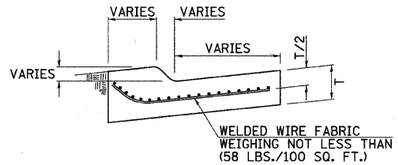
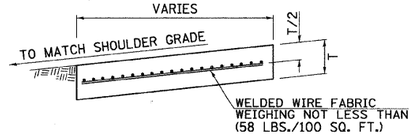


SECTION A-A



SECTION B-B



SECTION C-C

CURB & GUTTER OUTLET, SPECIAL

(TO BE PAID FOR AS COMBINATION CONCRETE CURB & GUTTER, TYPE M-2.12)

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		DRAWN -	REVISED -
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	PLOT DATE = 10/3/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST., ENTRANCE & SPECIAL DETAILS

SCALE: N/A | SHEET NO. 1 OF 1 SHEETS | STA. N/A | TO STA. N/A

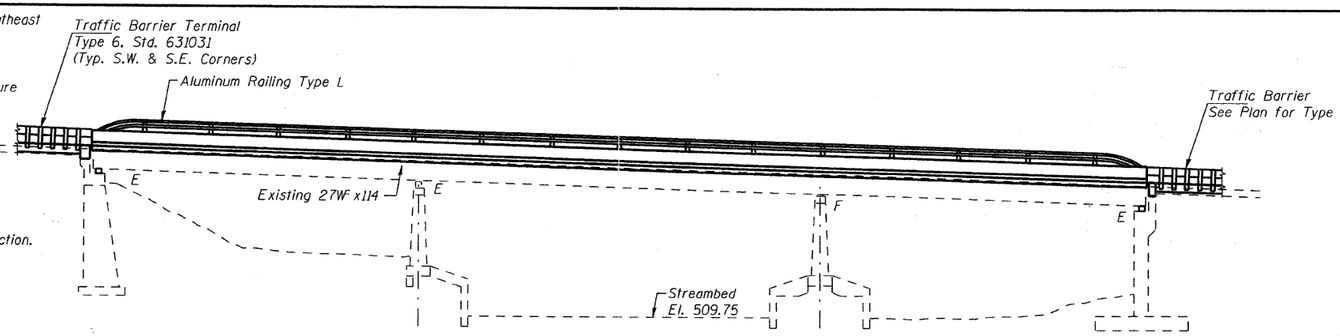
RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	07-10117-00-BR	WILL	36	8
		CONTRACT NO. 63642		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BM: Chiseled "□" on top of west end of southeast wingwall. Sta. 9+33. 21' Rt. Elev. 534.14

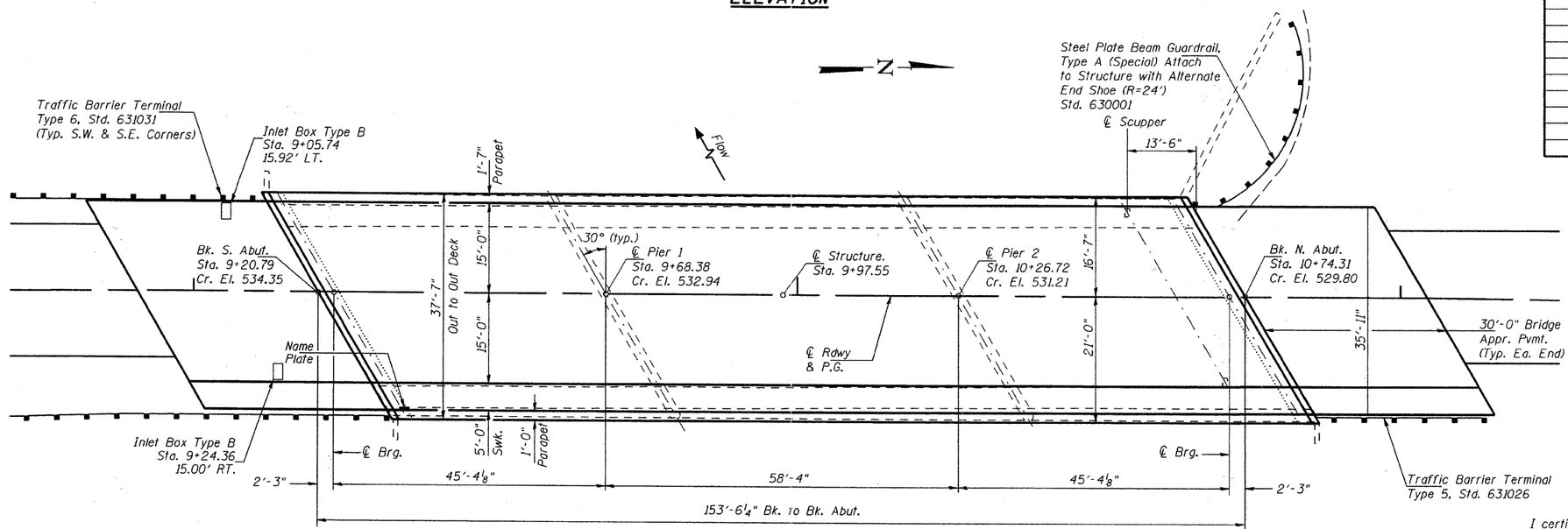
Ex. Str.: 3-span continuous RC deck on steel I-beam (noncomposite) superstructure on conc. closed abutments on footings and conc. solid wall piers on footings. The str. is 153'-6¼" bk. to bk. abutments. 35'-8" out to out of deck w/ a 26'-0" driving surface, 2-4' sidewalks and is skewed 30°. Str. No. 099-3290

Salvage: None

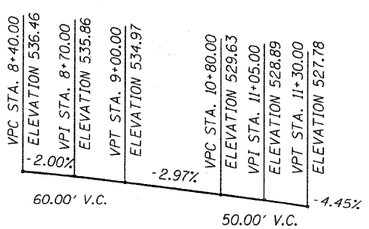
Road to be closed to traffic during construction.



ELEVATION



PLAN



PROFILE GRADE

DESIGNED	NPH
CHECKED	BAN
DRAWN	NPH
CHECKED	BAN

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications
With Interims

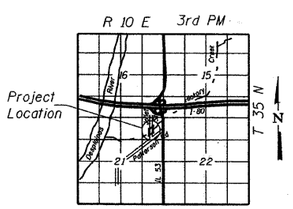
DESIGN STRESSES

FIELD UNITS (NEW CONSTRUCTION)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

FIELD UNITS (EXISTING STRUCTURE)

f'c = 3,000 psi
fy = 40,000 psi (Reinforcement)
fy = 33,000 psi (Str. Steel)



LOCATION SKETCH

BRIDGE PLANS INDEX TO SHEETS

HICKORY CREEK
REBUILT 201_ BY
JOLIET TOWNSHIP WILL COUNTY
TR 851 STATION 9+97.55
SECTION 07-10117-00-BR
LOADING HL-93
STRUCTURE NO. 099-3290

NAME PLATE

(See Std. 515001)

Attach new name plate at south end of east parapet. Clean and relocate existing name plate adjacent to new name plate. Cost included with name plates.

Note:
For Bill of Materials and General Notes
See sheet 2 of 26.

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

BENJAMIN A. NEWELL
081-006527
LICENSED STRUCTURAL ENGINEER
ILLINOIS

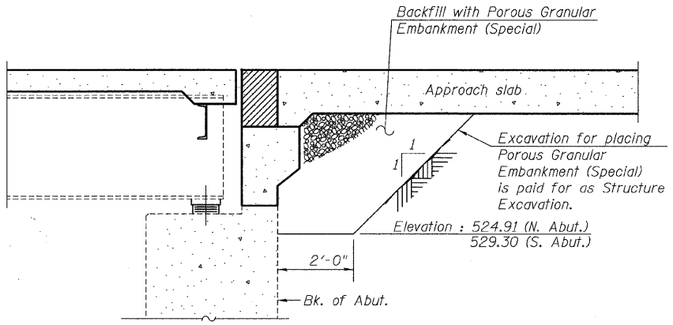
10/4/2011
Illinois Structural No. 6527
Expires 11/30/2012

Lic.Exp. 11/30/2012

GENERAL PLAN & ELEVATION
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55
STRUCTURE NO. 099-3290

SHEET NO. 1	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	9
		S.N. 099-3290	CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B001



SECTION THRU ABUTMENT

Note:
Excavate one foot below the proposed abutment removal elevation. Backfill with porous granular embankment.

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $^{3}/_{4}$in. ϕ, holes $^{13}/_{16}$ in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 16,900 lbs (M270 Gr. 50).

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

Reinforcement bars designated (E) shall be epoxy coated.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that cannot be removed by grinding $^{1}/_{4}$ inch deep shall be identified and reported to Hutchison Engineering, Inc. for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Concrete Sealer shall be applied to the front face of the backwall and bearing seats of each abutment.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

A minimum of 2 air monitor(s) will be required to monitor abrasive blasting operations at this site. See special provision for "Containment and Disposal of Lead Paint Cleaning Residues."

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.

Two $^{1}/_{8}$ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All existing steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing steel shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No 5B 7/1. The colorof the final finish coat for the exterior and bottom flange of the fascia beams shall be Gray, Munsell No 5B 7/1.

The contractor is hereby alerted an Army Corps of Engineers Permit has not been secured for the project and no work may occur within the waters of Hickory Creek. Should a permit be desired by the Contractor or required due to damage caused to Hickory Creek by the Contractor, it shall be the Contractor's responsibility to obtain any required permits to remediate any damges to or work within Hickory Creek. No additional compensation or extension of time will be allowed to the Contractor to obtain any of the permits.

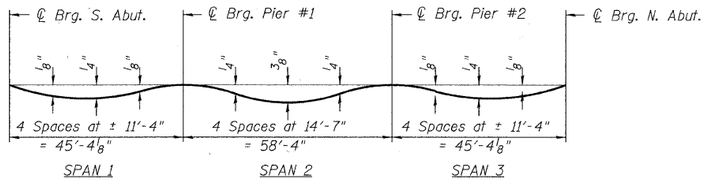
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Concrete Deck	Each	1	-	1
Concrete Removal	Cu Yd	-	13.3	13.3
Drainage Scuppers, DS-11	Each	2	-	2
Concrete Superstructure	Cu Yd	328.8	-	328.8
Concrete Structures	Cu Yd	-	35.4	35.4
Stud Shear Connectors	Each	2,160	-	2,160
Reinforcement Bars, Epoxy Coated	Pound	75,280	2,620	77,900
Jack and Remove Existing Bearings	Each	12	-	12
Preformed Joint Strip Seal	Foot	85	-	85
Aluminum Railing, Type L	Foot	143	-	143
Name Plates	Each	1	-	1
Elastomeric Bearing Assembly Type I	Each	12	-	12
Cleaning and Painting Steel Bridge No. 1	L Sum	1	-	1
Anchor Bolts, 1"	Each	24	-	24
Bar Splicers	Each	-	74	74
Concrete Sealer	Sq Ft	-	400	400
Porous Granular Embankment, Special	Cu Yd	-	36	36
Structure Excavation	Cu Yd	-	48	48
Furnishing & Erecting Structural Steel	Pound	16,900	-	16,900
Containment and Disposal of Lead Paint Cleaning Residues	L Sum	1	-	1

GENERAL NOTES
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 2	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	10
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

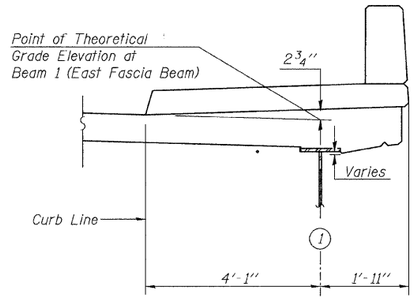
2882B002



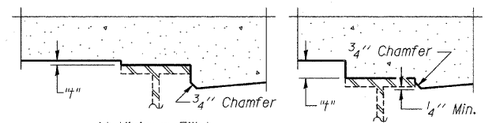
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

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

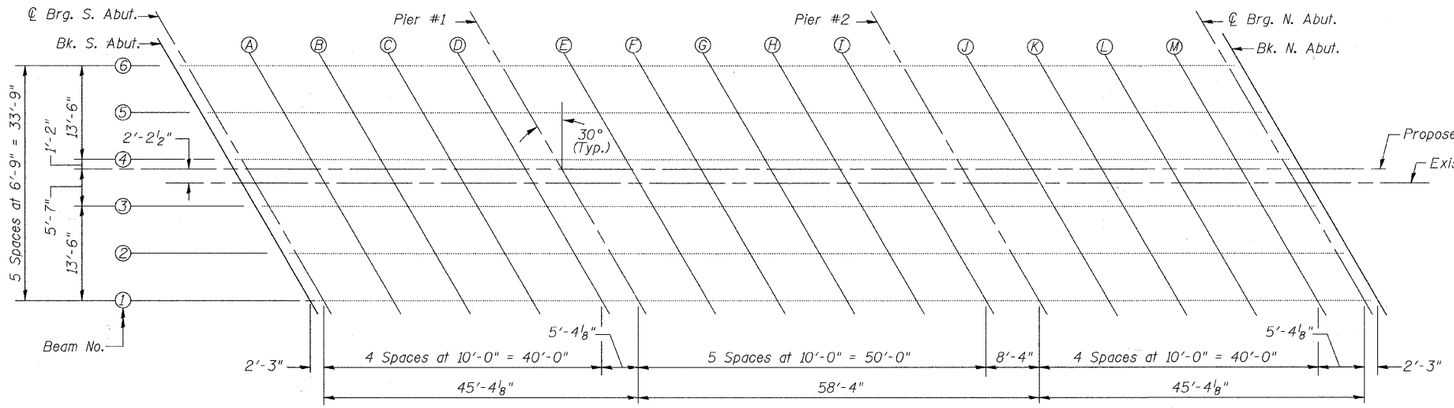


SECTION THRU SIDEWALK



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



TOP OF SLAB ELEVATIONS

TOP OF SLAB ELEVATIONS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 3	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	11
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B003

BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	09+31.81	19.08	533.69	533.69
CL Brg. S. Abutment	09+34.06	19.08	533.63	533.63
A	09+44.06	19.08	533.33	533.34
B	09+54.06	19.08	533.03	533.05
C	09+64.06	19.08	532.74	532.74
D	09+74.06	19.08	532.44	532.44
CL Br. S. Pier	09+79.40	19.08	532.28	532.28
E	09+89.40	19.08	531.98	531.99
F	09+99.40	19.08	531.69	531.71
G	10+09.40	19.08	531.39	531.42
H	10+19.40	19.08	531.09	531.12
I	10+29.40	19.08	530.80	530.81
CL Brg. N. Pier	10+37.74	19.08	530.55	530.55
J	10+47.74	19.08	530.25	530.26
K	10+57.74	19.08	529.96	529.97
L	10+67.74	19.08	529.66	529.68
M	10+77.74	19.08	529.36	529.37
CL Brg. N. Abutment	10+83.08	19.08	529.21	529.21
Bk. N. Abutment	10+85.33	19.08	529.14	529.14

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	09+27.91	12.33	533.95	533.95
CL Brg. S. Abutment	09+30.16	12.33	533.88	533.88
A	09+40.16	12.33	533.58	533.60
B	09+50.16	12.33	533.29	533.31
C	09+60.16	12.33	532.99	533.00
D	09+70.16	12.33	532.69	532.70
CL Br. S. Pier	09+75.50	12.33	532.54	532.54
E	09+85.50	12.33	532.24	532.25
F	09+95.50	12.33	531.94	531.97
G	10+05.50	12.33	531.65	531.68
H	10+15.50	12.33	531.35	531.37
I	10+25.50	12.33	531.05	531.06
CL Brg. N. Pier	10+33.84	12.33	530.81	530.81
J	10+43.84	12.33	530.51	530.52
K	10+53.84	12.33	530.21	530.23
L	10+63.84	12.33	529.92	529.93
M	10+73.84	12.33	529.62	529.63
CL Brg. N. Abutment	10+79.18	12.33	529.46	529.46
Bk. N. Abutment	10+81.43	12.33	529.39	529.39

BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	09+24.01	5.58	534.17	534.17
CL Brg. S. Abutment	09+26.26	5.58	534.10	534.10
A	09+36.26	5.58	533.81	533.82
B	09+46.26	5.58	533.51	533.53
C	09+56.26	5.58	533.21	533.22
D	09+66.26	5.58	532.92	532.92
CL Br. S. Pier	09+71.60	5.58	532.76	532.76
E	09+81.60	5.58	532.46	532.47
F	09+91.60	5.58	532.17	532.19
G	10+01.60	5.58	531.87	531.90
H	10+11.60	5.58	531.57	531.59
I	10+21.60	5.58	531.28	531.28
CL Brg. N. Pier	10+29.94	5.58	531.03	531.03
J	10+39.94	5.58	530.73	530.74
K	10+49.94	5.58	530.44	530.45
L	10+59.94	5.58	530.14	530.16
M	10+69.94	5.58	529.84	529.85
CL Brg. N. Abutment	10+75.28	5.58	529.68	529.68
Bk. N. Abutment	10+77.53	5.58	529.62	529.62

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	09+20.79	0.00	534.35	534.35
CL Brg. S. Abutment	09+23.04	0.00	534.29	534.29
A	09+33.04	0.00	533.99	534.01
B	09+43.04	0.00	533.69	533.71
C	09+53.04	0.00	533.40	533.41
D	09+63.04	0.00	533.10	533.10
CL Br. S. Pier	09+68.38	0.00	532.94	532.94
E	09+78.38	0.00	532.65	532.66
F	09+88.38	0.00	532.35	532.37
G	09+98.38	0.00	532.05	532.08
H	10+08.38	0.00	531.76	531.78
I	10+18.38	0.00	531.46	531.47
CL Brg. N. Pier	10+26.72	0.00	531.21	531.21
J	10+36.72	0.00	530.92	530.93
K	10+46.72	0.00	530.62	530.63
L	10+56.72	0.00	530.32	530.34
M	10+66.72	0.00	530.03	530.03
CL Brg. N. Abutment	10+72.06	0.00	529.87	529.87
Bk. N. Abutment	10+74.31	0.00	529.80	529.80

BEAM #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	09+20.12	-1.17	534.36	534.36
CL Brg. S. Abutment	09+22.37	-1.17	534.29	534.29
A	09+32.37	-1.17	533.99	534.01
B	09+42.37	-1.17	533.70	533.71
C	09+52.37	-1.17	533.40	533.41
D	09+62.37	-1.17	533.10	533.10
CL Br. S. Pier	09+67.71	-1.17	532.94	532.94
E	09+77.71	-1.17	532.65	532.66
F	09+87.71	-1.17	532.35	532.37
G	09+97.71	-1.17	532.05	532.08
H	10+07.71	-1.17	531.76	531.78
I	10+17.71	-1.17	531.46	531.47
CL Brg. N. Pier	10+26.05	-1.17	531.21	531.21
J	10+36.05	-1.17	530.92	530.93
K	10+46.05	-1.17	530.62	530.64
L	10+56.05	-1.17	530.32	530.34
M	10+66.05	-1.17	530.03	530.04
CL Brg. N. Abutment	10+71.39	-1.17	529.87	529.87
Bk. N. Abutment	10+73.64	-1.17	529.80	529.80

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	09+16.22	-7.92	534.37	534.37
CL Brg. S. Abutment	09+18.47	-7.92	534.30	534.30
A	09+28.47	-7.92	534.00	534.02
B	09+38.47	-7.92	533.71	533.72
C	09+48.47	-7.92	533.41	533.42
D	09+58.47	-7.92	533.11	533.11
CL Br. S. Pier	09+63.81	-7.92	532.95	532.95
E	09+73.81	-7.92	532.66	532.67
F	09+83.81	-7.92	532.36	532.38
G	09+93.81	-7.92	532.06	532.09
H	10+03.81	-7.92	531.77	531.79
I	10+13.81	-7.92	531.47	531.48
CL Brg. N. Pier	10+22.15	-7.92	531.22	531.22
J	10+32.15	-7.92	530.93	530.94
K	10+42.15	-7.92	530.63	530.65
L	10+52.15	-7.92	530.33	530.35
M	10+62.15	-7.92	530.04	530.05
CL Brg. N. Abutment	10+67.49	-7.92	529.88	529.88
Bk. N. Abutment	10+69.74	-7.92	529.81	529.81

BEAM #6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abutment	09+12.32	-14.67	534.36	534.36
CL Brg. S. Abutment	09+14.57	-14.67	534.29	534.29
A	09+24.57	-14.67	534.00	534.01
B	09+34.57	-14.67	533.70	533.72
C	09+44.57	-14.67	533.41	533.41
D	09+54.57	-14.67	533.11	533.11
CL Br. S. Pier	09+59.91	-14.67	532.95	532.95
E	09+69.91	-14.67	532.65	532.66
F	09+79.91	-14.67	532.36	532.38
G	09+89.91	-14.67	532.06	532.09
H	09+99.91	-14.67	531.76	531.79
I	10+09.91	-14.67	531.47	531.48
CL Brg. N. Pier	10+18.25	-14.67	531.22	531.22
J	10+28.25	-14.67	530.92	530.93
K	10+38.25	-14.67	530.63	530.64
L	10+48.25	-14.67	530.33	530.35
M	10+58.25	-14.67	530.03	530.04
CL Brg. N. Abutment	10+63.59	-14.67	529.88	529.88
Bk. N. Abutment	10+65.84	-14.67	529.81	529.81

TOP OF SLAB ELEVATIONS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 4	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	12
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

28828004

WEST CURB LINE OF APPROACH PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. App. Pvmt.	08+81.89	-15.42	535.22
A	08+91.89	-15.42	534.95
B	09+01.89	-15.42	534.66
Bk S. Abutment	09+11.89	-15.42	534.36

WEST EDGE OF ROADWAY PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. App. Pvmt.	08+83.86	-12.00	535.24
A	08+93.86	-12.00	534.96
B	09+03.86	-12.00	534.67
Bk S. Abutment	09+13.86	-12.00	534.37

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
End S. App. Pvmt.	08+90.79	0.00	535.24
A	09+00.79	0.00	534.95
B	09+10.79	0.00	534.65
Bk S. Abutment	09+20.79	0.00	534.35

EAST EDGE OF ROADWAY PAVEMENT

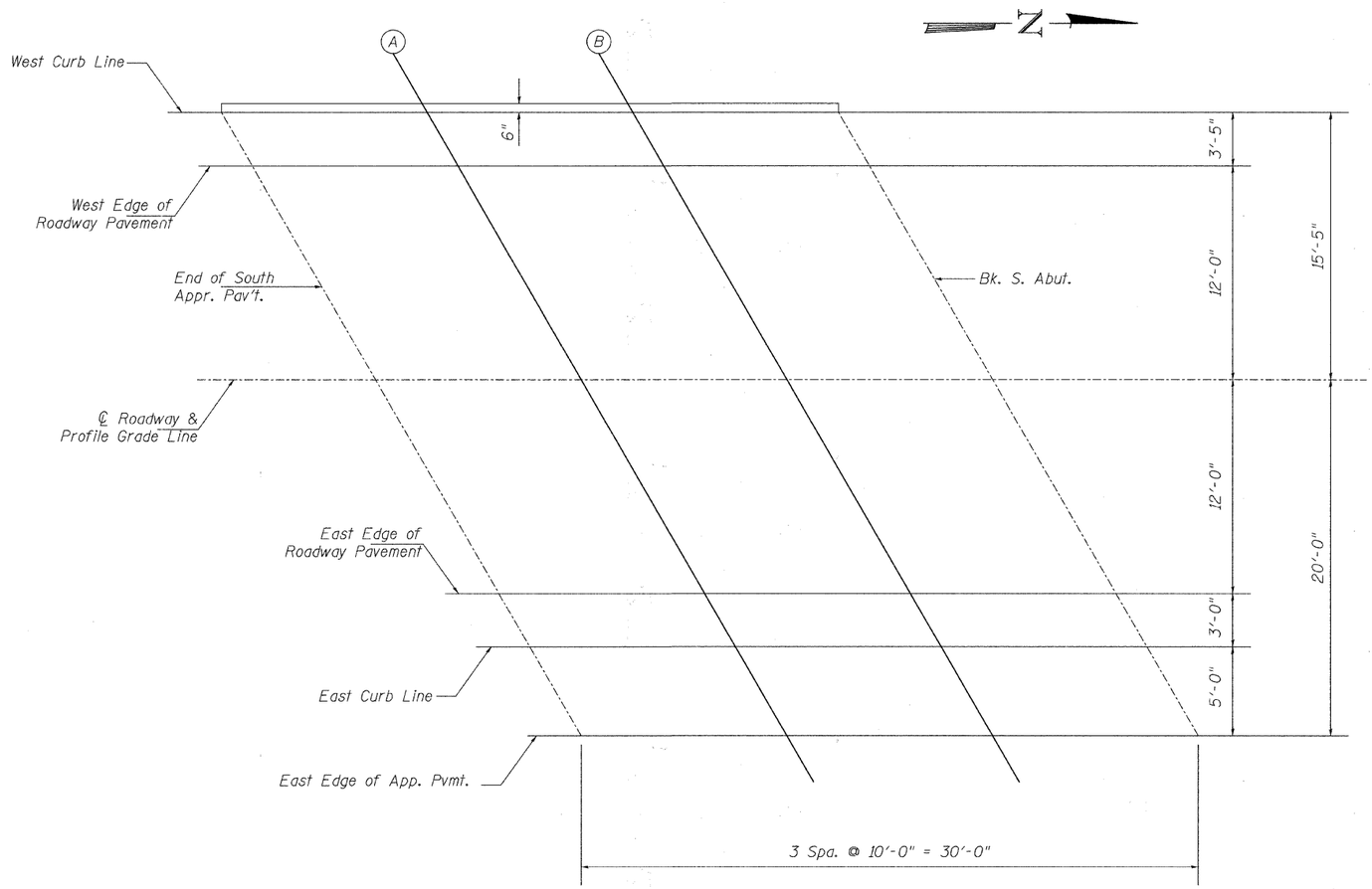
Location	Station	Offset	Theoretical Grade Elevations
End S. App. Pvmt.	08+97.72	12.00	534.85
A	09+07.72	12.00	534.55
B	09+17.72	12.00	534.26
Bk S. Abutment	09+27.72	12.00	533.96

EAST CURB LINE OF APPROACH PAVEMENT

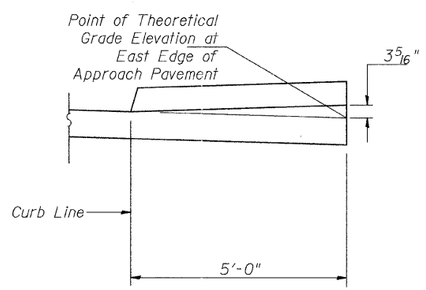
Location	Station	Offset	Theoretical Grade Elevations
End S. App. Pvmt.	08+99.45	15.00	534.74
A	09+09.45	15.00	534.44
B	09+19.45	15.00	534.14
Bk S. Abutment	09+29.45	15.00	533.85

EAST EDGE OF APPROACH PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End S. App. Pvmt.	09+02.34	20.00	534.55
A	09+12.34	20.00	534.25
B	09+22.34	20.00	533.95
Bk S. Abutment	09+32.34	20.00	533.66



PLAN SOUTH APPROACH PAVEMENT



SECTION THRU SIDEWALK

TOP OF SOUTH APPROACH PAVEMENT ELEVATIONS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 5 26 SHEETS	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 851	07-10117-00-BR	WILL	36	13
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

28828005

WEST CURB LINE OF APPROACH PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk N. Abutment	10+65.41	-15.42	529.81
A	10+75.41	-15.42	529.51
B	10+85.41	-15.42	529.21
End N. App. Pvmt.	10+95.41	-15.42	528.88

WEST EDGE OF ROADWAY PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk N. Abutment	10+67.38	-12.00	529.82
A	10+77.38	-12.00	529.52
B	10+87.38	-12.00	529.22
End N. App. Pvmt.	10+97.38	-12.00	528.88

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
Bk N. Abutment	10+74.31	0.00	529.80
A	10+84.31	0.00	529.50
B	10+94.31	0.00	529.18
End N. App. Pvmt.	11+04.31	0.00	528.82

EAST EDGE OF ROADWAY PAVEMENT

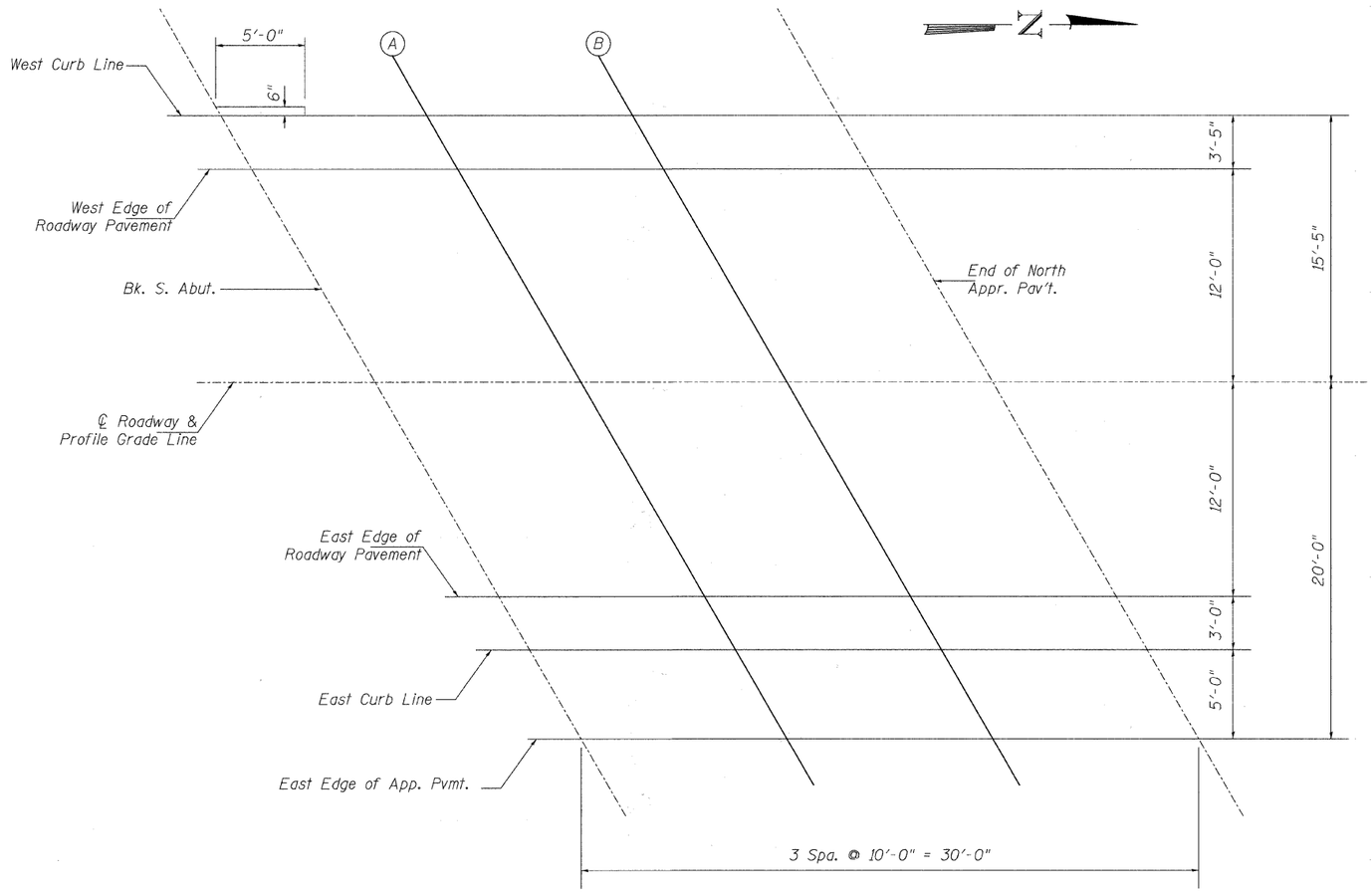
Location	Station	Offset	Theoretical Grade Elevations
Bk N. Abutment	10+81.24	12.00	529.41
A	10+91.24	12.00	529.09
B	11+01.24	12.00	528.75
End N. App. Pvmt.	11+11.24	12.00	528.37

EAST CURB LINE OF APPROACH PAVEMENT

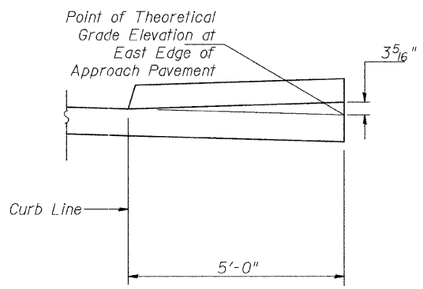
Location	Station	Offset	Theoretical Grade Elevations
Bk N. Abutment	10+82.97	15.00	529.29
A	10+92.97	15.00	528.97
B	11+02.97	15.00	528.62
End N. App. Pvmt.	11+12.97	15.00	528.24

EAST EDGE OF APPROACH PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Bk N. Abutment	10+85.86	20.00	529.10
A	10+95.86	20.00	528.77
B	11+05.86	20.00	528.41
End N. App. Pvmt.	11+15.86	20.00	528.02



PLAN NORTH APPROACH PAVEMENT

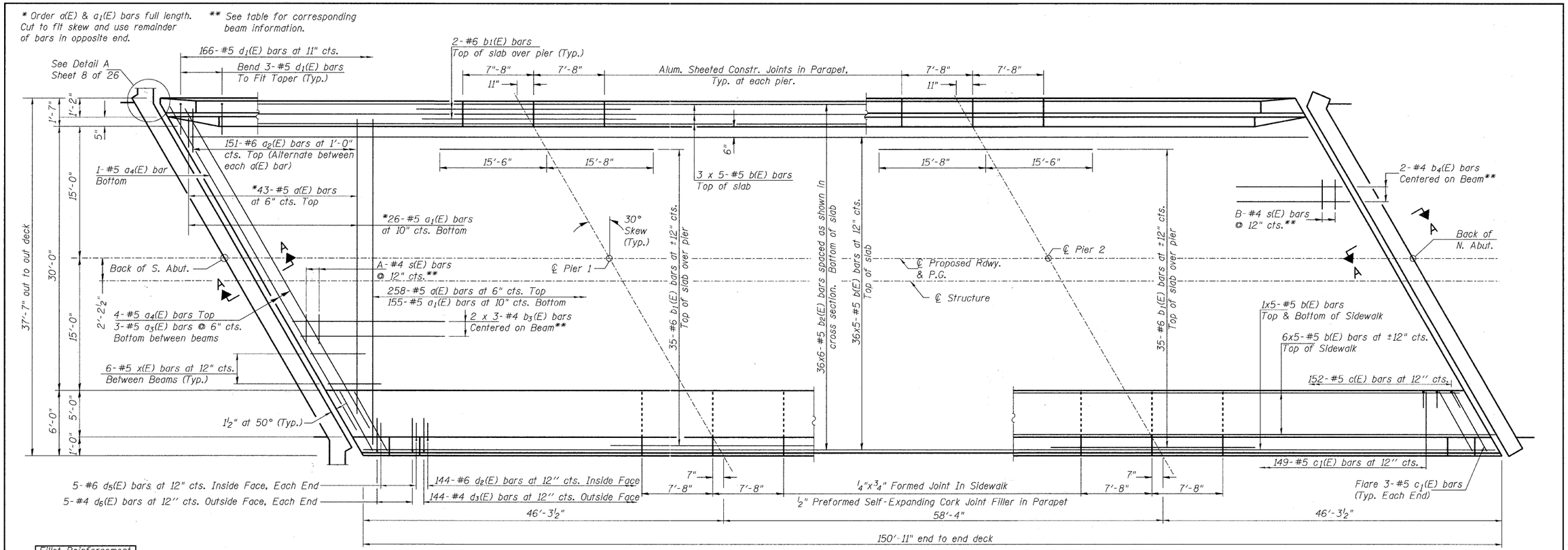


SECTION THRU SIDEWALK

TOP OF NORTH APPROACH PAVEMENT ELEVATIONS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

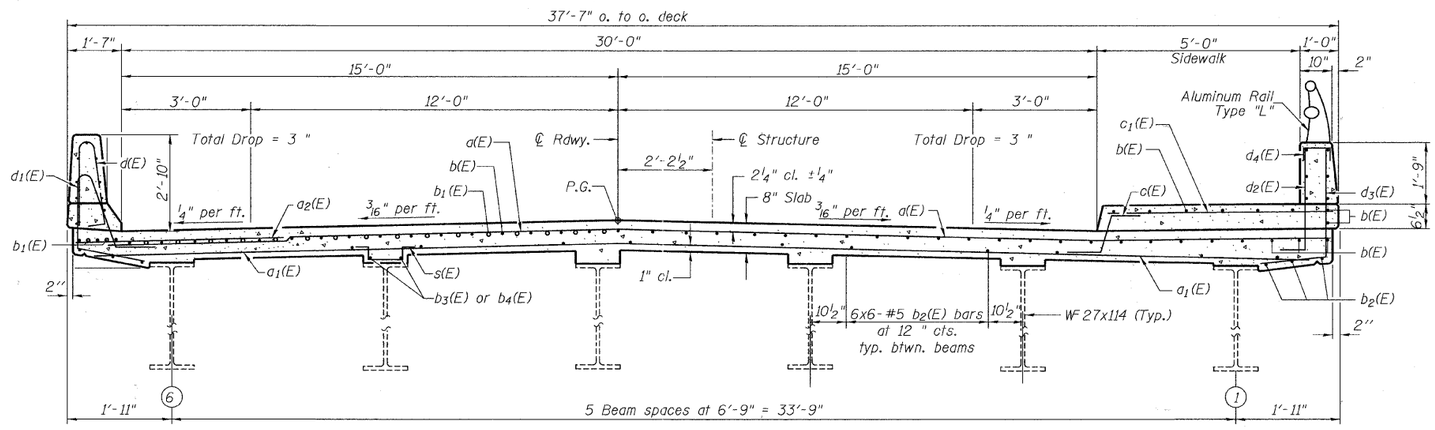
SHEET NO. 6	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	14
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B006



PLAN

Fillet Reinforcement		
Beam No.	A	B
1	0	0
2	0	0
3	0	0
4	80	0
5	85	15
6	0	0



NEAR PIER — NEAR MIDSPAN

CROSS SECTION
(Looking North)

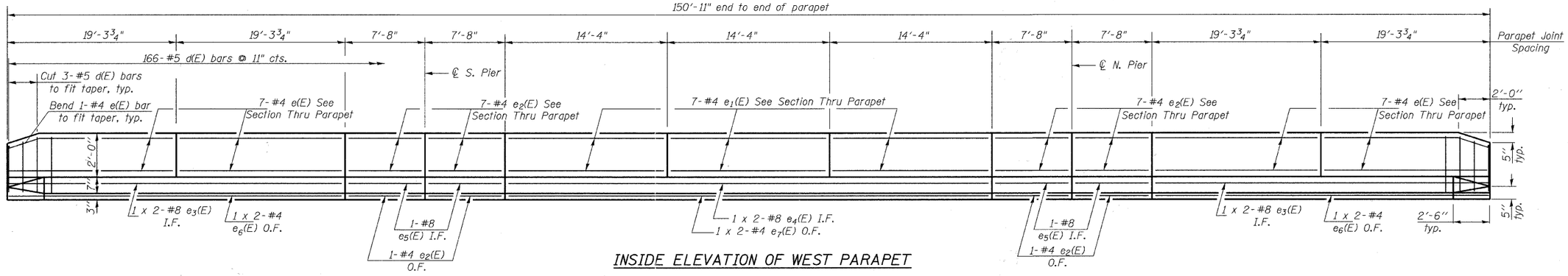
MIN. BAR LAP
#4 = 2'-0"
#5 = 2'-6"

Notes:
See Sheet 8 & 9 of 26 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 8 & 9 of 26 for parapet, sidewalk and curb reinforcement.
See Sheet 1 of 26 for drainage scupper locations.
See Sheet 9 of 26 for Section A-A.
Engineer shall field verify fillet heights. Any location that exceeds a fillet height of 6" requires reinforcement.

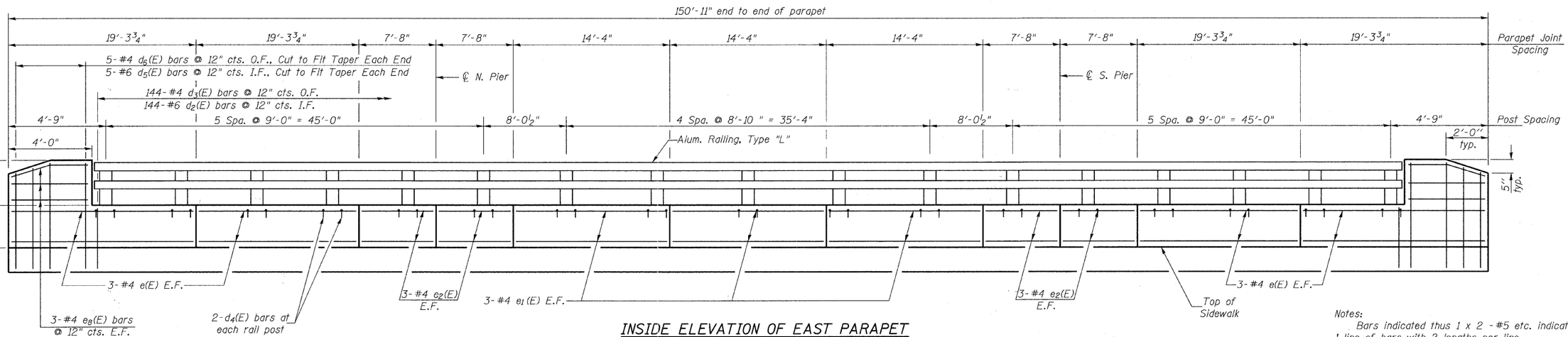
SUPERSTRUCTURE
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 7	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	15
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

28828007

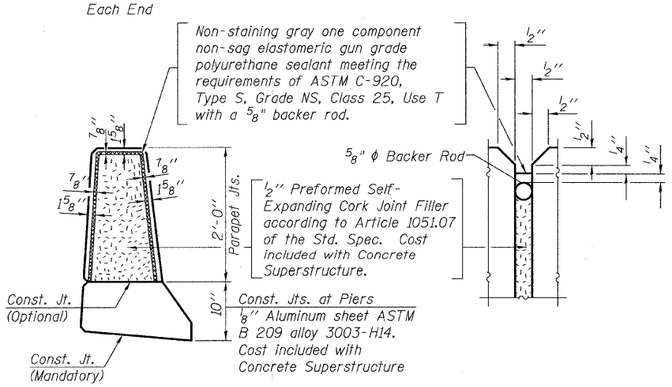


INSIDE ELEVATION OF WEST PARAPET

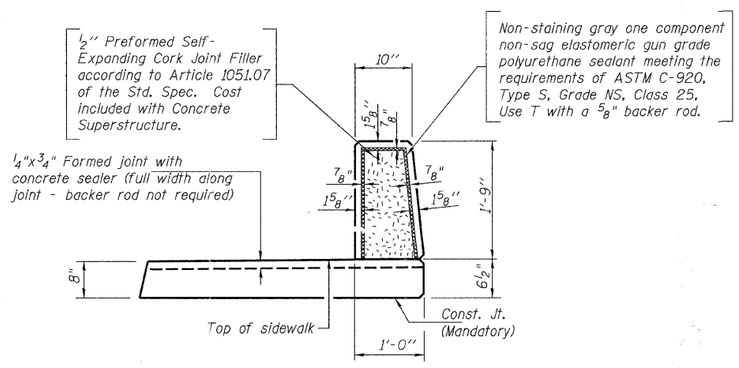


INSIDE ELEVATION OF EAST PARAPET

Notes:
Bars indicated thus 1 x 2 - #5 etc. indicates 1 line of bars with 2 lengths per line.
I.F. = Inside Face
O.F. = Outside Face
E.F. = Each Face
See Sheet 9 of 26 for section thru parapet and Bill of Materials.



(West Parapet)



(East Parapet)

PARAPET JOINT DETAILS

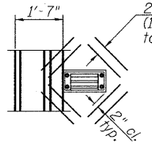
MIN. BAR LAP

#4 = 2'-0"
#8 = 5'-2"

SUPERSTRUCTURE DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

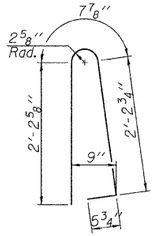
SHEET NO. 8	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	16
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

28828008

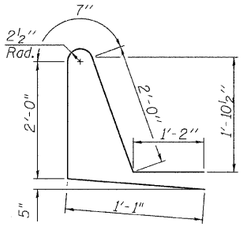


PLAN DETAIL FOR SCUPPER

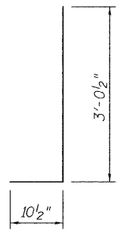
Note:
Cut longitudinal reinforcement to clear drainage scuppers.



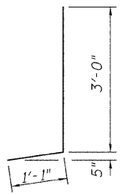
BAR d(E)



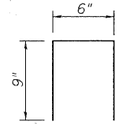
BAR d1(E)



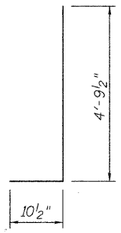
BAR d2(E)



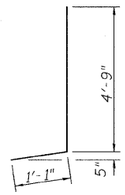
BAR d3(E)



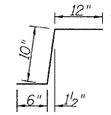
BAR d4(E)



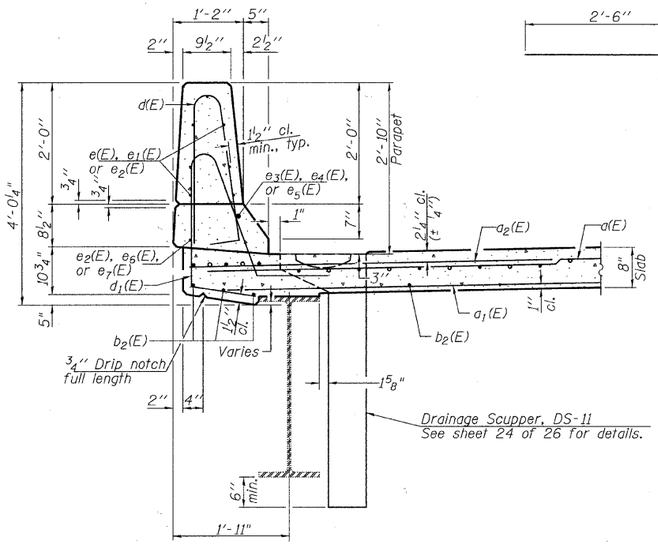
BAR d5(E)



BAR d6(E)

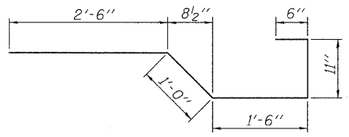


BAR c(E)

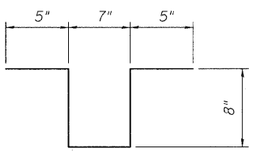


SECTION THRU PARAPET

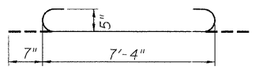
(Looking North)



BAR x(E)



BAR s(E)



a3(E) BAR

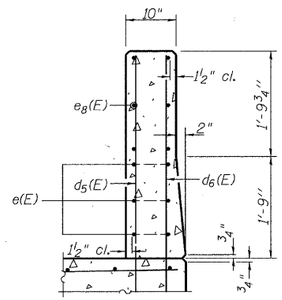
SECTION THRU SIDEWALK

(Looking North)

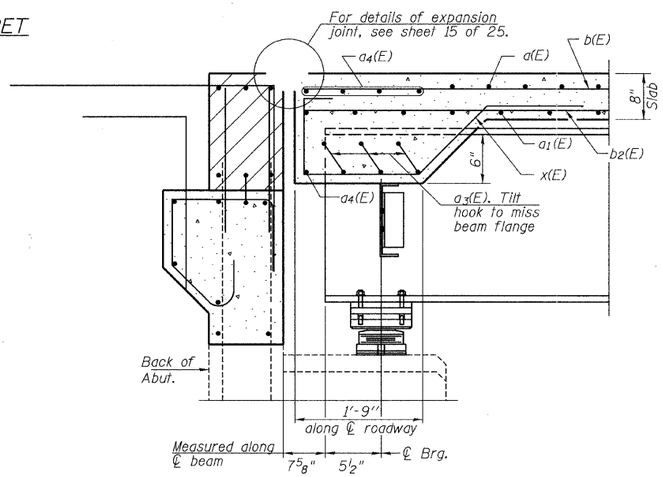
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	301	#5	37'-0"	
a1(E)	181	#5	36'-0"	
a2(E)	151	#6	6'-6"	
a3(E)	30	#5	8'-6"	
a4(E)	10	#5	42'-8"	
a5(E)	16	#5	1'-6"	
b(E)	235	#5	32'-2"	
b1(E)	74	#6	31'-2"	
b2(E)	216	#5	27'-3"	
b3(E)	12	#4	30'-0"	
b4(E)	2	#4	15'-0"	
c(E)	152	#5	2'-4"	
c1(E)	152	#5	5'-6"	
d(E)	166	#5	5'-7"	
d1(E)	166	#5	6'-10"	
d2(E)	144	#6	3'-11"	
d3(E)	144	#4	4'-1"	
d4(E)	34	#4	2'-0"	
d5(E)	10	#6	5'-8"	
d6(E)	10	#4	5'-10"	
e(E)	52	#4	19'-0"	
e1(E)	39	#4	14'-1"	
e2(E)	56	#4	7'-5"	
e3(E)	4	#8	21'-10"	
e4(E)	2	#8	24'-0"	
e5(E)	4	#8	7'-5"	
e6(E)	4	#4	20'-3"	
e7(E)	2	#4	22'-5"	
e8(E)	12	#4	3'-9"	
s(E)	180	#4	2'-9"	
x(E)	60	#5	6'-5"	
Reinforcement Bars, Epoxy Coated			Pound	45,760
Concrete Superstructure			Cu. Yds.	203.7

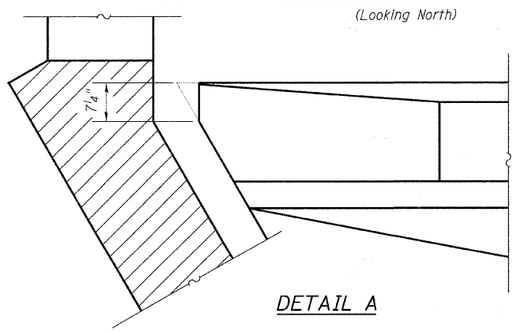
Bars indicated thus 1 x 5-#5 etc. indicates 1 line of bars with 5 lengths per line.



SECTION THRU ENDS OF EAST PARAPET



SECTION A-A

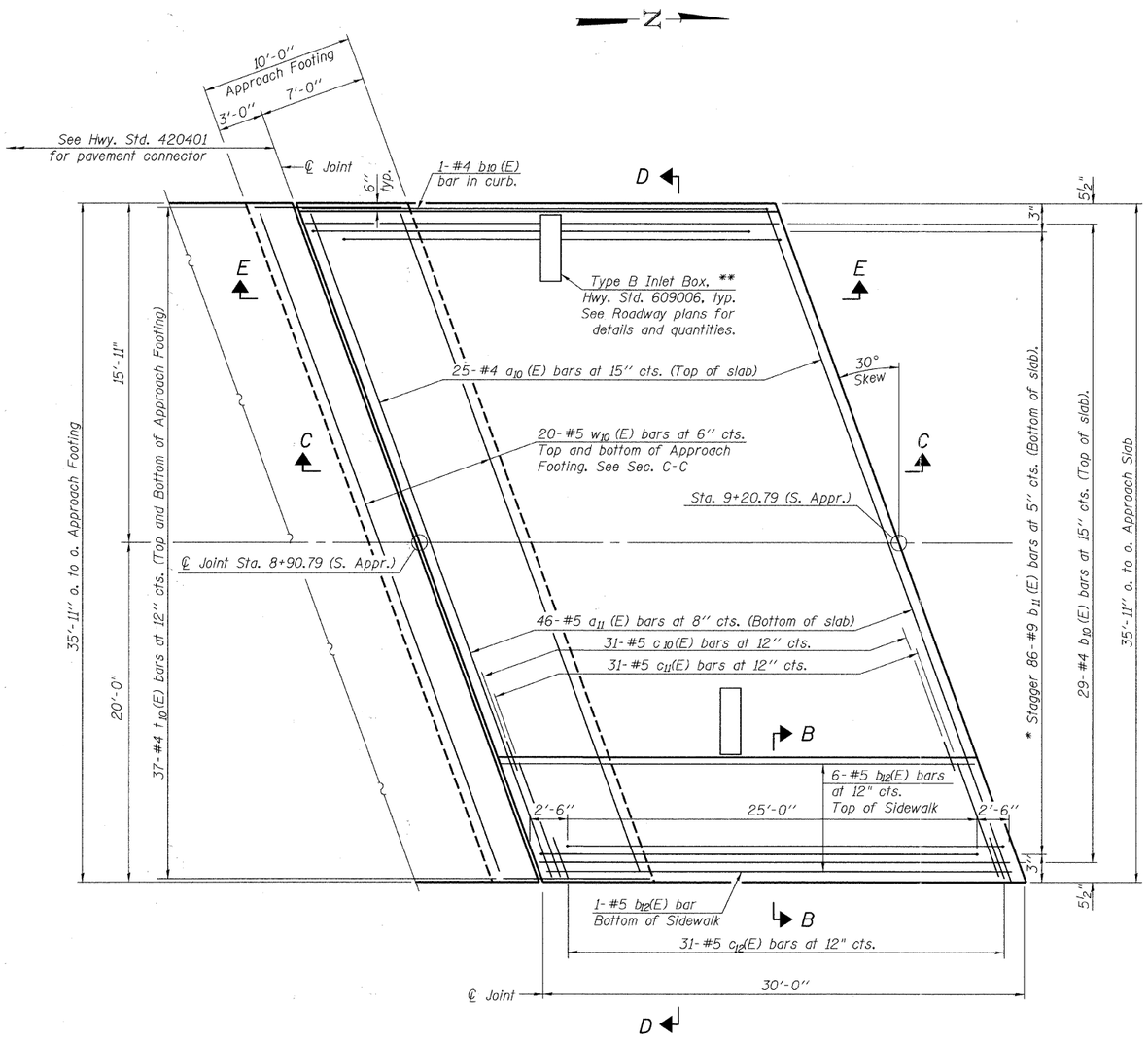


DETAIL A

SUPERSTRUCTURE DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

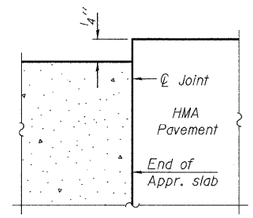
SHEET NO. 9	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	17
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

Notes:
See sheet 11 of 26 for Sections C-C, D-D & E-E.
a_{10} (E) and a_{11} (E) bar spacings measured along ℄ Rdwy.



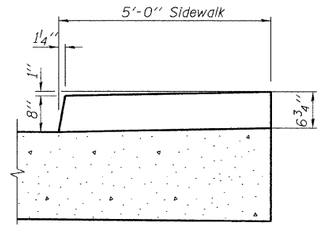
PLAN

* Tilt #9 b_{11} (E) bars as required to maintain clearance.
** Cut slab reinforcement to fit drain.



FLEXIBLE PAVEMENT

DETAIL A

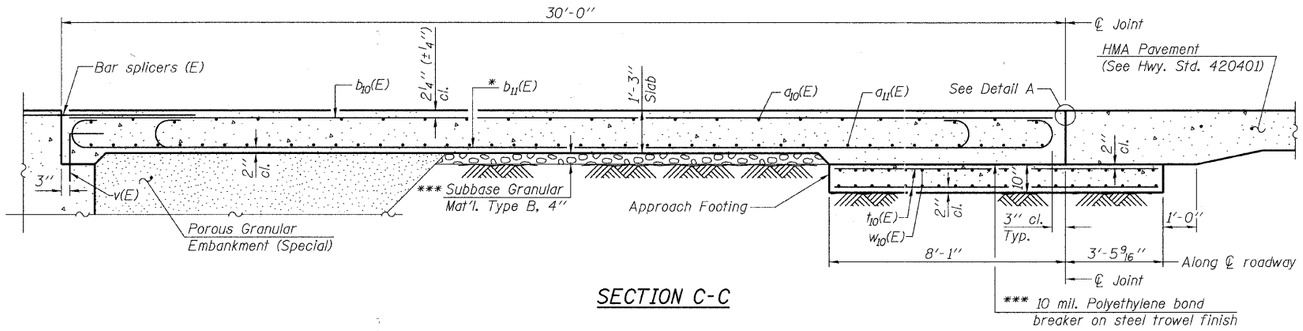


VIEW B-B

SOUTH BRIDGE APPROACH SLAB DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 10	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	18
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

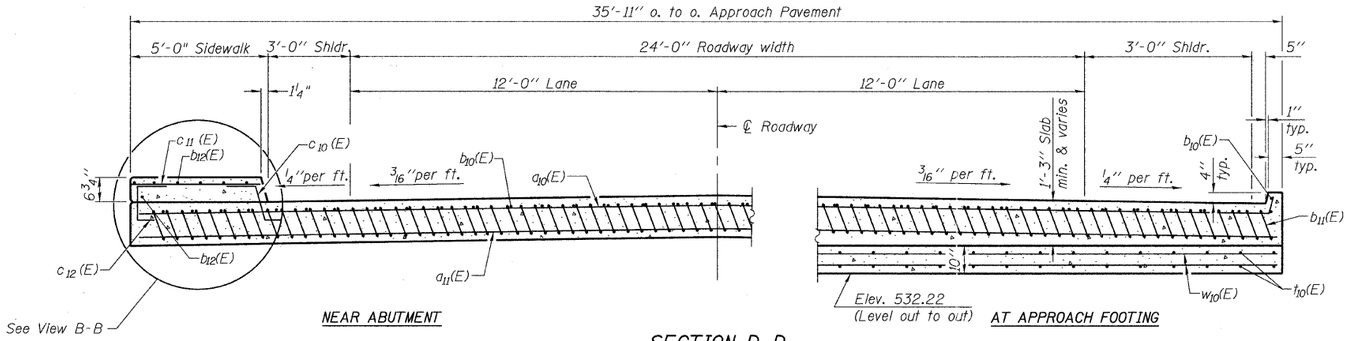
2882B010



SECTION C-C

Notes:

See sheet 10 of 26 for Detail A and View B-B.
Approach slab concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
For v(E) bar details, see sheet 21 of 26.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 25 of 26.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 26.



SECTION D-D

(See Plan for dimensions not shown)

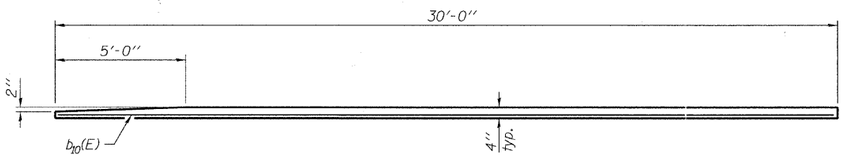
* Tilt #9 b_{11}(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

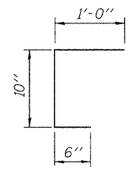
**SOUTH APPROACH SLAB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{10}(E)	25	#4	41'-5"	
a_{11} (E)	46	#5	41'-2"	
b_{10} (E)	30	#4	29'-8"	
b_{11} (E)	86	#9	29'-9"	
b_{12}(E)	7	#5	30'-10"	
c_{10} (E)	32	#5	2'-4"	
c_{11} (E)	32	#5	4'-9"	
c_{12} (E)	32	#5	2'-4"	
t_{10}(E)	74	#4	11'-3"	
w_{10} (E)	40	#5	41'-2"	
Concrete Superstructure		Cu. Yd.	63.6	
Concrete Structures		Cu. Yd.	12.8	
Reinforcement Bars, Epoxy Coated		Pound	14,770	

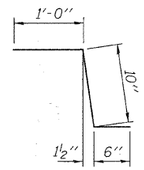
** Includes Concrete Superstructure and Reinforcement Bars, Epoxy Coated for sidewalk on abutment.



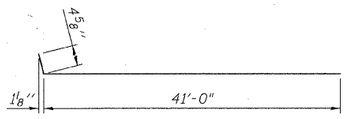
VIEW E-E



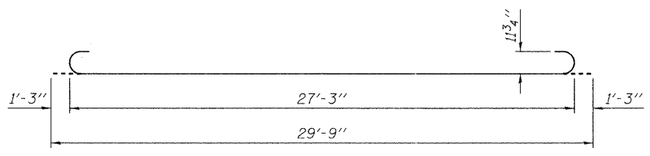
BAR c_{12}(E)



BAR c_{10}(E)



BAR a_{10}(E)



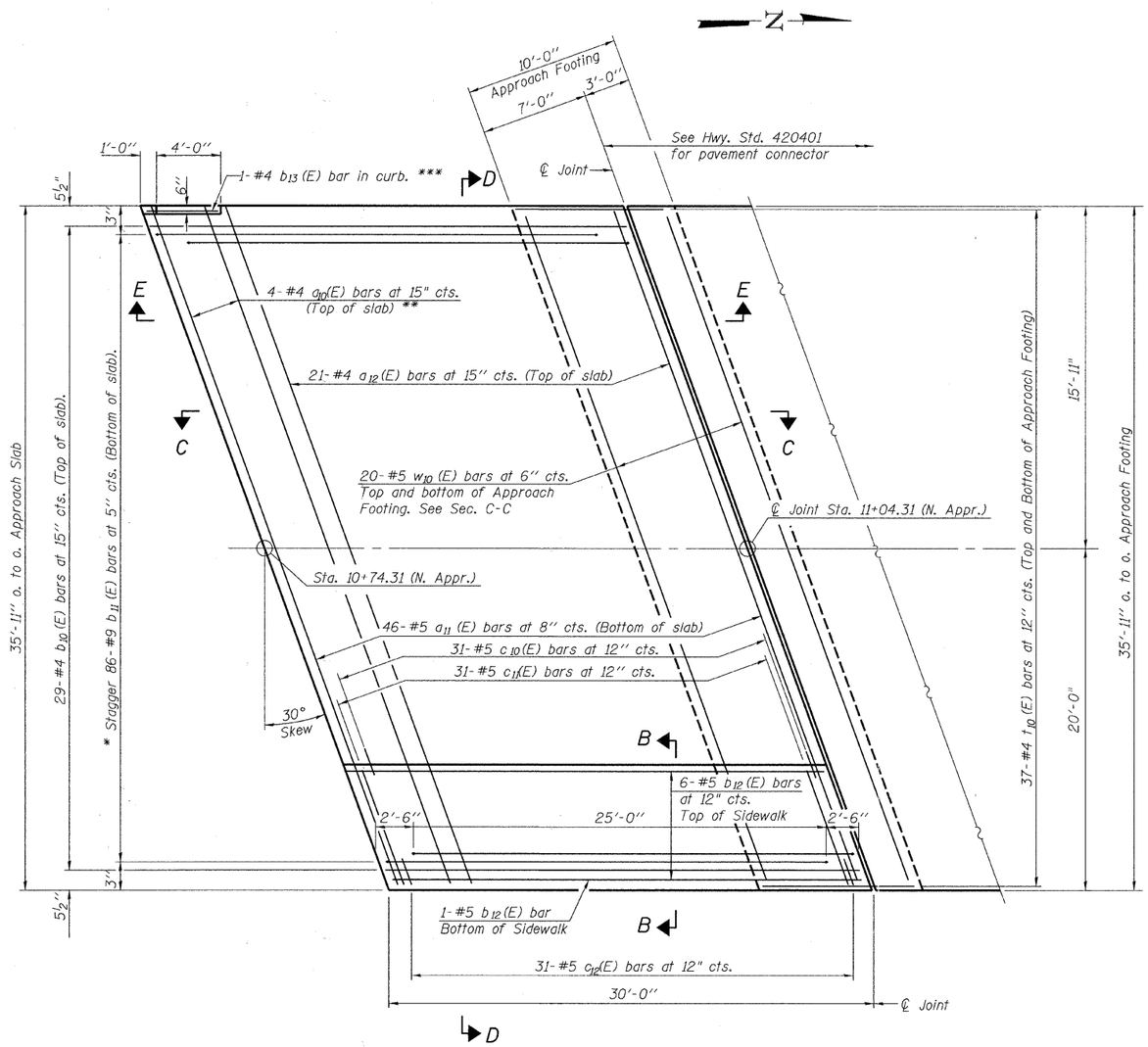
BAR b_{11}(E)

SOUTH BRIDGE APPROACH SLAB DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 11	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	19
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

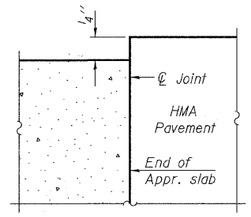
2882B011

Notes:
See sheet 13 of 26 for Sections C-C, D-D, & E-E.
a_{10} (E) and a_{11} (E) bar spacings measured along ℄ Rdwy.



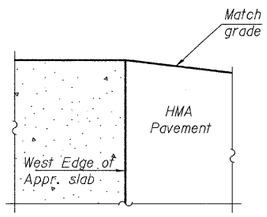
PLAN

* Tilt #9 b_{11}(E) bars as required to maintain clearance.
** Cut to fit taper in curb.
*** Bend to fit taper.

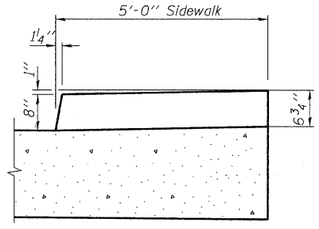


FLEXIBLE PAVEMENT

DETAIL A



DETAIL B

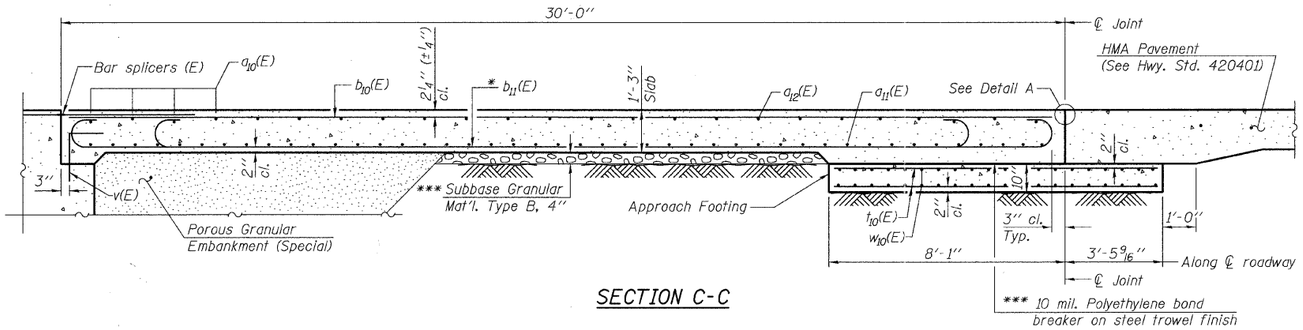


VIEW B-B

NORTH BRIDGE APPROACH SLAB DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

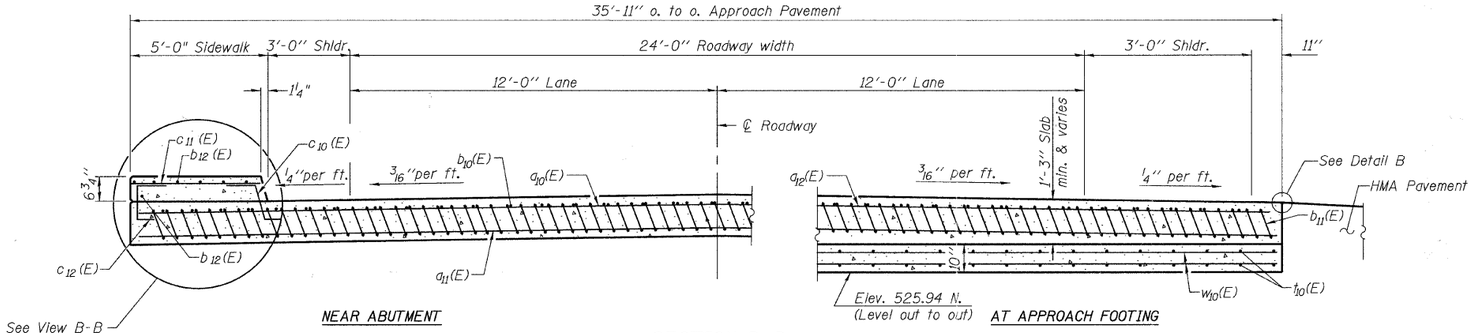
SHEET NO. 12	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	20
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B012



SECTION C-C

Notes:
See sheet 12 of 26 for Detail A, Detail B, and View B-B.
Approach slab concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
For v(E) bar details, see sheet 21 of 26.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 25 of 26.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 26.



SECTION D-D
(See Plan for dimensions not shown)

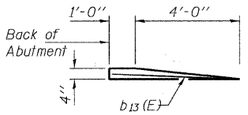
* Tilt #9 b_1(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

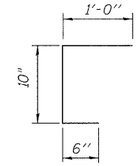
**NORTH APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a_{10}(E)	4	#4	41'-5"	
a_{11}(E)	46	#5	41'-2"	
a_{12}(E)	21	#4	41'-2"	
b_{10}(E)	29	#4	29'-8"	
b_{11}(E)	86	#9	29'-9"	
b_{12}(E)	7	#5	30'-10"	
b_{13}(E)	1	#4	4'-9"	
c_{10}(E)	32	#5	2'-4"	
c_{11}(E)	32	#5	4'-9"	
c_{12}(E)	32	#5	2'-4"	
t_{10}(E)	74	#4	11'-3"	
w_{10}(E)	40	#5	41'-2"	
Concrete Superstructure			Cu. Yd.	61.5
Concrete Structures			Cu. Yd.	12.8
Reinforcement Bars, Epoxy Coated			Pound	14,750

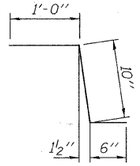
** Includes Concrete Superstructure and Reinforcement Bars, Epoxy Coated for sidewalk on abutment.



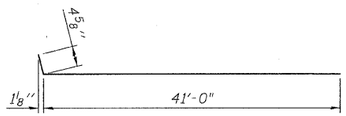
VIEW E-E



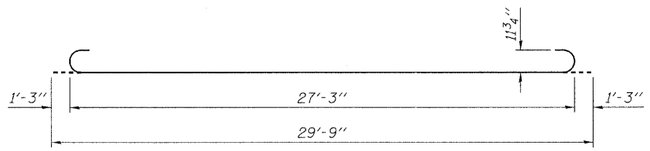
BAR c_{12}(E)



BAR c_{10}(E)



BAR a_{10}(E)

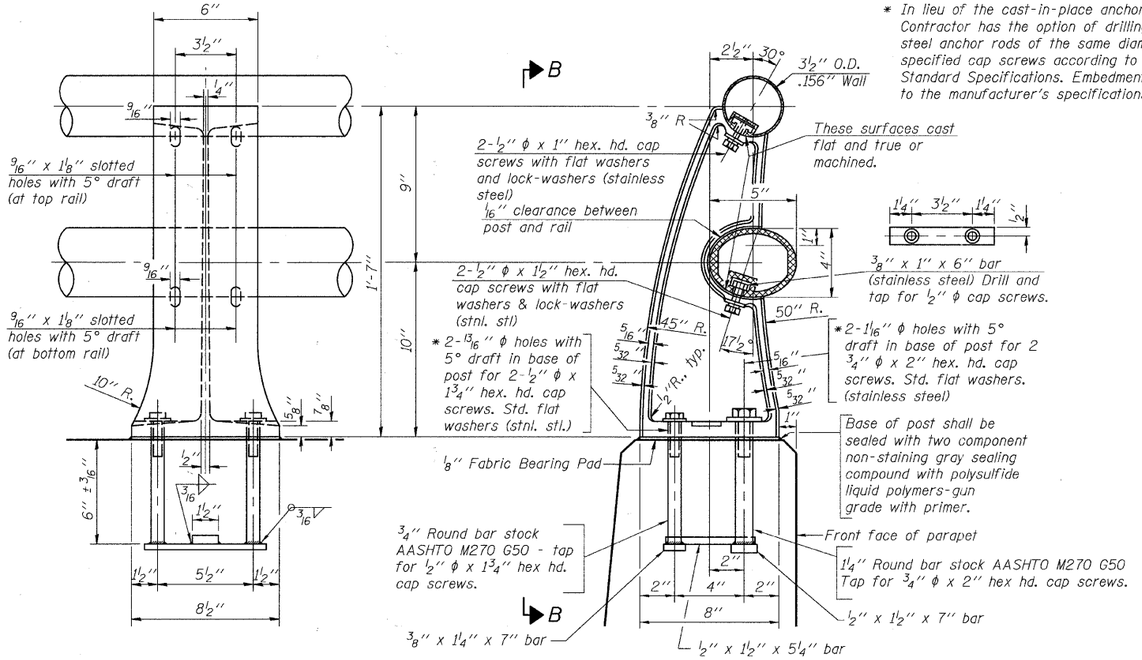


BAR b_{11}(E)

NORTH BRIDGE APPROACH SLAB DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 13	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	21
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

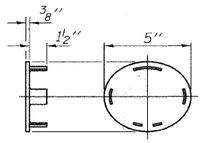
2882B013



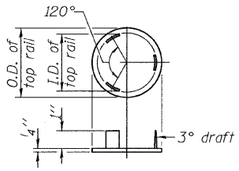
* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's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

VIEW B-B

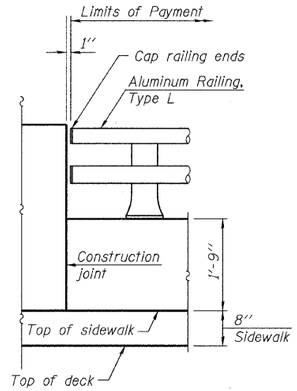
SECTION A-A



CAST END CAP
For bottom rail
DRIVE FIT TYPE

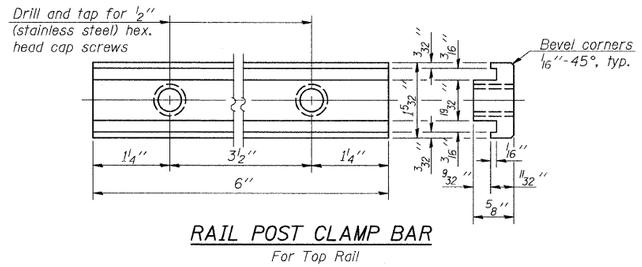


CAST END CAP
For top rail

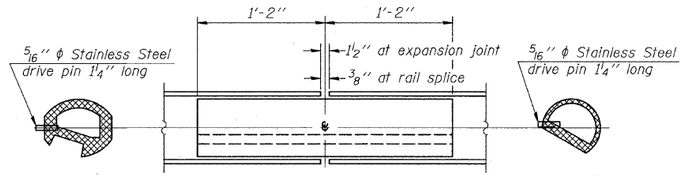


Limits of Payment

RAIL POST DETAILS



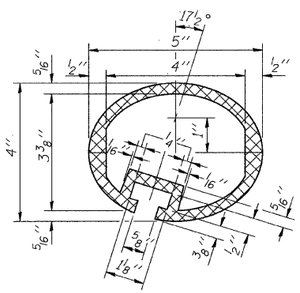
RAIL POST CLAMP BAR
For Top Rail



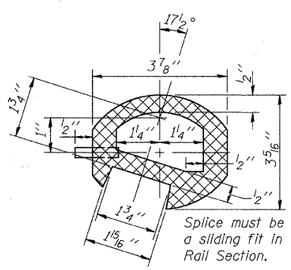
BOTTOM RAIL

RAIL SPLICE

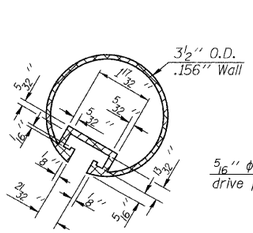
TOP RAIL



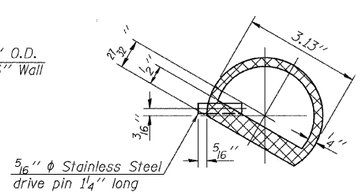
SEC. THRU ELLIPTICAL RAIL SECTION



SEC. THRU SPLICE



SECTION THRU TOP RAIL



SECTION THRU SPLICE
For Top Rail

Notes:
All Posts shall be normal to parapet.
All joints in rail shall be spliced per detail.
All exposed rail ends shall be capped per detail.
Provide 1-⅛'' and 2-1/16'' 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 9 of 26 for rail post spacing.

BILL OF MATERIAL

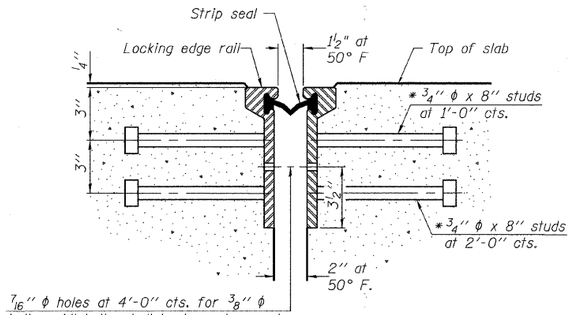
Item	Unit	Quantity
Aluminum Railing, Type L	Foot	143

ALUMINUM RAILING TYPE L
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

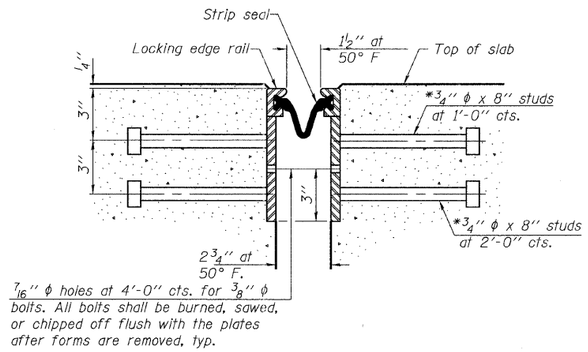
SHEET NO. 14	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	22
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B014

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



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

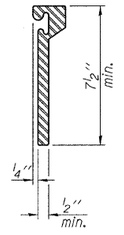
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

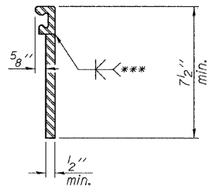
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

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

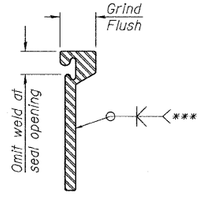
Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.



ROLLED EXTRUDED RAIL



WELDED RAIL

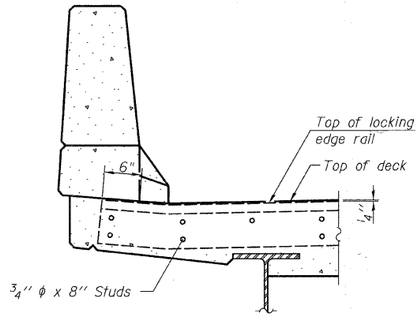


**** Back gouge not required if complete joint penetration is verified by mock-up.*

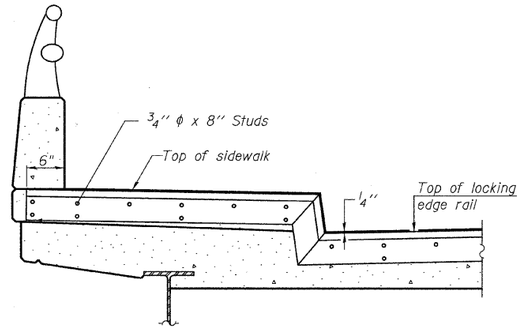
LOCKING EDGE RAIL SPLICE

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

LOCKING EDGE RAILS



AT WEST PARAPET



AT EAST SIDEWALK

Shorter plates with a single row of studs at 12" cts. may be necessary on sidewalks or medians which are shallower than 9". See manufacturer's recommendation.

TYPICAL END TREATMENTS

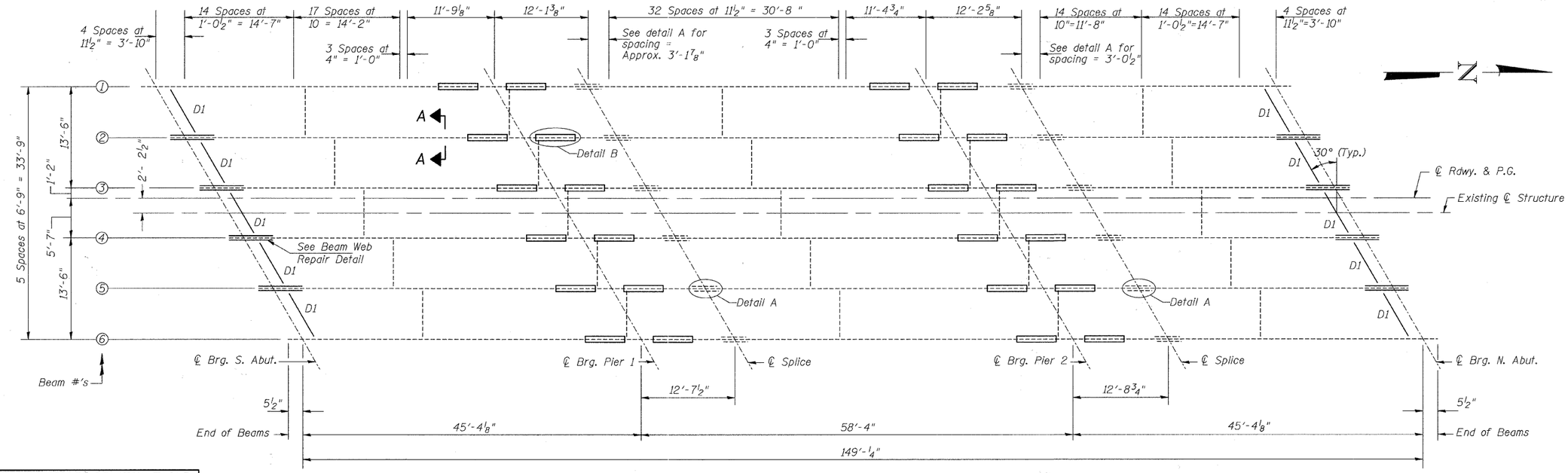
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	85

PREFORMED JOINT STRIP SEAL
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 15	TR 851	07-10117-00-BR	WILL	36	23
26 SHEETS		S.N. 099-3290	CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B015



FRAMING PLAN

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R_{DC1}	(k)	13.5	47.9
R_{DC2}	(k)	5.0	16.3
R_{DW}	(k)	6.0	19.2
R_{L+IM}	(k)	71.2	120.8
R_{Total}	(k)	95.7	204.2

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.^{4} and in.^{3}).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in.^{4} and in.^{3}).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.^{4} and in.^{3}).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.^{3}).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

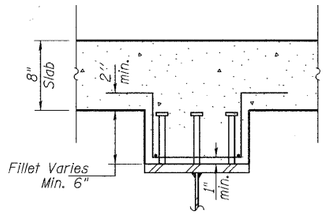
$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_f M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

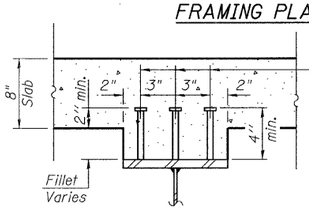
f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+IM}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

Vr: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.



DEEP FILLET SECTION



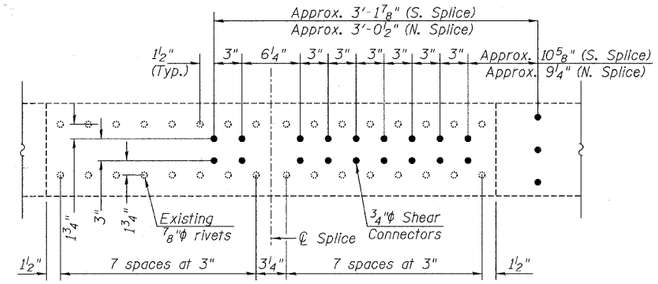
STANDARD FILLET SECTION

¾" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (2160 Required)

SECTION A-A

INTERIOR GIRDER MOMENT TABLE				
		0.4 Span 1 & 0.6 Span 3	Piers 1 & 2	0.5 Span 2
I_s	(in^4)	4081	5817	4081
$I_c(n)$	(in^4)	11583	-	11583
$I_c(3n)$	(in^4)	8561	-	8561
S_s	(in^3)	299	411	299
$S_c(n)$	(in^3)	451	-	451
$S_c(3n)$	(in^3)	408	-	408
Z	(in^3)	-	464	-
DC1	(k/')	0.823	0.860	0.823
M_{DC1}	('k)	109	239	115
DC2	(k/')	0.286	0.286	0.286
M_{DC2}	('k)	44	66	56
DW	(k/')	0.338	0.338	0.338
M_{DW}	('k)	52	78	66
M_{L+IM}	('k)	492	344	515
M_u (Strength I)	('k)	1130	1096	1213
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	1768	-	1768
f_s DC1	(ksi)	4.37	6.98	4.62
f_s DC2	(ksi)	1.29	1.93	1.65
f_s DW	(ksi)	1.53	2.28	1.94
f_s 1.3(L+IM)	(ksi)	17.02	13.06	17.81
f_s (Service II)	(ksi)	24.22	24.65	26.02
** f_s (Total)(Strength I)	(ksi)	-	32.14	-
Vr	(k)	41	-	39

* Compact sections
** Non-Compact & Slender sections



DETAIL A

Note:
See sheet 17 of 26 for Detail B, Diaphragm Details, and Beam Web Repair Details.

STRUCTURAL STEEL DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 16	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	24
		S.N. 099-3290	CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

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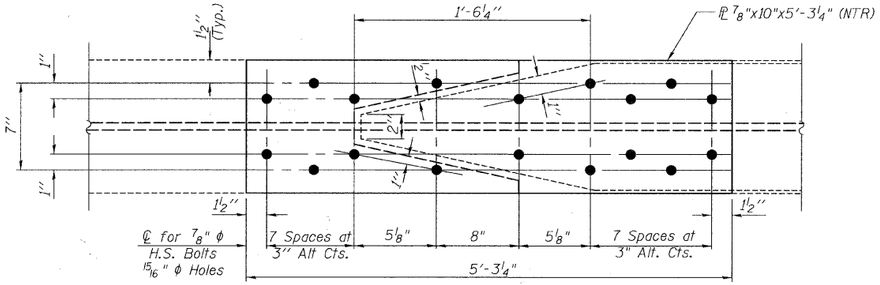
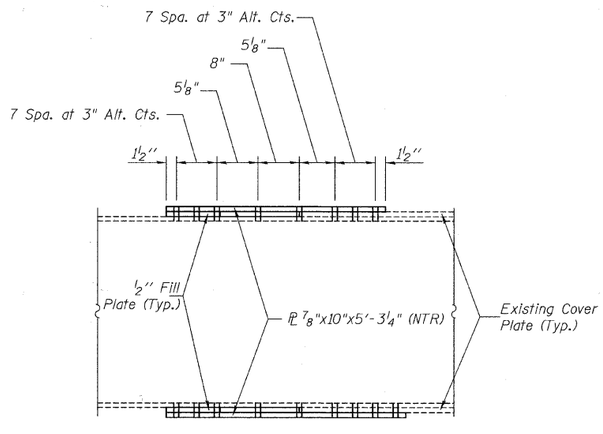
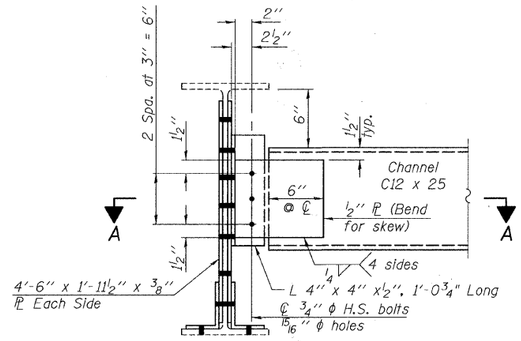


PLAN VIEW

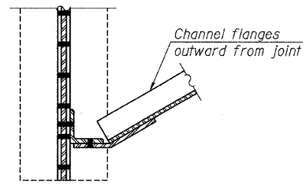


ELEVATION

DETAIL B
COVER PLATE REPAIR DETAIL
(48 Required)

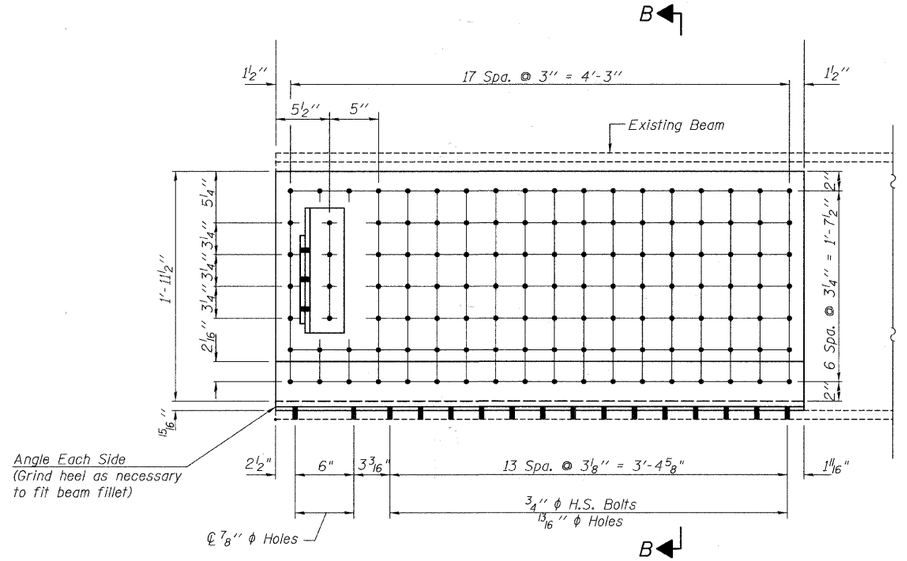


Note:
Two hardened washers required for each set of oversized holes.

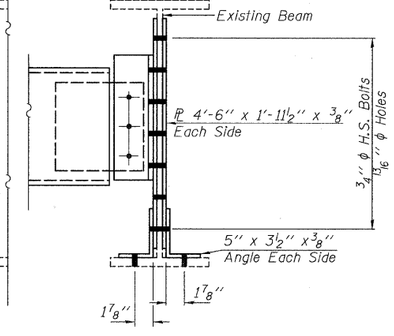


SECTION A-A

D1 DIAPHRAGM CONNECTIONS



BEAM WEB REPAIR DETAIL



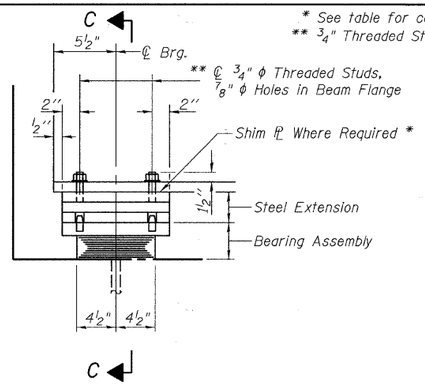
SECTION B-B

Notes:
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
All steel required for beam web repairs & cover plate repairs is paid for as Furnishing and Erecting Structural Steel.

STEEL REPAIR DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

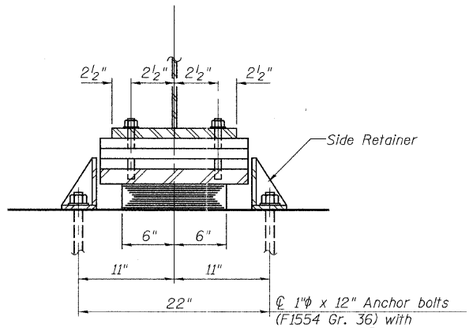
SHEET NO. 17	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	25
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B017

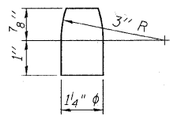


* See table for corresponding Beam Steel Extension Plate Thickness
** ¾" Threaded Studs, shall be placed in the field

ELEVATION AT ABUT.



SECTION C-C

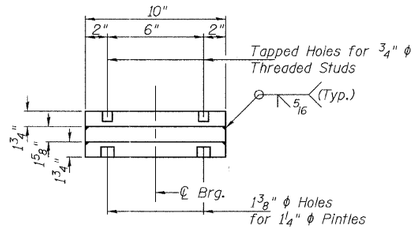


PINTLE
(Gr. 50)

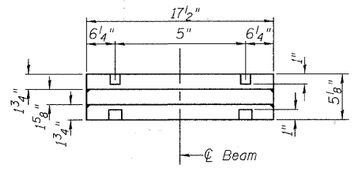
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers, steel extensions and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.
The concrete deck shall be removed prior to jacking and removing of existing bearings.

TYPE I ELASTOMERIC EXP. BRG. AT S. ABUTMENT

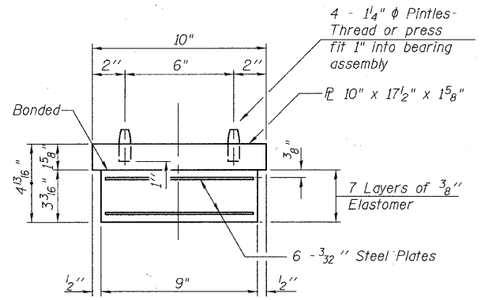
S. ABUT. SHIMPLATE TABLE	
Beam No.	Thickness
1	⅝"
2	¾"
3	-
4	¼"
5	½"
6	⅝"



ELEVATION STEEL EXTENSION

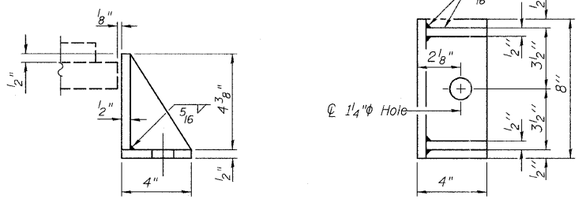


END VIEW STEEL EXTENSION

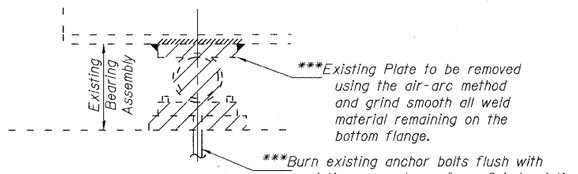


BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER TYPE I
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



*** Cost is included in Jack and Remove Existing Bearings.

EXISTING BEARING REMOVAL DETAIL

BILL OF MATERIAL

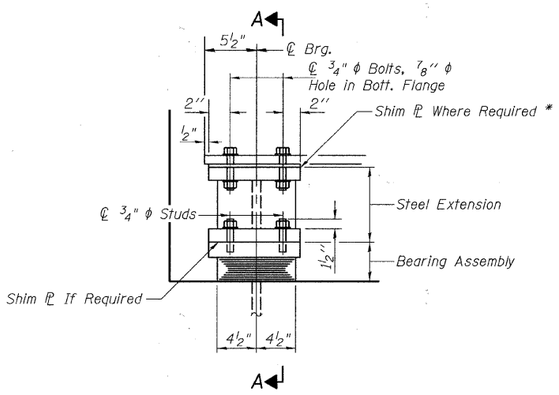
Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, 1"	Each	12
Jack and Remove Existing Bearings	Each	6

SOUTH ABUTMENT BEARING DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

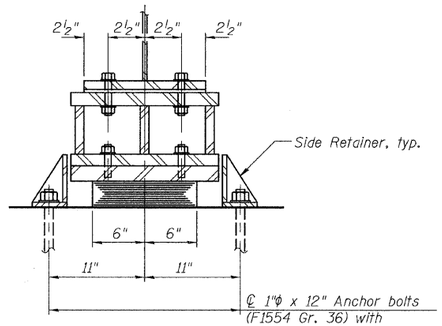
SHEET NO. 18	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	26
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B018

* See table for corresponding Shim Plate Thickness

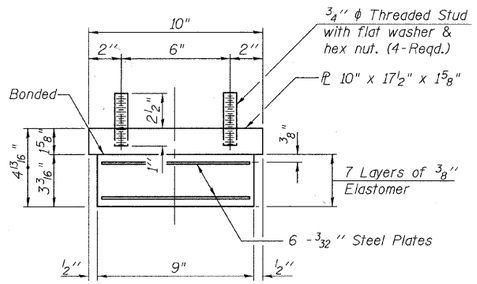


ELEVATION AT ABUT.



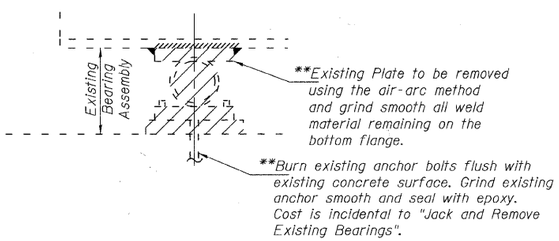
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT N. ABUTMENT



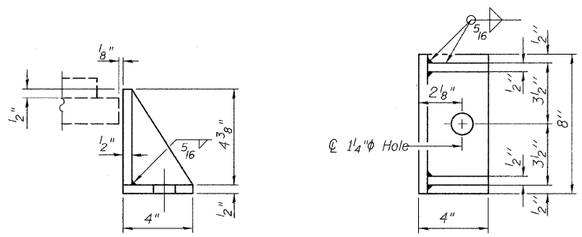
BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



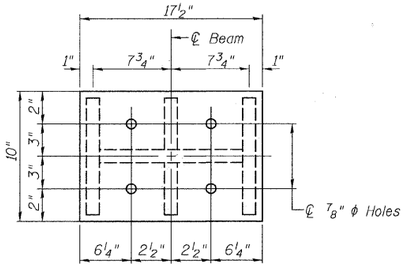
** Cost is included in Jack and Remove Existing Bearings.

EXISTING BEARING REMOVAL DETAIL



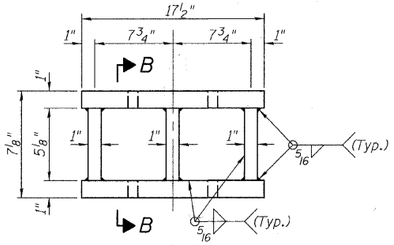
SIDE RETAINER TYPE I

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



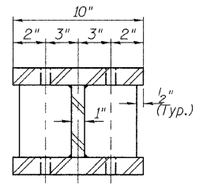
PLAN STEEL EXTENSION

(North Abutment)



ELEVATION STEEL EXTENSION

(North Abutment)



SECTION B-B

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers, steel extensions and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

The concrete deck shall be removed prior to jacking and removing the existing bearings.

BILL OF MATERIAL

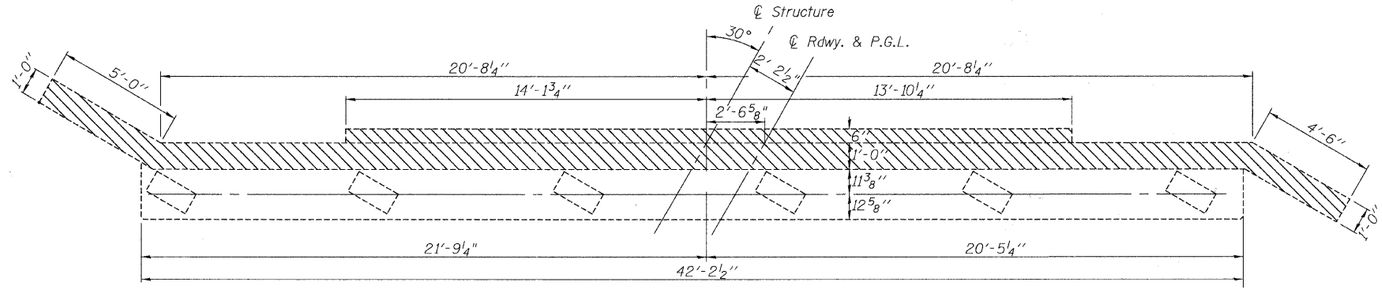
Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, 1"	Each	12
Jack and Remove Existing Bearings	Each	6

N. ABUT. SHIMPLATE TABLE	
Beam No.	Thickness
1	½"
2	-
3	-
4	½"
5	⅝"
6	⅞"

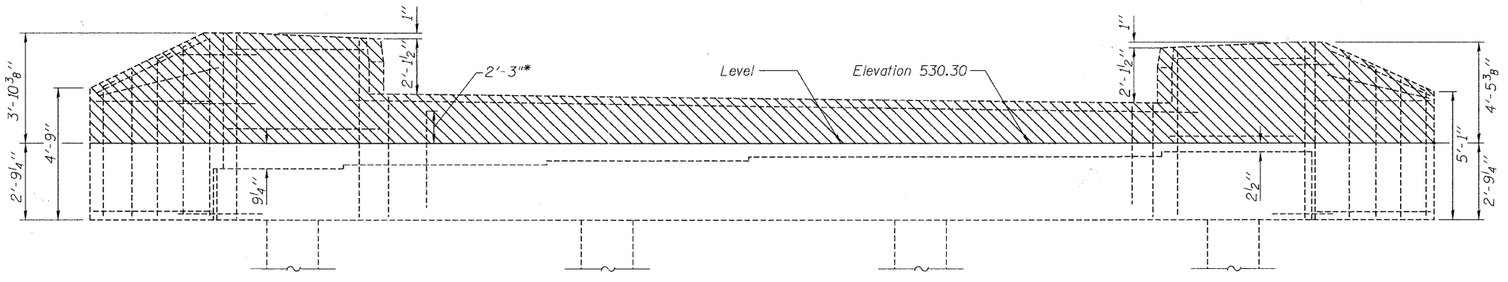
NORTH ABUTMENT BEARING DETAILS
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 19	TR 851	07-10117-00-BR	WILL	36	27
26 SHEETS	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B019

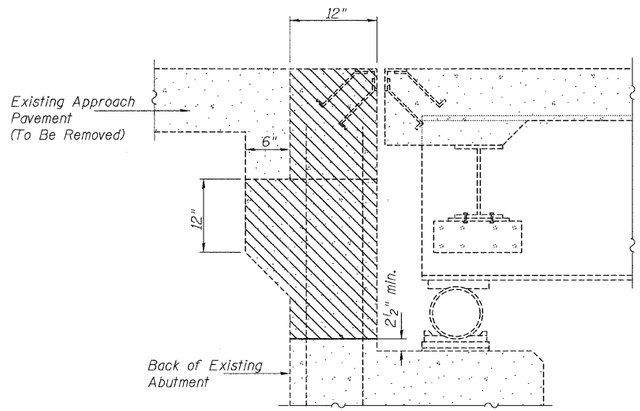


PLAN



ELEVATION

* Cut existing bars in the backwall 2'-3" above level concrete cut.



SECTION THRU
ABUTMENT CONCRETE REMOVAL

Notes:
Existing vertical reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
Hatched area indicates Concrete Removal.

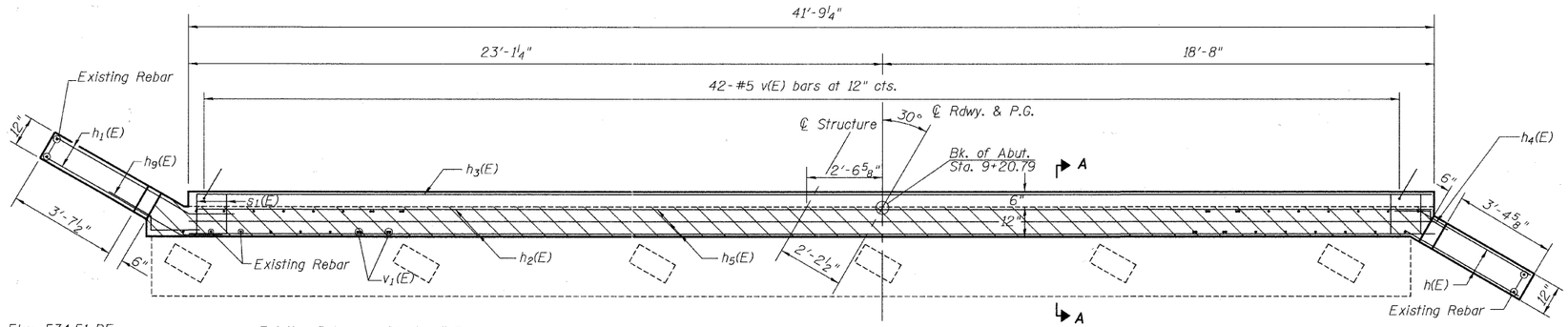
BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	7.6

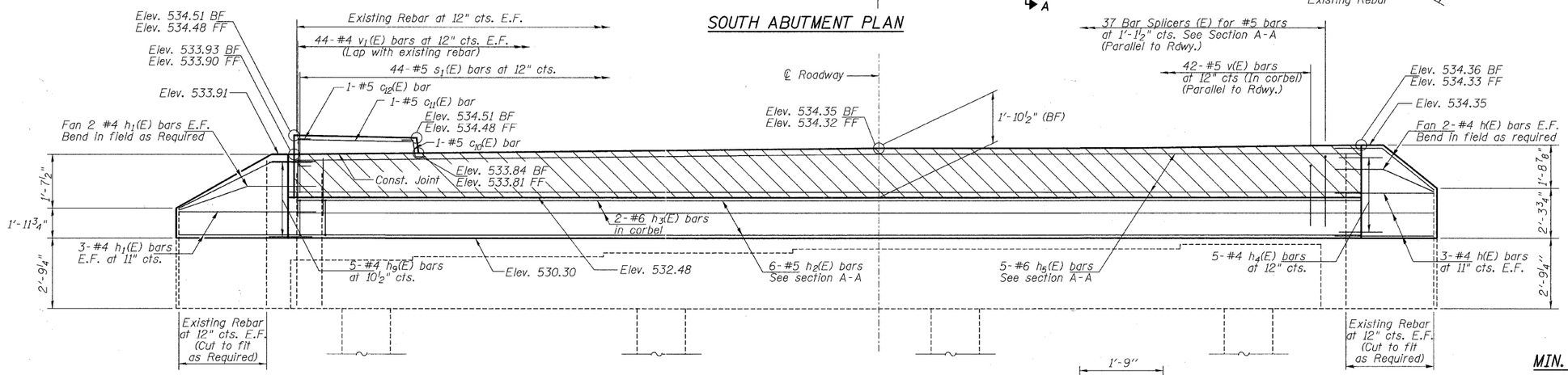
SOUTH ABUTMENT CONCRETE REMOVAL
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 20	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	28
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B020



SOUTH ABUTMENT PLAN

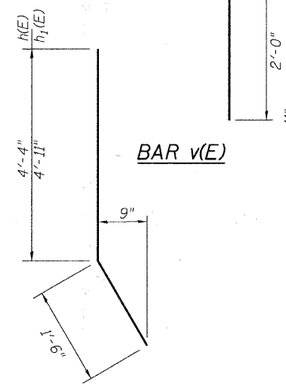


SOUTH ABUTMENT ELEVATION

(Looking South)

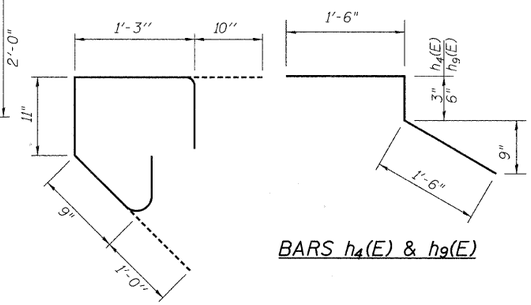
MIN. BAR LAP

#4 = 1'-9"



BAR v(E)

BARS h(E) & h1(E)



BARS $h_4(E)$ & $h_9(E)$

BAR $s_1(E)$

Notes:

Existing vertical reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

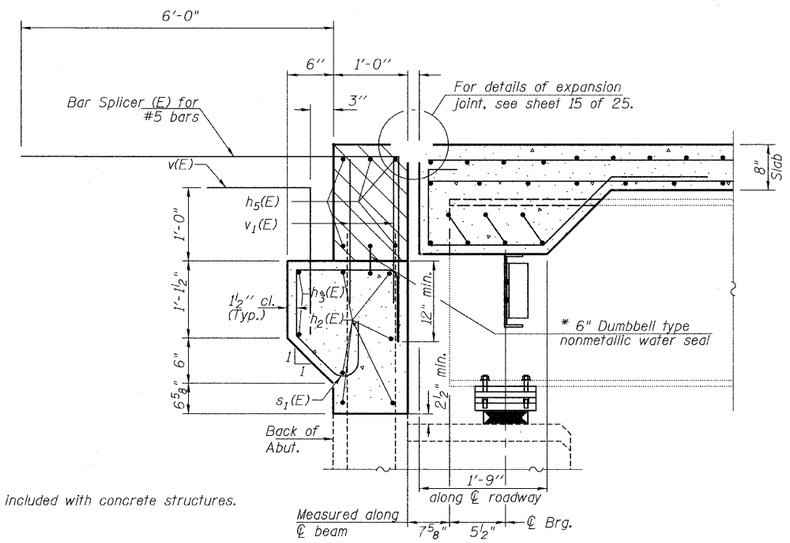
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.

Sidewalk to be poured with Approach Slab after the hatch block has been poured. Quantity of Concrete Superstructure and Reinforcement included in the Approach Slab quantities.

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	10	#4	5'-10"	
$h_1(E)$	10	#4	6'-5"	
$h_2(E)$	6	#5	42'-11"	
$h_3(E)$	2	#6	41'-6"	
$h_4(E)$	5	#4	3'-3"	
$h_5(E)$	5	#6	42'-11"	
$h_9(E)$	5	#4	3'-6"	
$s_1(E)$	43	#5	4'-9"	
v(E)	42	#5	3'-9"	
$v_1(E)$	88	#4	3'-3"	
Concrete Structures			Cu. Yd.	5.4
Reinforcement Bars, Epoxy Coated			Pound	1,390
Bar Splicers			Each	37

* Cost included with concrete structures.

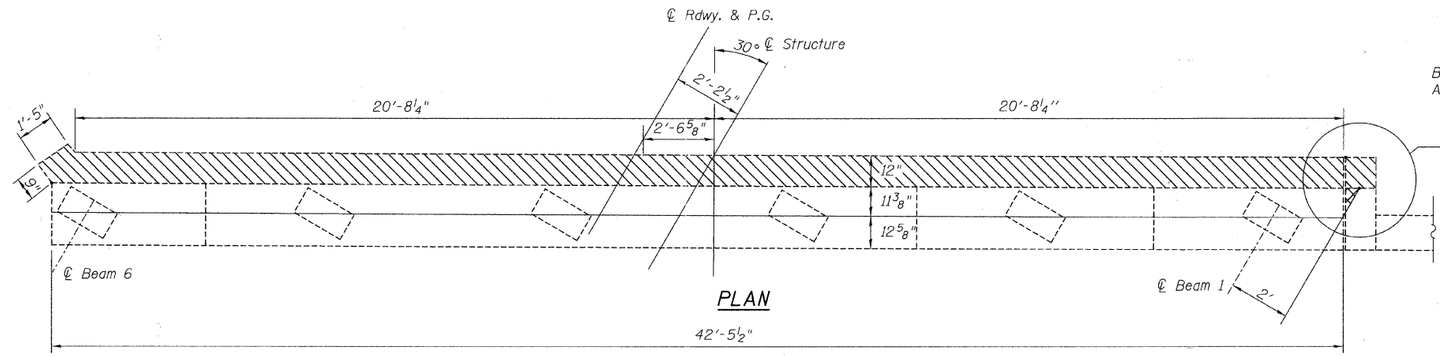


SECTION A-A

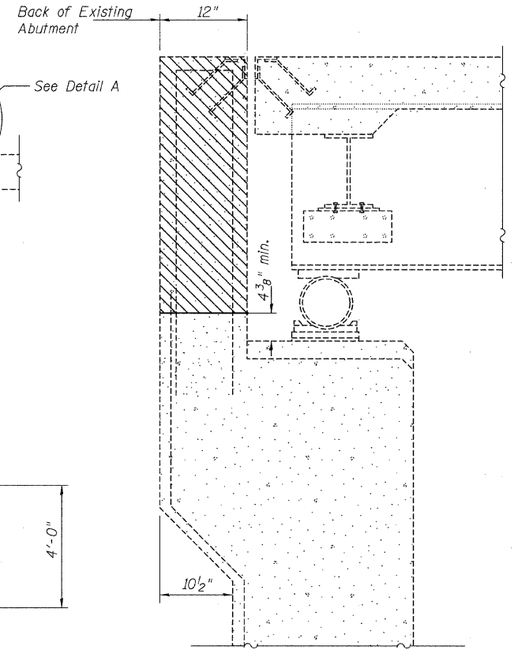
SOUTH ABUTMENT PLAN
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 21	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	29
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

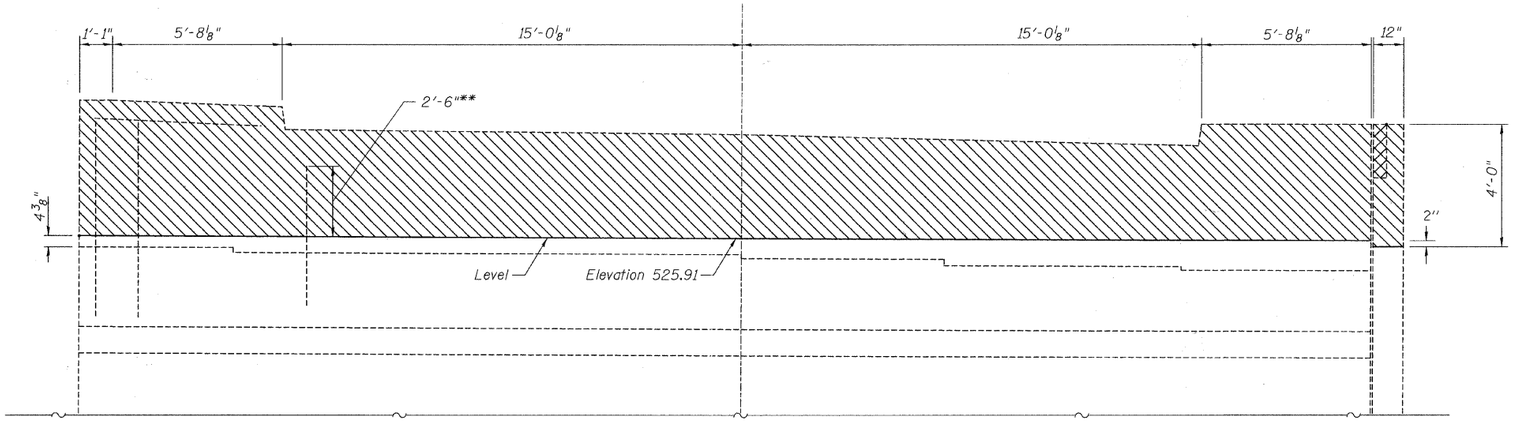
2882B021



PLAN

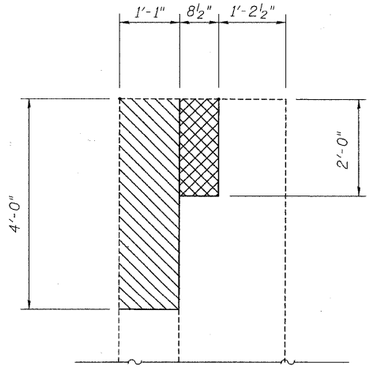


SECTION THRU
ABUTMENT CONCRETE REMOVAL

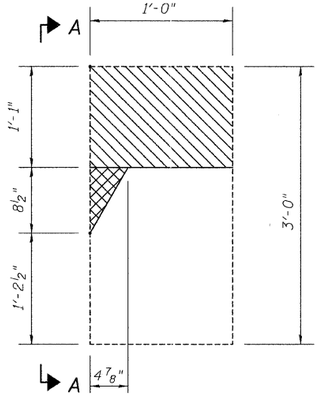


ELEVATION

** Cut existing reinforcement in backwall 2'-6" above level concrete cut.



SECTION A-A



DETAIL A
(See Note *)

* Existing rebar in this section is to be burned flush with existing concrete surface. Grind existing rebar smooth and seal with epoxy. Cost included with Concrete Removal.

Notes:
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
Hatched area indicates Concrete Removal.

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	5.7

NORTH ABUTMENT CONCRETE REMOVAL
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 22	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	30
		S.N. 099-3290	CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

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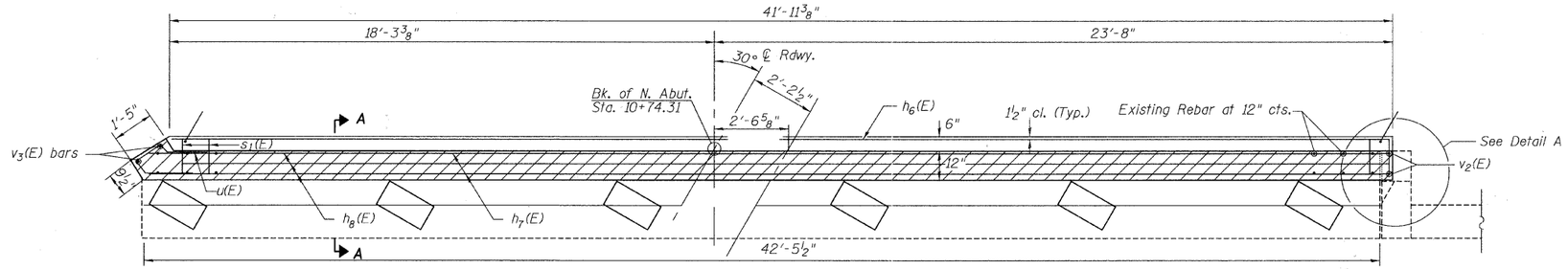
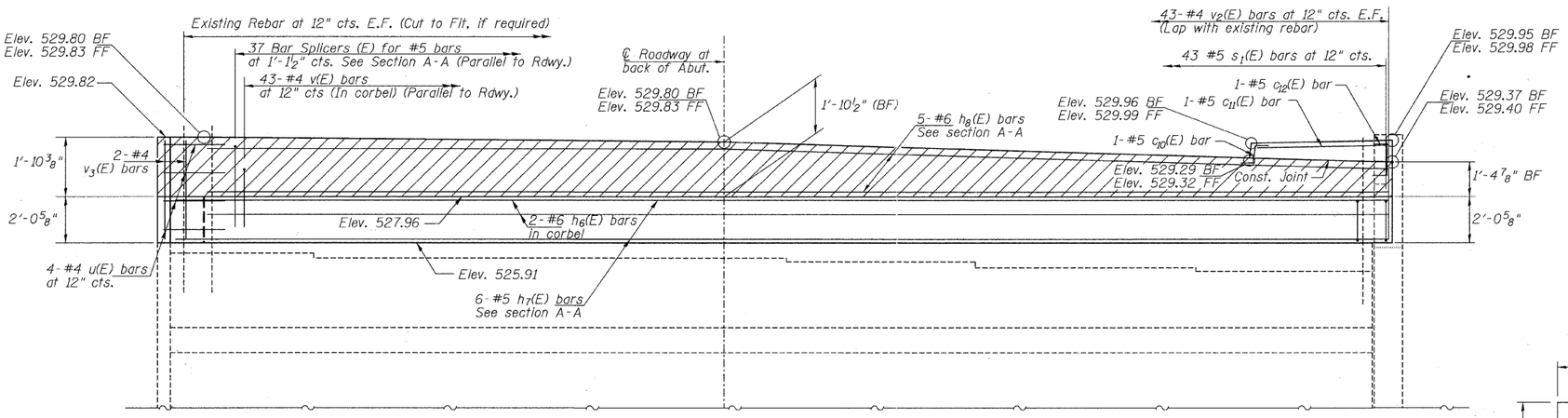
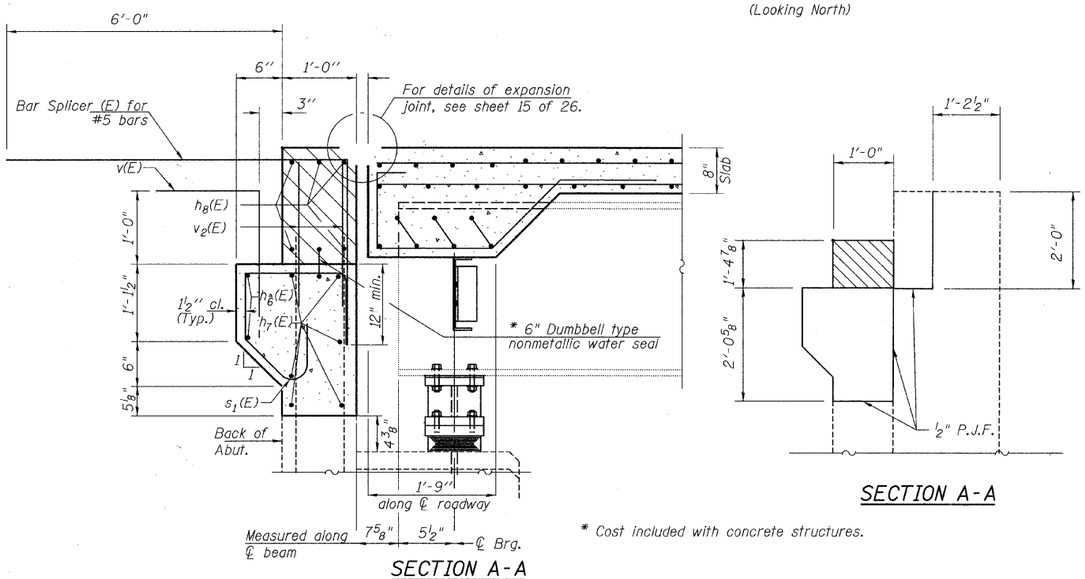


NORTH ABUTMENT PLAN



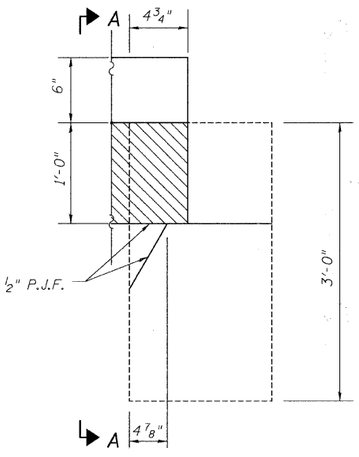
NORTH ABUTMENT ELEVATION

(Looking North)



SECTION A-A

SECTION A-A



DETAIL A

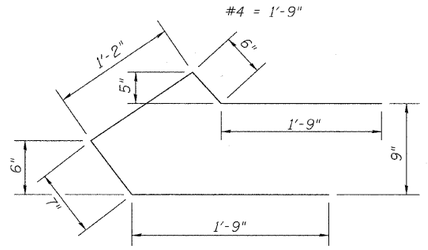
* Cost included with concrete structures.

NORTH ABUTMENT BILL OF MATERIAL

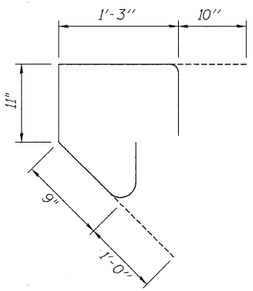
Bar	No.	Size	Length	Shape
$h_6(E)$	2	#6	41'-9"	
$h_7(E)$	6	#5	42'-6"	
$h_8(E)$	5	#6	42'-6"	
$s_1(E)$	43	#5	4'-9"	
u(E)	4	#4	5'-9"	
v(E)	43	#4	3'-9"	
$v_2(E)$	86	#4	3'-1"	
$v_3(E)$	4	#4	3'-7"	
Concrete Structures		Cu. Yd.	4.4	
Reinforcement Bars, Epoxy Coated		Pound	1,230	
Bar Splicers		Each	37	

MIN. BAR LAP

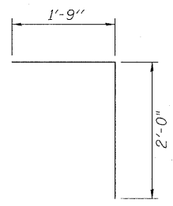
#4 = 1'-9"



BAR u(E)



BAR $s_1(E)$



BAR v(E)

Notes:

Existing vertical reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

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

Sidewalk to be poured with Approach Slab after hatch block has been poured. Quantity of Concrete Superstrucutre and Reinforcement included in Approach Slab quantities.

NORTH ABUTMENT PLAN
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEET NO. 23	TR 851	07-10117-00-BR	WILL	36	31
26 SHEETS		S.N. 099-3290	CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

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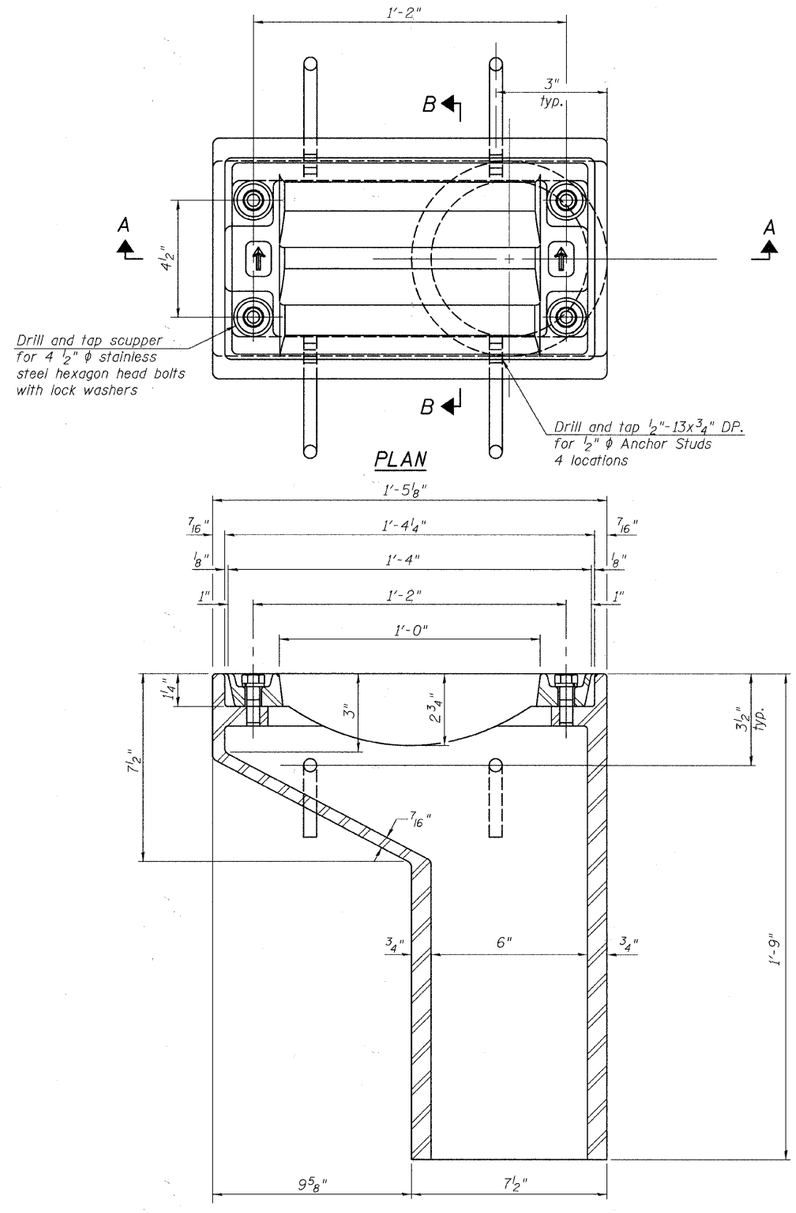
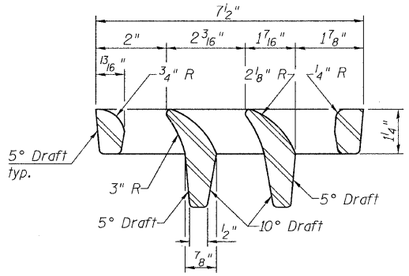


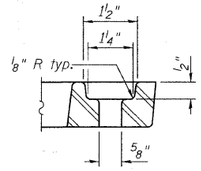
PLAN

SECTION A-A

See sheet 8 of 26 for scupper location relative to parapet.



VANE GRATE DETAIL



BOLT HOLE DETAIL

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

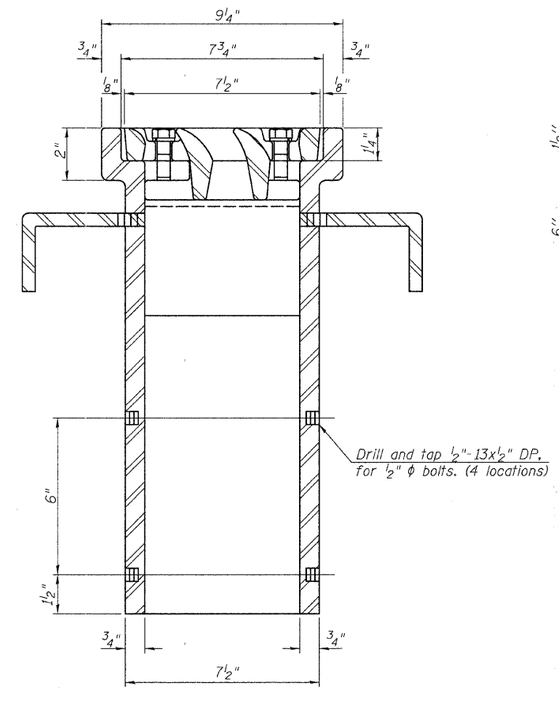
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

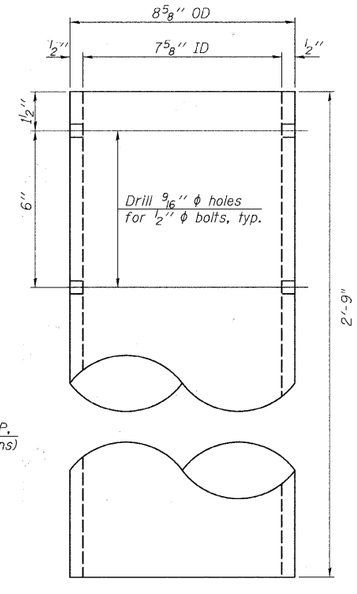
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

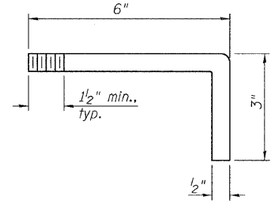
Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



SECTION B-B



DOWNSPOUT



ANCHOR STUD DETAIL

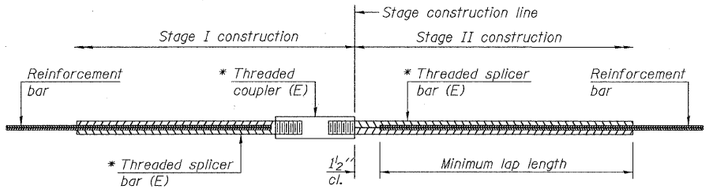
BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	2

DRAINAGE SCUPPER, DS-11
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 24	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	32
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B024



STANDARD BAR SPLICER ASSEMBLY

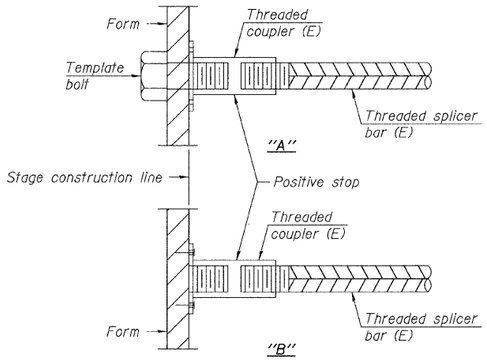
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

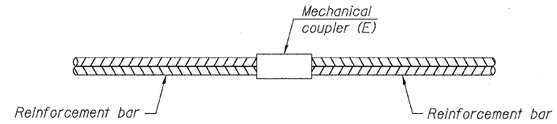
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



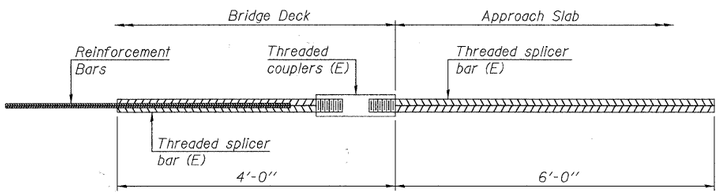
INSTALLATION AND SETTING METHODS

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



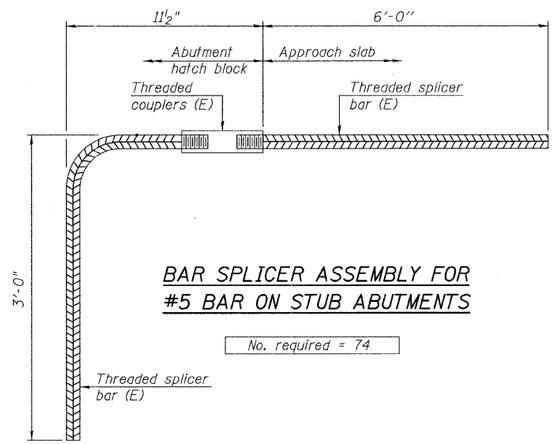
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 74

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 25	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	33
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

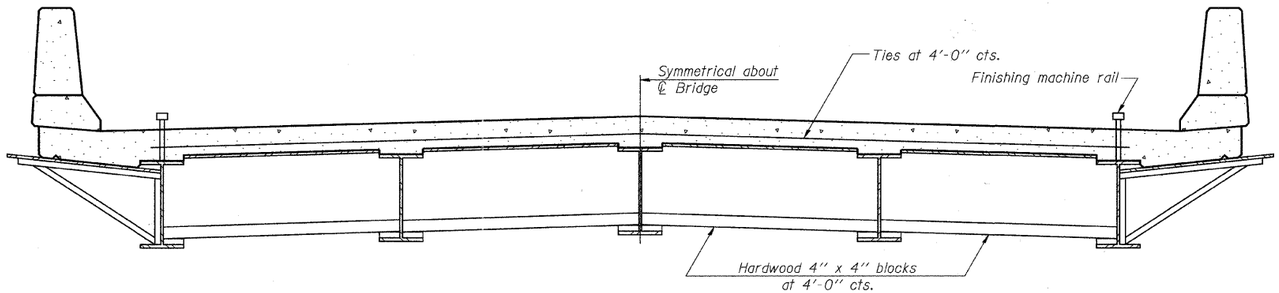
2882B025

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



FORM BRACES FOR
STANDARD CONSTRUCTION

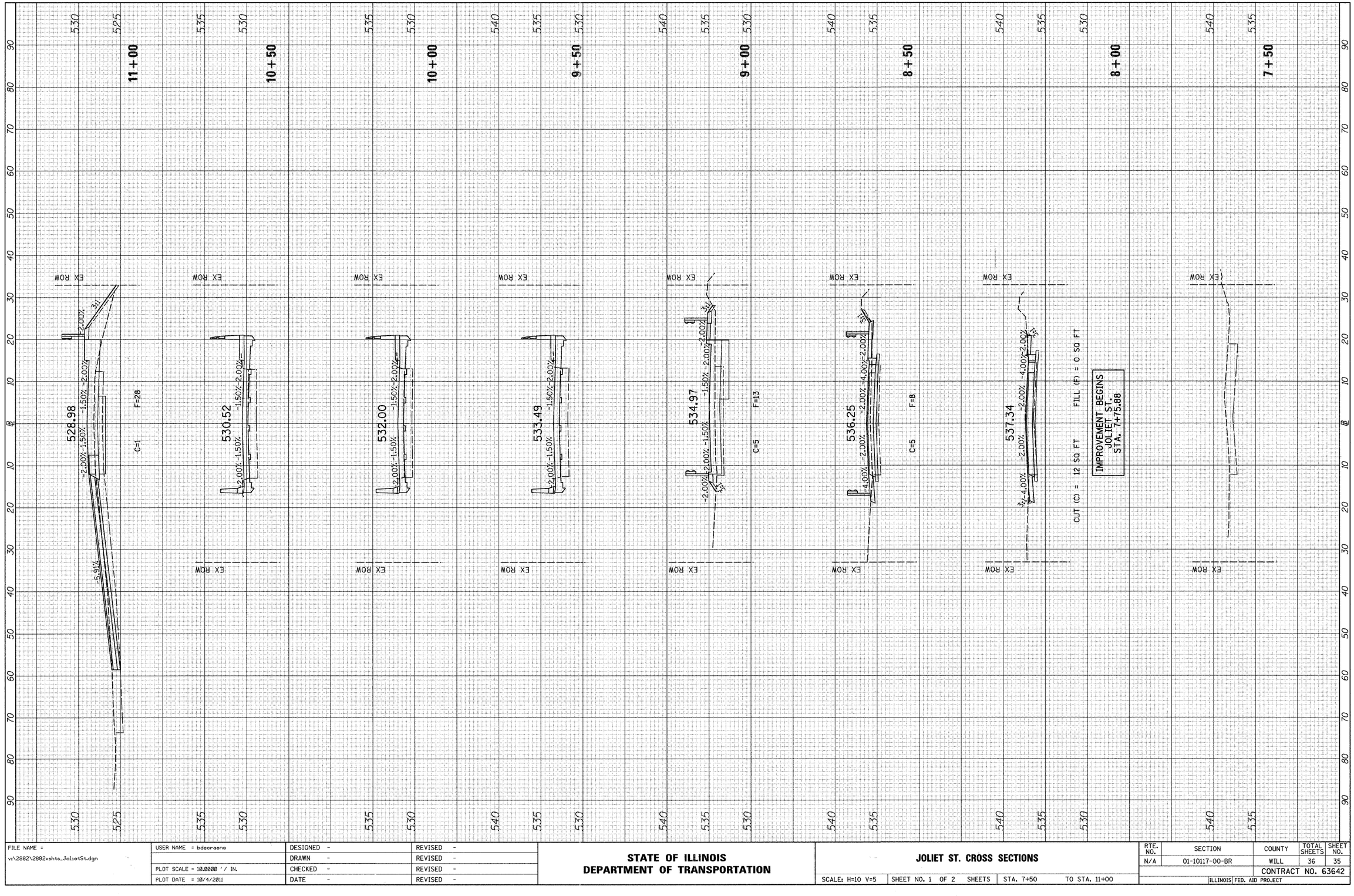
CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W27 BEAMS AND SMALLER
JOLIET STREET (TR 851) OVER HICKORY CREEK
SECTION 07-10117-00-BR
WILL COUNTY
STATION 9+97.55

SHEET NO. 26	RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
26 SHEETS	TR 851	07-10117-00-BR	WILL	36	34
	S.N. 099-3290		CONTRACT NO. 63642		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-		

2882B026

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		



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	PLOT DATE = 10/4/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST. CROSS SECTIONS

SCALE: H=10 V=5 | SHEET NO. 1 OF 2 SHEETS | STA. 7+50 TO STA. 11+00

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	01-10117-00-BR	WILL	36	35
		CONTRACT NO. 63642		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

IMPROVEMENT ENDS
JOLIET ST.
STA. 12+04.33

12+00

525.37
-0.93%
-4.00%
-2.39%
-4.00%
CUT (C) = 9 SQ FT
FILL (F) = 1 SQ FT
EX ROW

PRIVATE ENTRANCE

11+56.6

526.76
-4.00%
-2.00%
-2.00%
-5.98%
C=16
F=4
EX ROW

11+50

526.98
-4.00%
-2.00%
-2.00%
-6.48%
C=14
F=7
EX ROW

11+31.0

521.71
-2.00%
-2.00%
-4.00%
-9.09%
C=9
F=13
EX ROW

SANITARY ACCESS DRIVE (ON SKEW)
-2.35%

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

JOLIET ST. CROSS SECTIONS

SCALE: H=10 V=5 | SHEET NO. 2 OF 2 SHEETS | STA. 11+32.1 | TO STA. 12+00

RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	01-10117-00-BR	WILL	36	36
		CONTRACT NO. 63642		
	ILLINOIS FED. AID PROJECT			