

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LASALLE	108	1
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 87605		

INDEX OF SHEETS

- 1 COVER SHEET
- 2 LIST OF STANDARDS, GENERAL NOTES, & LEGEND
- 3-4 SUMMARY OF QUANTITIES
- 5-9 TYPICAL SECTIONS
- 10 SUPERELEVATION TRANSITION DETAILS
- 11-13 SCHEDULES OF QUANTITIES
- 14 ALIGNMENT, TIES & BENCHMARKS
- 15-16 REMOVAL PLANS
- 17-20 PLAN AND PROFILES
- 21 TRAFFIC CONTROL DETAILS
- 22-23 PAVEMENT MARKING AND SIGNING PLANS
- 24-25 EROSION CONTROL PLANS
- 26-28 LIGHTING PLANS
- 29-63 STRUCTURE PLANS
- 64-93 EXISTING STRUCTURE PLANS (FOR INFORMATION ONLY)
- 94-95 SPECIAL DETAILS
- 96-108 CROSS SECTIONS

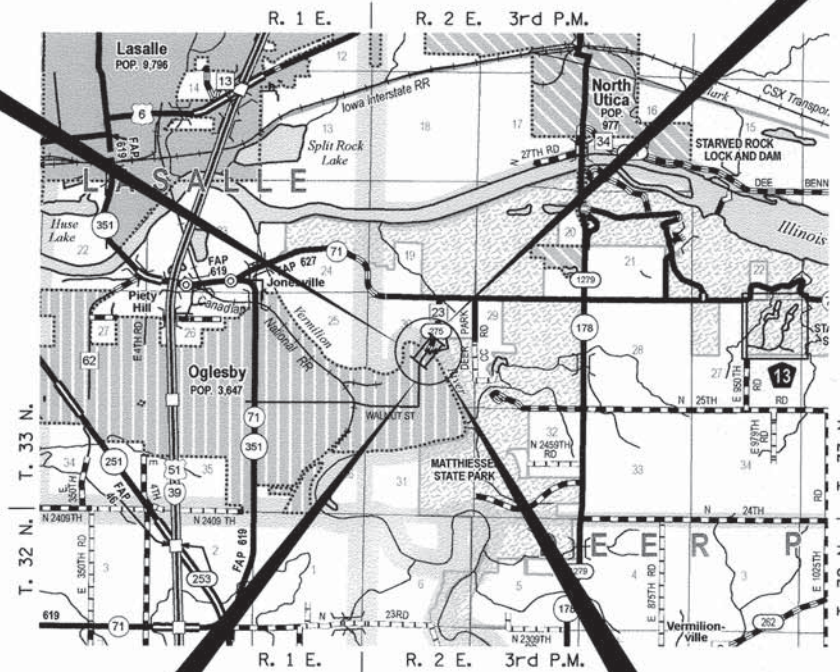
LASALLE COUNTY HIGHWAY DEPARTMENT PLANS FOR ILLINOIS MAJOR BRIDGE PROGRAM

**FAS 275, CH 23 (ED HAND HIGHWAY) OVER THE
VERMILION RIVER
LASALLE COUNTY
SECTION 09-00031-02-BR
PROJECT NO. BRS-0099(054)
STRUCTURE REPLACEMENT**

C-93-017-15

**BEGIN IMPROVEMENT
ED HAND HIGHWAY (CH 23)
STA 17+00.00**

**EXISTING STRUCTURE SN 050-3038
THREE SPAN STEEL CONT. DECK TRUSS
SUPERSTRUCTURE WITH CONC. DECK ON
STEEL STRINGERS AND FLOOR BEAMS ON
CONC PIERS AND PILE SUPP. ABUTMENTS,
356'-0" BK TO BK AND 30'-0" O-O DECK
NO SKEW (TO BE REMOVED)**

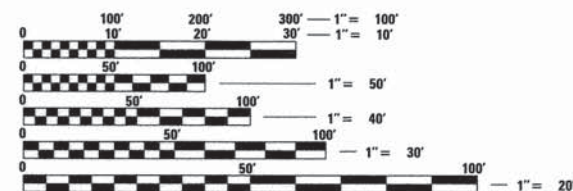


LOCATION MAP
NOT TO SCALE



**DESIGN CLASSIFICATION: RURAL COLLECTOR/
URBAN ARTERIAL**

CURRENT ADT (2011): 1250
DESIGN ADT (2036): 1800
DESIGN SPEED: 40 MPH



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

CONTRACT NO. 87605

**END IMPROVEMENT
ED HAND HIGHWAY (CH 23)
STA 33+50**

**PROPOSED STRUCTURE SN 050-3617
THREE SPAN STEEL PLATE GIRDER SUPER-
STRUCTURE ON CONC. SPILL THRU PILE BENT
ABUTMENTS AND DRILLED SHAFT PIERS,
399'-0" BK TO BK AND 34'-0" F-F OF RAIL
NO SKEW**

GROSS LENGTH = 1,350.00 FT. = 0.313 MILE
NET LENGTH = 1,350.00 FT. = 0.313 MILE

Hutchinson Engineering, Inc.
Jacksonville - Peoria - Shorewood
Since 1945
2015 JOB #3461

08/13/2015
DATE
DANIEL J. DRAPER
REGISTERED PROFESSIONAL ENGINEER OF
STATE OF ILLINOIS
EXP. 11-30-2015
D. Draper
SIGNATURE
ENGINEER'S SEAL

APPROVED Aug 18, 2015 2015
Lawrence A. Keigler
LASALLE COUNTY ENGINEER

PASSED SEPT 15, 2015 2015
Don R. E. O.
DISTRICT THREE ENGINEER OF
LOCAL ROADS & STREETS

RELEASED FOR
BID BASED ON
LIMITED REVIEW SEPT 15, 2015
Paul A. Lortz
DEPUTY DIRECTOR OF HIGHWAYS,
REGION TWO ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

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.

THE SCALE SHOWN ON THE DRAWINGS APPLIES ONLY TO FULL SIZE PLANS AND NOT TO THE REDUCED SIZE PLANS.

IT IS THE CONTRACTOR'S RESPONSIBILITY 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.

MEMBERS OF J.U.L.I.E. KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:
1. CITY OF OGLESBY

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 RESPONSIBILITY 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.

EXISTING PAVEMENT, SIDEWALK, DRIVEWAY PAVEMENT, CURB AND GUTTER AND EXISTING DRAINAGE STRUCTURES NOT INCLUDED IN THE PLANS FOR REMOVAL, BUT DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

TRAFFIC SIGNS REMOVED MUST BE RESET AT THEIR PERMANENT LOCATIONS IN A WORKMANLIKE MANNER AND BE VISIBLE TO TRAFFIC ON THE ROADWAY AS DIRECTED BY THE ENGINEER. THESE SIGNS SHALL BE RESET BEFORE THE ROADWAY IS OPEN TO TRAFFIC. COST OF SUCH WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.

WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

ALL EXISTING GRANULAR MATERIAL AND HOT-MIX ASPHALT MATERIALS TO BE REMOVED AND NOT PAID AS A SPECIFIC ITEM SHALL BE CONSIDERED EARTH EXCAVATION AND WILL BE PAID FOR AT THE UNIT PRICE FOR EARTH EXCAVATION. THE CONTRACTOR WILL HAVE THE OPTION OF REMOVING THE EXISTING HOT-MIX ASPHALT MATERIAL BY GRINDING OR EXCAVATING THE MATERIAL. IF THE HOT-MIX ASPHALT MATERIAL IS REMOVED BY EXCAVATION, NO SUCH MATERIAL MAY BE USED IN EMBANKMENT AREAS UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER.

EXCAVATION FOR PLACEMENT OF RIPRAP SHALL BE INCLUDED IN THE COST OF THE RIPRAP.

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ALL EMBANKMENTS AND SUB-GRADE SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER PRIOR TO PLACING SUB-BASE GRANULAR MATERIAL.

UTILITY POLES, PEDESTALS, MANHOLES AND FIRE HYDRANTS TO REMAIN IN PLACE SHALL NOT BE DISTURBED BY THE CONTRACTOR. FINISHING AROUND THESE POLES, PEDESTALS, MANHOLES OR HYDRANTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05.

ALL CONSTRUCTION PERSONNEL WILL BE REQUIRED TO WEAR CLASS II VESTS AT ALL TIMES WHILE ON THE CONSTRUCTION SITE. COMPLIANCE WITH THIS REQUIREMENT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE REMOVAL AND DISPOSAL OF ALL FENCING, DELINEATORS, DEBRIS, BRUSH, RIPRAP, STONE, CONCRETE SLABS, TILE, TILE OUTLET HEADWALLS, ETC. NOT PAID SPECIFICALLY ON THE PLANS WILL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

THERE ARE NO COMMITMENTS FOR THIS PROJECT.

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

GRANULAR MATERIALS-----	2.05 TONS/CU YD	
BITUMINOUS MATERIALS PRIME COAT-----	0.05 LBS/SQ FT OR	
	0.025 LBS/SQ FT	
	0.25 LBS/SQ FT	
AGGREGATE PRIME COAT-----	0.002 TONS/SQ YD	
HOT-MIX ASPHALT SURFACE COURSE-----	112 LBS/SQ YD/INCH	
NITROGEN FERTILIZER NUTRIENT-----	60 LBS/ACRE (SODDING)	90 LBS/ACRE (SEEDING)
PHOSPHORUS FERTILIZER NUTRIENT-----	60 LBS/ACRE (SODDING)	90 LBS/ACRE (SEEDING)
POTASSIUM FERTILIZER NUTRIENT-----	60 LBS/ACRE (SODDING)	90 LBS/ACRE (SEEDING)

LIST OF STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-11	BRIDGE APPROACH PAVEMENT CONNECTOR
442201-03	CLASS C AND D PATCHES
515001-03	NAME PLATE FOR BRIDGES
601001-04	SUB-SURFACE DRAINS
602306-03	INLET - TYPE B
604011-05	FRAME AND GRATE TYPE 3V
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606201-02	TYPE B GUTTER (INLET, OUTLET & ENTRANCE)
630001-10	STEEL PLATE BEAM GUARDRAIL
631031-13	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701901-04	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
812001	RACEWAY EMBEDDED IN STRUCTURE
821101-01	LUMINAIRE WIRING DIAGRAM
825011-03	LIGHTING CONTROLLER PEDESTAL MOUNTED, 240V
830001-03	LIGHT POLE ALUMINUM MAST ARM
836001-02	LIGHT POLE FOUNDATION
838001	BREAKAWAY DEVICES
B.L.R. 17-4	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION
B.L.R. 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
B.L.R. 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO-LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)

LEGEND

 HOT-MIX ASPHALT BUTT JOINT

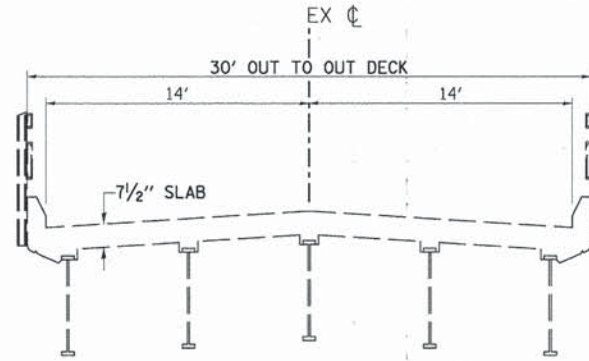
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PLOT DATE = 8/13/2015		DATE - 8/3/2015	REVISED -			ILLINOIS FED. AID PROJECT BRS-00910541					
				SCALE: N/A		SHEET NO. 1 OF 1 SHEETS		STA. N/A		TO STA. N/A	

SUMMARY OF QUANTITIES

ITEM NO.	SPECIALITY ITEM &/OR SPECIAL PROVISION	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	ITEM NO.	SPECIALITY ITEM &/OR SPECIAL PROVISION	CODE NO.	DESCRIPTION	UNIT	TOTAL QUANTITY
81	SI, RSP	78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	12						
82	SI, RSP	78200410	GUARDRAIL MARKERS, TYPE A	EACH	25						
83	SI, RSP	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	1						
84	SI	80400100	ELECTRIC SERVICE INSTALLATION	EACH	1						
85	SI, BDE	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	216						
86	SI	81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	415						
87	SI	81300550	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	2						
88	SI	81603035	UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	370						
89	SI	81603100	UNIT DUCT, 600V, 4-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	400						
90	SI	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	2,205						
91	SI	81702150	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	660						
92	SI	82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1						
93	SI	83050710	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 6 FT. MAST ARM	EACH	2						
94	SI	83050770	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 10 FT. MAST ARM	EACH	5						
95	SI	83600300	LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	35						
96	SI	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	5						
97	SP	X4200408	PORTLAND CEMENT CONCRETE PAVEMENT 8", SPECIAL	SQ YD	225						
98	SP	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	2,082						
99	GBSP	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	235						
100		X6020075	INLETS, TYPE B, TYPE 3V FRAME AND GRATE	EACH	8						
101	SP	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1						
102	SI, SP	X8211125	LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL	EACH	7						
103	RSP	Z0013798	CONSTRUCTION LAYOUT	L SUM	1						
104		Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	12						
105	GBSP	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	143						
△ 106	BDE	Z0076600	TRAINEES	HOUR	1,000						
△ 107	SP	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1,000						

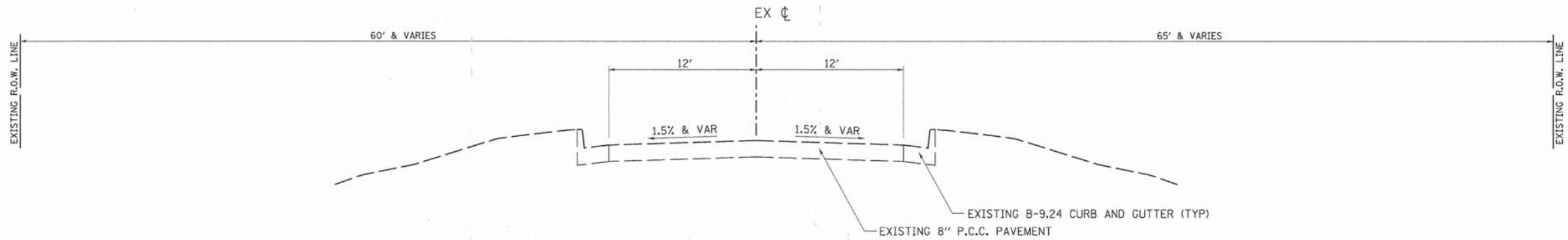
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PLOT SCALE = 1/8" = 1' in.	CHECKED - DJD	REVISED -	SCALE: N/A			SHEET NO. 2 OF 2 SHEETS	STA. N/A TO STA. N/A	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT BRS-0099(054)	
PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -								



**EXISTING TYPICAL SECTION
CH 23 (ED HAND HIGHWAY)**

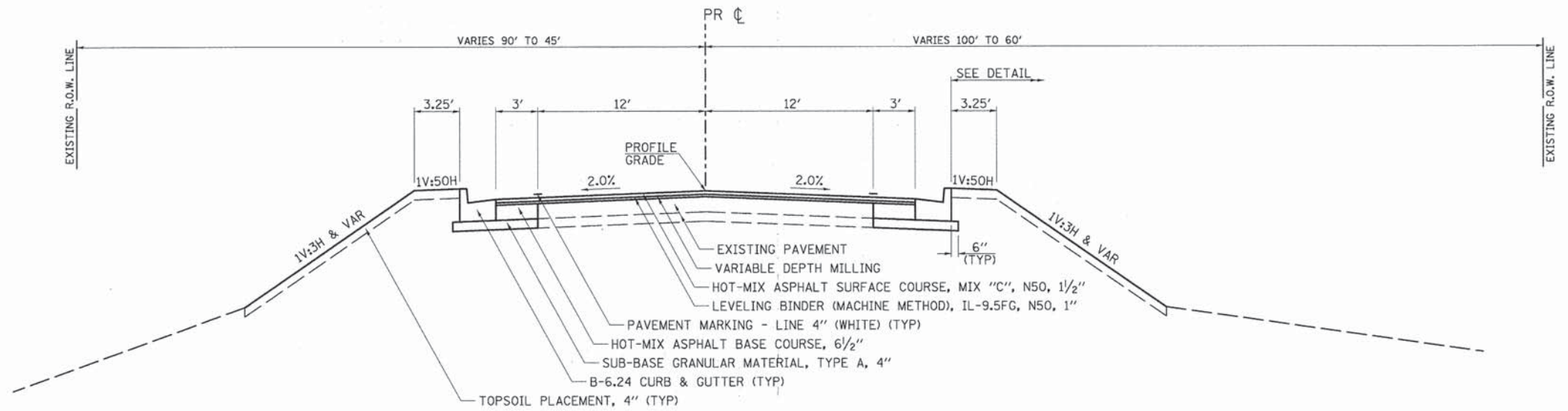
STA 25+20 TO STA 29+03



**EXISTING TYPICAL SECTION
CH 23 (ED HAND HIGHWAY)**

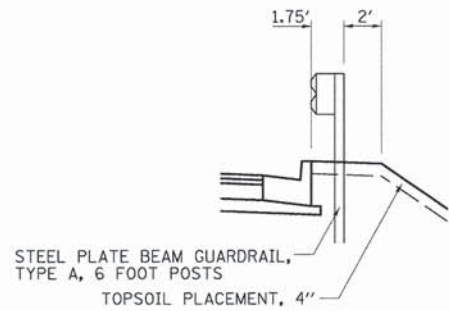
STA 29+03 TO STA 33+50

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PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISIED -	REVISIED -		ILLINOIS FED. AID PROJECT BRS-0099054							



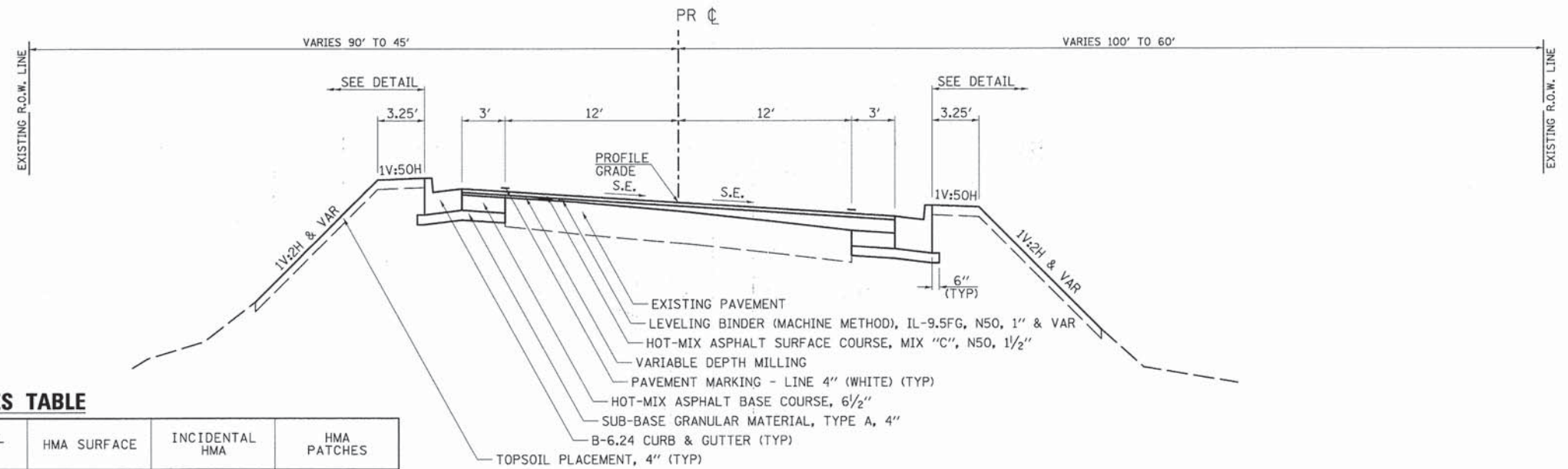
**PROPOSED TYPICAL SECTION
CH 23 (ED HAND HIGHWAY)**

STA 17+00 TO STA 22+05.6



DETAIL

STA 17+00 TO STA 24+76.62 RT
STA 22+80.6 TO STA 24+76.62 LT



**PROPOSED TYPICAL SECTION
CH 23 (ED HAND HIGHWAY)**

STA 22+05.6 TO STA 24+76.62

MIXTURES TABLE

	HMA BASE COURSE	HMA LEVEL BINDER	HMA SURFACE	INCIDENTAL HMA	HMA PATCHES
PG GRADE	PG 64-22	PG 64-22	PG 64-22		PG 64-22
DESIGN AIR VOIDS	4.0% @ N50	4.0% @ N50	4.0% @ N50		4.0% @ N50
MIXTURE COMPOSITION	IL 19.0FG	IL 9.5FG	IL 9.5		IL 19.0FG
FRICTION AGGREGATE			MIXTURE C		
DENSITY TEST METHOD	CORES	GROWTH CURVE	CORES	SATISFACTION OF ENGINEER	CORES
MIXTURE WEIGHT	112#/SQ.YD./IN.	112#/SQ.YD./IN.	112#/SQ.YD./IN.	112#/SQ.YD./IN.	112#/SQ.YD./IN.
QUALITY MANAGEMENT PROGRAM	QC/QA	QC/QA	QC/QA		QC/QA
SUBLOT SIZE	N/A	N/A	N/A		N/A
LOCATIONS	ENTIRE PROJECT	ENTIRE PROJECT	ENTIRE PROJECT		ENTIRE PROJECT

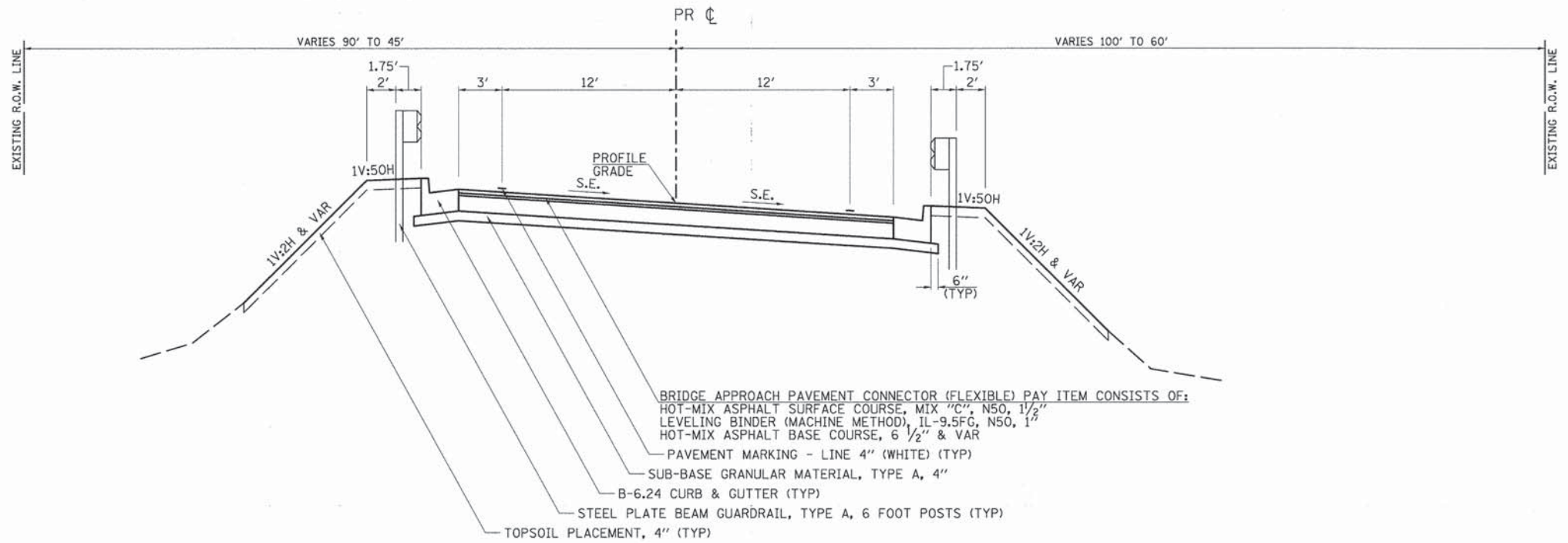
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PLOT DATE = 8/13/2015		CHECKED - DJD	REVISED -
		DATE - 8/3/2015	REVISED -

**LASALLE COUNTY
HIGHWAY DEPARTMENT**

**CH 23 (ED HAND HIGHWAY)
PROPOSED TYPICAL SECTIONS**

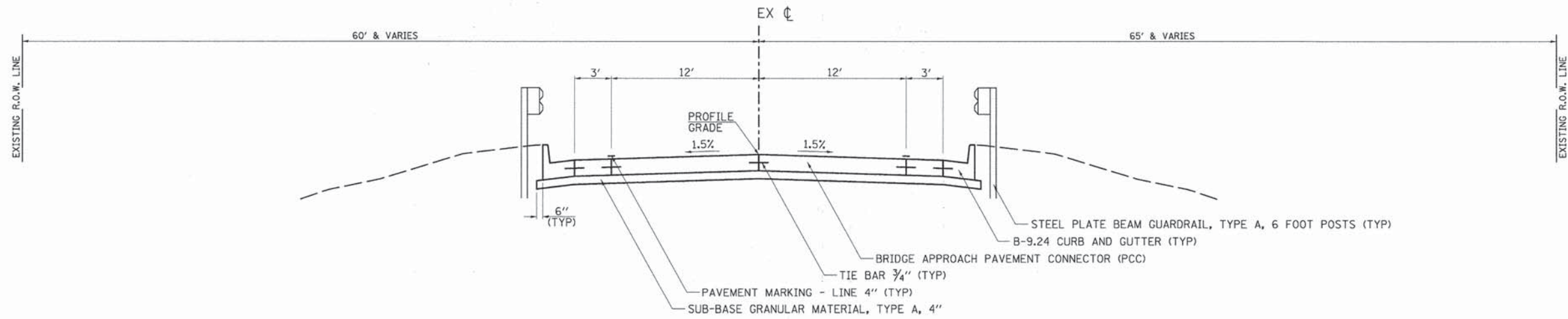
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	7
CONTRACT NO. 87605				
ILLINOIS FED. AID PROJECT BRS-0099054				



**PROPOSED TYPICAL SECTION
 CH 23 (ED HAND HIGHWAY)**

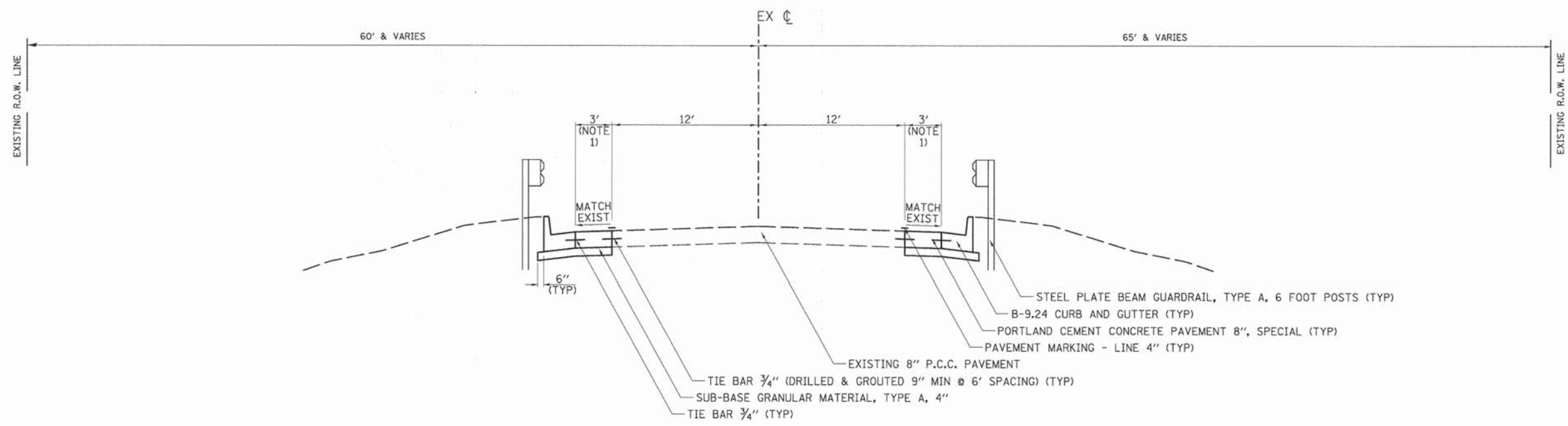
STA 24+76.62 TO STA 24+82.62



**PROPOSED TYPICAL SECTION
 CH 23 (ED HAND HIGHWAY)**

STA 29+39.62 TO STA 29+89.62

FILE NAME =	USER NAME = bdeorens	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) PROPOSED TYPICAL SECTIONS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -	ILLINOIS FED. AID PROJECT BR5-0099(054)								
					SCALE: N/A	SHEET NO. 4 OF 5 SHEETS	STA. N/A	TO STA. N/A			



PROPOSED TYPICAL SECTION
CH 23 (ED HAND HIGHWAY)
 STA 29+89.62 TO STA 33+50

NOTES:
 1. VARIES FROM 3' AT STA 33+00 TO 0' AT STA 33+50.

FILE NAME = V:\3461\CADD Drawings\CADD Sheets\3461-ht-typical-05.dgn	USER NAME = bdecreane	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) PROPOSED TYPICAL SECTIONS			F.A. RTE. 275	SECTION 09-00031-02-BR	COUNTY LA SALLE	TOTAL SHEETS 108	SHEET NO. 9
PLOT SCALE = 5.000000' / in.	CHECKED - DJD	REVISIED -	REVISIED -		SCALE: N/A	SHEET NO. 5	OF 5 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 87605		
PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISIED -	REVISIED -		ILLINOIS FED. AID PROJECT BRS-009K0541							

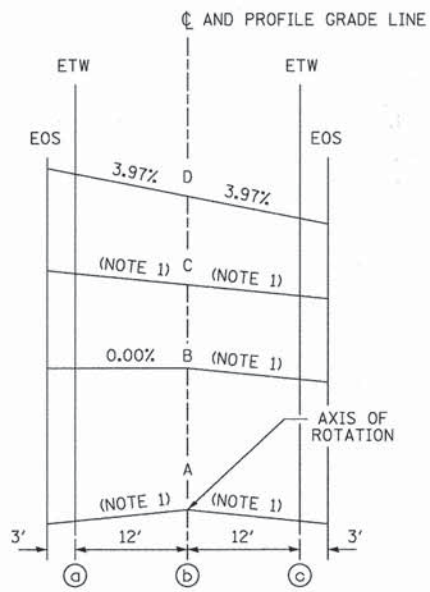
CURVE PR_EH2

CURVE NO	SECTION	STATION	WESTBOUND				
			LT ETW	SLOPE	CL EL.	SLOPE	RT ETW
PR_EH2	A	21+83.64	532.54	-2.00%	532.78	2.00%	532.54
	B	22+24.64	528.89	0.00%	528.89	2.00%	528.65
	C	22+66.64	525.19	2.00%	524.95	2.00%	524.71
	PC	22+80.64	523.96	2.67%	523.64	2.67%	523.32
	D	23+07.64	521.63	3.97%	521.15	3.97%	520.67
	FULL SUPERELEVATION						
	D	24+83.87	505.76	3.97%	505.29	3.97%	504.81
	PT	25+10.87	503.22	2.77%	502.89	2.77%	502.56
	C	25+37.87	500.69	1.56%	500.50	1.56%	500.31
	B	25+72.87	497.48	0.00%	497.48	1.56%	497.29
	A	26+07.87	494.60	-1.56%	494.79	1.56%	494.60

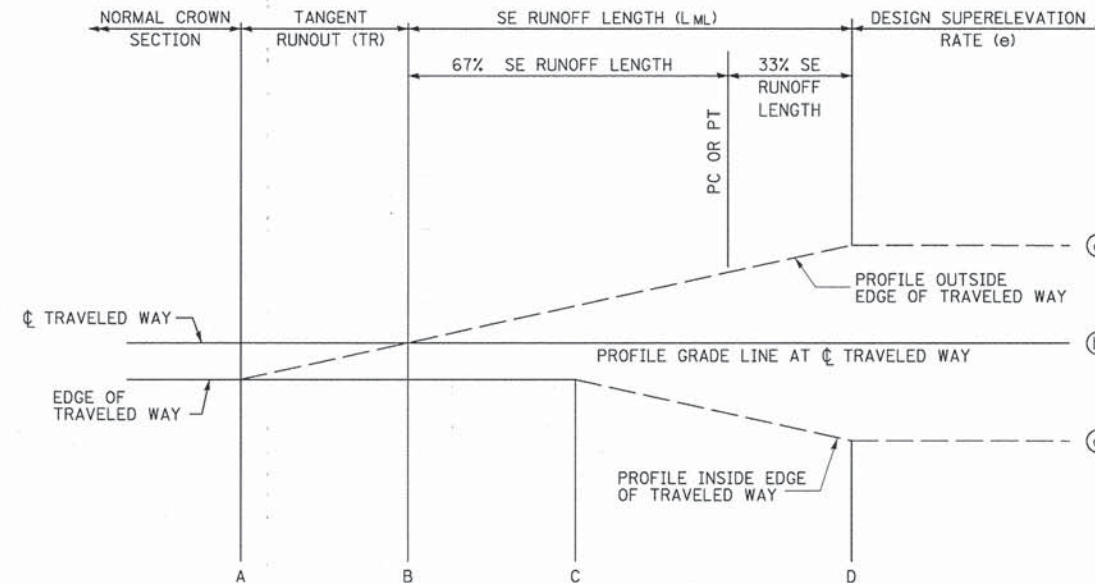
LOOKING UPSTATION

NOTES:

1. NORMAL CROWN IS 2.00% ENTERING THE CURVE AND 1.56% LEAVING THE CURVE.



TYPICAL CROSS SECTION - SE TRANSITION



NOTE: ROUND ALL BREAK POINTS IN FIELD

TYPICAL PROFILE - SE TRANSITION

FILE NAME =	USER NAME = bdeorene	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) SUPERELEVATION TRANSITION DETAILS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
W:\3461\CADD Drawings\CADD Sheets\3461-ent-superelevations-1.dgn		DRAWN - RMD	REVISED -		SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A	275	09-00031-02-BR	LA SALLE	108 10
PLOT SCALE = 10,0000' / in.		CHECKED - DJD	REVISED -		CONTRACT NO. 87605							
PLOT DATE = 8/13/2015		DATE - 8/3/2015	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

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			
17+00	TO	24+83	509	382	423	-41
29+40	TO	33+50	189	142	120	22
TOTAL			698	524	543	-20
SHRINKAGE FACTOR:			25%			
EARTH EXCAVATION:						
COLUMN 1, 2 & 4 - LOCATION AND QUANTITIES FROM CROSS SECTIONS.						
CUT = EARTH EXCAVATION 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 =		698 CU YD	
COLUMN 5 IS			FURNISHED EXCAVATION =		20 CU YD	

SEEDING, MULCH, NUTRIENTS & BLANKET									
LOCATION			TOPSOIL FURNISH AND PLACE, 4"	SEEDING, CLASS 2A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	EROSION CONTROL BLANKET	
STATION +/-	TO	STATION +/-	SIDE	SQ YD	ACRE	POUND	POUND	POUND	SQ YD
17+00.0	TO	26+43.5	LT	3173	0.66	60	60	60	3173
17+00.0	TO	26+33.2	RT	2567	0.53	48	48	48	2567
27+84.4	TO	33+62.1	LT	1182	0.24	22	22	22	1182
27+81.0	TO	33+54.9	RT	1729	0.36	33	33	33	1729
TOTAL				8651	1.79	163	163	163	8651
USE				8651	2.00	180	180	180	8651
SEEDING NUTRIENTS RATE OF APPLICATION: 90 LBS/ACRE									

TREE REMOVAL				
STATION +/-	TO	STATION +/-	SIDE	AREA ACRE
18+84	TO	20+95	RT	0.01
24+58	TO	26+31	RT	0.15
27+83	TO	29+99	RT	0.19
27+85	TO	29+95	LT	0.09
TOTAL				0.44
USE				0.5

PERIMETER EROSION BARRIER				
STATION +/-	TO	STATION +/-	SIDE	LENGTH FOOT
17+00	TO	26+44	LT	998
17+00	TO	26+33	RT	982
27+84	TO	33+55	LT	630
27+81	TO	33+55	RT	675
TOTAL				3285
PERIMETER EROSION BARRIER IS SILT FENCE.				

TEMPORARY EROSION CONTROL SEEDING								
STATION +/-	TO	STATION +/-	SIDE	SEEDING CLASS 7 ACRES	POUNDS PER APPLICATION PER ACRE	NUMBER OF APPLICATIONS	TOTAL POUND	MULCH, METHOD 2 ACRE
17+00	TO	26+44	LT	0.66	100	12	792	0.66
17+00	TO	26+33	RT	0.53	100	12	636	0.53
27+84	TO	33+62	LT	0.24	100	12	288	0.24
27+81	TO	33+55	RT	0.36	100	12	432	0.36
TOTAL							2148	1.79
USE							2148	2.00

MULCH METHOD 2 IS USED FOR TEMPORARY MULCHING

RIP RAP			
LOCATION +/-		STONE RIPRAP, CLASS A3	FILTER FABRIC
STATION	SIDE	SQ YD	SQ YD
24+97	RT	7	7
29+46	RT	7	7
TOTAL		14	14

INLET FILTERS			
STATION +/-	SIDE	OFFSET +/-	EACH
19+53	LT / RT	17	2
22+20	LT / RT	17	2
24+75	LT / RT	17	2
29+46	LT / RT	17	2
30+36	RT	18	1
30+56	LT	17	1
31+56	LT	17	1
32+98	LT	17	1
TOTAL			12

FILE NAME = V:\3461\CA00 Drawings\CA00 Sheets\3461-1-schedule-1.dgn	USER NAME = bdeoreane	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) SCHEDULE OF QUANTITIES	F.A. RTE. 275	SECTION 09-00031-02-BR	COUNTY LA SALLE	TOTAL SHEETS 108	SHEET NO. 11	
PLOT SCALE = 1,000' / 1"	CHECKED - DJD	REVISED -	SCALE: N/A			SHEET NO. 1 OF 3 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 87605		
PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BR5-00980541								

PAVEMENT													
LOCATION			SUBBASE GRANULAR MATERIAL TYPE A, 4"	HOT-MIX ASPHALT BASE COURSE 6 1/2"	BITUMINOUS MATERIALS (PRIME COAT) (0.075 LBS/SQ FT)	LEVEL. BINDER (MACH. METH.) IL-9.5FG, N50	HOT-MIX ASPHALT SURFACE CSE. MIX. C, N50	PROTECTIVE COAT	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	BRIDGE APPROACH PAVEMENT CONNECTOR (HMA)	TIE BARS 3/4"	PCC PAVEMENT 8", SPECIAL	HMA SURFACE REMOVAL, VARIABLE DEPTH
STATION	TO	STATION	SQ YD	SQ YD	POUND	TON	TON	SQ YD	SQ YD	SQ YD	EACH	SQ YD	SQ YD
17+00.00	TO	17+60.00			109	9	14						161
17+60.00	TO	24+76.62	941	460	1607	269	200						1921
24+76.62	TO	24+82.62	13		14	3				20			
APPR. PAVT AND BRIDGE 24+82.62 TO 29+39.62			SEE STRUCTURE PLANS										
29+39.62	TO	29+89.62	203					167	167				
29+89.62	TO	33+50.00	476					225			122	225	
TOTAL			1633	460	1730	281	214	392	167	20	122	225	2082

NOTE: BITUMINOUS MATERIALS (PRIME COAT) QUANTITY INCLUDES BOTH APPLICATION RATES. SEE SPECIAL PROVISIONS FOR MORE INFORMATION.

PAVEMENT REMOVAL			
LOCATION			AREA
STATION +/-	TO	STATION +/-	SQ YD
24+76.62	TO	25+36.40	170
28+90.15	TO	29+89.62	272
TOTAL			442

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

DRAINAGE ITEMS											
LOCATION		STORM SEWERS CLASS A, TYPE 1 12"	STORM SEWERS CLASS A, TYPE 2 12"	PIPE DRAINS CORRUGATED STL. OR ALM. ALLOY 12"	PIPE CULVERTS, CLASS D, TYPE 2 12"	PIPE CULVERTS, CLASS D, TYPE 2 15"	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	INLETS, TYPE B	INLETS, TYPE B, TYPE 3V FRAME, AND GRATE	MISCELLANEOUS CONCRETE	TRENCH BACKFILL
STATION	SIDE	FOOT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	EACH	CU YD	CU YD
19+53	X-RD		32	28					2	0.7	11
22+20	X-RD		32	28					2	0.7	12
24+75	X-RD	32		38					2		8
29+46	X-RD	32		40					2		9
30+59	LT				4						
30+62	LT					1					
31+12	LT					96					
31+62	LT						1				
31+94	LT					58					
32+25	LT						1				
32+64	LT					72					
32+98	LT							1			
33+00	LT				4						
33+03	LT						1				
TOTAL		64	64	134	4	230	4	1	8	1.4	40

COMBINATION CURB & GUTTER REMOVAL AND GUTTER REMOVAL					
LOCATION			SIDE	COMB CURB & GUTTER REMOVAL FOOT	GUTTER REMOVAL FOOT
STATION +/-	TO	STATION +/-			
17+60	TO	22+20	LT		460
17+60	TO	25+20	RT		760
29+03	TO	33+50	LT	447	
29+03	TO	33+50	RT	447	
TOTAL				894	1220

PIPE CULVERT REMOVAL				
LOCATION		SIZE (INCHES)	TYPE	LENGTH FOOT
STATION	SIDE			
19+53	X-RD / LT	12	CMP	62
22+20	X-RD / LT	12	CMP	61
25+04	RT	12	CMP	40
29+04	X-RD / RT	12	CMP	79
30+40	RT	12	CMP	9
30+57	LT	12	CMP	4
31+05	LT	15	CMP	100
31+57	LT	12	CMP	4
31+91	LT	15	CMP	68
32+60	LT	15	CMP	67
32+96	LT	12	CMP	6
32+98	LT	15	CMP	8
TOTAL				508

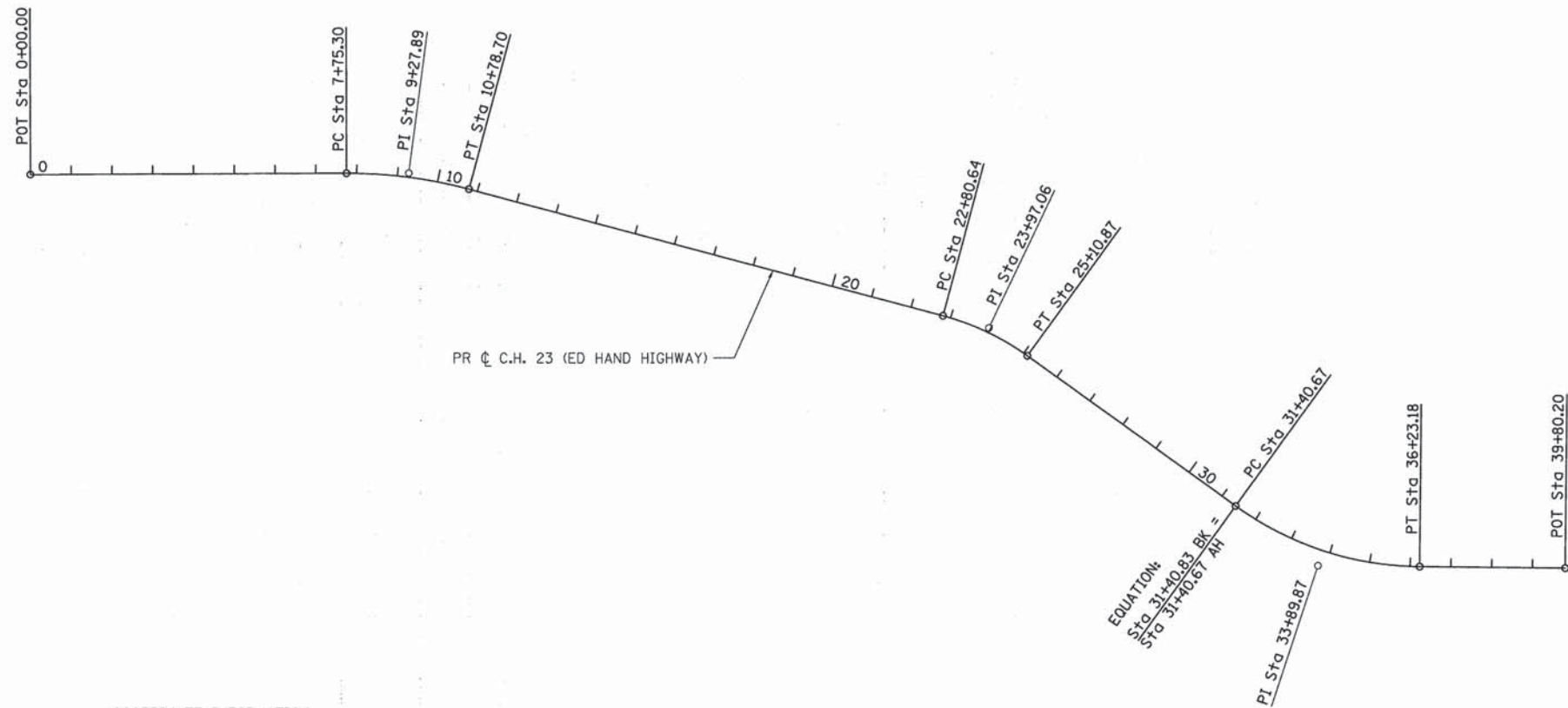
NOTE: THE REMOVAL OF THE EXISTING HEADWALL SHALL BE INCLUDED IN THE COST OF THE PIPE CULVERT REMOVAL.

PIPE UNDERDRAINS 4" (SPECIAL)		
STATION +/-	LEFT SIDE FOOT	RIGHT SIDE FOOT
19+53	7	14
22+20	10	10
24+75	11	10
SUB TOTAL		28 34
TOTAL		62

USED TO TIE INTO AND OUTLET EXISTING UNDERDRAINS, COST OF CONNECTIONS INCLUDED IN THIS ITEM.

CLASS D PATCHES		
LOCATION	TYPE 2 10 INCH SQ YD	
STATION +/-		
19+53	7	
22+20	7	
24+75	7	
TOTAL		21

SLOPE WALL REMOVAL			
STATION +/-	SIDE	OFFSET FT	SQ YD
19+53	LT	45	3
22+20	LT	44	3
TOTAL			6



COORDINATE INFORMATION

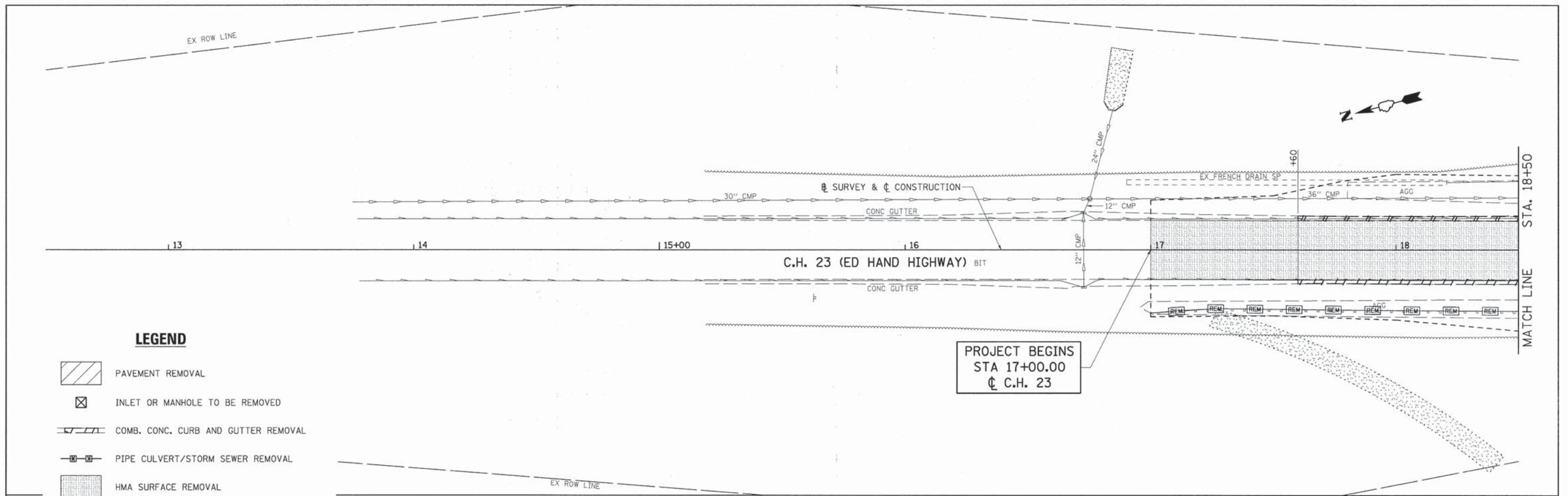
BRISBIN RD.

P.O.T. 0+00.00	=	N:	1691652.6612
		E:	791297.3518
P.C. 7+75.30	=	N:	1690877.3689
		E:	791300.1971
P.I. 9+27.89	=	N:	1690724.7774
		E:	791300.7571
P.T. 10+78.70	=	N:	1690577.3567
		E:	791261.3669
P.C. 22+80.64	=	N:	1689416.1490
		E:	790951.0968
P.I. 23+97.06	=	N:	1689303.6816
		E:	790921.0460
P.T. 25+10.87	=	N:	1689209.3799
		E:	790852.7879
P.C. 31+40.67	=	N:	1688699.0719
		E:	790483.4128
P.I. 33+89.87	=	N:	1688497.2046
		E:	790337.2956
P.T. 36+23.18	=	N:	1688248.0168
		E:	790334.8281
P.O.T. 39+80.20	=	N:	1687891.0146
		E:	790331.2930








BENCHMARK LIST

BM 1	=	CHISELED SQUARE ON CONC. CURB S. EDGE OF INLET STA. 19+54.68 RT, ELEV. = 554.03
BM 2	=	CHISELED SQUARE ON N.W. CORNER BRIDGE PARAPET WALL STA. 25+20.06 RT, ELEV. = 502.34
BM 3	=	CHISELED SQUARE ON S.E. CORNER BRIDGE PARAPET STA. 29+00.75 LT, ELEV. = 486.76
BM 4	=	CHISELED SQUARE ON CONC. CURB N. EDGE OF INLET STA. 32+96.10 LT, ELEV. = 510.73

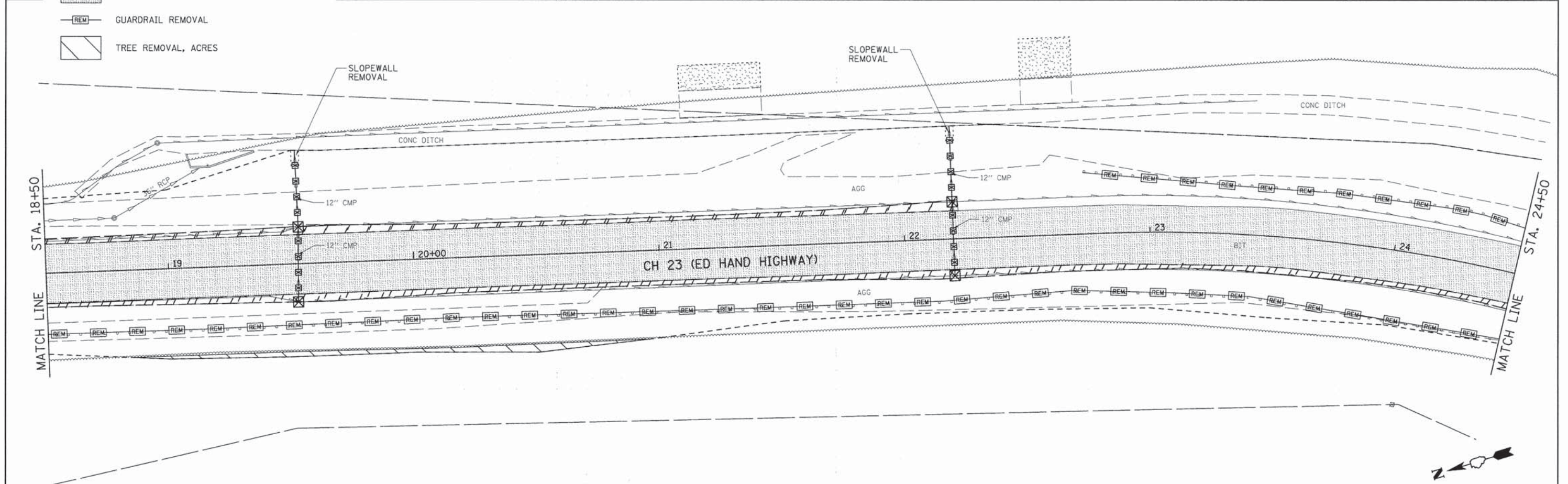
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V:\3461\CADD Drawings\CADD Sheets\3461-rt-ATB-01.dgn		DRAWN - RMD	REVISED -		SCALE: 1"=200'	SHEET 1 OF 1 SHEETS	STA.	TO STA.	275	09-00031-02-BR	LA SALLE	108 14
Default	PLOT SCALE = 200.0000' / 1in.	CHECKED - DJD	REVISED -		CONTRACT NO. 87605							
	PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00990541							



LEGEND

-  PAVEMENT REMOVAL
-  INLET OR MANHOLE TO BE REMOVED
-  COMB. CONC. CURB AND GUTTER REMOVAL
-  PIPE CULVERT/STORM SEWER REMOVAL
-  HMA SURFACE REMOVAL
-  GUARDRAIL REMOVAL
-  TREE REMOVAL, ACRES

PROJECT BEGINS
STA 17+00.00
C.C.H. 23

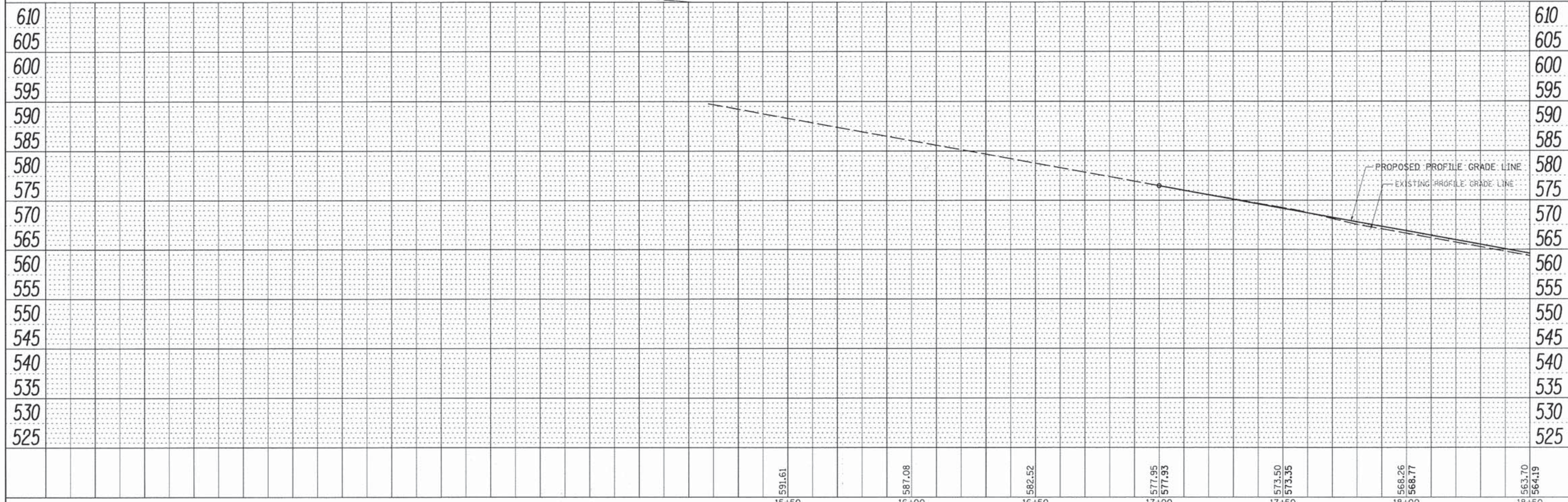
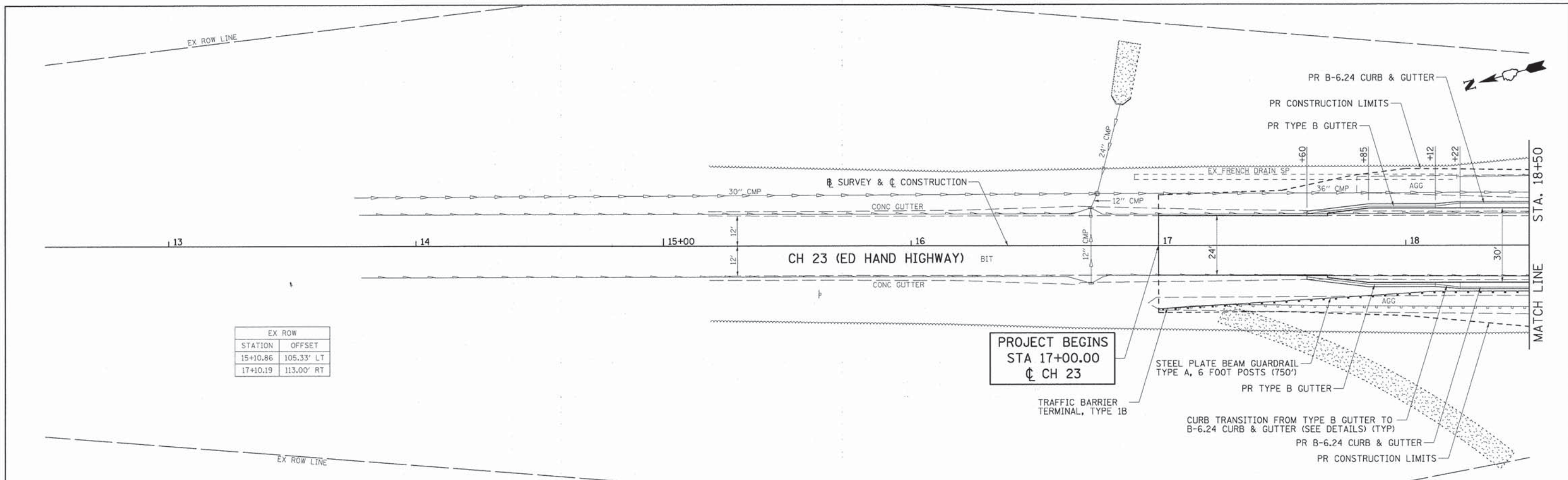


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Default	PLOT SCALE = 20.0000' / in.	CHECKED - DJD	REVISED -			SCALE: 1"=20'	SHEET 1 OF 2 SHEETS	ILLINOIS		FED. AID PROJECT BR5-009910541	
	PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -			STA. 12+50 TO STA. 24+50		CONTRACT NO. 87605			
CONTRACT NO. 87605											

PLAN
 SURVEYED BY: _____ DATE: _____
 CADD FILE NAME: _____
 NO. _____

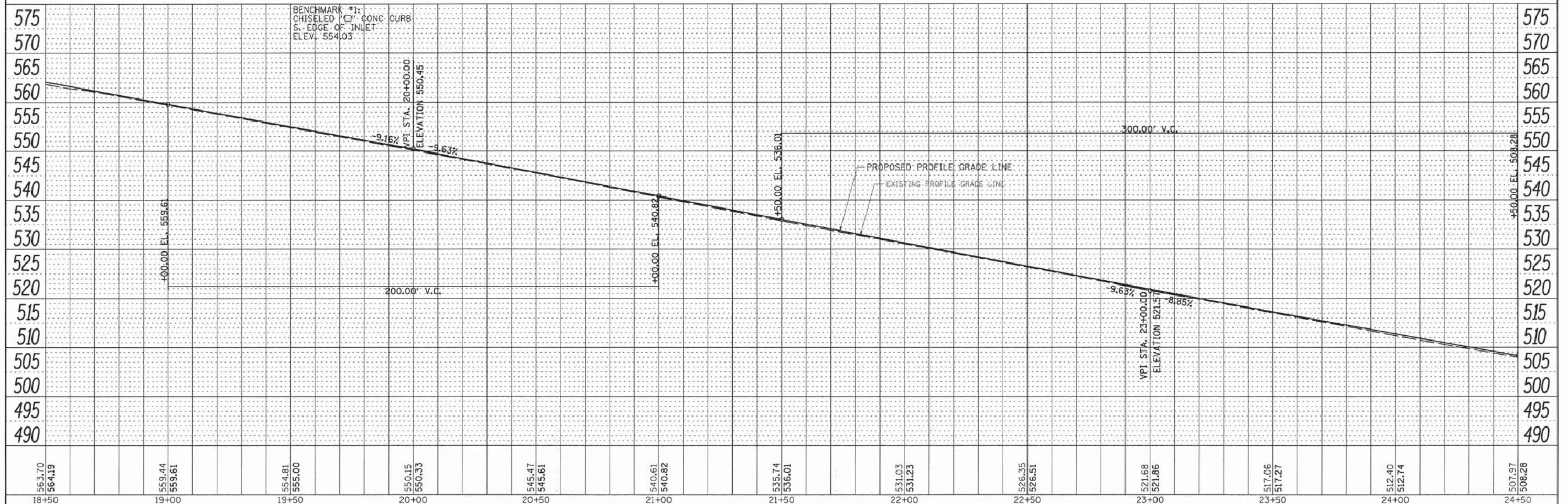
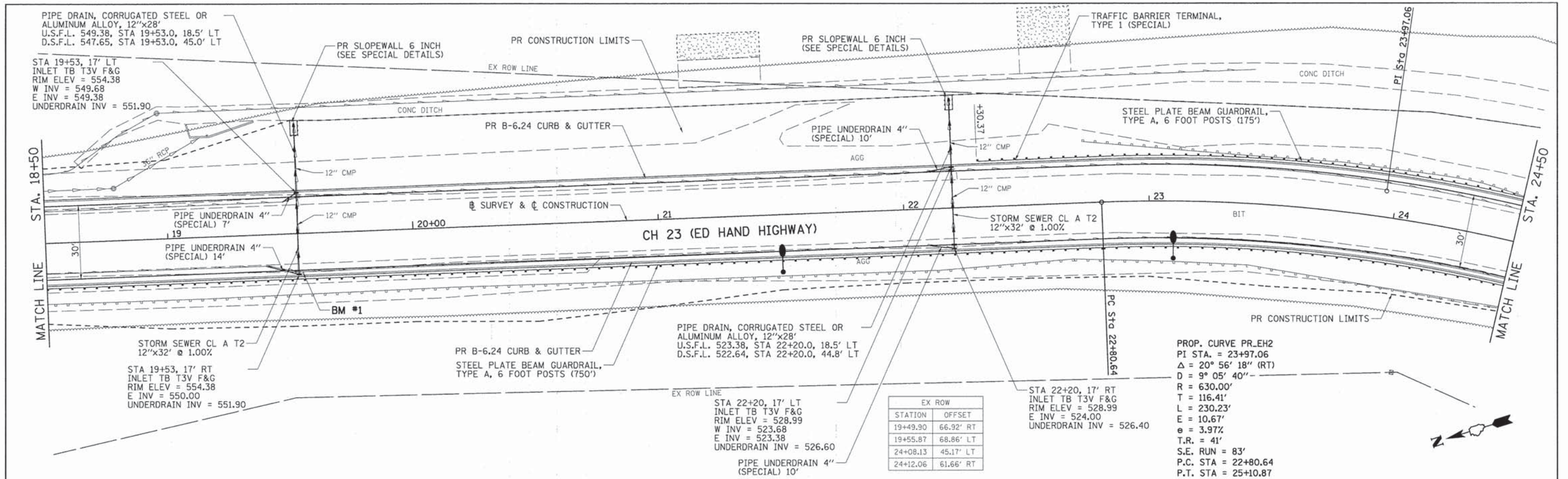
PROFILE
 SURVEYED BY: _____ DATE: _____
 CADD FILE NAME: _____
 NO. _____

EX ROW	
STATION	OFFSET
15+10.86	105.33' LT
17+10.19	113.00' RT



DATE	
BY	
SUBMITTED	
PLANNED	
NOTED	
NO.	

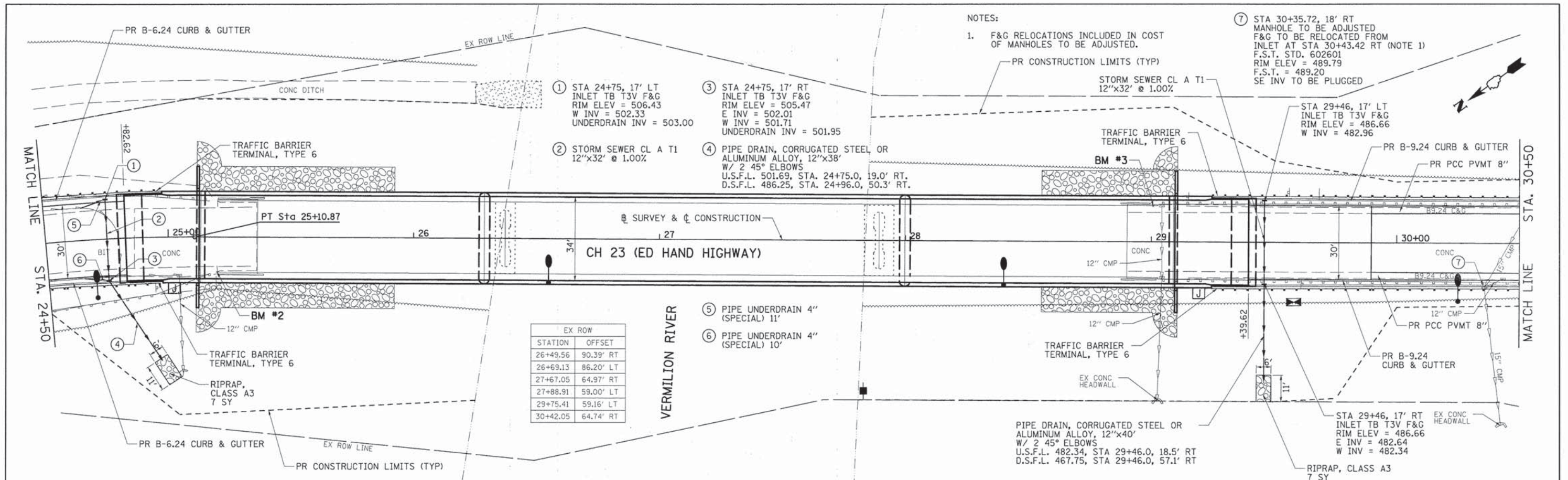
DATE	
BY	
PROF. ILL.	
GRADES CHECKED	
STRUCTURE NOTATIONS CHECKED	
NO.	



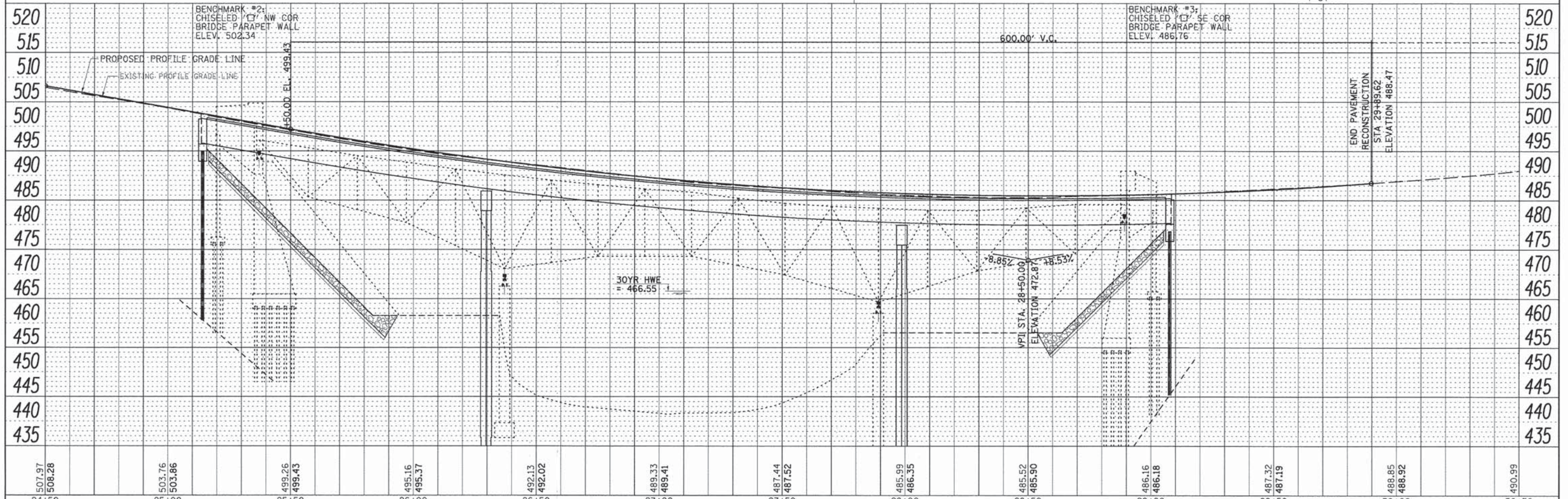
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18+50	19+00	19+50	20+00	20+50	21+00	21+50	22+00	22+50	23+00	23+50	24+00	24+50													

DATE	
BY	
SUBMITTED	
PLANNED	
ALIGNED	
CHECKED	
NO. FILE NAME	

DATE	
BY	
SUBMITTED	
PLANNED	
GRADES CHECKED	
STRUCTURE NOTATIONS CHECKED	
NO. FILE NAME	



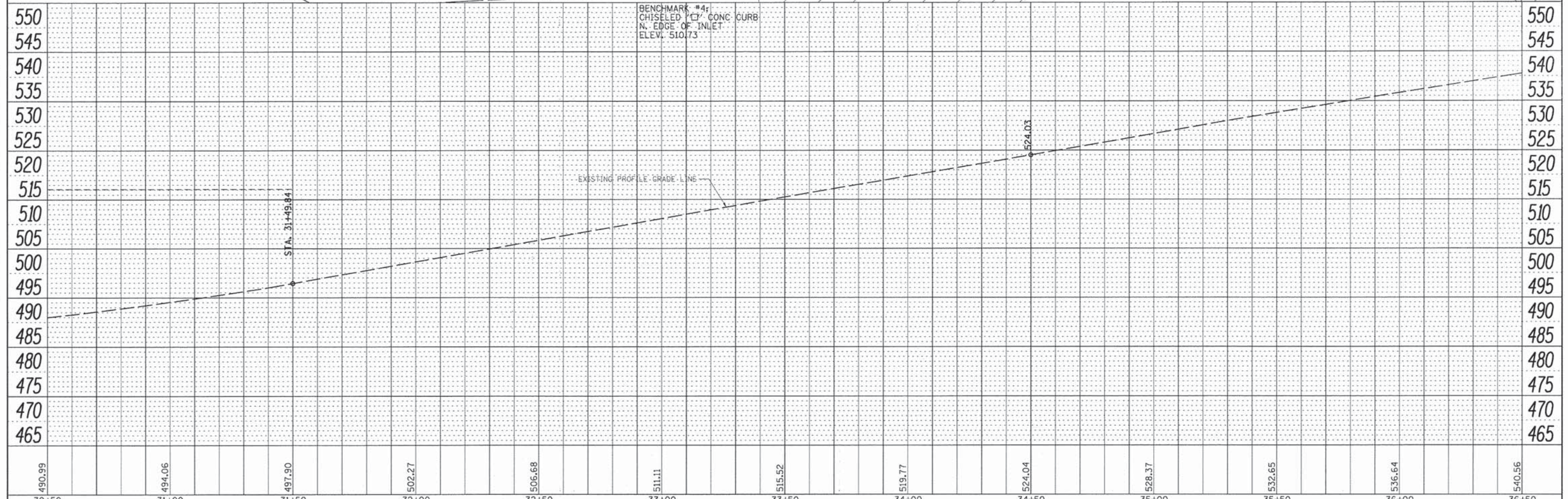
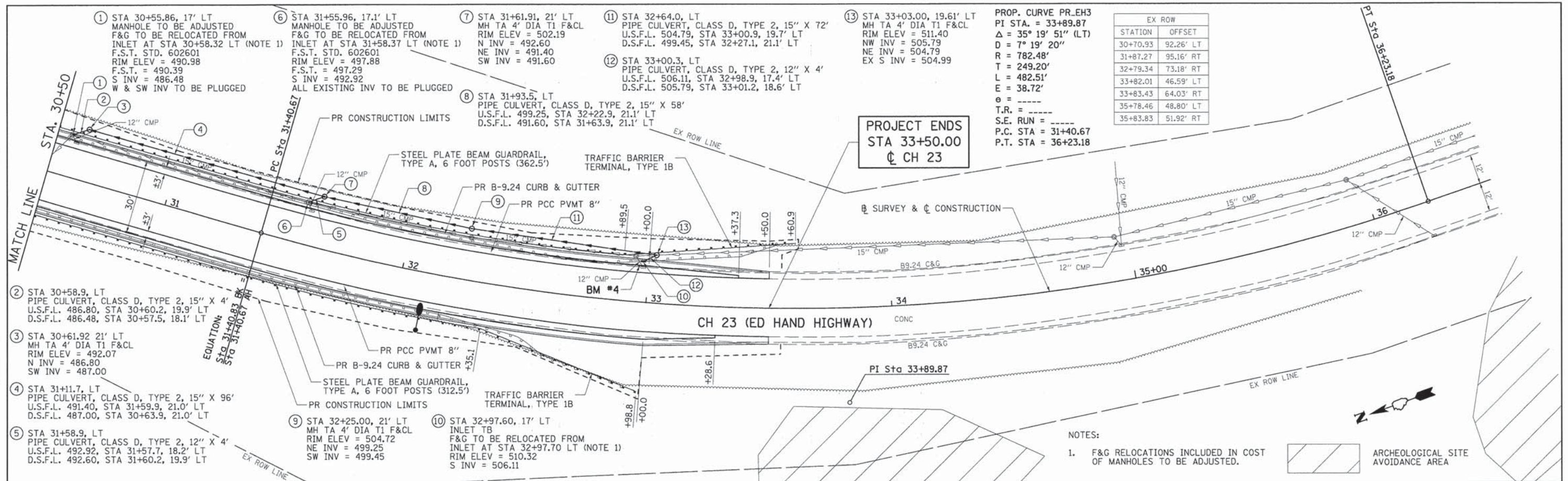
EX ROW	
STATION	OFFSET
26+49.56	90.39' RT
26+69.13	86.20' LT
27+67.05	64.97' RT
27+88.91	59.00' LT
29+75.41	59.16' LT
30+42.05	64.74' RT



507.97	508.28	503.76	503.86	499.26	499.43	495.16	495.37	492.13	492.02	489.33	489.41	487.44	487.52	485.99	486.35	485.52	485.90	486.16	486.18	487.32	487.19	488.85	488.92	490.99
24+50	25+00	25+50	26+00	26+50	27+00	27+50	28+00	28+50	29+00	29+50	30+00	30+50	30+50	30+50	30+50	30+50	30+50	30+50	30+50	30+50	30+50	30+50	30+50	30+50

DATE	
BY	
SURVEYED	
ALIGNED	
CHECKED	
NO. OF WA. CHECKED	
CLASS FILE NAME	
PLAN	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
GRADES CHECKED	
NO. NOTED	
STRUCTURE	
ROTATING OFFICER	
PROFILE	
NOTE BOOK	
NO.	



FILE NAME =	USER NAME = bdecrone	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) PLAN AND PROFILE	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
V:\3461\CADD Drawings\CADD Sheets\3461-sh-prf-4.dgn	PLOT SCALE = 20.0000' / in.	DRAWN - RMD	REVISED -			275	09-00031-02-BR	LA SALLE	108	20	
Default	PLOT DATE = 8/13/2015	CHECKED - DJD	REVISED -			CONTRACT NO. 87605					
		DATE - 8/3/2015	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BRS-0099054					





SCALE: H=20 V=10 SHEET 4 OF 4 SHEETS STA. 30+50 TO STA. 36+50

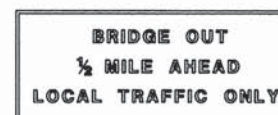
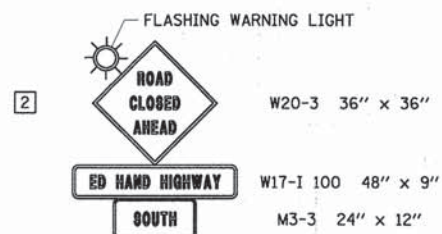
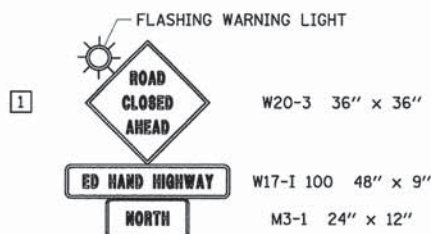
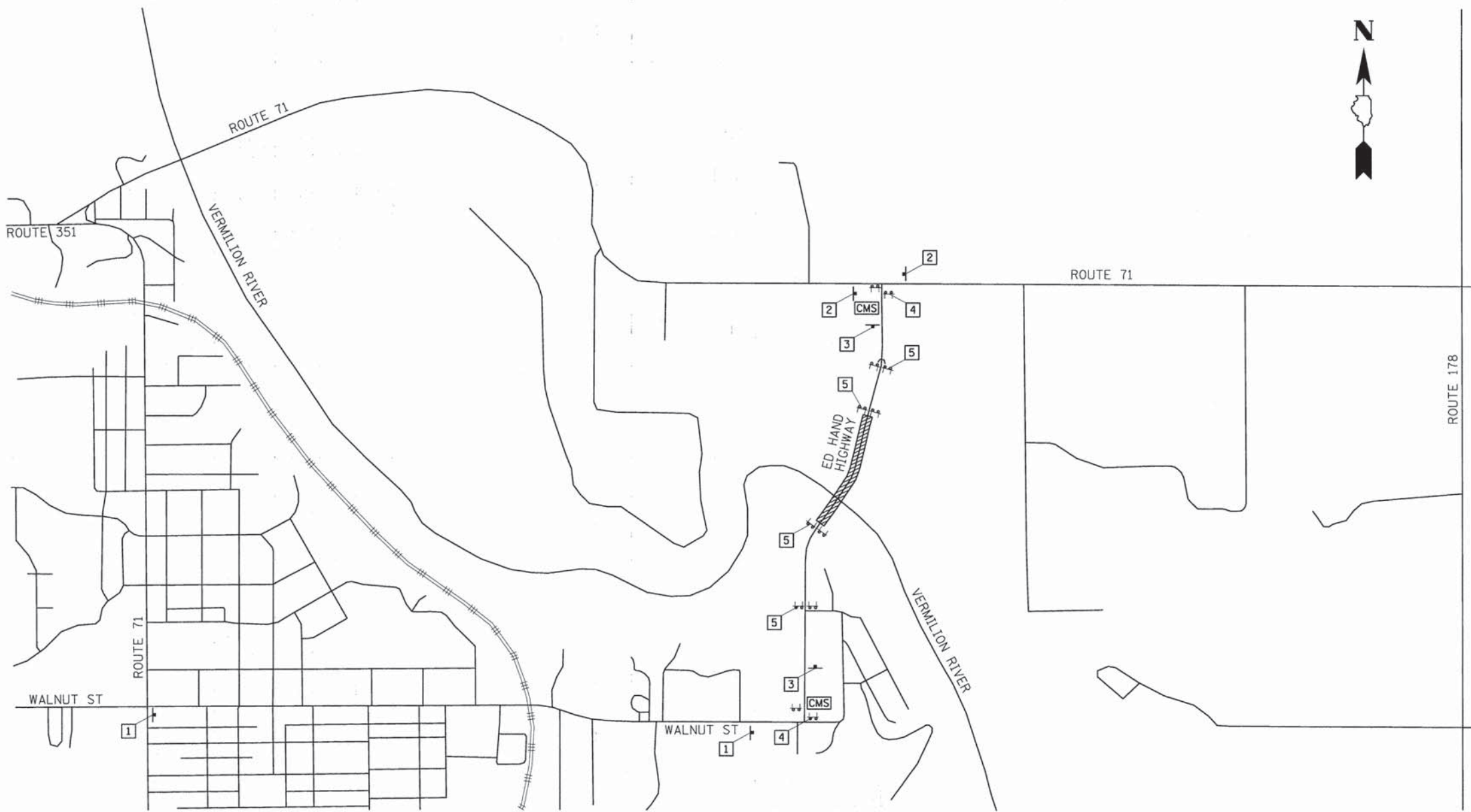
GENERAL NOTES

- 1.) ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JAN. 1, 2012", AND THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
- 2.) THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE ROAD IS TO BE CLOSED.
- 3.) THE CONTRACTOR SHALL NOTIFY ALL ADJACENT PROPERTY OWNERS IN WRITING ONE WEEK PRIOR TO CLOSING THE ROAD TO THROUGH TRAFFIC.
- 4.) 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. THE LASALLE COUNTY REPRESENTATIVE IS:

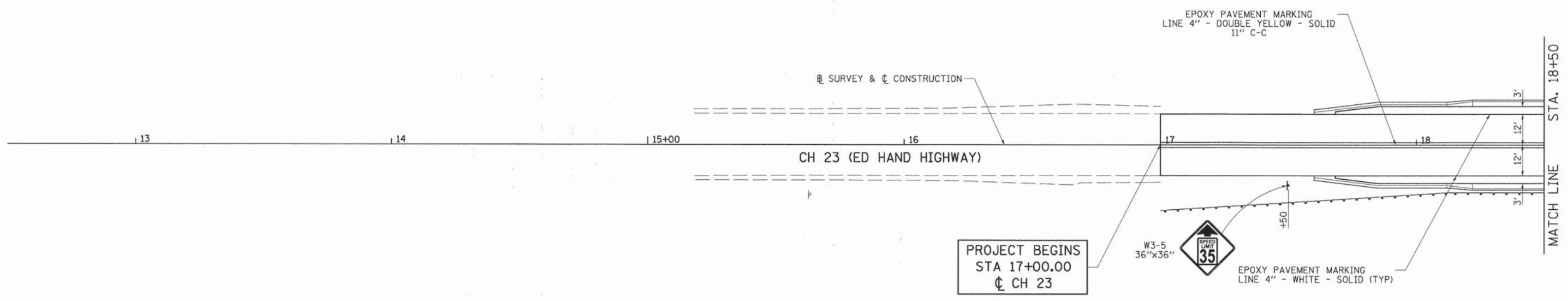
MR. LARRY KINZER, P.E.
LASALLE COUNTY ENGINEER
LASALLE COUNTY HIGHWAY DEPARTMENT
1400 N. 27TH RD.
OTTAWA, IL. 61350
- 5.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS AND OTHER DEVICES INSTALLED BY HIM OR HER ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE CLOSURE IS IN EFFECT.
- 6.) THE CONTRACTOR SHALL MAKE ALL CHANGES IN SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER.
- 7.) THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC.
- 8.) 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.

MAP LEGEND

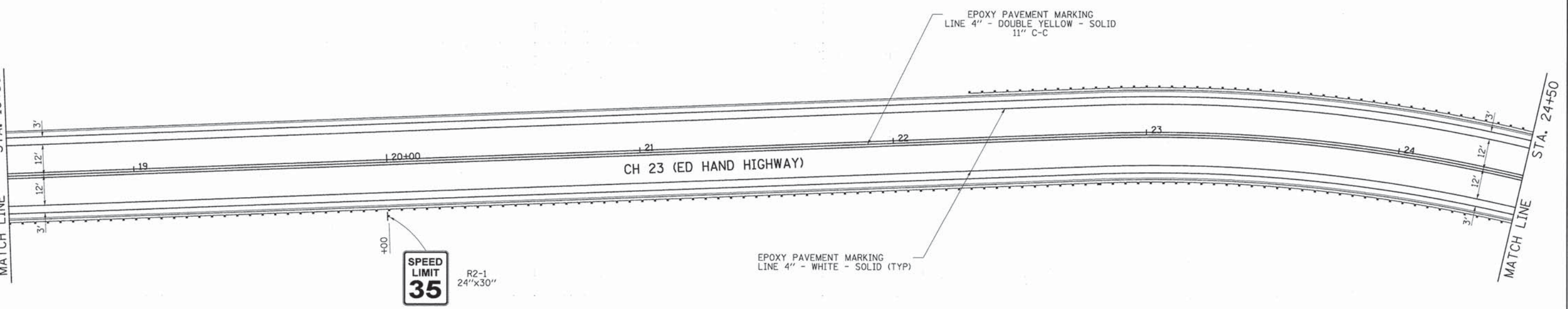
-  POST MOUNTED SIGN
-  TYPE III BARRICADE WITH FLASHING LIGHTS (2 EA.)
-  ROAD CLOSURE LOCATION
-  CHANGEABLE MESSAGE SIGN (TWO WEEKS PRIOR TO ROAD CLOSURE)



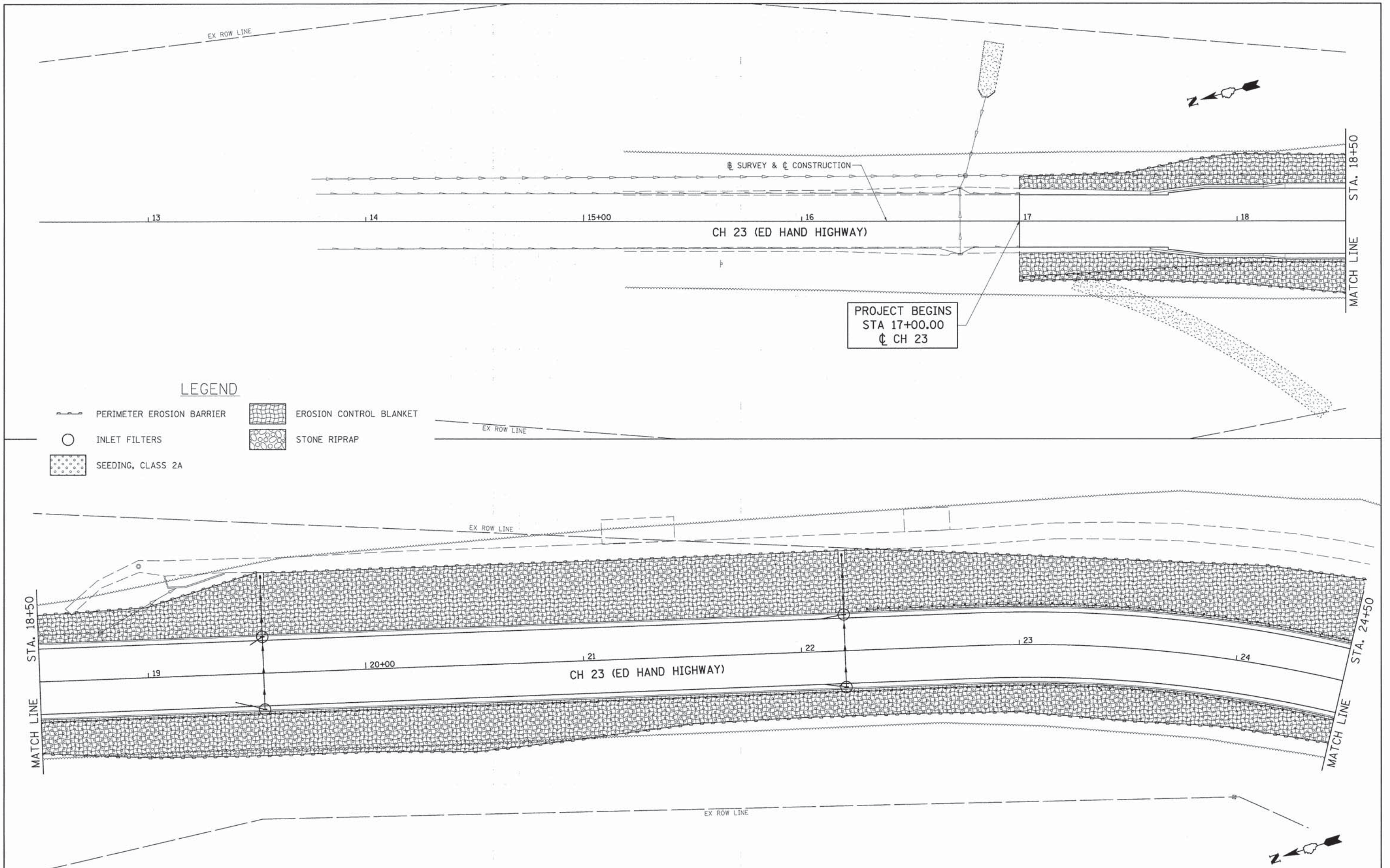
FILE NAME =	USER NAME = bdecrane	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) TRAFFIC CONTROL DETAILS		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
V:\3461\CADD Drawings\CADD Sheets\3461-11-11-roadclosure-1.dgn	DRAWN - RMD	REVISIONS -	275				09-00031-02-BR	LA SALLE	108	21	
PLOT SCALE = 20,000' / in.	CHECKED - DJD	REVISIONS -	CONTRACT NO. 87605								
PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISIONS -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-0091054)								
					SCALE: N/A	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A			



PROJECT BEGINS
STA 17+00.00
CH 23



FILE NAME =	USER NAME = bdeoraone	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) PAVEMENT MARKING PLAN			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
V:\3461\CADD Drawings\CADD Sheets\3461-sh	pmk-1.dgn	DRAWN - RMD	REVISED -		SCALE: 1"=20'	SHEET 1	OF 2 SHEETS	STA. 12+50	TO STA. 24+50	275	09-00031-02-BR	LA SALLE	108	22
Default	PLOT SCALE = 20,0000 ' / 1"	CHECKED - DJD	REVISED -		CONTRACT NO. 87605									
	PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -		ILLINOIS FED. AID PROJECT BR5-00910541									



LEGEND

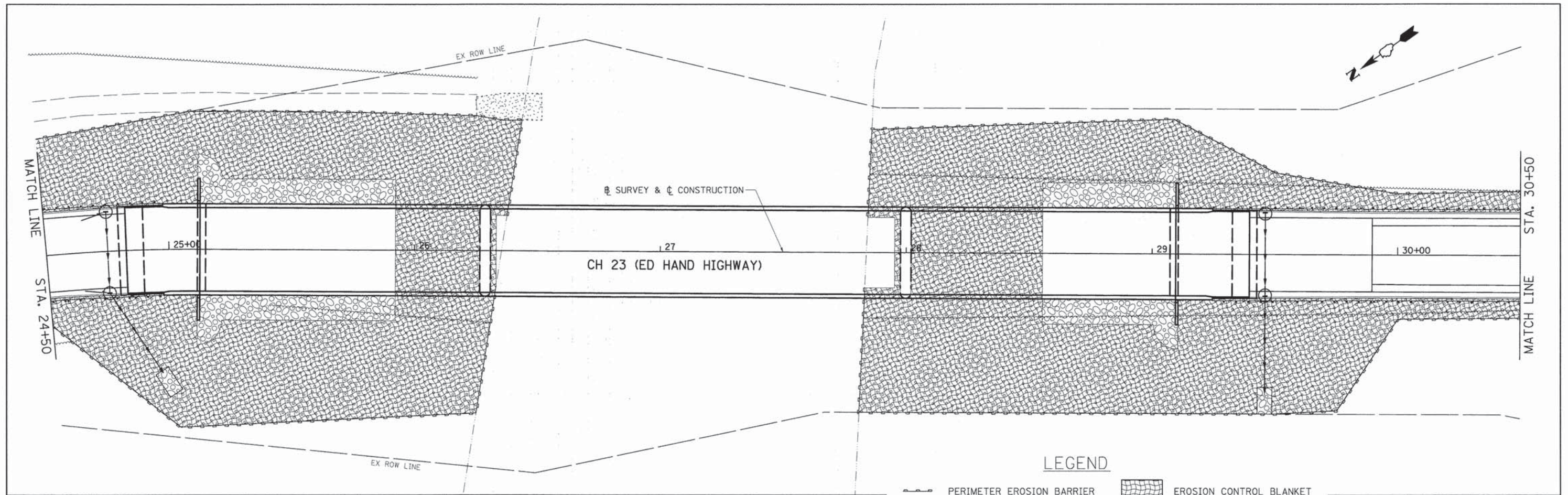
- PERIMETER EROSION BARRIER
- INLET FILTERS
- SEEDING, CLASS 2A
- EROSION CONTROL BLANKET
- STONE RIPRAP

FILE NAME =	USER NAME = bdecreane	DESIGNED - LDZ	REVISED -
V:\3461\CADD Drawings\CADD Sheets\3461-sh	paros-1.dgn	DRAWN - RMD	REVISED -
Default	PLOT SCALE = 20.0000' / in.	CHECKED - DJD	REVISED -
	PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -

**LASALLE COUNTY
HIGHWAY DEPARTMENT**

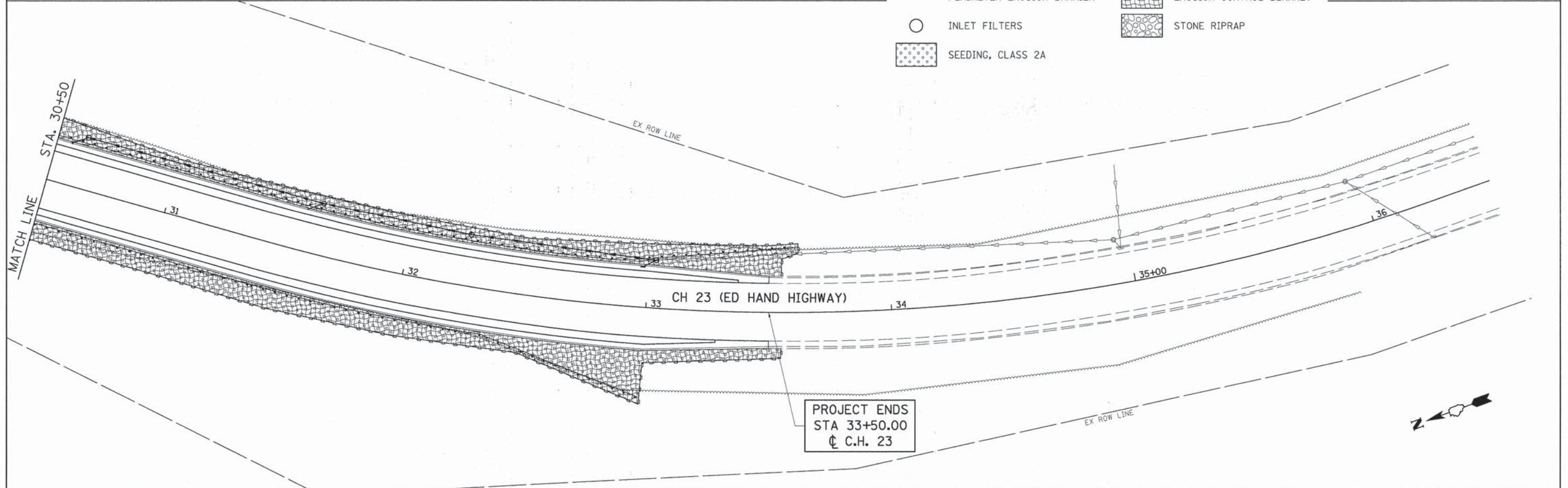
CH 23 (ED HAND HIGHWAY) EROSION CONTROL PLAN	
SCALE: 1"=20'	SHEET 1 OF 2 SHEETS STA. 12+50 TO STA. 24+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	24
CONTRACT NO. 87605				
ILLINOIS FED. AID PROJECT BR5-00990541				



LEGEND







-  PERIMETER EROSION BARRIER
-  INLET FILTERS
-  SEEDING, CLASS 2A
-  EROSION CONTROL BLANKET
-  STONE RIPRAP



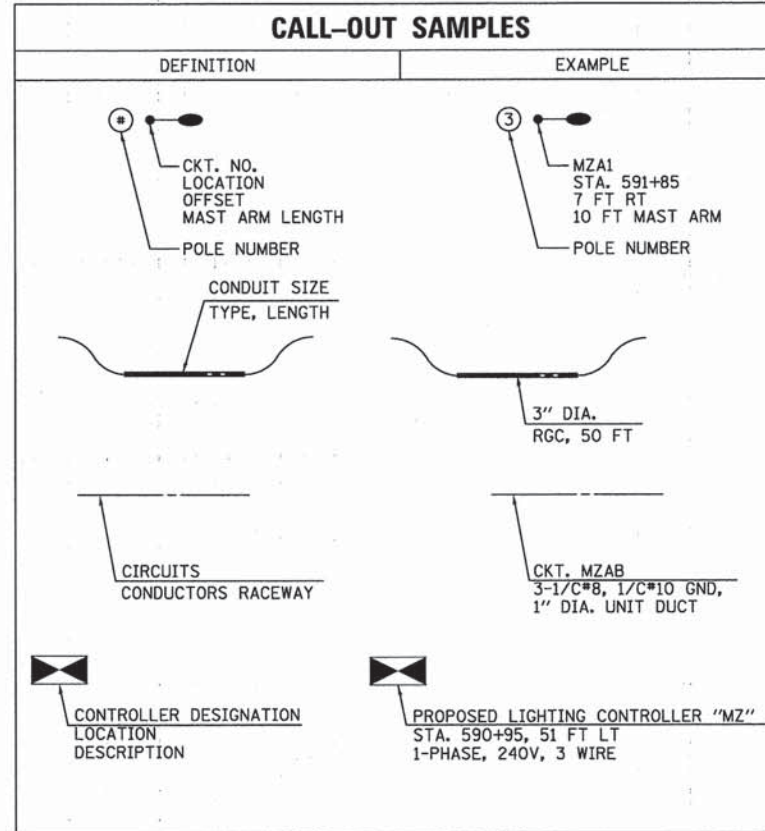
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V:\3461\CADD Drawings\CADD Sheets\3461-sh	eros-2.dgn	DRAWN - RMD	REVISED -			275	09-00031-02-BR	LA SALLE	108	25	
Default	PLOT SCALE = 20,0000' / 1"	CHECKED - DJD	REVISED -			CONTRACT NO. 87605					
	PLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -			ILLINOIS FED. AID PROJECT BRS-0099(054)					

SCALE: 1"=20' SHEET 2 OF 2 SHEETS STA. 24+50 TO STA. 36+50

LIGHTING LEGEND

-  PROPOSED SINGLE ARM LIGHTING UNIT
47.5' M.H., M.A AS NOTED, WITH 240V LED LUMINAIRE
-  PROPOSED JUNCTION BOX
SIZE AND TYPE PER PLANS
-  UNDERGROUND RIGID GALVANIZED STEEL CONDUIT (RGC)
SIZE AS INDICATED
-  UNIT DUCT, AS SPECIFIED IN PLANS
-  PROPOSED LIGHTING CONTROLLER PEDESTAL
MOUNTED, 240V, SINGLE PHASE, 3 WIRE
-  PROPOSED ELECTRIC UTILITY SERVICE LOCATION

CALL-OUT SAMPLES



GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ELECTRICAL WORK WITH OTHER TRADES.
2. THE PROPOSED LIGHT POLES SHALL BE LOCATED AS NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. LIGHT POLE FOUNDATIONS SHALL BE INSTALLED PLUMB AND FLUSH WITH THE PROPOSED GRADE AND SHALL MEET THE HEIGHT REQUIREMENTS OF ARTICLE 836.03 OF THE STANDARD SPECIFICATIONS. WASHERS USED TO INSTALL THE POLE SHALL BE LARGE ENOUGH TO FULLY COVER THE SLOTTED HOLES IN THE POLE BASE PLATE.
3. THE CONTRACTOR SHALL INSTALL LIGHT POLES AT THE LOCATIONS INDICATED ON THE PLANS, MAINTAINING ADEQUATE CLEARANCE FROM UTILITY LINES. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY CLEARANCES PER THE NATIONAL ELECTRICAL SAFETY CODE AND/OR THE REQUIREMENTS OF THE UTILITY COMPANIES. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. REROUTING, DISCONNECTION, RELOCATION, PROTECTION ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE UNDERGROUND CONDUIT AND UNIT DUCT PAY ITEMS.
5. THE CONTRACTOR SHALL PROVIDE A CONCRETE WORK PAD IN FRONT OF THE LIGHTING CONTROLLER PER SECTION 825 OF THE STANDARD SPECIFICATIONS.
6. INSTALL HORIZONTAL MOUNT LUMINAIRES PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY AS REQUIRED BY ARTICLE 821.04 OF THE STANDARD SPECIFICATIONS.
7. THE LIGHTING CONTROLLER NAME PLATE SHALL READ "LIGHTING - LASALLE COUNTY." THE CABINET, BASE, AND POST SHALL BE POWDER COATED BLACK.
8. THE CONTRACTOR SHALL PROVIDE COMBINATION EXPANSION/DEFLECTION COUPLINGS AT ALL BRIDGE EXPANSION JOINTS. THE COMBINATION EXPANSION/DEFLECTION COUPLINGS ARE INCLUDED IN THE PRICE OF THE CONDUIT EMBEDDED IN STRUCTURE.

HIGHWAY STANDARDS

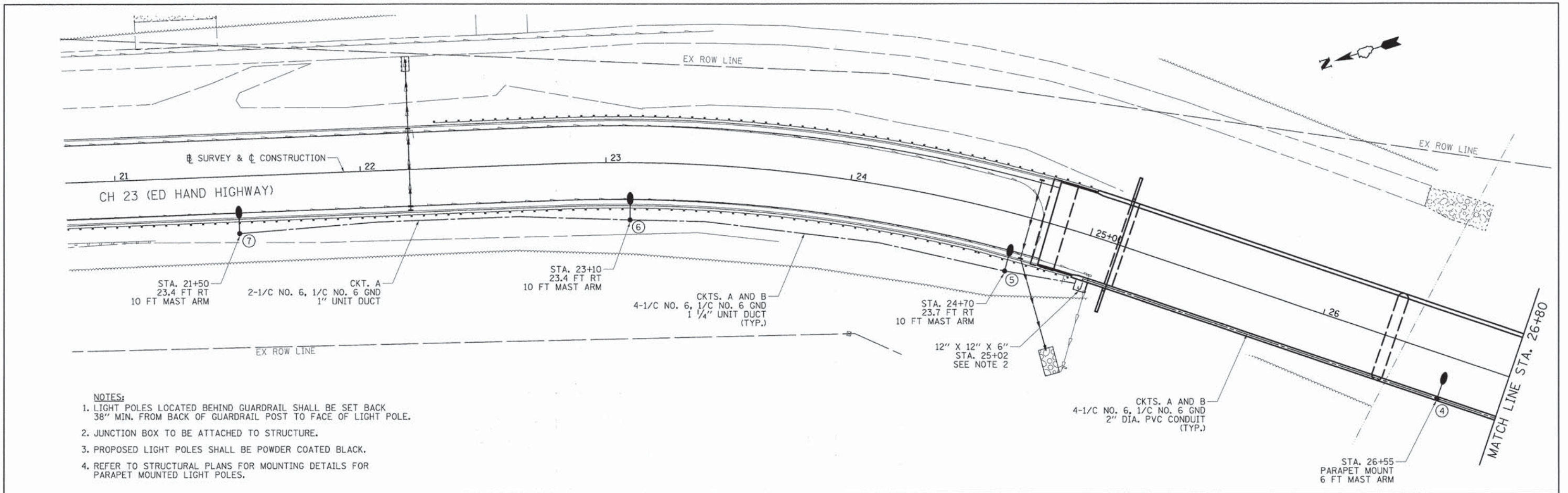
812001	RACEWAY EMBEDDED IN STRUCTURE
821101	LUMINAIRE WIRING DIAGRAM
825011	LIGHTING CONTROLLER PEDESTAL MOUNTED, 240V
830001	LIGHT POLE ALUMINUM MAST ARM
836001	LIGHT POLE FOUNDATION
838001	BREAKAWAY DEVICES

ABBREVIATIONS

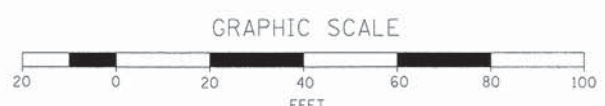
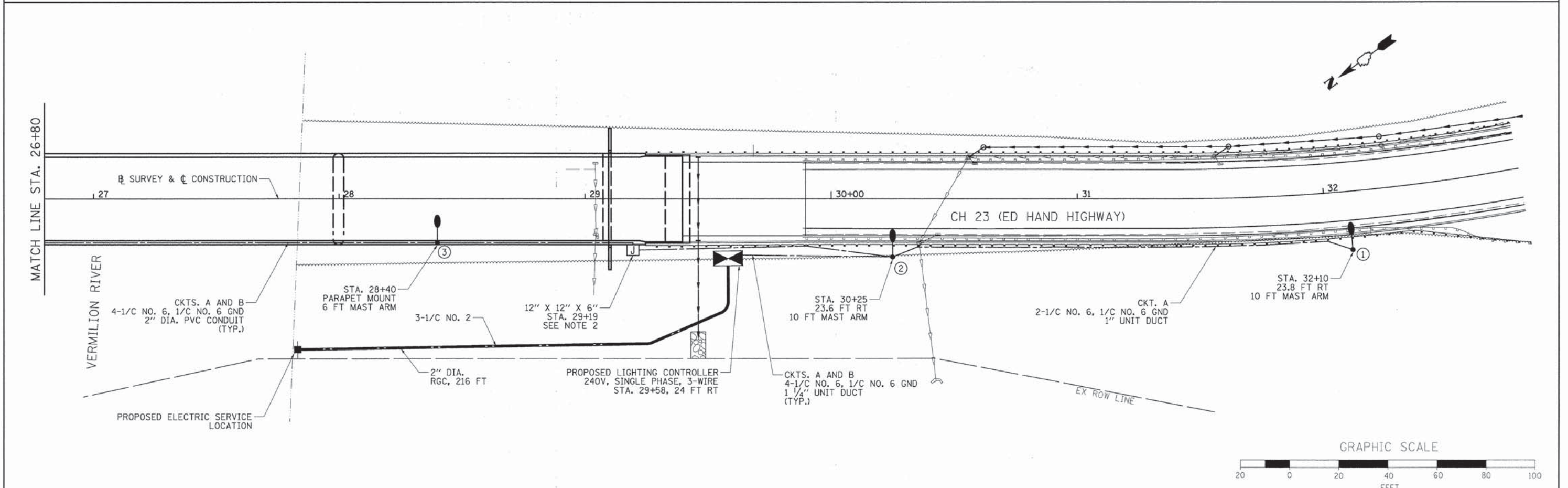
ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
AFG	ABOVE FINISHED GRADE
AMP	AMPERE
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CM	CENTIMETER
CNC	COILABLE NONMETALLIC CONDUIT
CT	CURRENT TRANSFORMER
D.A.	DAVIT ARM
DIA.	DIAMETER
EX	EXISTING
FT	FEET OR FOOT
FU	FUSE
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
LED	LIGHT EMITTING DIODE
LP	LIGHT POLE
M.A.	MAST ARM
M.H.	MOUNTING HEIGHT
NO., #	NUMBER
PR	PROPOSED
RGC	RIGID GALVANIZED CONDUIT
STA	STATION
T	TEMPORARY LIGHTING UNIT
TB	TRANSFORMER BASE
TMP	TEMPORARY
UC	UNDERGROUND CONDUIT
UD	UNIT DUCT
WP	WOOD POLE
XFMR	TRANSFORMER

LIGHTING SCHEDULE OF QUANTITIES

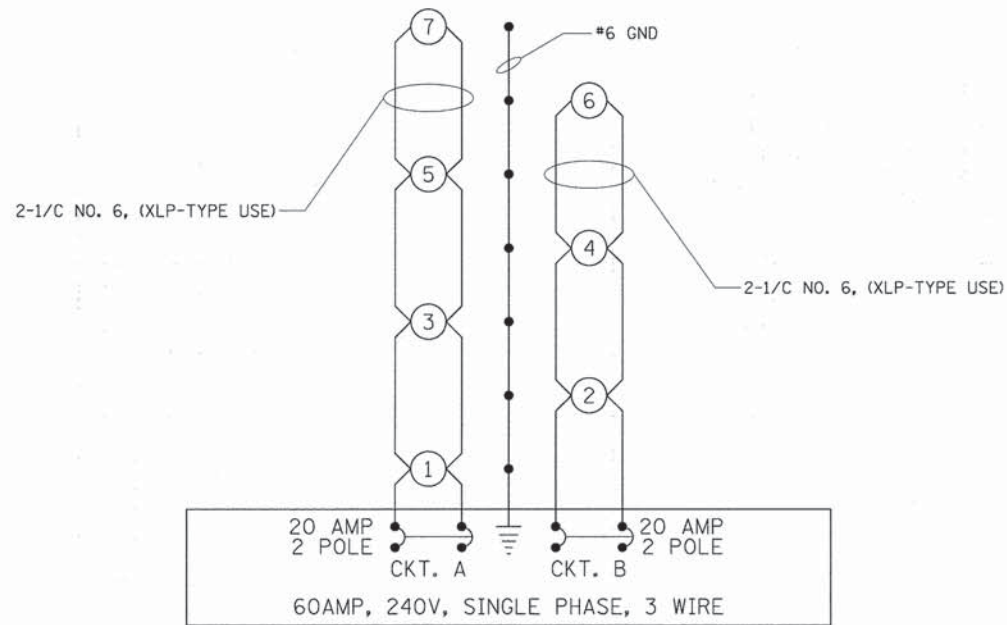
ITEM	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	216
CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	415
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 12" X 6"	EACH	2
UNIT DUCT, 600V, 2-1C NO. 6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	370
UNIT DUCT, 600V, 4-1C NO. 6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	400
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	2,205
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	660
LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 6 FT. MAST ARM	EACH	2
LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 10 FT. MAST ARM	EACH	5
LIGHT POLE FOUNDATION, 30" DIAMETER	FOOT	35
BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	5
LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL	EACH	7



- NOTES:**
1. LIGHT POLES LOCATED BEHIND GUARDRAIL SHALL BE SET BACK 38" MIN. FROM BACK OF GUARDRAIL POST TO FACE OF LIGHT POLE.
 2. JUNCTION BOX TO BE ATTACHED TO STRUCTURE.
 3. PROPOSED LIGHT POLES SHALL BE POWDER COATED BLACK.
 4. REFER TO STRUCTURAL PLANS FOR MOUNTING DETAILS FOR PARAPET MOUNTED LIGHT POLES.



FILE NAME = 3461-sh1-light-02.dgn	USER NAME = bdeoraene	DESIGNED - RAS	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) LIGHTING PLAN			F.A. RTE. 275	SECTION 09-00031-02-BR	COUNTY LA SALLE	TOTAL SHEETS 108	SHEET NO. 27
Default	PLOT SCALE = 28.00' / 1"	CHECKED - MKR	REVISED -		SCALE: 1"=20'	SHEET NO. 2 OF 3 SHEETS	STA. 20+80 TO STA. 32+80	CONTRACT NO. 87605				
	PLOT DATE = 8/13/2015	DATE - 5/1/15	REVISED -		FED. ROAD DIST. NO. 7 ILLINOIS							
					FED. AID PROJECT BR5-0099(054)							



ROADWAY LIGHTING CONTROLLER

○ LED LUMINAIRE, 240V

NOTES:

1. PROVIDE 4 - 20 AMP 2 POLE BRANCH CIRCUIT BREAKERS IN THE LIGHTING CONTROLLER.
2. CIRCUITS A AND B RUN IN THE SAME RACEWAY.

FILE NAME * 3461-sht-light-03.dgn	USER NAME * bdecrone	DESIGNED - RAS	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) SCHEMATIC WIRING DIAGRAM		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 20,00' / 1"	CHECKED - MKR	REVISED -				275	09-00031-02-BR	LA SALLE	108	28
Default	PLOT DATE = 8/13/2015	DATE - 5/1/15	REVISED -	SCALE: NONE SHEET NO. 3 OF 3 SHEETS STA. TO STA.		FED. ROAD DIST. NO. 7 ILLINOIS		CONTRACT NO. 87605 FED. AID PROJECT BRS-00990541			

B.M. #2: Chsd. "□" at NW corner
Bridge on Parapet.
Elev. 502.34

B.M. #3: Chsd. "□" at SE corner
Bridge on Parapet.
Elev. 486.76

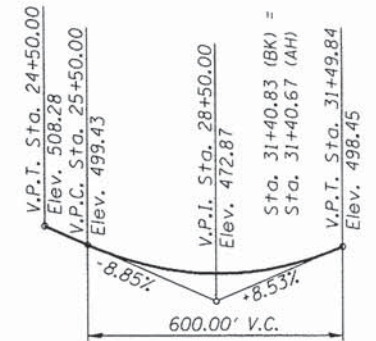
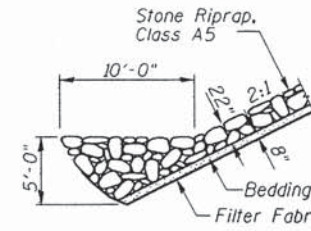
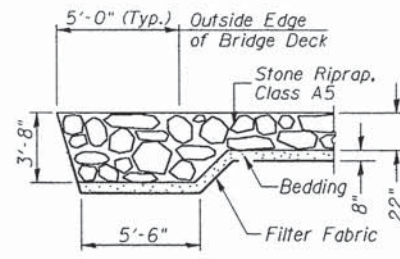
Existing Structure:

Three span structure consisting of a reinforced concrete deck on a steel deck truss system superstructure supported on concrete spill thru abutments on pile supported footings and solid stem piers on spread footing set in rock. The structure is 356'-0" back to back of abutments, 30'-0" out to out deck, and is not skewed. The structure was built in 1940 and was reconstructed in 1983.
Str. No. 050-3038

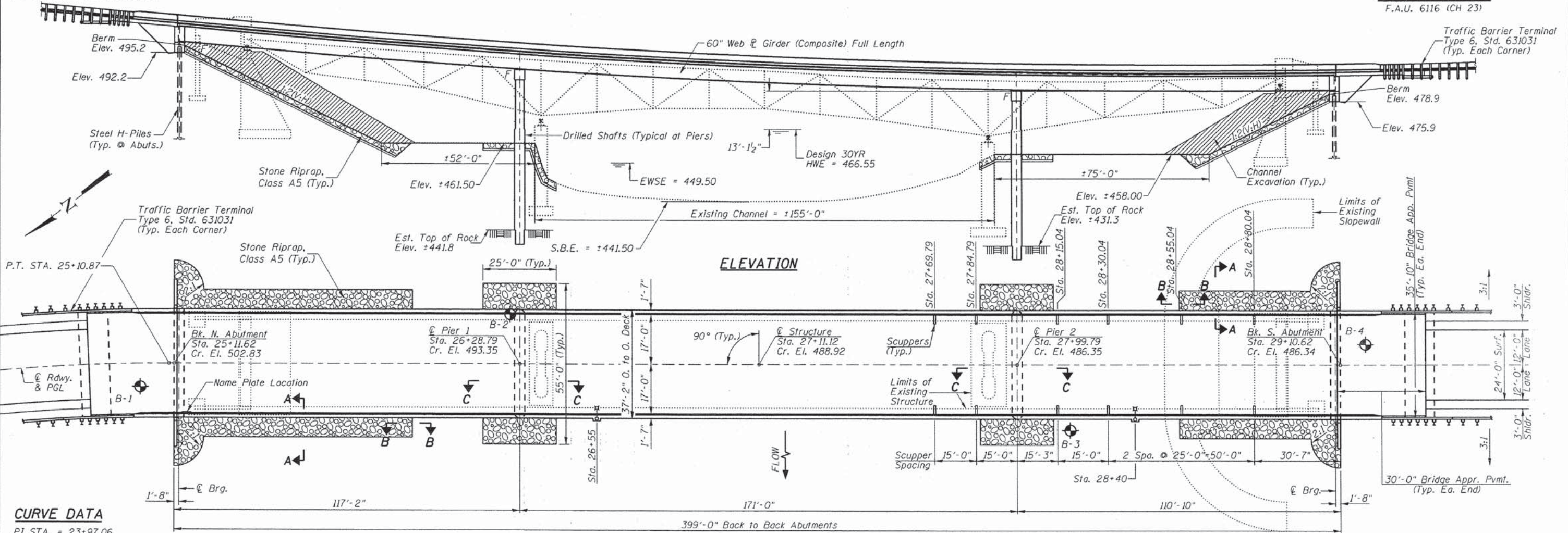
Salvage: None

Road to be closed to traffic during construction.

◆ Indicates Soil Boring Location



PROFILE GRADE
F.A.U. 6116 (CH 23)



ELEVATION

CURVE DATA

PI STA. = 23+97.06
 $\Delta = 20^\circ 56' 18''$ (RT)
 $D = 9^\circ 05' 40''$
 $R = 630.00'$
 $T = 116.41'$
 $L = 230.23'$
 $E = 10.67'$
 $e = 3.97\%$
P.C. STA. = 22+80.64
P.T. STA. = 25+10.87
S.E. = STA. 24+83.87 TO STA. 26+07.87

DESIGN SCOUR TABLE

Event/Limit	Design Scour Elevation				Item
	N. Abut.	Pier 1	Pier 2	S. Abut.	
Q100	-	441.8	431.3	-	113
Q200	-	441.8	431.3	-	5
Design	492.1	441.8	431.3	475.8	
Check	492.1	441.8	431.3	475.8	

WATERWAY INFORMATION

Drainage Area = 1,331.29 Sq. Mi. Low Grade Elev. = 485.90 @ Sta. 28+55.65

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	30	30,571	4,039	4,326	466.55	0.19	0.12	466.74/466.67
Base	100	38,497	4,649	5,138	469.17	0.27	0.23	469.44/469.40

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2.

DESIGN STRESSES

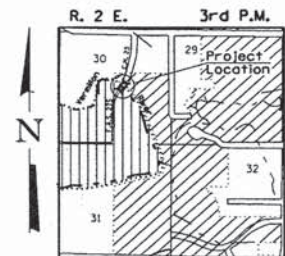
(FIELD UNITS)
 $f'_c = 3,500$ psi
 $f'_c = 4,000$ psi (Superstructure Concrete)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

LOADING HL-93

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

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition & 2015 Interims



LOCATION SKETCH

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.10g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.16g
Soil Site Class = D



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 Standard Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

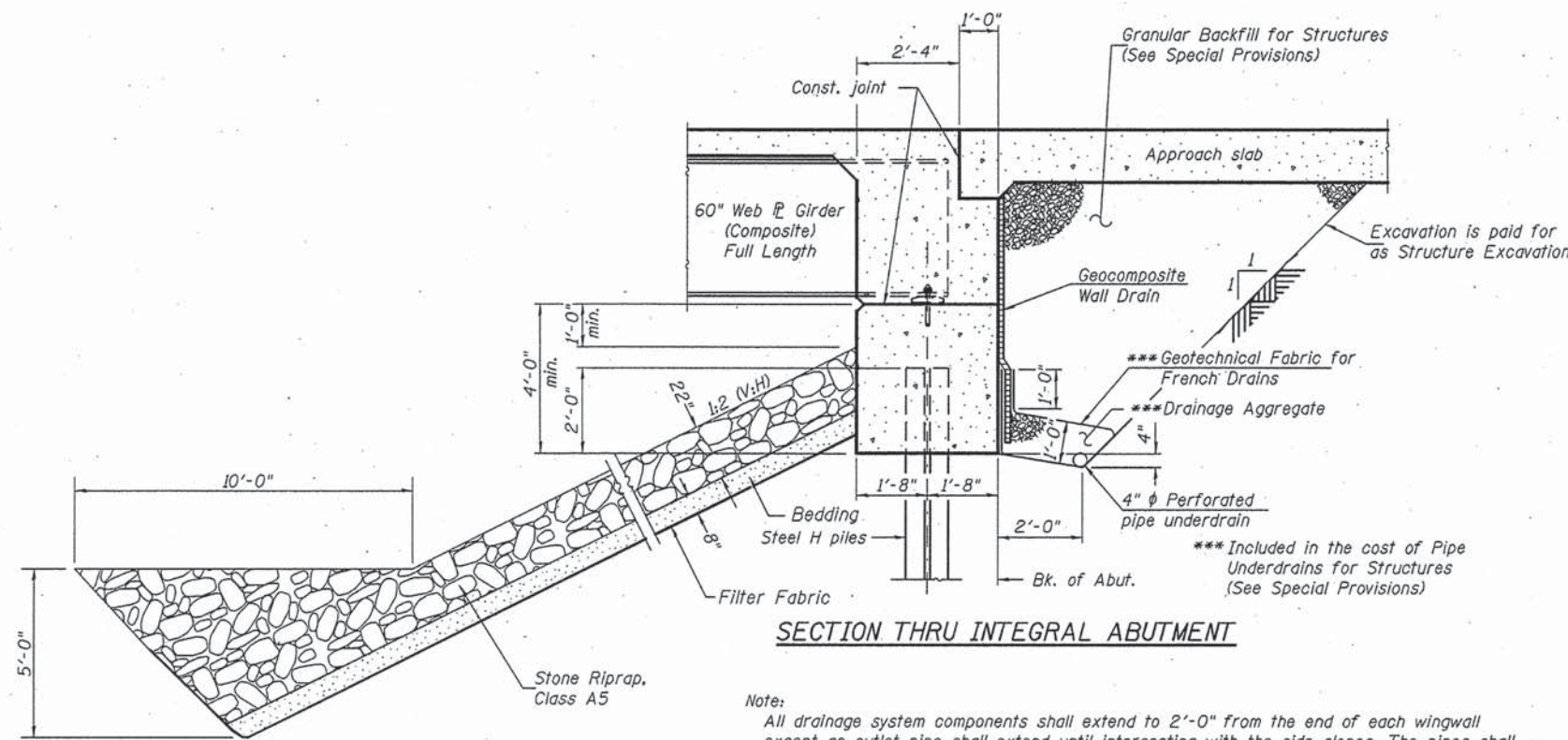
Benjamin A. Neel
Illinois Structural No. 6527
Expires 11/30/2016

GENERAL PLAN & ELEVATION

SHEET NO. 1 34 SHEETS	F.A. ROUTE 6116	SECTION 09-00031-02-BR	COUNTY LASALLE	TOTAL SHEETS 108	SHEET NO. 29
	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099054)		

INDEX OF SHEETS

SH. #'s	DESCRIPTION
1	General Plan and Elevation
2	Bill of Material, Details and General Notes
3	Footing Layout
4-6	Top of Slab Elevations
7-8	Top of Approach Slab Elevations
9	Superstructure
10-11	Superstructure Details
12	Diaphragm Details
13-16	Bridge Approach Slab Details
17	Drainage Scupper, DS-11
18	Framing Plan
19-20	Structural Steel Details
21	Bearing Details
22	North Abutment
23	South Abutment
24	Pier #1
25	Pier #2
26	HP Pile Details
27	Bar Splicer Details
28	Concrete Parapet Slipforming Option
29-34	Soil Boring Logs



SECTION THRU INTEGRAL ABUTMENT

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into ***concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601.10).

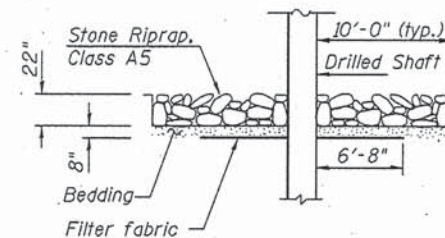
GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 type 3 in unpainted areas. Bolts 7/8" ϕ , holes 15/16" ϕ , unless otherwise noted.
 Calculated weight of Structural Steel = 542,690 lb (AASHTO M270 Gr. 50W)
 All structural steel shall be AASHTO M270 Gr. 50W.
 No field welding is permitted except as specified in the contract documents.
 Reinforcement bars designated (E) shall be epoxy coated.
 Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
 Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 The contractor shall retain the services of an engineering firm, prequalified in the IDOT consultant selection category of Highway Bridges - Advanced Typical, for preparation of the Structural Assessment Report for removal of the existing structure and the steel erection plan. Contractor's pre-approval shall not be applicable to this project. See Special Provision "Structural Assessment Reports for Contractor's Means and Methods."

VERMILION RIVER
 BUILT 20L BY
 LASALLE COUNTY
 SEC. 09-00031-02-BR
 C.H. 23 STATION 27+11.12
 F.A. PROJ. BRS-0099(054)
 STR. NO. 050-3614 LOADING HL-93

NAME PLATE

Locate Name Plate on Parapet
 N.W. Corner of Bridge (See Std. 515001)



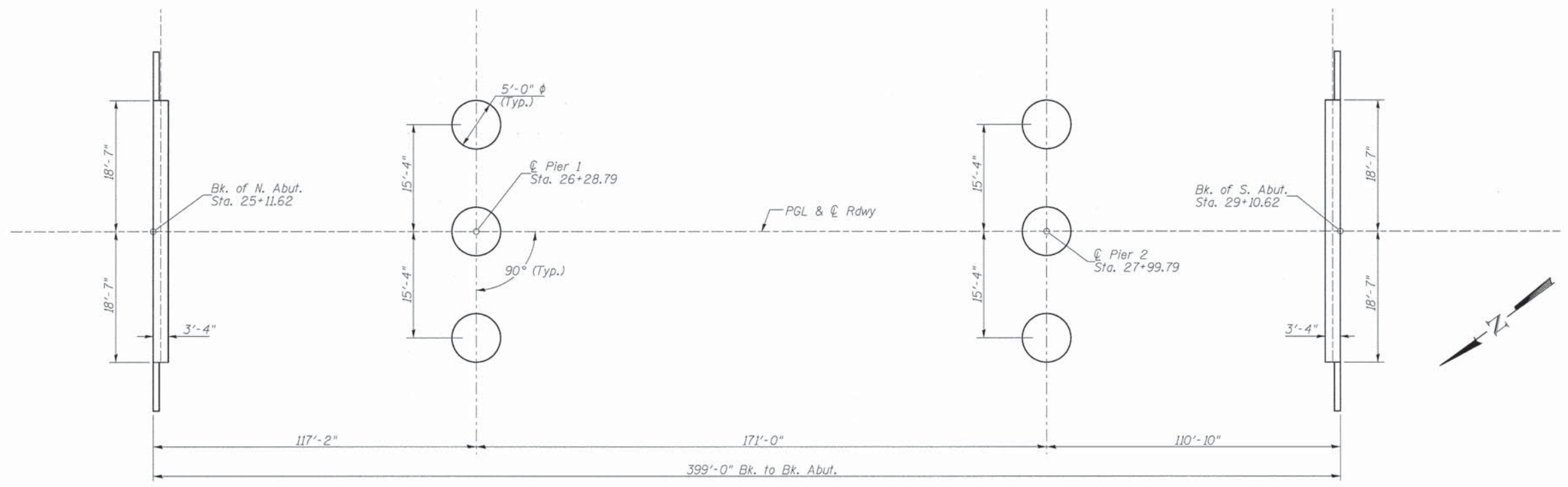
SECTION C-C

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	---	3,750	3,750
Stone Riprap, Class A5	SQ YD	---	1,060	1,060
Filter Fabric	SQ YD	---	955	955
Granular Backfill for Structures	CU YD	---	235	235
Removal of Existing Structures	EACH	---	1	1
Structure Excavation	CU YD	---	595	595
Concrete Structures	CU YD	---	236.6	236.6
Concrete Superstructure	CU YD	643.0	---	643.0
Bridge Deck Grooving	SQ YD	1,625	---	1,625
Protective Coat	SQ YD	2,155	---	2,155
Furnishing and Erecting Structural Steel	L SUM	1	---	1
Reinforcement Bars	POUND	---	31,090	31,090
Reinforcement Bars, Epoxy Coated	POUND	165,610	43,700	209,310
Stud Shear Connectors	EACH	4,750	---	4,750
Anchor Bolts, 1"	EACH	---	20	20
Anchor Bolts, 1 1/2"	EACH	---	20	20
Slope Wall Removal	SQ YD	---	296	296
Furnishing Steel Piles HP14x73	FOOT	---	352	352
Test Pile Steel HP14x73	EACH	---	2	2
Driving Piles	FOOT	---	352	352
Name Plates	EACH	1	---	1
Permanent Casing	FOOT	---	115	115
Drilled Shaft in Soil	CU YD	---	111.3	111.3
Drilled Shaft in Rock	CU YD	---	77.7	77.7
Bar Splicers	EACH	---	208	208
Geocomposite Wall Drain	SQ YD	---	107	107
Pipe Underdrains For Structures 4"	FOOT	---	143	143
Drainage Scuppers, DS-11	EACH	12	---	12
See Special Provisions				

BILL OF MATERIAL, DETAILS AND GENERAL NOTES

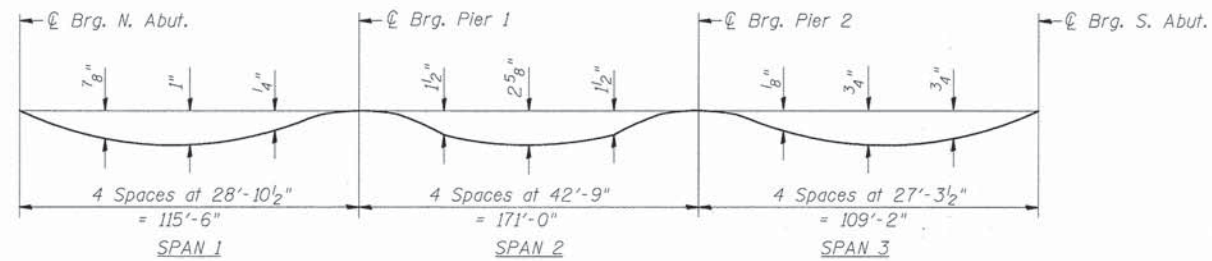
SHEET NO. 2	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	6116	09-00031-02-BR	LASALLE	108	30
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		



FOOTING LAYOUT

FOOTING LAYOUT

SHEET NO. 3 34 SHEETS	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	31
	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		



DEAD LOAD DEFLECTION DIAGRAM

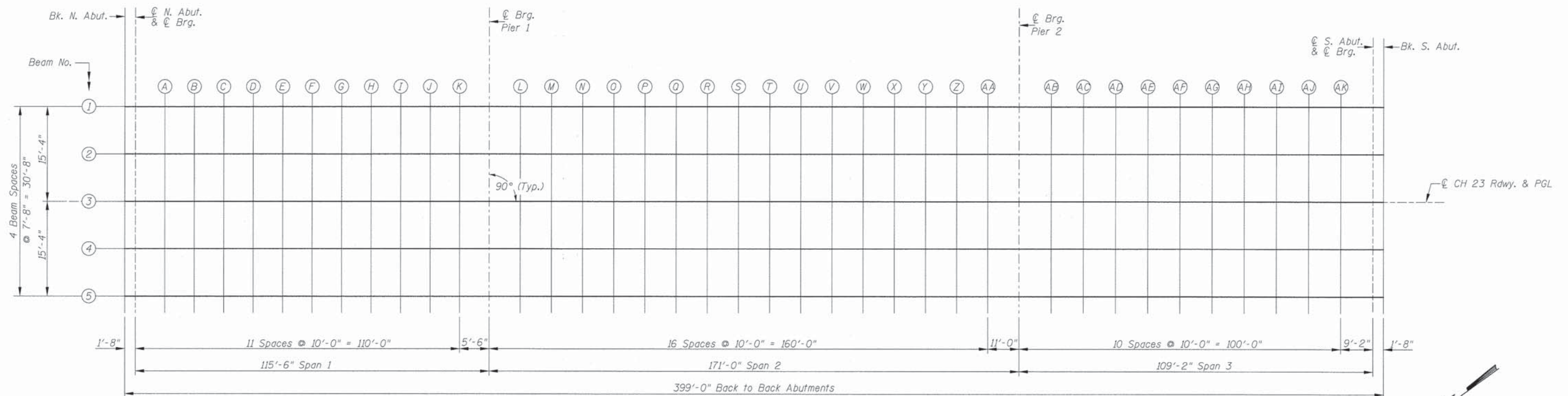
(Includes weight of concrete only)

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 in the tables on Sheets 5 & 6 of 34.



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 in the tables on Sheets 5 & 6 of 34, minus slab thickness, equals the fillet height "t" above top flange of beams.

FILLET HEIGHTS



PLAN

TOP OF SLAB ELEVATIONS

Note: Theoretical Grade Elevations adjusted for dead load deflection are dependent upon the deck pouring sequence on sheet 10 of 34. If changes to the pouring sequence are made, the Theoretical Grade Elevations adjusted for Dead Load Deflection will need to be revised and approved by the Engineer.

SHEET NO. 4	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	32
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		

BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk N. Abutment	2511.62	-15.33	503.25	503.25
CL Brg N. Abut.	2513.29	-15.33	503.09	503.09
A	2523.29	-15.33	502.13	502.17
B	2533.29	-15.33	501.18	501.24
C	2543.29	-15.33	500.23	500.30
D	2553.29	-15.33	499.27	499.37
E	2563.29	-15.33	498.34	498.43
F	2573.29	-15.33	497.44	497.52
G	2583.29	-15.33	496.57	496.63
H	2593.29	-15.33	495.73	495.76
I	2603.29	-15.33	494.92	494.93
J	2613.29	-15.33	494.16	494.16
K	2623.29	-15.33	493.46	493.46
CL Brg Pier 1	2628.79	-15.33	493.10	493.10
L	2638.79	-15.33	492.45	492.47
M	2648.79	-15.33	491.84	491.88
N	2658.79	-15.33	491.26	491.33
O	2668.79	-15.33	490.70	490.81
P	2678.79	-15.33	490.17	490.32
Q	2688.79	-15.33	489.68	489.85
R	2698.79	-15.33	489.21	489.41
S	2708.79	-15.33	488.77	488.98
T	2718.79	-15.33	488.36	488.57
U	2728.79	-15.33	487.97	488.18
V	2738.79	-15.33	487.62	487.81
W	2748.79	-15.33	487.30	487.45
X	2758.79	-15.33	487.00	487.12
Y	2768.79	-15.33	486.74	486.82
Z	2778.79	-15.33	486.50	486.55
AA	2788.79	-15.33	486.29	486.31
CL Brg Pier 2	2799.79	-15.33	486.10	486.10
AB	2809.79	-15.33	485.95	485.95
AC	2819.79	-15.33	485.83	485.83
AD	2829.79	-15.33	485.74	485.76
AE	2839.79	-15.33	485.68	485.72
AF	2849.79	-15.33	485.65	485.70
AG	2859.79	-15.33	485.65	485.71
AH	2869.79	-15.33	485.67	485.74
AI	2879.79	-15.33	485.73	485.79
AJ	2889.79	-15.33	485.81	485.86
AK	2899.79	-15.33	485.93	485.95
CL Brg S. Abut.	2908.95	-15.33	486.06	486.06
Bk S. Abutment	2910.62	-15.33	486.08	486.08

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk N. Abutment	2511.62	-7.67	503.04	503.04
CL Brg N. Abut	2513.29	-7.67	502.88	502.88
A	2523.29	-7.67	501.96	502.00
B	2533.29	-7.67	501.04	501.10
C	2543.29	-7.67	500.13	500.20
D	2553.29	-7.67	499.21	499.29
E	2563.29	-7.67	498.31	498.40
F	2573.29	-7.67	497.45	497.52
G	2583.29	-7.67	496.61	496.66
H	2593.29	-7.67	495.80	495.83
I	2603.29	-7.67	495.02	495.04
J	2613.29	-7.67	494.29	494.29
K	2623.29	-7.67	493.60	493.60
CL Brg Pier 1	2628.79	-7.67	493.23	493.23
L	2638.79	-7.67	492.59	492.61
M	2648.79	-7.67	491.98	492.02
N	2658.79	-7.67	491.39	491.47
O	2668.79	-7.67	490.84	490.95
P	2678.79	-7.67	490.31	490.46
Q	2688.79	-7.67	489.81	489.99
R	2698.79	-7.67	489.34	489.55
S	2708.79	-7.67	488.90	489.12
T	2718.79	-7.67	488.49	488.71
U	2728.79	-7.67	488.11	488.32
V	2738.79	-7.67	487.76	487.94
W	2748.79	-7.67	487.43	487.59
X	2758.79	-7.67	487.14	487.26
Y	2768.79	-7.67	486.87	486.96
Z	2778.79	-7.67	486.64	486.68
AA	2788.79	-7.67	486.43	486.45
CL Brg Pier 2	2799.79	-7.67	486.23	486.23
AB	2809.79	-7.67	486.09	486.08
AC	2819.79	-7.67	485.97	485.97
AD	2829.79	-7.67	485.88	485.90
AE	2839.79	-7.67	485.82	485.86
AF	2849.79	-7.67	485.79	485.84
AG	2859.79	-7.67	485.78	485.85
AH	2869.79	-7.67	485.81	485.88
AI	2879.79	-7.67	485.87	485.93
AJ	2889.79	-7.67	485.95	486.00
AK	2899.79	-7.67	486.06	486.09
CL Brg S. Abut	2908.95	-7.67	486.19	486.19
Bk S. Abutment	2910.62	-7.67	486.22	486.22

ROADWAY, PROFILE GRADE, & BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk N. Abutment	2511.62	0.00	502.83	502.83
CL Brg N. Abut	2513.29	0.00	502.68	502.68
A	2523.29	0.00	501.80	501.83
B	2533.29	0.00	500.91	500.97
C	2543.29	0.00	500.02	500.10
D	2553.29	0.00	499.14	499.23
E	2563.29	0.00	498.28	498.36
F	2573.29	0.00	497.45	497.52
G	2583.29	0.00	496.64	496.70
H	2593.29	0.00	495.87	495.90
I	2603.29	0.00	495.12	495.14
J	2613.29	0.00	494.41	494.41
K	2623.29	0.00	493.72	493.72
CL Brg Pier 1	2628.79	0.00	493.35	493.35
L	2638.79	0.00	492.71	492.73
M	2648.79	0.00	492.10	492.14
N	2658.79	0.00	491.51	491.59
O	2668.79	0.00	490.96	491.07
P	2678.79	0.00	490.43	490.58
Q	2688.79	0.00	489.93	490.11
R	2698.79	0.00	489.46	489.67
S	2708.79	0.00	489.02	489.24
T	2718.79	0.00	488.61	488.83
U	2728.79	0.00	488.23	488.44
V	2738.79	0.00	487.88	488.06
W	2748.79	0.00	487.55	487.71
X	2758.79	0.00	487.26	487.38
Y	2768.79	0.00	486.99	487.08
Z	2778.79	0.00	486.76	486.80
AA	2788.79	0.00	486.55	486.57
CL Brg Pier 2	2799.79	0.00	486.35	486.35
AB	2809.79	0.00	486.20	486.20
AC	2819.79	0.00	486.09	486.09
AD	2829.79	0.00	486.00	486.02
AE	2839.79	0.00	485.94	485.98
AF	2849.79	0.00	485.91	485.96
AG	2859.79	0.00	485.90	485.97
AH	2869.79	0.00	485.93	486.00
AI	2879.79	0.00	485.98	486.05
AJ	2889.79	0.00	486.07	486.12
AK	2899.79	0.00	486.18	486.21
CL Brg S. Abut	2908.95	0.00	486.31	486.31
Bk S. Abutment	2910.62	0.00	486.34	486.34

TOP OF SLAB ELEVATIONS

SHEET NO. 5	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	33
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		

BEAM #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk N. Abutment	2511.62	7.67	502.62	502.62
CL Brg N. Abut	2513.29	7.67	502.48	502.48
A	2523.29	7.67	501.63	501.66
B	2533.29	7.67	500.77	500.83
C	2543.29	7.67	499.90	499.98
D	2553.29	7.67	499.02	499.11
E	2563.29	7.67	498.16	498.24
F	2573.29	7.67	497.33	497.40
G	2583.29	7.67	496.52	496.58
H	2593.29	7.67	495.75	495.78
I	2603.29	7.67	495.00	495.02
J	2613.29	7.67	494.29	494.29
K	2623.29	7.67	493.60	493.60
CL Brg Pier 1	2628.79	7.67	493.23	493.23
L	2638.79	7.67	492.59	492.61
M	2648.79	7.67	491.98	492.02
N	2658.79	7.67	491.39	491.47
O	2668.79	7.67	490.84	490.95
P	2678.79	7.67	490.31	490.46
Q	2688.79	7.67	489.81	489.99
R	2698.79	7.67	489.34	489.55
S	2708.79	7.67	488.90	489.12
T	2718.79	7.67	488.49	488.71
U	2728.79	7.67	488.11	488.32
V	2738.79	7.67	487.76	487.94
W	2748.79	7.67	487.43	487.59
X	2758.79	7.67	487.14	487.26
Y	2768.79	7.67	486.87	486.96
Z	2778.79	7.67	486.64	486.68
AA	2788.79	7.67	486.43	486.45
CL Brg Pier 2	2799.79	7.67	486.23	486.23
AB	2809.79	7.67	486.09	486.08
AC	2819.79	7.67	485.97	485.97
AD	2829.79	7.67	485.88	485.90
AE	2839.79	7.67	485.82	485.86
AF	2849.79	7.67	485.79	485.84
AG	2859.79	7.67	485.78	485.85
AH	2869.79	7.67	485.81	485.88
AI	2879.79	7.67	485.87	485.93
AJ	2889.79	7.67	485.95	486.00
AK	2899.79	7.67	486.06	486.09
CL Brg S. Abut	2908.95	7.67	486.19	486.19
Bk S. Abutment	2910.62	7.67	486.22	486.22

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk N. Abutment	2511.62	15.33	502.41	502.41
CL Brg N. Abut	2513.29	15.33	502.27	502.27
A	2523.29	15.33	501.46	501.49
B	2533.29	15.33	500.63	500.69
C	2543.29	15.33	499.77	499.84
D	2553.29	15.33	498.88	498.97
E	2563.29	15.33	498.02	498.11
F	2573.29	15.33	497.19	497.26
G	2583.29	15.33	496.39	496.44
H	2593.29	15.33	495.61	495.64
I	2603.29	15.33	494.87	494.88
J	2613.29	15.33	494.15	494.15
K	2623.29	15.33	493.46	493.46
CL Brg Pier 1	2628.79	15.33	493.10	493.10
L	2638.79	15.33	492.45	492.47
M	2648.79	15.33	491.84	491.88
N	2658.79	15.33	491.26	491.33
O	2668.79	15.33	490.70	490.81
P	2678.79	15.33	490.17	490.32
Q	2688.79	15.33	489.68	489.85
R	2698.79	15.33	489.21	489.41
S	2708.79	15.33	488.77	488.98
T	2718.79	15.33	488.36	488.57
U	2728.79	15.33	487.97	488.18
V	2738.79	15.33	487.62	487.81
W	2748.79	15.33	487.30	487.45
X	2758.79	15.33	487.00	487.12
Y	2768.79	15.33	486.74	486.82
Z	2778.79	15.33	486.50	486.55
AA	2788.79	15.33	486.29	486.31
CL Brg Pier 2	2799.79	15.33	486.10	486.10
AB	2809.79	15.33	485.95	485.95
AC	2819.79	15.33	485.83	485.83
AD	2829.79	15.33	485.74	485.76
AE	2839.79	15.33	485.68	485.72
AF	2849.79	15.33	485.65	485.70
AG	2859.79	15.33	485.67	485.71
AH	2869.79	15.33	485.73	485.74
AI	2879.79	15.33	485.81	485.86
AJ	2889.79	15.33	485.93	485.95
AK	2899.79	15.33	486.06	486.06
CL Brg S. Abut	2908.95	15.33	486.06	486.06
Bk S. Abutment	2910.62	15.33	486.08	486.08

TOP OF SLAB ELEVATIONS

SHEET NO. 6	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	34
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N End of N Appr	2482.62	-17.00	506.07
A1	2492.62	-17.00	505.12
A2	2502.62	-17.00	504.16
S End of N Appr	2512.62	-17.00	503.20

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N End of N Appr	2482.62	-12.00	505.87
A1	2492.62	-12.00	504.94
A2	2502.62	-12.00	504.00
S End of N Appr	2512.62	-12.00	503.06

☉ ROADWAY & P.G.L.

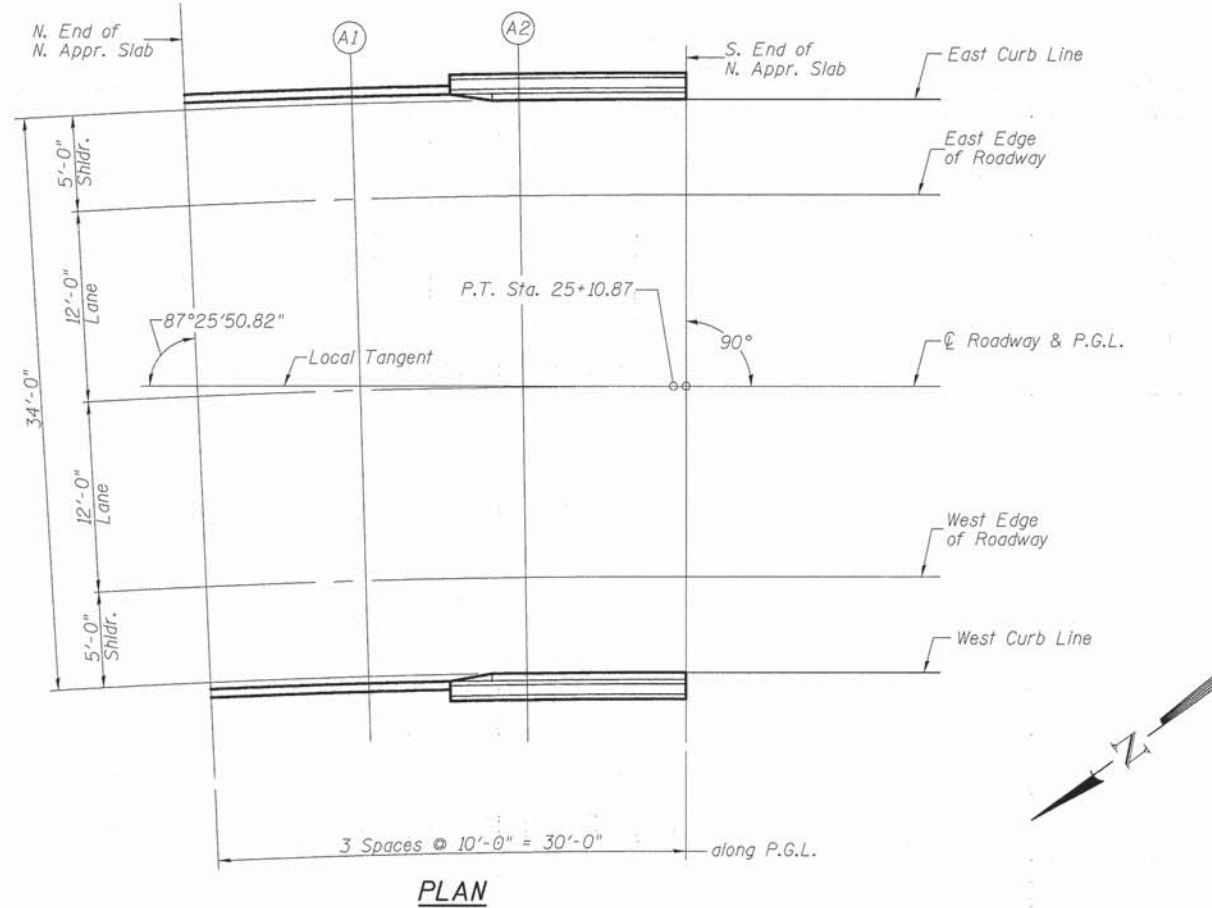
Location	Station	Offset	Theoretical Grade Elevations
N End of N Appr	2482.62	0.00	505.40
A1	2492.62	0.00	504.51
A2	2502.62	0.00	503.62
S End of N Appr	2512.62	0.00	502.74

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N End of N Appr	2482.62	12.00	504.92
A1	2492.62	12.00	504.08
A2	2502.62	12.00	503.25
S End of N Appr	2512.62	12.00	502.42

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N End of N Appr	2482.62	17.00	504.72
A1	2492.62	17.00	503.90
A2	2502.62	17.00	503.09
S End of N Appr	2512.62	17.00	502.28



PLAN

TOP OF NORTH APPROACH SLAB ELEVATIONS

SHEET NO. 7	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	35
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N End of S Appr	2909.62	-17.00	486.03
A3	2919.62	-17.00	486.20
A4	2929.62	-17.00	486.40
S End of S Appr	2939.62	-17.00	486.63

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N End of S Appr	2909.62	-12.00	486.13
A3	2919.62	-12.00	486.31
A4	2929.62	-12.00	486.51
S End of S Appr	2939.62	-12.00	486.73

☉ ROADWAY & P.G.L.

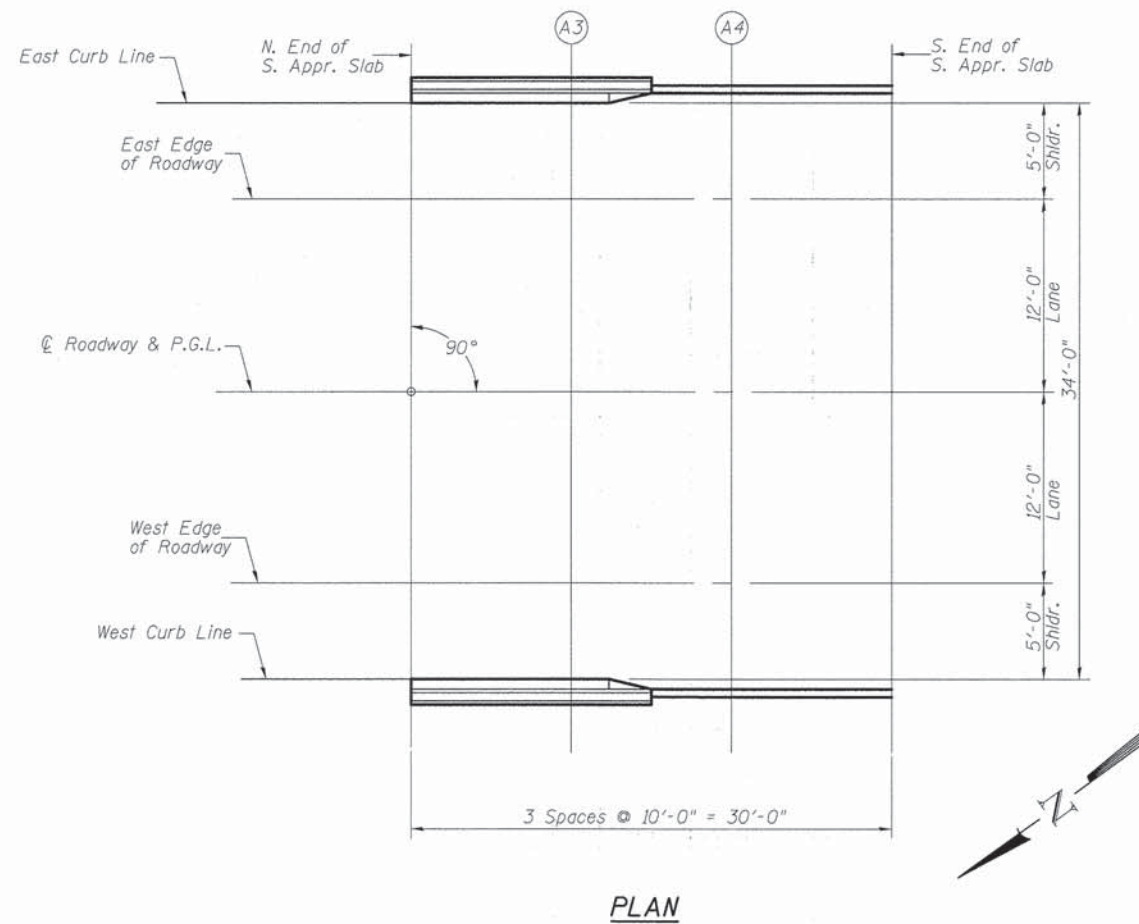
Location	Station	Offset	Theoretical Grade Elevations
N End of S Appr	2909.62	0.00	486.32
A3	2919.62	0.00	486.49
A4	2929.62	0.00	486.69
S End of S Appr	2939.62	0.00	486.92

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N End of S Appr	2909.62	12.00	486.13
A3	2919.62	12.00	486.31
A4	2929.62	12.00	486.51
S End of S Appr	2939.62	12.00	486.73

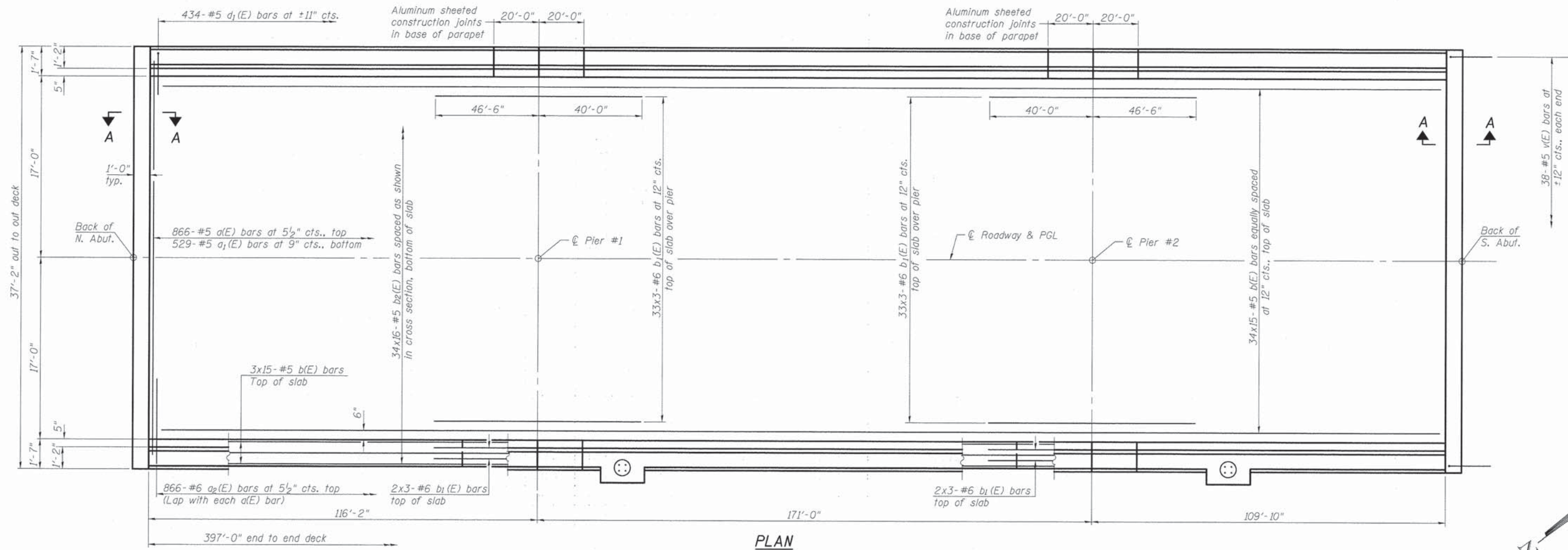
WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N End of S Appr	2909.62	17.00	486.03
A3	2919.62	17.00	486.20
A4	2929.62	17.00	486.40
S End of S Appr	2939.62	17.00	486.63

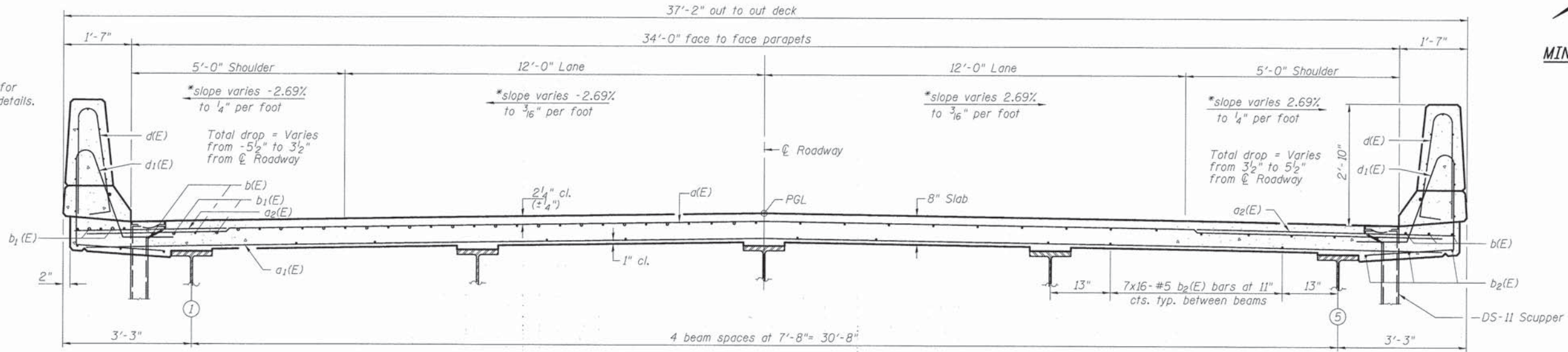


TOP OF SOUTH APPROACH SLAB ELEVATIONS

SHEET NO. 8	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	36
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		



PLAN



CROSS SECTION

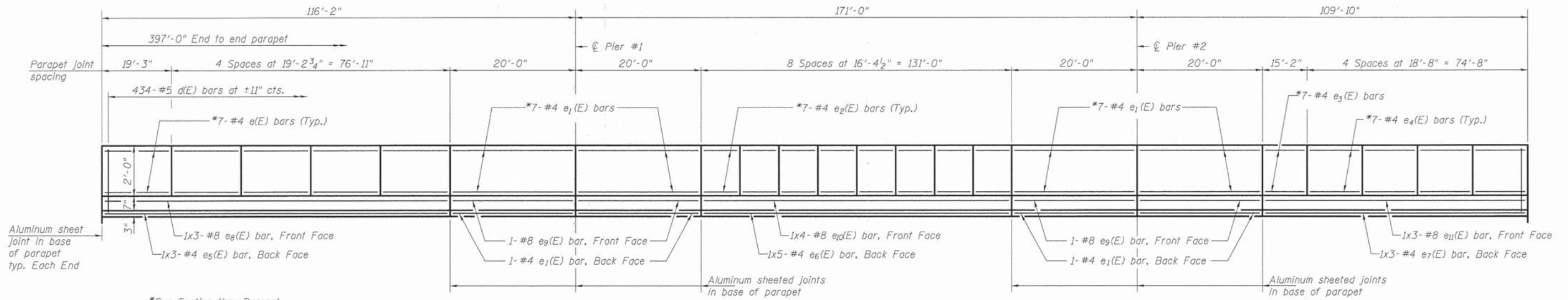
Sta. 26+19.54 to Sta. 29+09.62 shown, Looking South.

MINIMUM BAR LAP
(Deck)
#5 bar = 2'-7"
#6 bar = 3'-10"

Notes:
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 1 of 34 for Drainage Scupper and Light Pole locations.
See Sheet 10 & 11 of 34 for superstructure details and Bill of Material.
See Sheet 10 of 34 for parapet reinforcement and deck pouring sequence.
See Sheet 11 of 34 for Drainage Scupper and light mounting details.
See Sheet 12 of 34 for Section A-A and diaphragm details.

SUPERSTRUCTURE

SHEET NO. 9	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	37
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)		

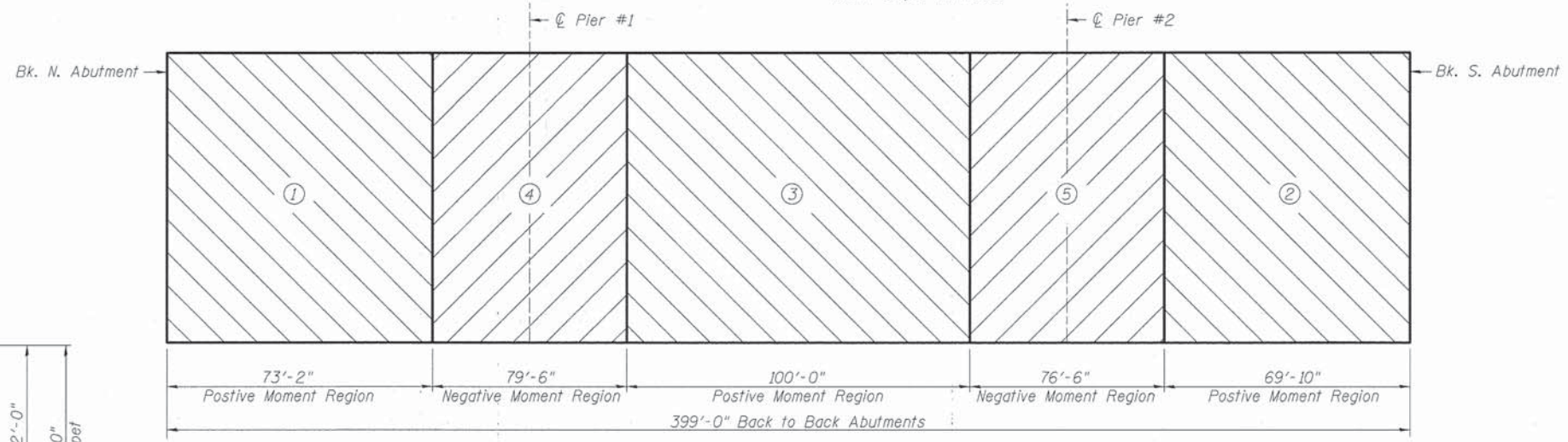


INSIDE ELEVATION OF PARAPET

East Parapet shown.
West Parapet mirrored.

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"

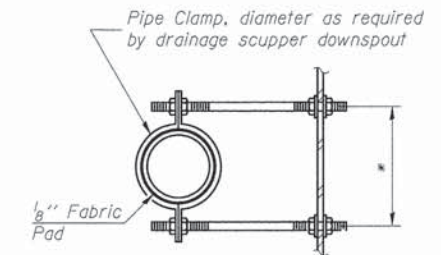


DECK POURING SEQUENCE

Note:
When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

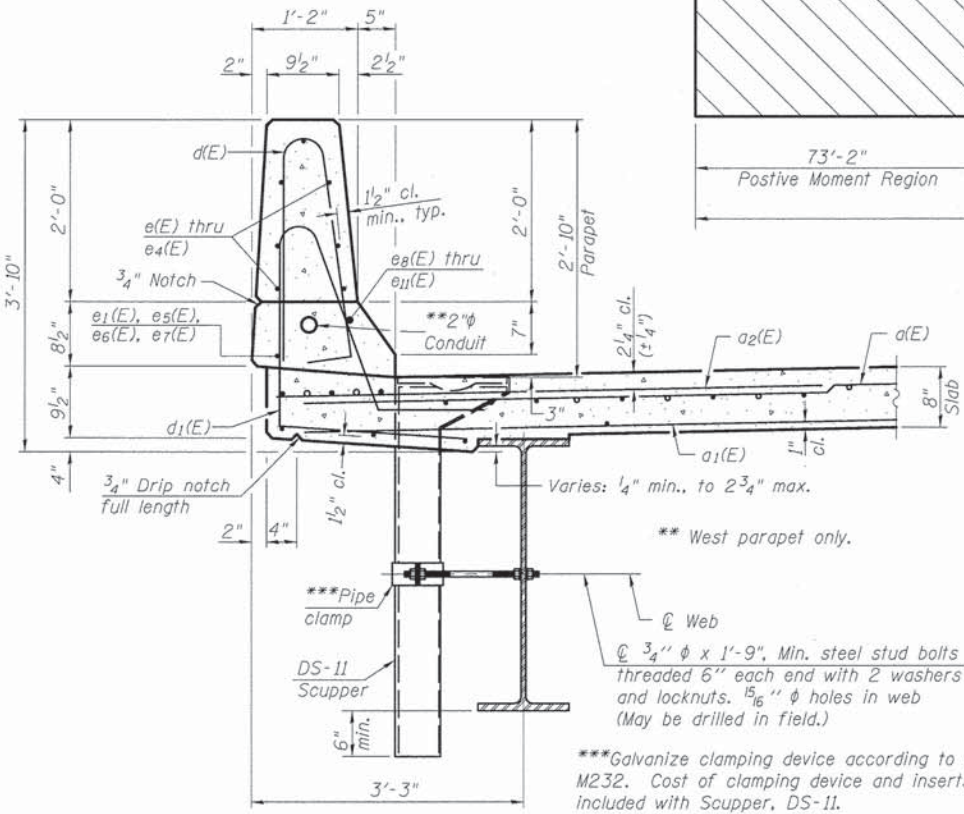
- 1) At least 72 hours shall have elapsed from the end of the previous pour.
- 2) The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4,000 psi.

The Theoretical Grade Elevations adjusted for dead load deflection are dependent on the deck pouring sequence. If changes to the deck pouring sequence are made, the Theoretical Grade Elevations adjusted for dead load deflection will need to be revised and changed by the Engineer.

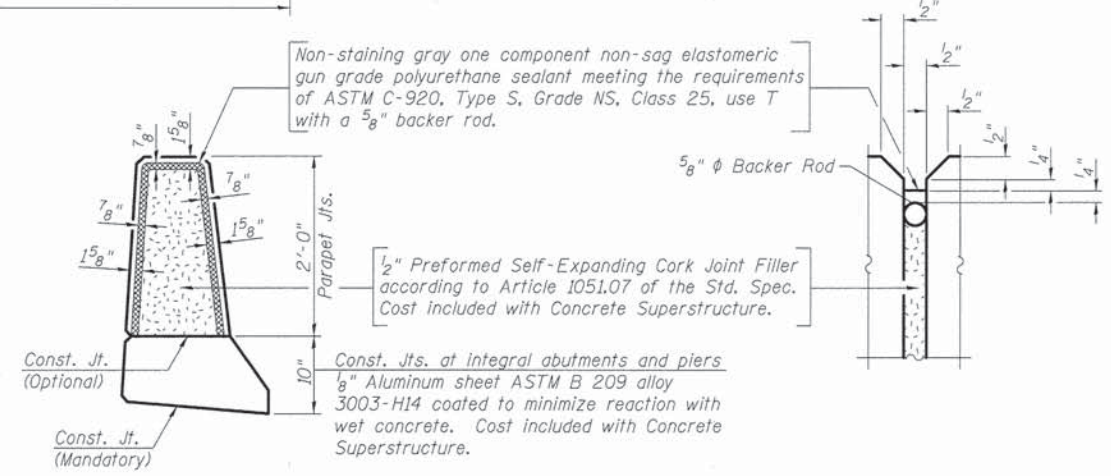


SECTION A-A

*Dimension as required by Pipe Clamp



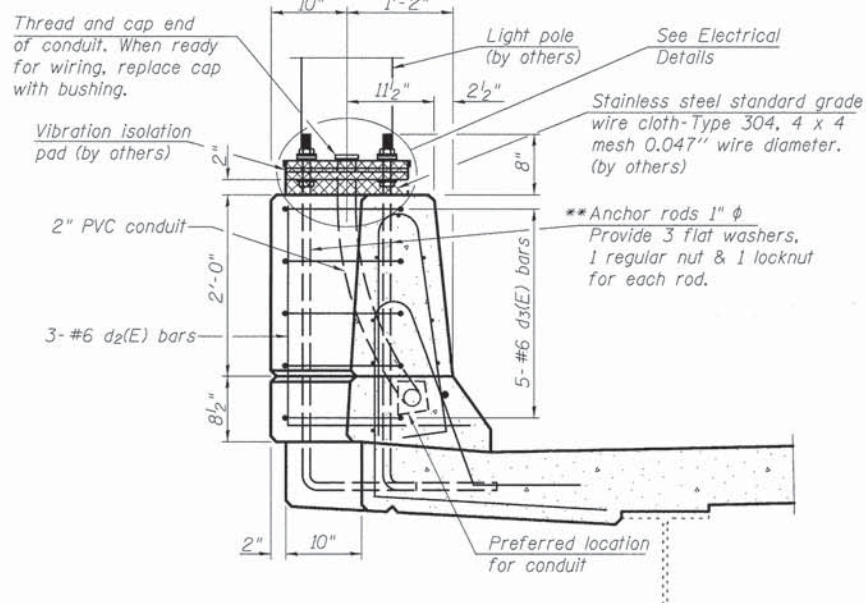
SECTION THRU PARAPET



PARAPET JOINT DETAILS

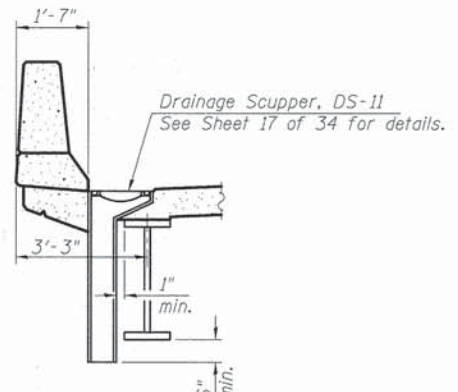
SUPERSTRUCTURE DETAILS

SHEET NO. 10	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	38
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)		

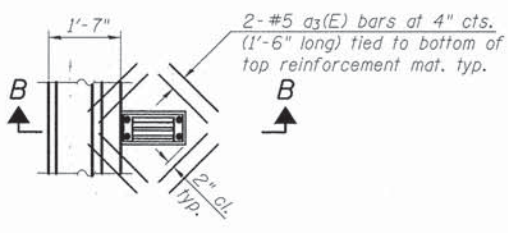


SECTION C-C

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

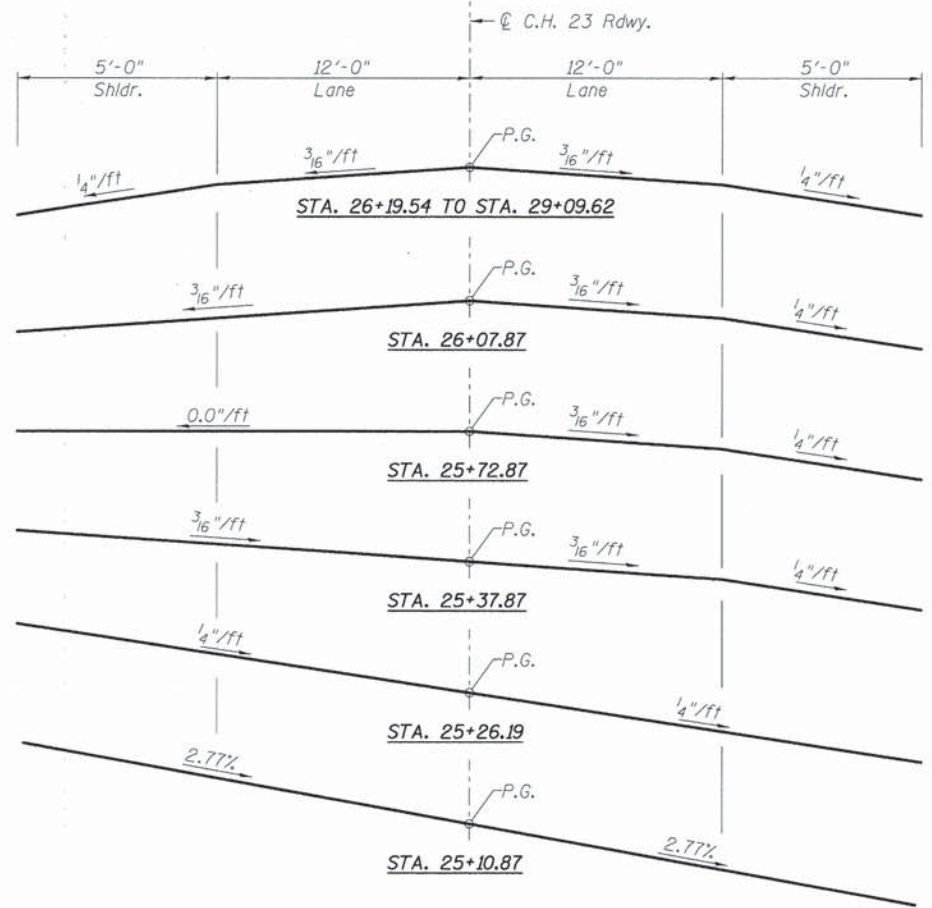


SECTION B-B

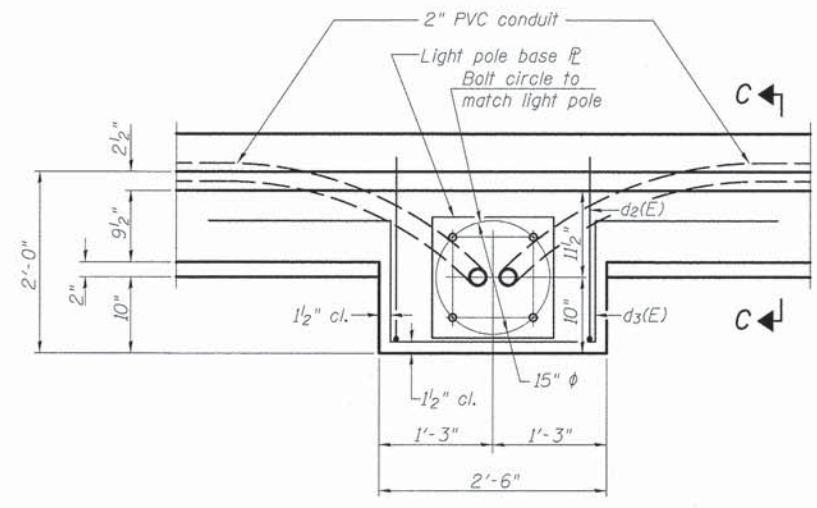


PLAN

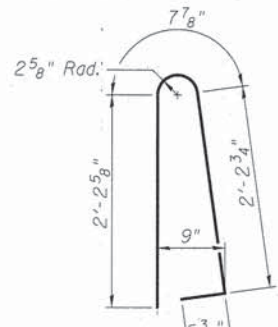
Cut longitudinal reinforcement to clear drainage scuppers.



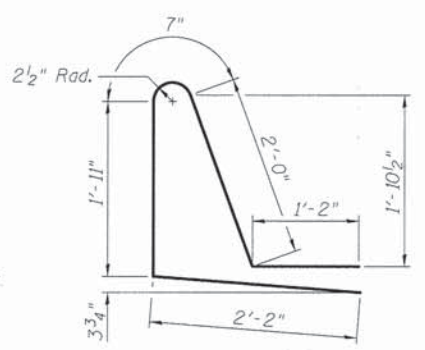
BRIDGE DECK CROSS SLOPE
(Looking South)



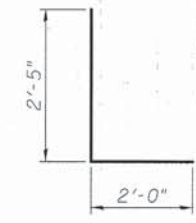
PLAN



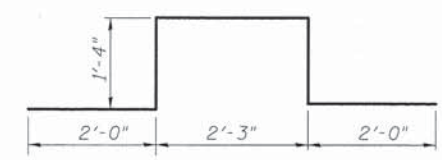
BAR d(E)



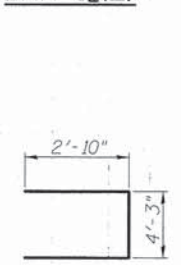
BAR d1(E)



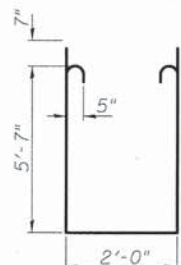
BAR d2(E)



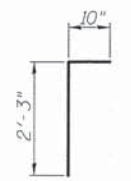
BAR d3(E)



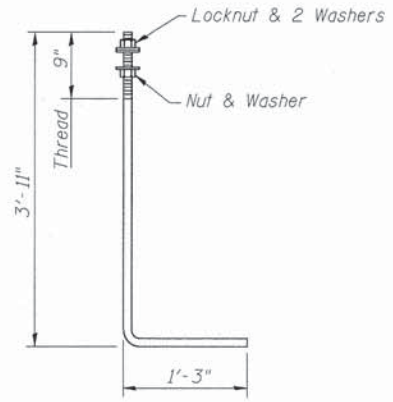
BAR s(E)



BAR s1(E)



BAR v(E)



1" diameter ANCHOR ROD
(ASTM F1554 Grade 105)

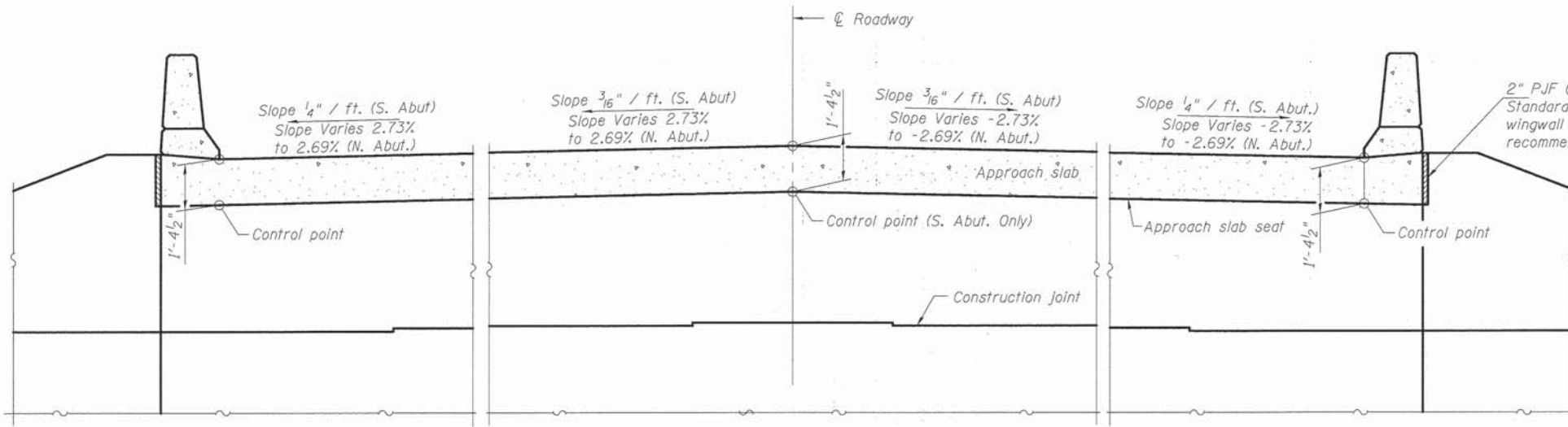
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	866	#5	36'-7"	—
a1(E)	529	#5	35'-7"	—
a2(E)	1,732	#6	6'-6"	—
a3(E)	96	#5	1'-6"	—
b(E)	600	#5	28'-11"	—
b1(E)	222	#6	31'-5"	—
b2(E)	544	#5	27'-3"	—
d(E)	868	#5	5'-7"	⌋
d1(E)	868	#5	7'-10"	⌋
d2(E)	6	#6	4'-5"	⌋
d3(E)	10	#6	8'-11"	⌋
e(E)	70	#4	18'-11"	—
e1(E)	64	#4	19'-9"	—
e2(E)	112	#4	16'-1"	—
e3(E)	14	#4	14'-11"	—
e4(E)	56	#4	18'-5"	—
e5(E)	6	#4	33'-4"	—
e6(E)	10	#4	27'-9"	—
e7(E)	6	#4	31'-3"	—
e8(E)	6	#8	35'-5"	—
e9(E)	8	#8	19'-9"	—
e10(E)	8	#8	36'-7"	—
e11(E)	6	#8	33'-4"	—
m(E)	12	#6	36'-10"	—
m1(E)	48	#6	7'-3"	—
m2(E)	24	#6	2'-11"	—
m3(E)	60	#5	4'-0"	—
s(E)	72	#5	9'-11"	⌋
s1(E)	72	#5	14'-4"	⌋
v(E)	76	#5	3'-1"	⌋
① Reinforcement Bars, Epoxy Coated Concrete Superstructure				POUND 136,210 CU YD 526.7

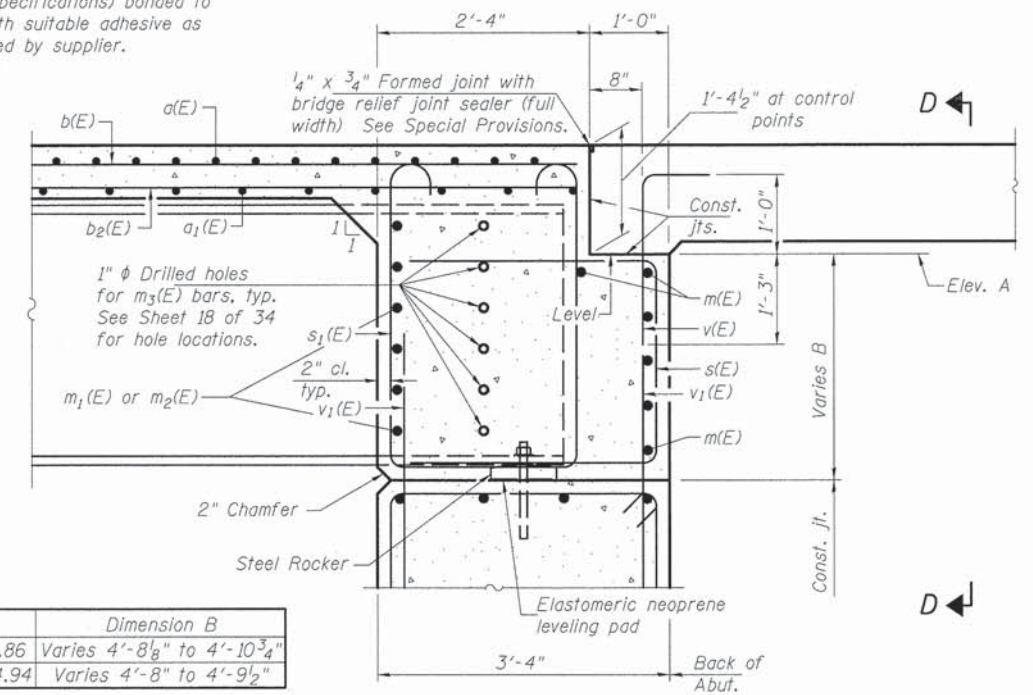
① See Special Provisions

SUPERSTRUCTURE DETAILS

SHEET NO. 11	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	39
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		

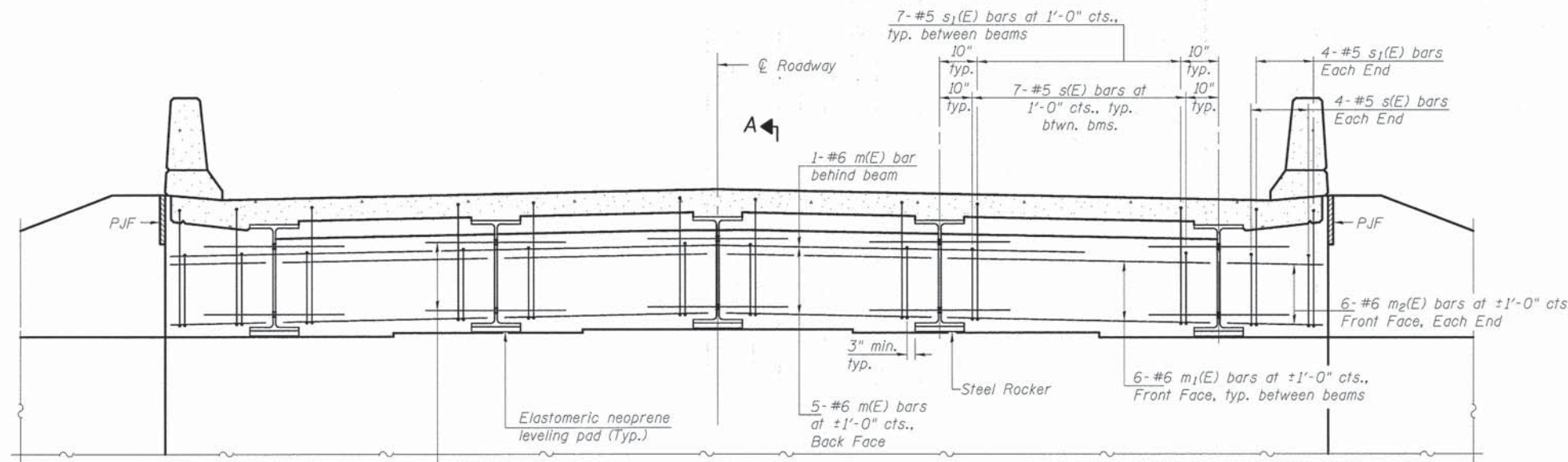


SECTION D-D
South Abut. Looking South, North Abut. Similar (but superelevated)

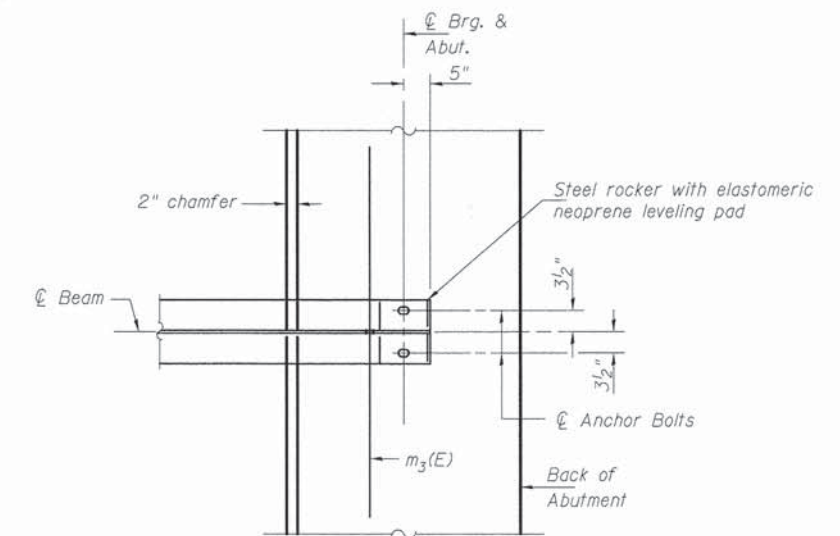


Location	Elevation A	Dimension B
N. Abutment	Varies 500.86 to 501.86	Varies 4'-8 1/8" to 4'-10 3/4"
S. Abutment	Varies 484.62 to 484.94	Varies 4'-8" to 4'-9 1/2"

SECTION A-A



DIAPHRAGM ELEVATION AT ABUTMENT
South Abut. Looking South, North Abut. Similar (but superelevated)

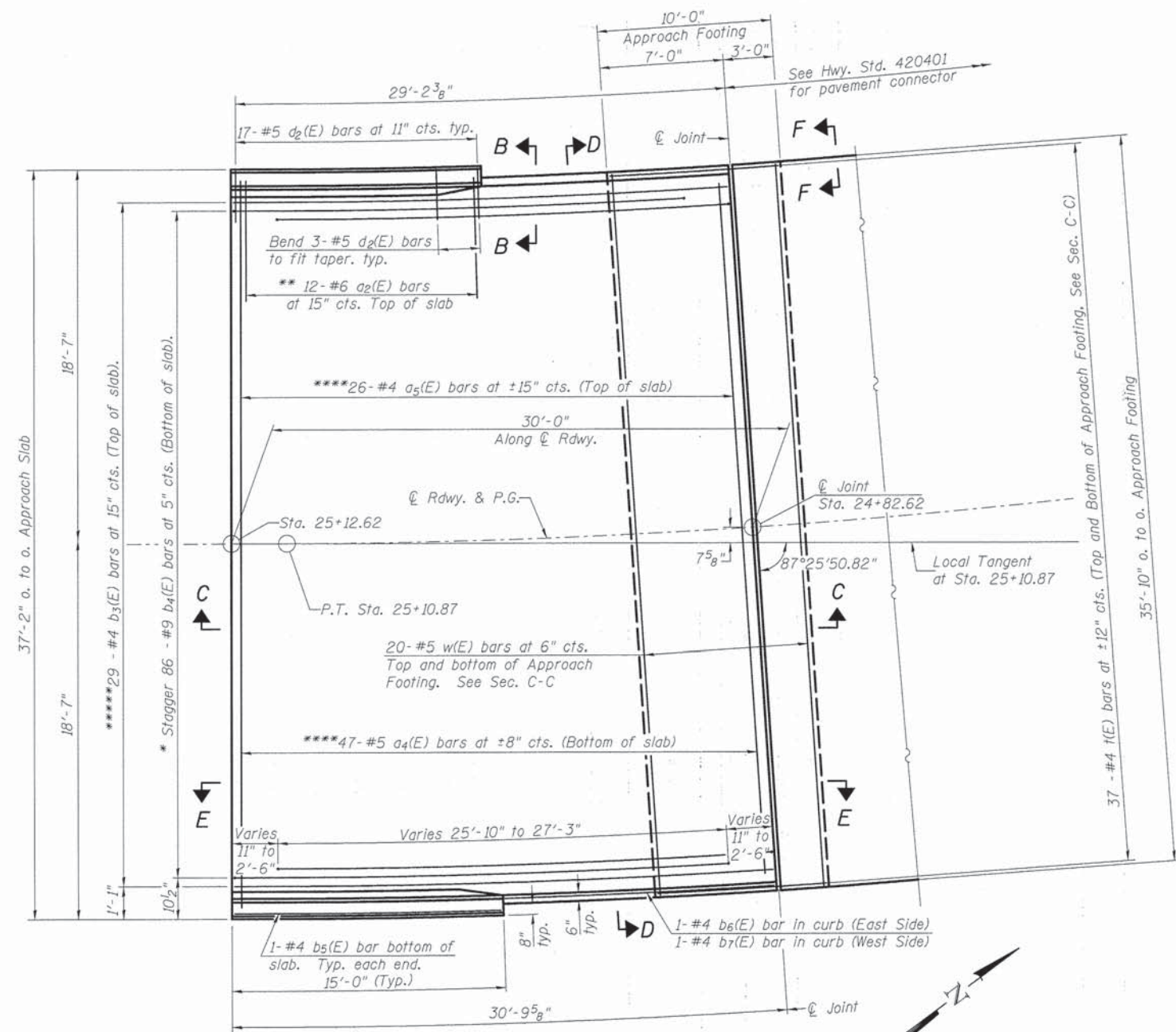


PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on Sheet 11 of 34.
Concrete in diaphragm is included with Concrete Superstructure on Sheet 11 of 34.
See Sheet 11 of 34 for details of bars s(E), s₁(E) and v(E).
The approach slab seat shall have a constant slope determined from the control points shown.
See Sheet 21 of 34 for bearing details.

DIAPHRAGM DETAILS

SHEET NO. 12	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	34 SHEETS	275	09-00031-02-BR	LASALLE	108
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099054)		

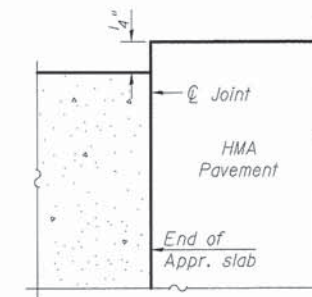


PLAN

- * Tilt #9 b₄(E) bars as required to maintain clearance.
- ** Space between a₅(E) bars, typ. each parapet.
- **** a₄(E) and a₅(E) bars are spaced along east edge of approach slab.
- ***** Cut to Fit.

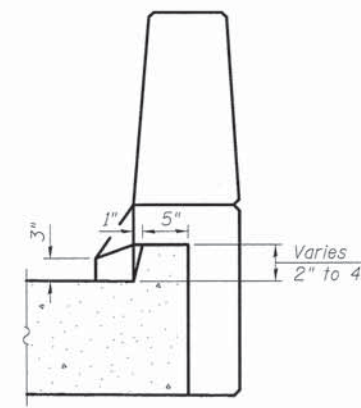
Notes:
 See sheet 14 of 34 for Sections C-C & D-D and View E-E.
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.

*** Cost included with Concrete Superstructure.



FLEXIBLE PAVEMENT

DETAIL A

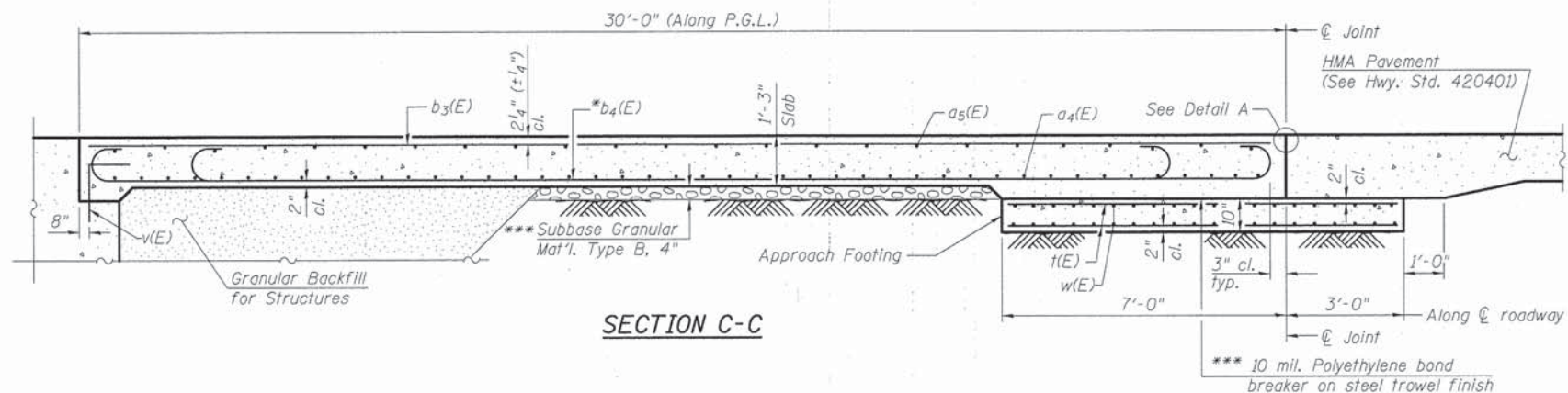


VIEW B-B

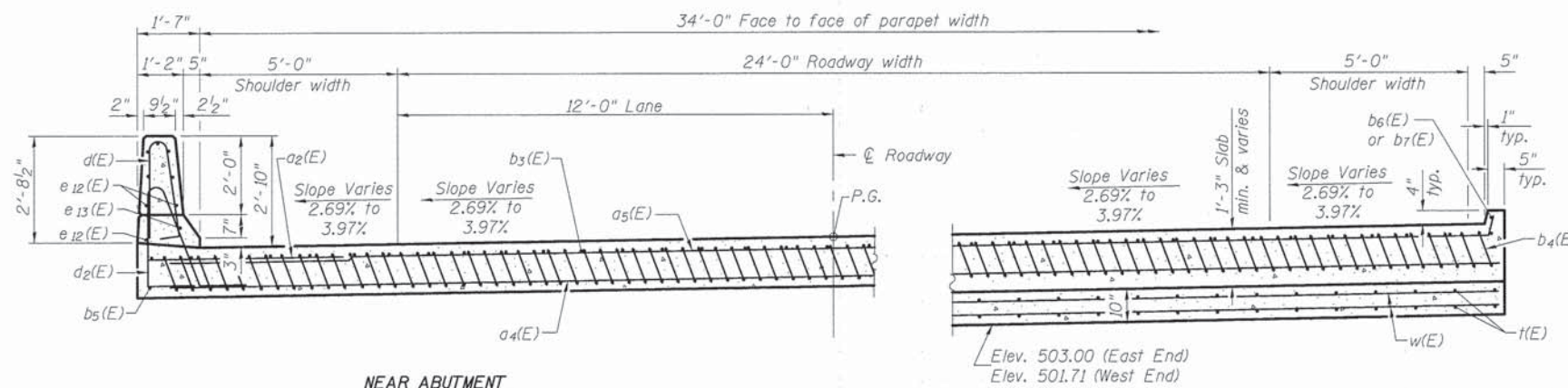
NORTH BRIDGE APPROACH SLAB DETAILS

(Sht. 1 of 2)

SHEET N. 13	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	41
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		



SECTION C-C

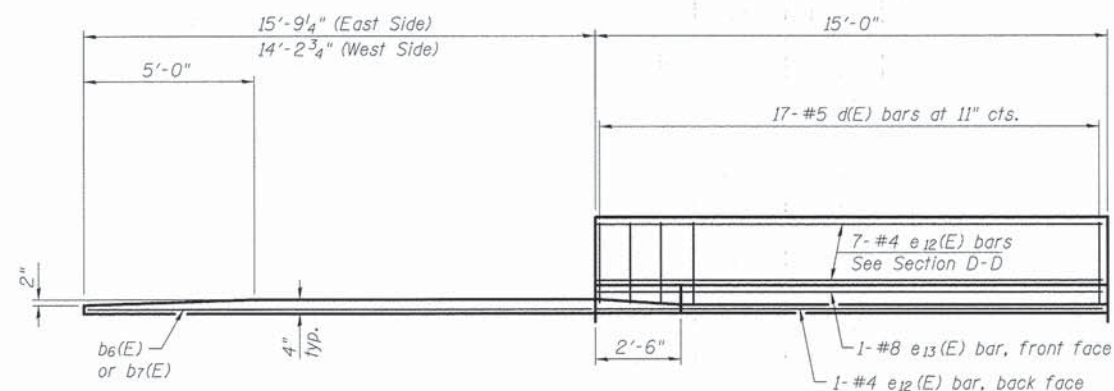


NEAR ABUTMENT

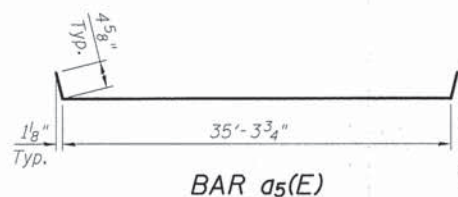
SECTION D-D

(See Plan for dimensions not shown)

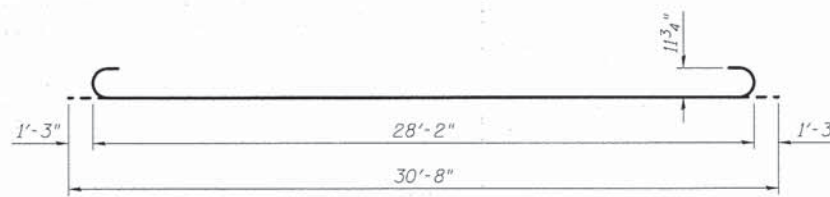
AT APPROACH FOOTING



VIEW E-E



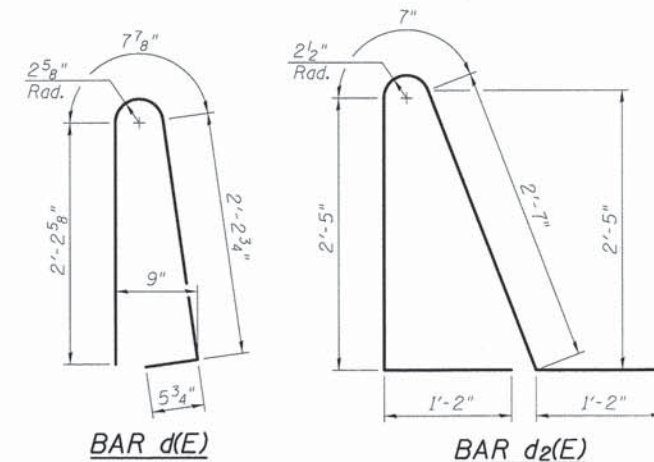
BAR a5(E)



BAR b4(E)

Notes:

- See sheet 13 of 34 for Detail A and View B-B.
- Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- See sheet 11 of 34 for v(E) bar details.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- Cost of excavation for approach footing included with Concrete Structures.
- See sheet 2 of 34 for Granular Backfill for Structures and drainage treatment details.
- See sheet 10 of 34 for additional parapet details.



BAR d(E)

BAR d2(E)

* Tilt #9 b4(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

**BILL OF MATERIAL
NORTH APPROACH SLAB**

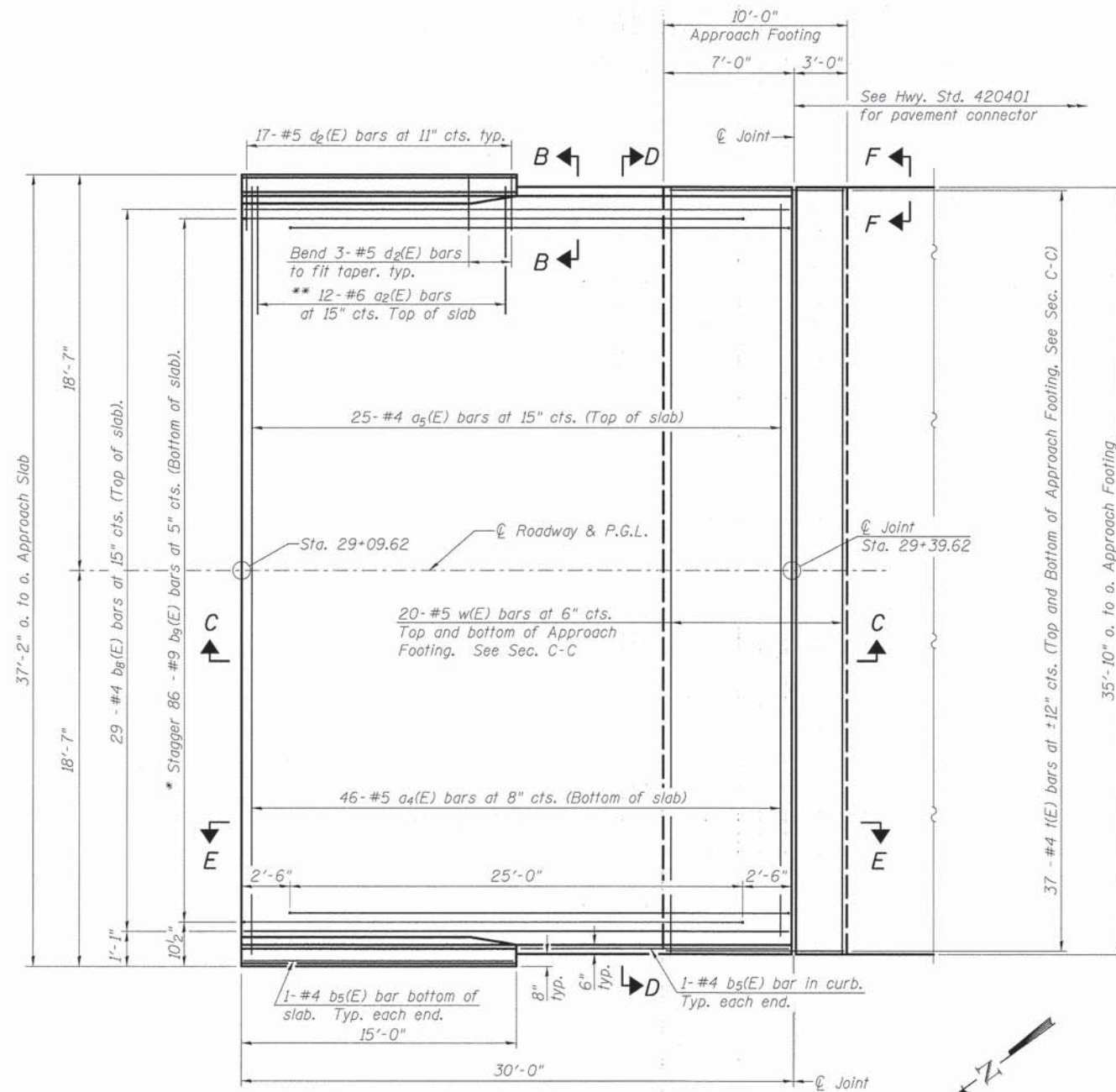
Bar	No.	Size	Length	Shape
a2(E)	24	#6	6'-6"	—
a4(E)	47	#5	35'-6"	—
a5(E)	26	#4	36'-1"	—
b3(E)	29	#4	30'-5"	—
b4(E)	86	#9	30'-8"	—
b5(E)	2	#4	14'-8"	—
b6(E)	1	#4	15'-5"	—
b7(E)	1	#4	13'-10"	—
d(E)	34	#5	5'-7"	—
d2(E)	34	#5	7'-11"	—
e12(E)	16	#4	14'-8"	—
e13(E)	2	#8	14'-8"	—
t(E)	74	#4	9'-8"	—
w(E)	40	#5	35'-6"	—
Concrete Superstructure		CU YD	57.5	
Concrete Structures		CU YD	11.1	
Reinforcement Bars, Epoxy Coated		POUND	14,870	

① See Special Provisions

(Sht. 2 of 2)

NORTH BRIDGE APPROACH SLAB DETAILS

SHEET NO. 14	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	42
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099054)		



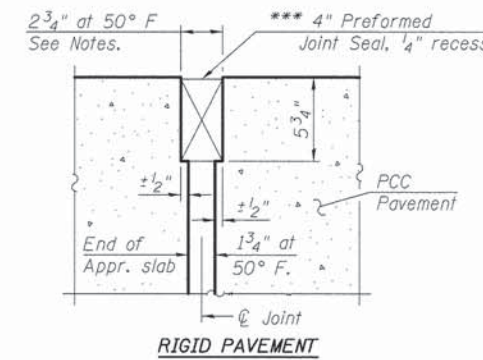
PLAN

* Tilt #9 b9(E) bars as required to maintain clearance.
 ** Space between a3(E) bars, typ. each parapet.

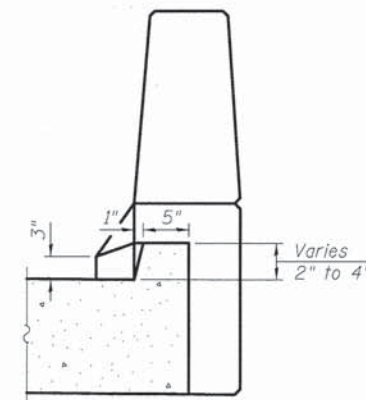
Notes:

See sheet 16 of 34 for Sections C-C & D-D and View E-E.
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1/2" for installation purposes.

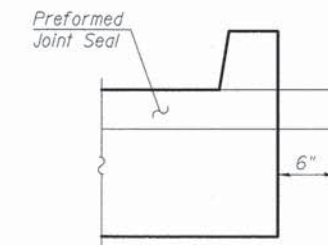
*** Cost included with Concrete Superstructure.



DETAIL A



VIEW B-B

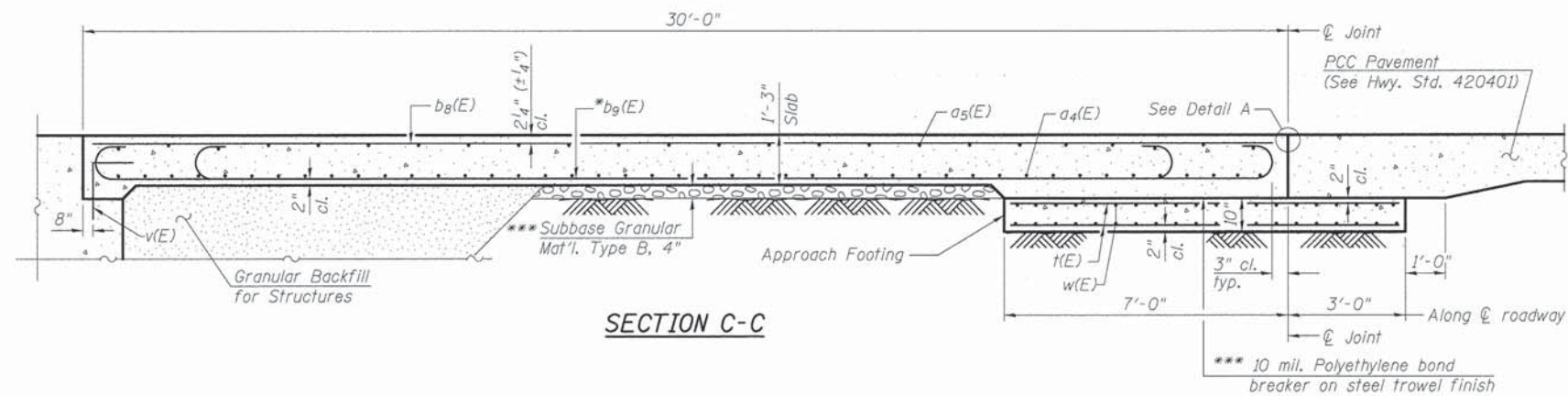


VIEW F-F

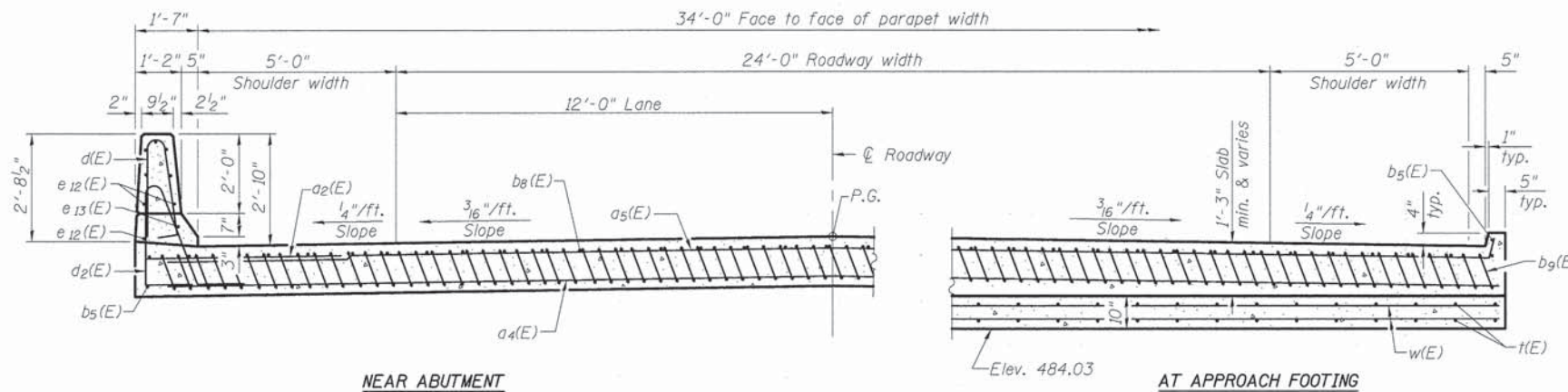
(Sht. 1 of 2)

SOUTH BRIDGE APPROACH SLAB DETAILS

SHEET NO. 15	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	43
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		



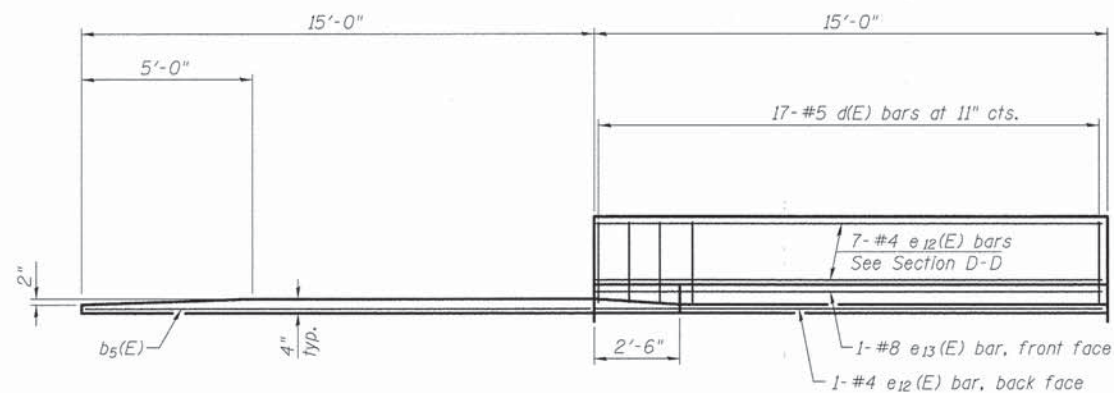
SECTION C-C



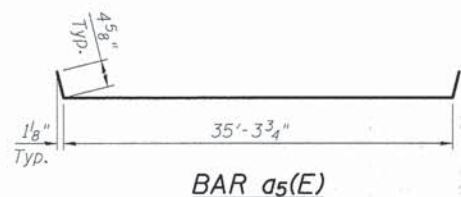
NEAR ABUTMENT

SECTION D-D

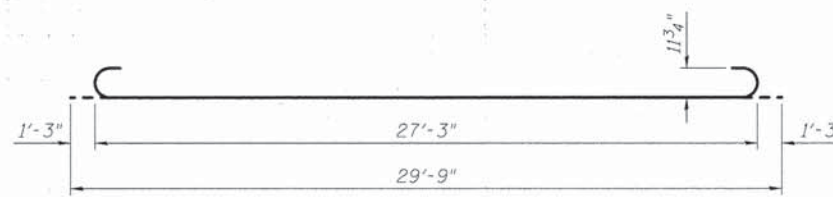
(See Plan for dimensions not shown)



VIEW E-E



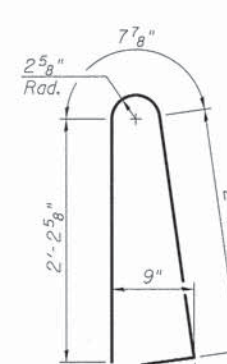
BAR a5(E)



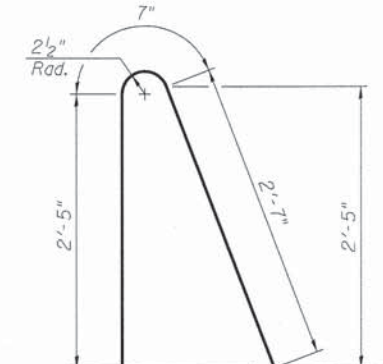
BAR b9(E)

Notes:

See sheet 15 of 34 for Detail A and View B-B.
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 See sheet 11 of 34 for v(E) bar details.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 See sheet 2 of 34 for Granular Backfill for Structures and drainage treatment details.
 See sheet 10 of 34 for additional parapet details.



BAR d(E)



BAR d2(E)

* Tilt #9 b9(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

BILL OF MATERIAL
SOUTH APPROACH SLAB

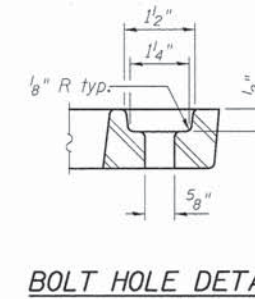
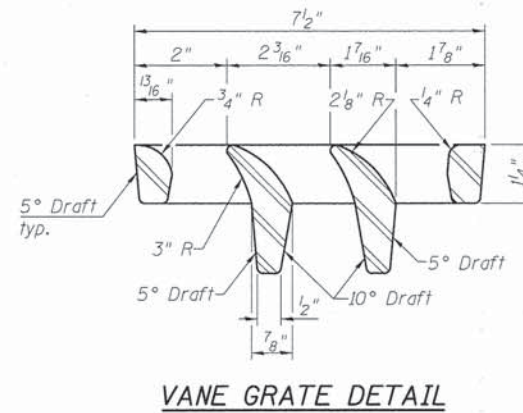
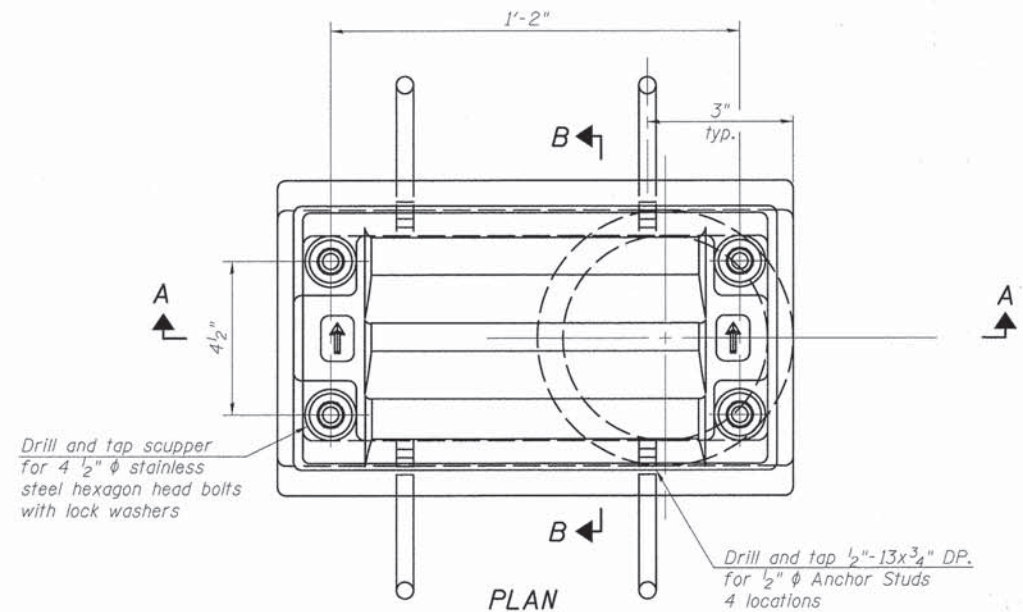
Bar	No.	Size	Length	Shape
a2(E)	24	#6	6'-6"	—
a4(E)	46	#5	35'-6"	—
a5(E)	25	#4	36'-1"	—
b5(E)	4	#4	14'-8"	—
b8(E)	29	#4	29'-8"	—
b9(E)	86	#9	29'-9"	—
d(E)	34	#5	5'-7"	⌒
d2(E)	34	#5	7'-11"	⌒
e12(E)	16	#4	14'-8"	—
e13(E)	2	#8	14'-8"	—
t(E)	74	#4	9'-8"	—
w(E)	40	#5	35'-6"	—
Concrete Superstructure		CU YD	58.8	
Concrete Structures		CU YD	11.1	
Reinforcement Bars, Epoxy Coated		POUND	14,530	

① See Special Provisions

(Sht. 2 of 2)

SOUTH BRIDGE APPROACH SLAB DETAILS

SHEET NO. 16	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	44
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		



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.

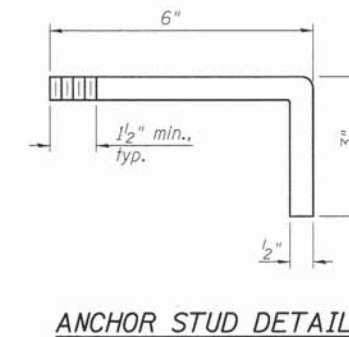
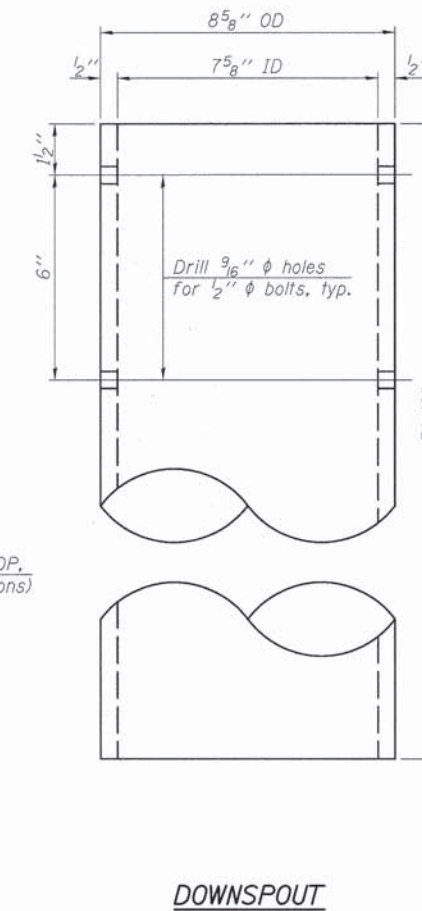
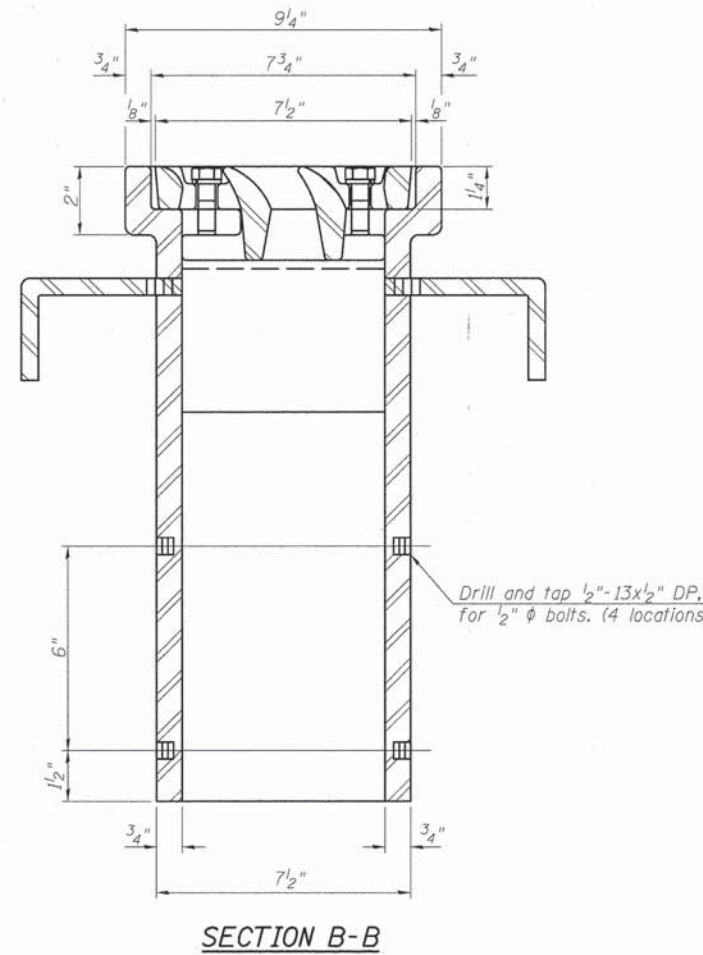
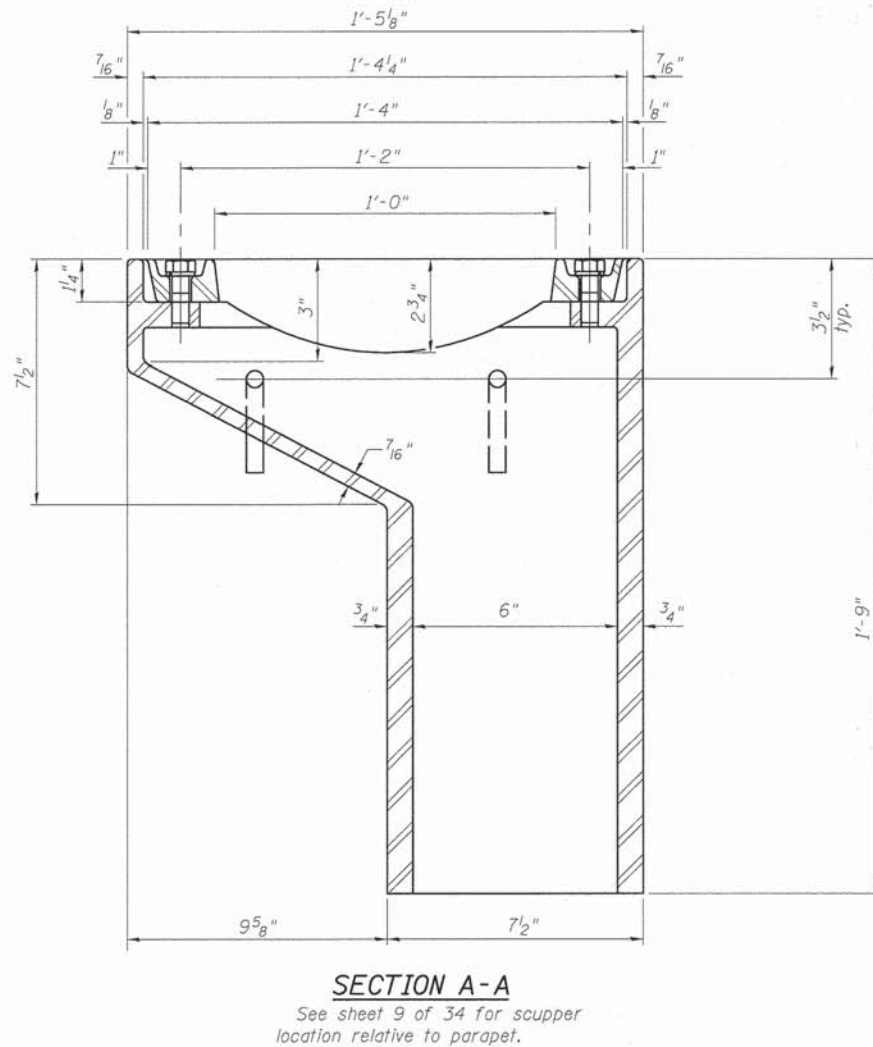
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

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.

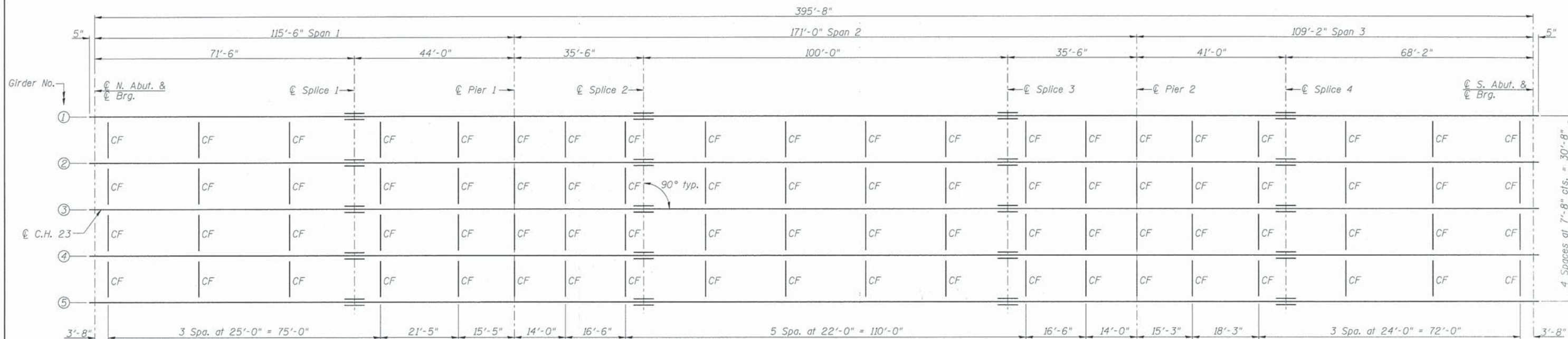


BILL OF MATERIAL

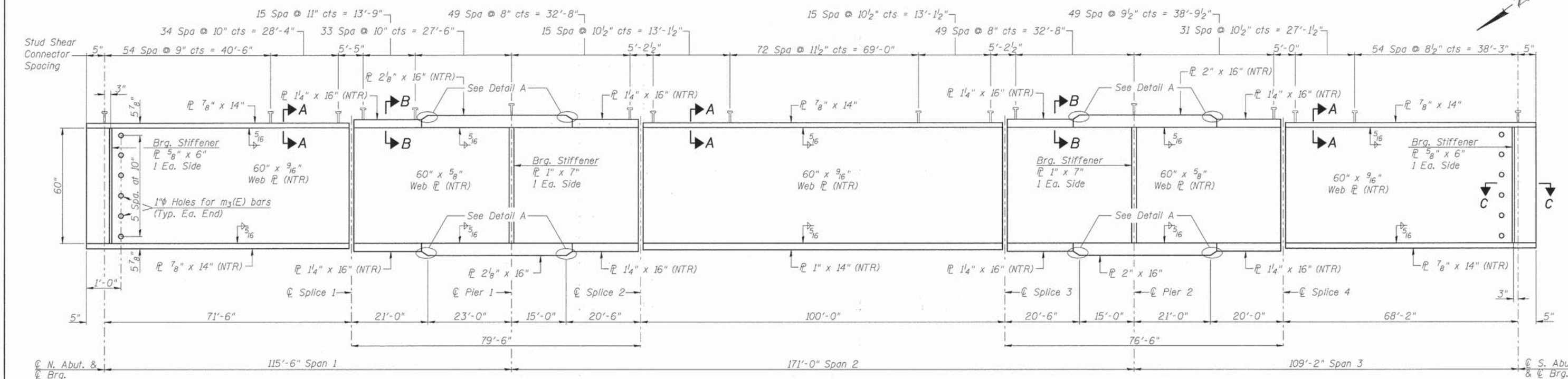
ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	EACH	12

DRAINAGE SCUPPER, DS-11

SHEET NO. 17	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	45
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099K054		

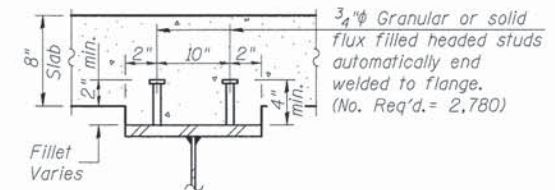


FRAMING PLAN

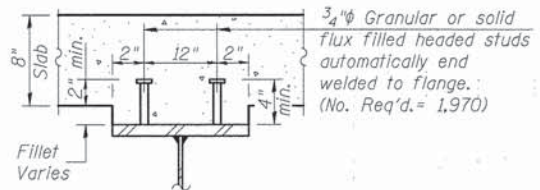


GIRDER ELEVATION

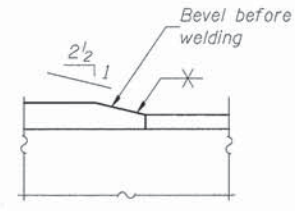
All plates and bearing stiffeners shall be AASHTO M270, Grade 50W.



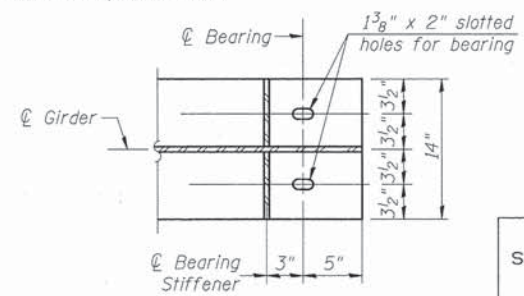
SECTION A-A



SECTION B-B



DETAIL A

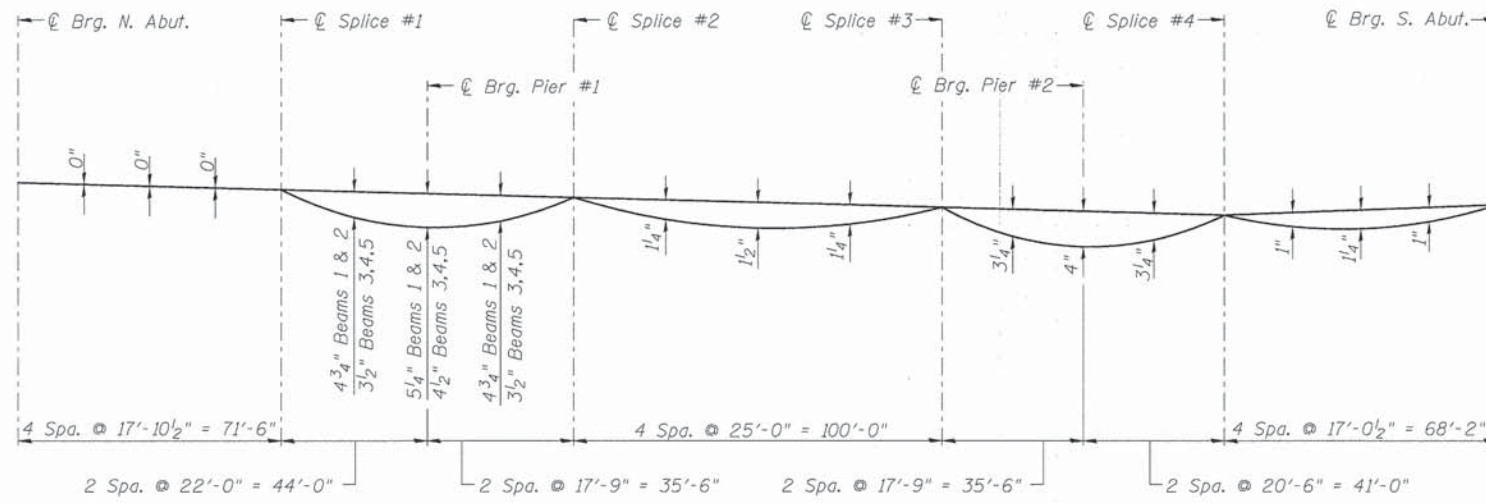


SECTION C-C

Notes:
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
See Sheets 19 & 20 of 34 for Structural Steel Details.

FRAMING PLAN

SHEET NO. 18	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	46
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)		

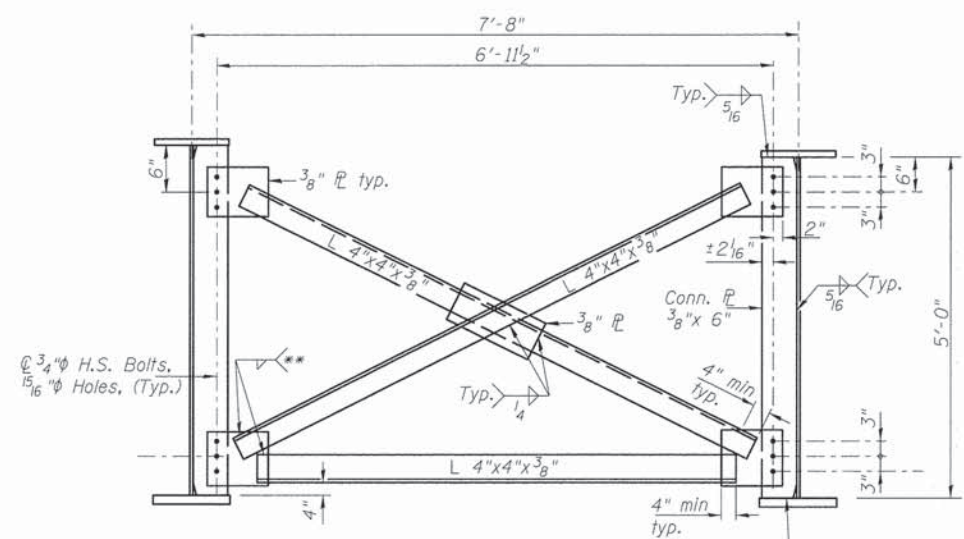


CAMBER DIAGRAM

*** TOP OF WEB ELEVATIONS**

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5
© Brg. at N. Abut.	502.27	502.06	501.86	501.66	501.45
© Splice 1	495.62	495.66	495.70	495.58	495.44
© Brg. at Pier 1	492.18	492.27	492.42	492.30	492.16
© Splice 2	490.19	490.33	490.45	490.33	490.19
© Splice 3	486.10	486.24	486.36	486.24	486.10
© Brg. at Pier 2	485.18	485.32	485.44	485.32	485.18
© Splice 4	484.83	484.97	485.09	484.97	484.83
© Brg. at S. Abut.	485.24	485.37	485.49	485.37	485.24

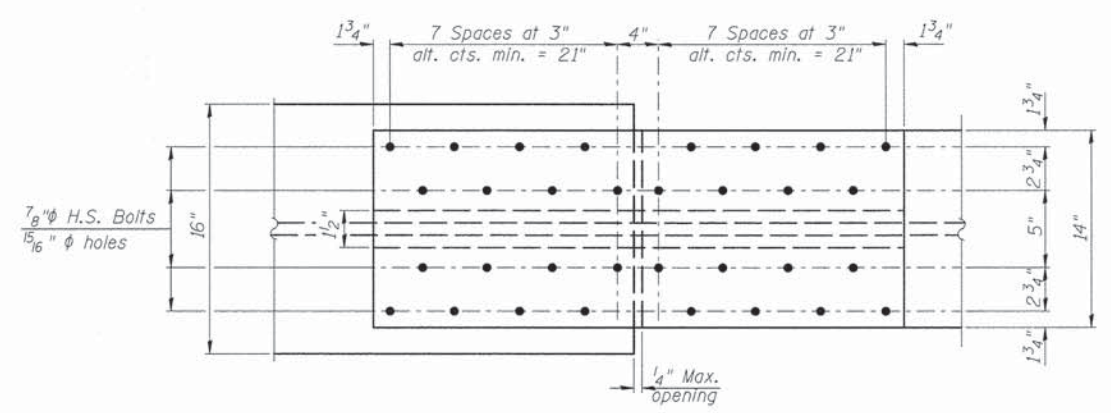
*For fabrication only



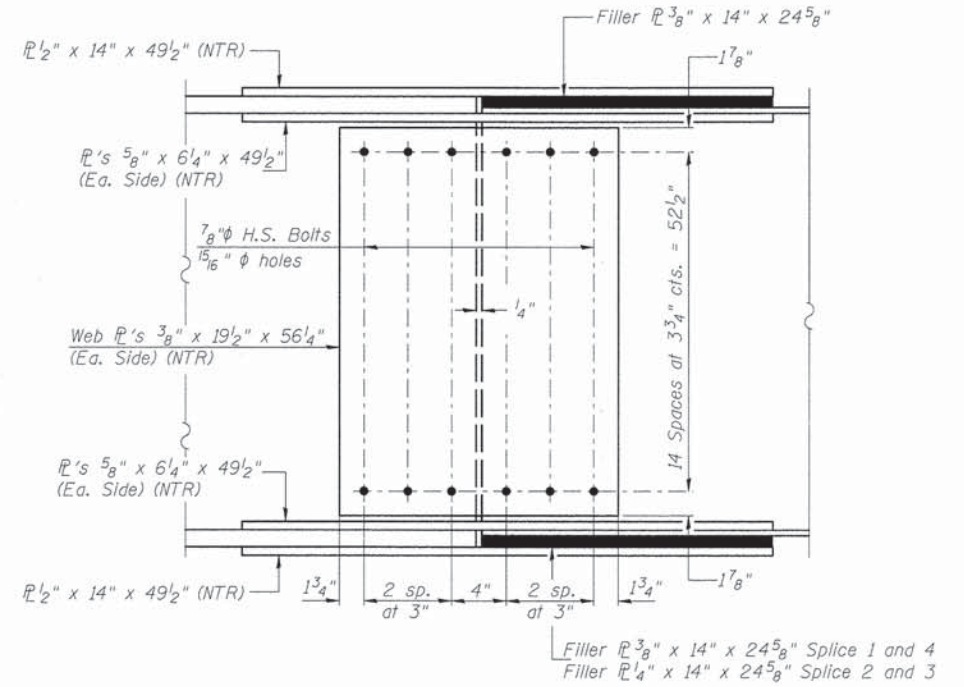
CROSS FRAME CF
(No. Required = 80)

**Fillet weld angles along 3 sides on one face of gusset plate.

Notes:
Two hardened washers required for each set of oversized holes.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.



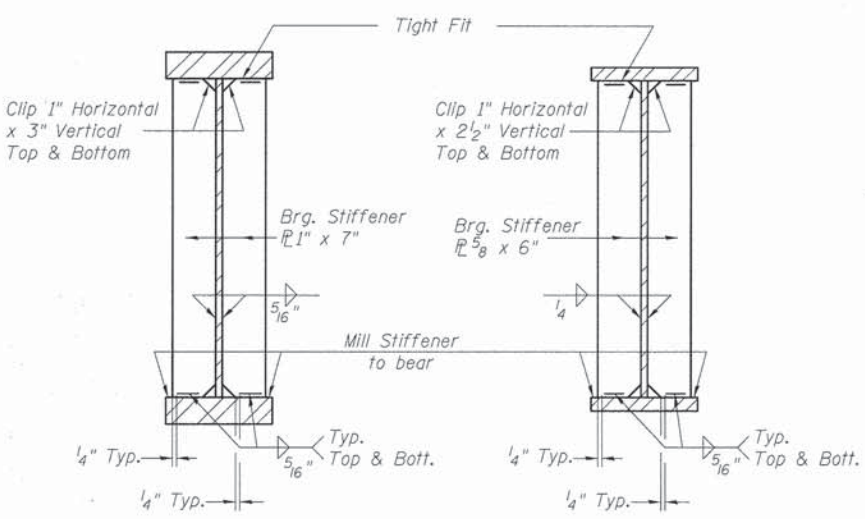
FLANGE SPLICE PLATE
(Top and Bottom Flange splice 1, 2, 3, and 4)



ELEVATION

FIELD SPLICE DETAILS

(20 req'd)
All plates shall be AASHTO M270, Grade 50W (NTR)



SECTION AT PIERS

SECTION AT ABUTMENTS

(Sht. 1 of 2)

STRUCTURAL STEEL DETAILS

SHEET NO. 19	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	47
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		

INTERIOR GIRDER MOMENT TABLE						
	0.35 Sp. 1	Pier #1	0.5 Sp. 2	Pier #2	0.6 Sp. 3	
I_s	(in ⁴)	32,824	76,887	34,451	72,775	32,824
$I_c(n)$	(in ⁴)	74,636	-	77,130	-	74,636
$I_c(3n)$	(in ⁴)	55,555	-	57,475	-	55,555
$I_c(cr)$	(in ⁴)	-	86,480	-	82,276	-
S_s	(in ³)	1,063	2,393	1,145	2,274	1,063
$S_c(n)$	(in ³)	1,457	-	1,510	-	1,457
$S_c(3n)$	(in ³)	1,323	-	1,373	-	1,323
$S_c(cr)$	(in ³)	-	2,497	-	2,378	-
DC1	(k/')	1.017	1.205	1.024	1.189	1.017
M _{DC1}	(k)	645	2,705	1,175	2,543	536
DC2	(k/')	0.179	0.179	0.179	0.179	0.179
M _{DC2}	(k)	118	441	225	417	99
DW	(k/')	0.383	0.383	0.383	0.383	0.383
M _{DW}	(k)	253	943	482	893	211
M _{ℓ + IM}	(k)	1,672	2,413	1,807	2,373	1,582
M _u (Strength I)	(k)	4,259	9,570	5,635	9,192	3,879
φ _r M _n	(k)	7,604	11,323	7,611	10,792	7,683
f _s DC1	(ksi)	7.28	13.56	12.31	13.42	6.05
f _s DC2	(ksi)	1.07	2.12	1.97	2.10	0.90
f _s DW	(ksi)	2.29	4.53	4.21	4.51	1.91
f _s (ℓ + IM)	(ksi)	13.77	11.60	14.36	11.97	13.03
f _s (Service II)	(ksi)	28.55	35.29	37.16	35.60	25.80
0.95R _n F _{yt}	(ksi)	47.50	47.50	47.50	47.50	47.50
f _s (Total Strength I)	(ksi)	-	-	-	-	-
φ _r F _n	(ksi)	-	-	-	-	-
V _r	(k)	41.5	44.6	35.7	45.0	42.3

INTERIOR GIRDER REACTION TABLE					
	N. Abut.	Pier #1	Pier #2	S. Abut.	
R _{DC1}	(k)	36.8	176.8	170.7	33.9
R _{DC2}	(k)	6.5	29.9	28.9	6.0
R _{DW}	(k)	13.8	63.6	61.4	12.8
R _{ℓ + IM}	(k)	94.7	200.0	198.5	63.3
R _{Total}	(k)	151.8	470.3	459.5	116.0

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 (in⁴ and in³).

$I_c(n), S_c(n)$: 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 (in⁴ and in³).

$I_c(3n), S_c(3n)$: 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) in uncracked sections due to long-term composite (superimposed) dead loads (in⁴ and in³).

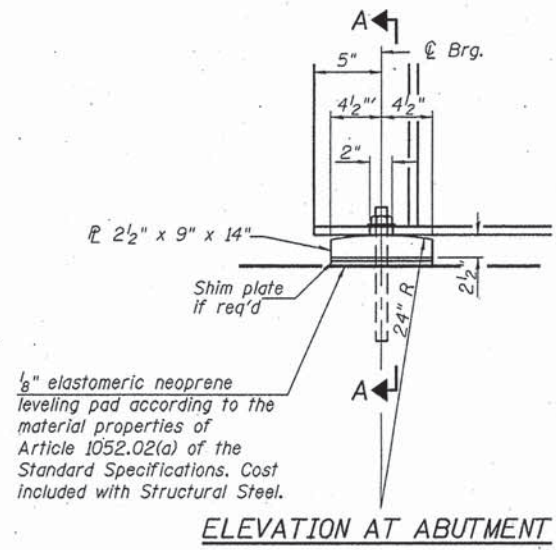
$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total -Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).

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}
φ_rM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}
f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
M_{DC2} / S_{c(3n)} or M_{DC2} / S_{c(cr)} as applicable.
f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
M_{DW} / S_{c(3n)} or M_{DW} / S_{c(cr)} as applicable.
f_s (ℓ + IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
M_{ℓ + IM} / S_{c(n)} or M_{ℓ + IM} / S_{c(cr)} as applicable.
f_s (Service II): Sum of stresses as computed below (ksi).
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (ℓ + IM)
0.95R_nF_{yt}: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
f_s (Total Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 f_s (ℓ + IM)
φ_rF_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

(Sht. 2 of 2)

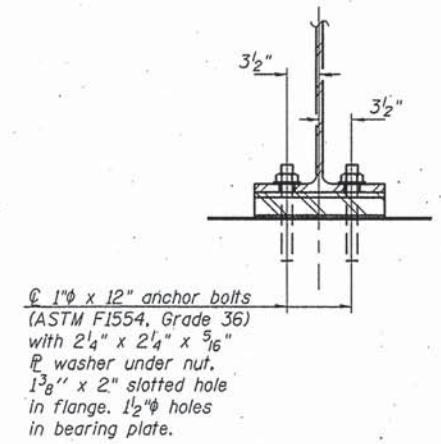
STRUCTURAL STEEL DETAILS

SHEET NO. 20	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	48
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		



ELEVATION AT ABUTMENT

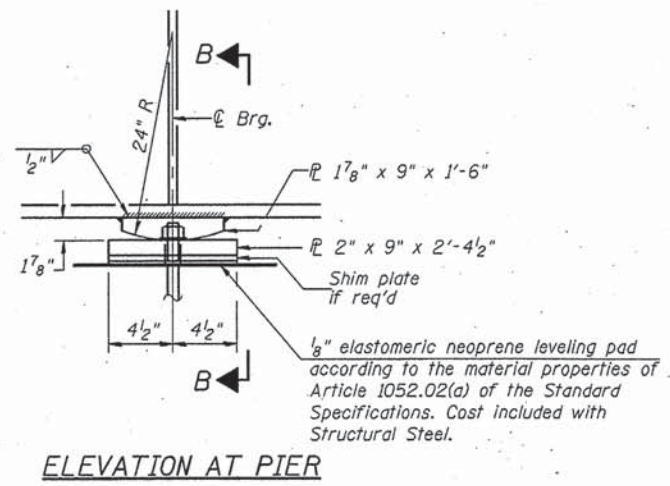
1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cast included with Structural Steel.



SECTION A-A

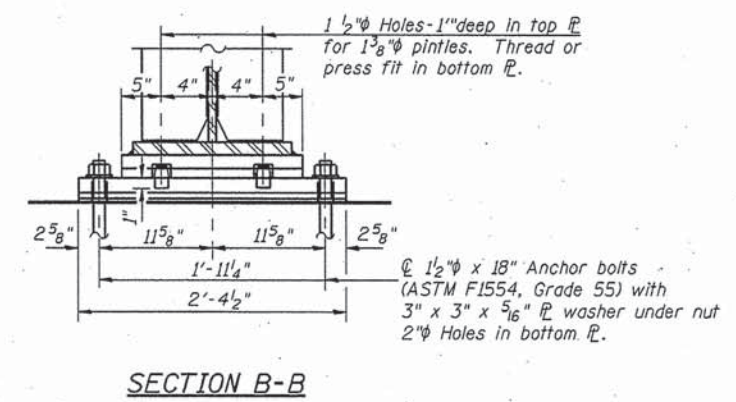
1" x 12" anchor bolts (ASTM F1554, Grade 36) with 2 1/4" x 2 1/4" x 5/16" washer under nut. 1 3/8" x 2" slotted hole in flange. 1 1/2" holes in bearing plate.

FIXED BEARING AT ABUTMENTS
(10 Required)



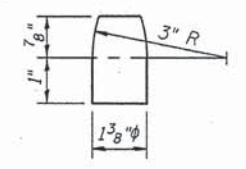
ELEVATION AT PIER

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cast included with Structural Steel.

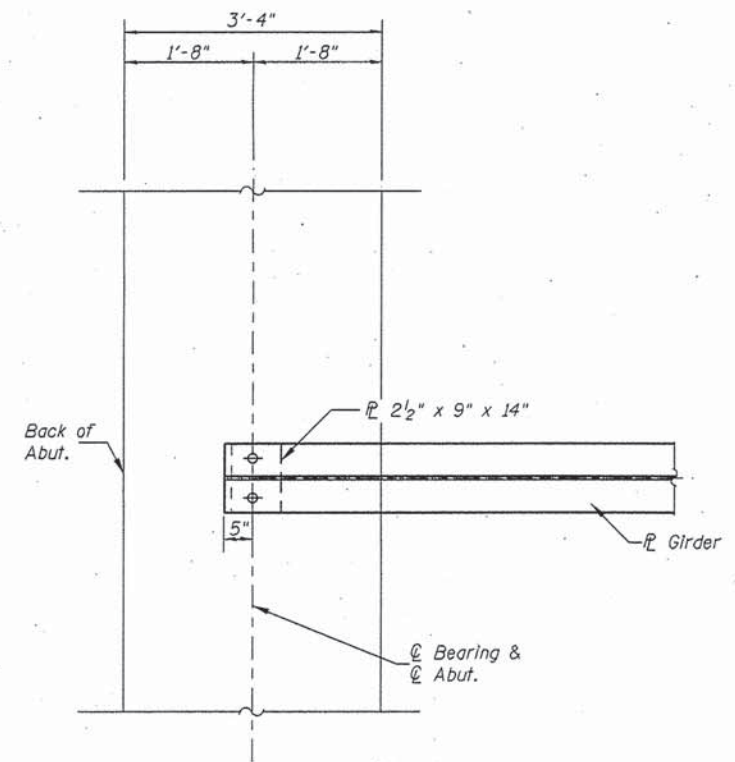


SECTION B-B

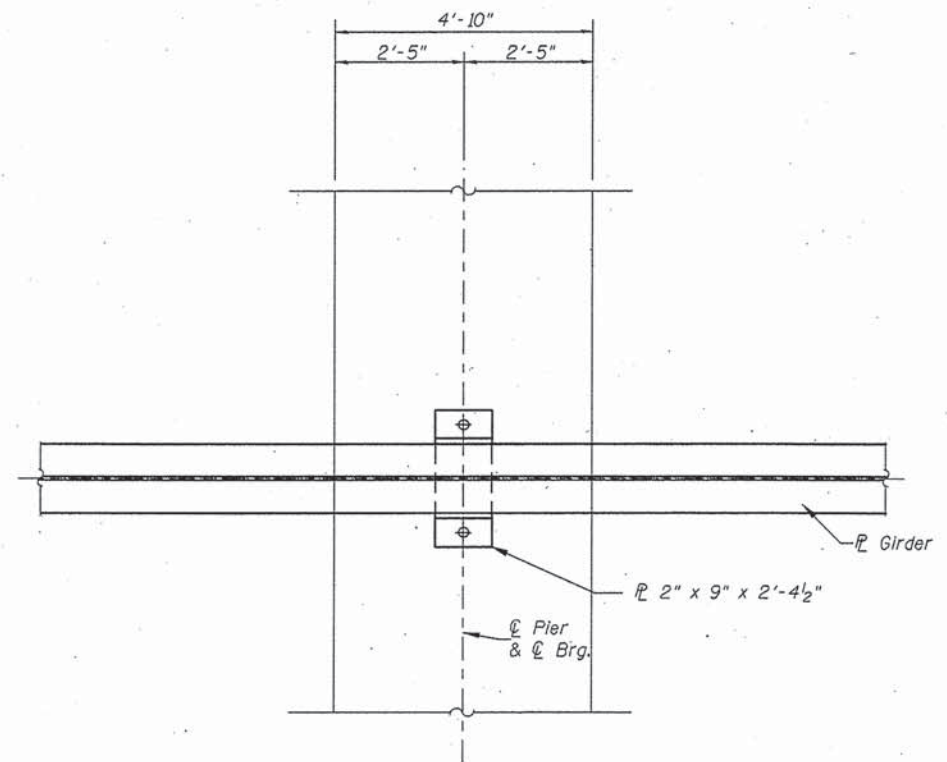
FIXED BEARING AT PIERS
(10 Required)



PINTLE
(M270 Grade 50W)



PARTIAL PLAN AT ABUTMENTS



PARTIAL PLAN AT PIERS

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. 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.
The structural steel bearing plates shall conform to the requirements of AASHTO M270 Grade 50W.
Two 1/8 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after members are in place.

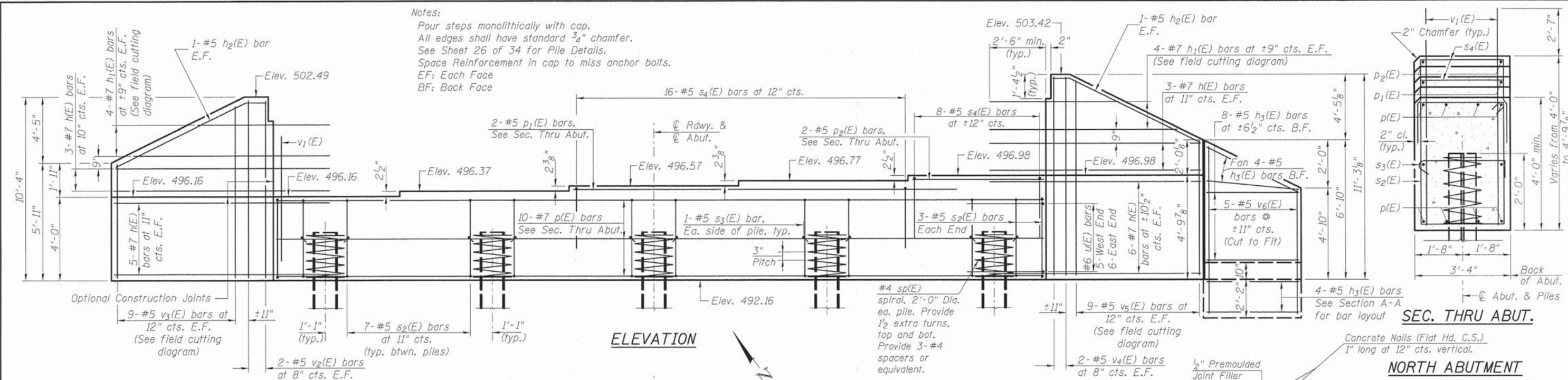
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Anchor Bolts, 1"	EACH	20
Anchor Bolts, 1 1/2"	EACH	20

BEARING DETAILS

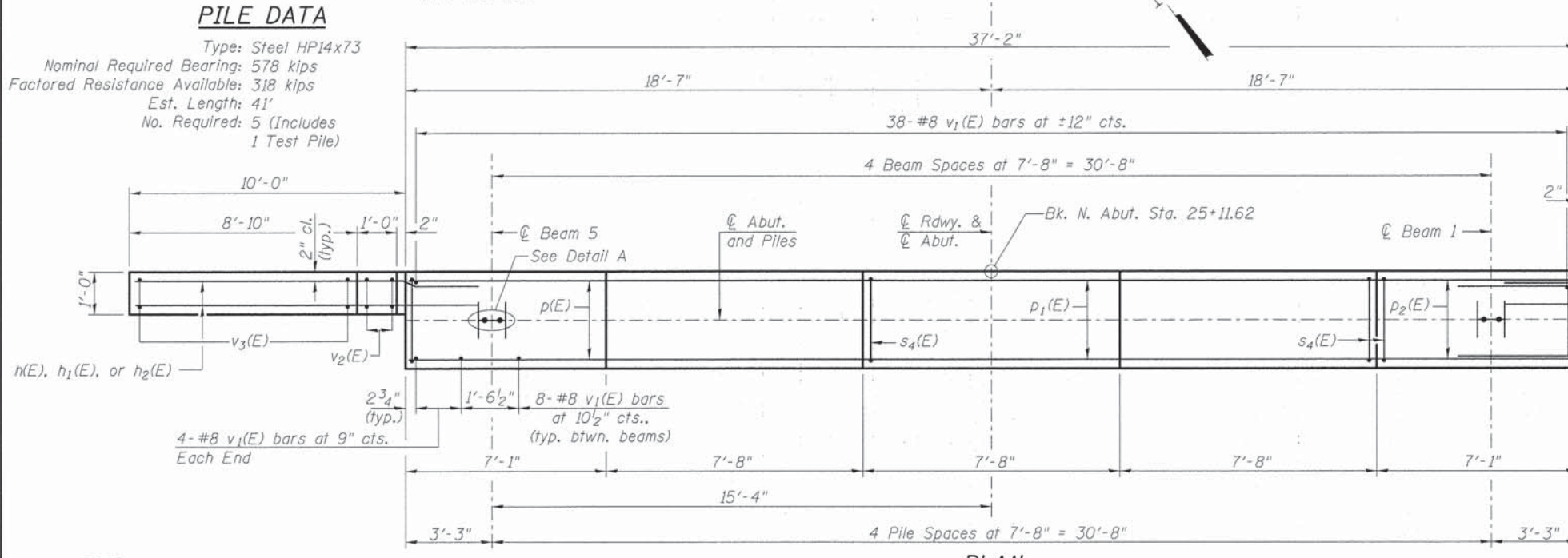
SHEET NO. 21	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	6116	09-00031-02-BR	LASALLE	108	49
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		

Notes:
 Four steps monolithically with cap.
 All edges shall have standard 3/4" chamfer.
 See Sheet 26 of 34 for Pile Details.
 Space Reinforcement in cap to miss anchor bolts.
 EF: Each Face
 BF: Back Face



PILE DATA

Type: Steel HP14x73
 Nominal Required Bearing: 578 kips
 Factored Resistance Available: 318 kips
 Est. Length: 41'
 No. Required: 5 (Includes 1 Test Pile)



SEC. THRU ABUT.

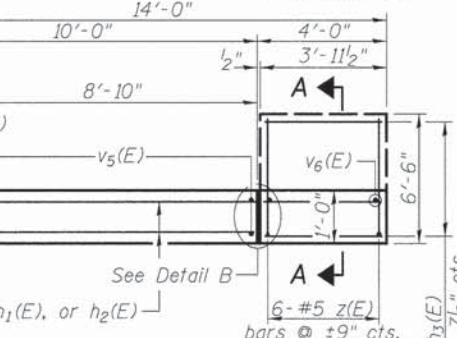
Concrete Nails (Flat Hd. C.S.)
 1" long at 12" cts. vertical.

**NORTH ABUTMENT
 BILL OF MATERIAL**

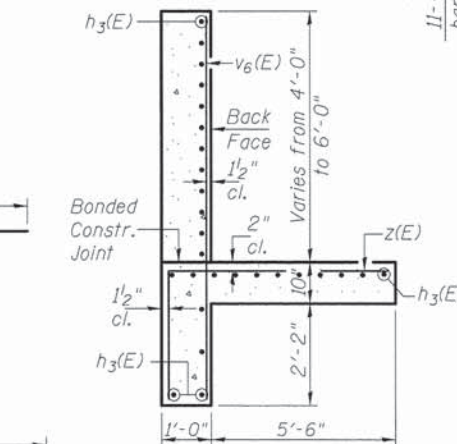
Bar	No.	Size	Length	Shape
h(E)	34	#7	12'-5"	—
h1(E)	8	#7	17'-1"	—
h2(E)	4	#5	10'-6"	—
h3(E)	27	#5	3'-8"	—
p(E)	10	#7	36'-11"	—
p1(E)	2	#5	18'-4"	—
p2(E)	2	#5	6'-10"	—
s2(E)	34	#5	14'-3"	□
s3(E)	10	#5	4'-0"	—
s4(E)	24	#5	8'-4"	—
*sp(E)	5	#4	2'-0"	≡≡≡
u(E)	11	#6	10'-7"	—
v1(E)	78	#8	6'-6"	—
v2(E)	4	#5	9'-10"	—
v3(E)	9	#5	15'-4"	—
v4(E)	4	#5	10'-11"	—
v5(E)	9	#5	17'-2"	—
v6(E)	5	#5	8'-6"	—
z(E)	6	#5	8'-10"	—
Structure Excavation	CU YD		270	
Concrete Structures	CU YD		28.6	
Reinforcement Bars, Epoxy Coated	POUND		5,100	
Furnishing Steel Piles HP14x73	FOOT		164	
Driving Piles	FOOT		164	
Test Pile Steel HP14x73	EACH		1	

*Length is height of spiral.
 ① See Special Provisions

DETAIL B

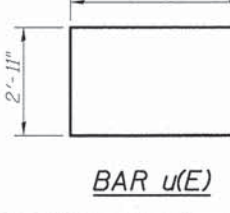
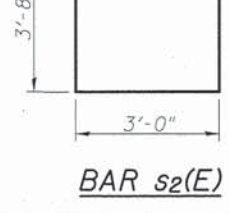
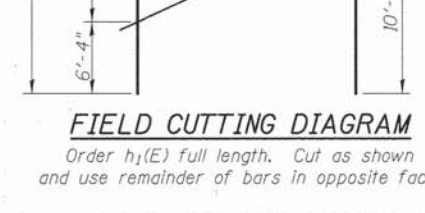
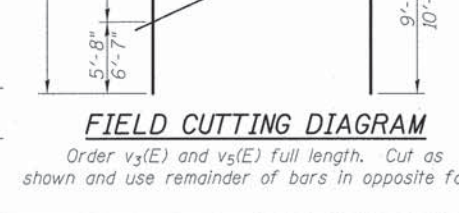
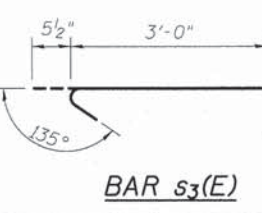
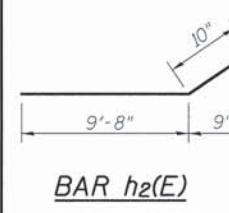
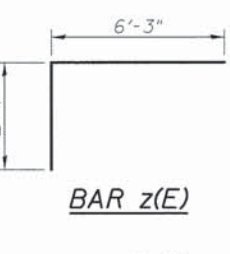
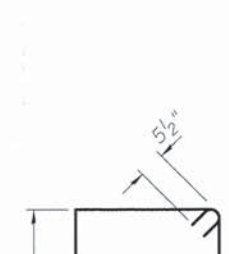
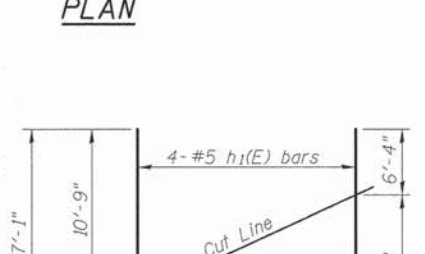
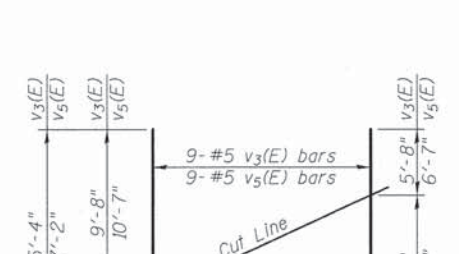
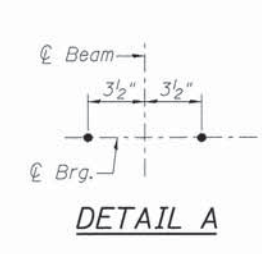
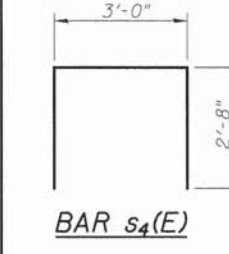


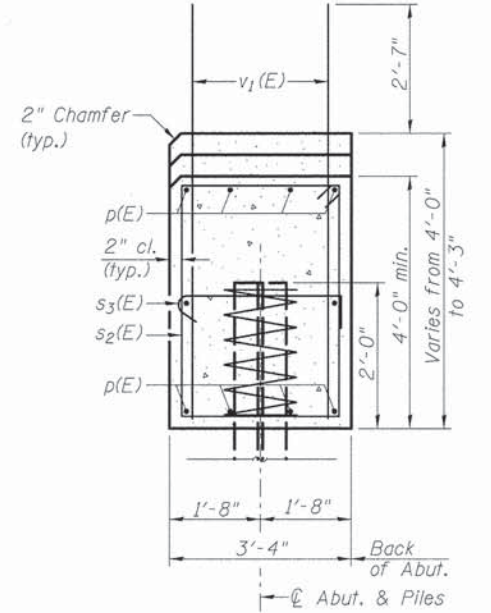
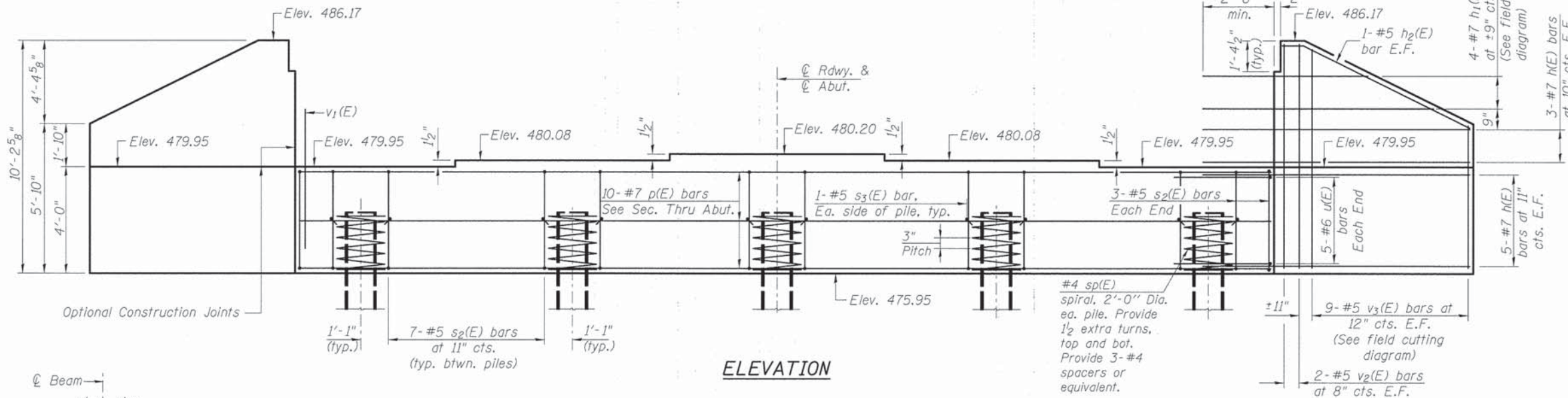
SECTION A-A



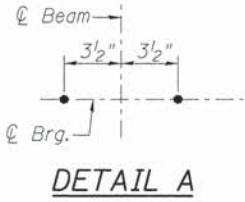
NORTH ABUTMENT

SHEET NO.	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	275	09-00031-02-BR	LASALLE	108	50
34 SHEETS			S.N. 050-3617	CONTRACT NO. 87605	
FED. ROAD DIST. NO. 7			ILLINOIS	FED. AID PROJECT BRS-0099(054)	

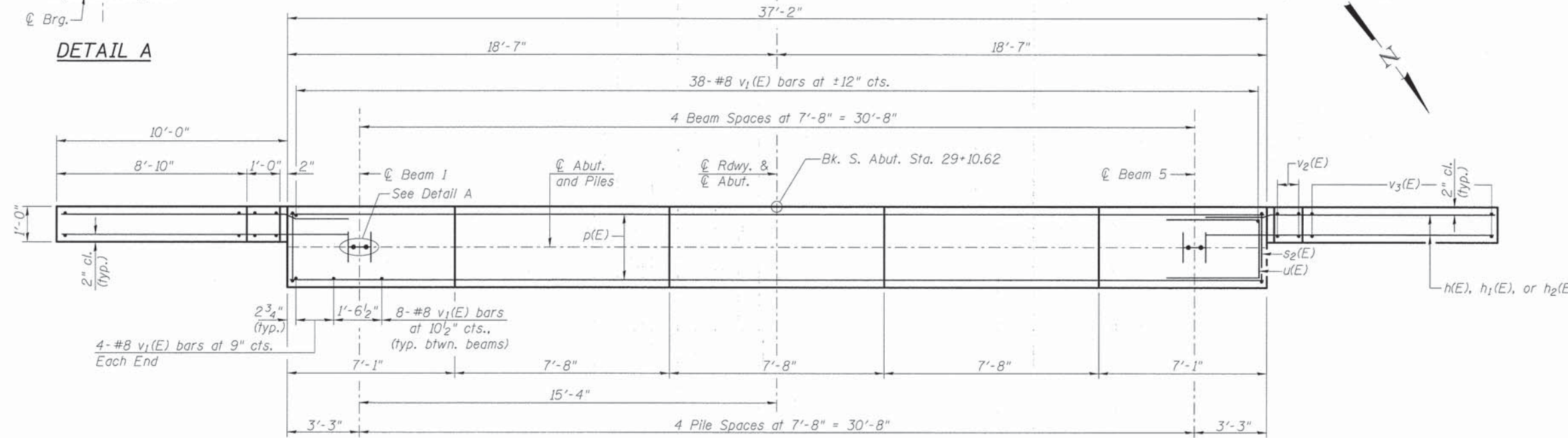




SEC. THRU ABUT.



DETAIL A

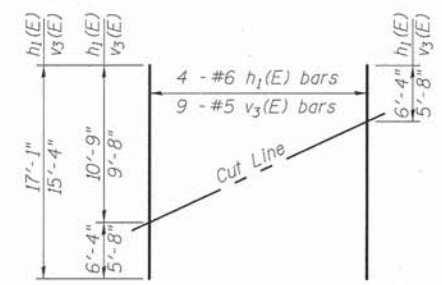


PLAN

PILE DATA

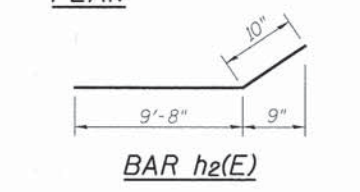
Type: Steel HP14x73
 Nominal Required Bearing: 578 kips
 Factored Resistance Available: 318 kips
 Est. Length: 47'
 No. Required: 5 (Includes 1 Test Pile)

Notes:
 Pour steps monolithically with cap.
 All edges shall have standard 3/4" chamfer.
 See Sheet 26 of 34 for Pile Details.
 Space Reinforcement in cap to miss anchor bolts.
 EF: Each Face

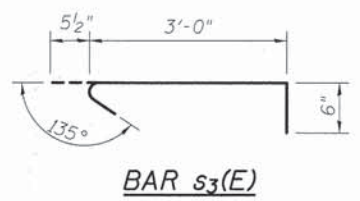


FIELD CUTTING DIAGRAM

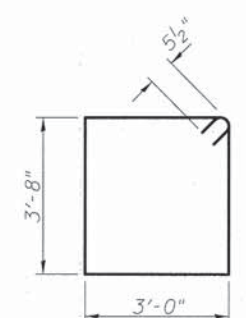
Order h1(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.



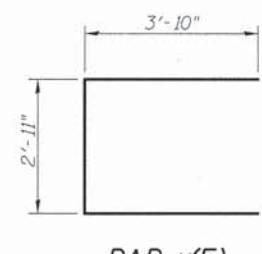
BAR h2(E)



BAR s3(E)



BAR s2(E)



BAR u(E)

SOUTH ABUTMENT BILL OF MATERIAL

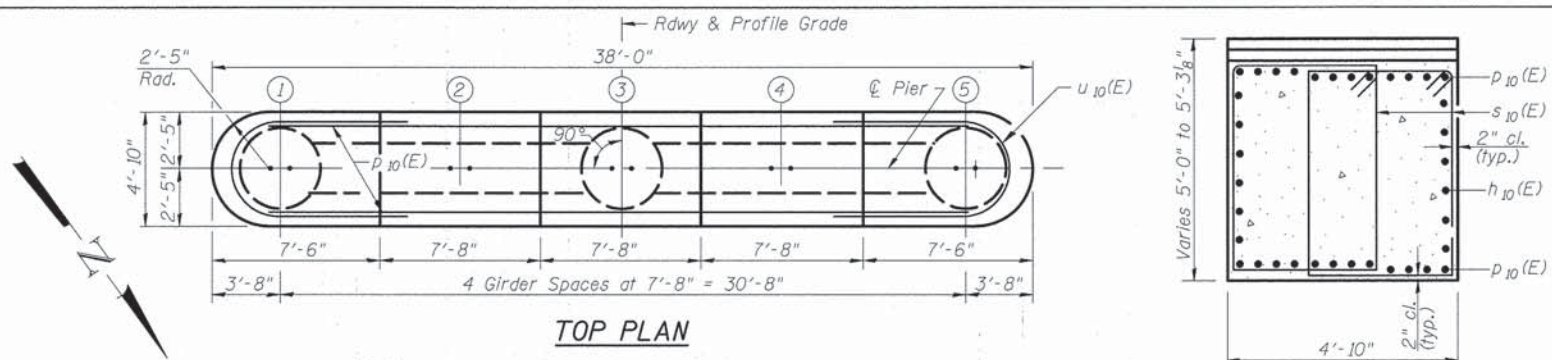
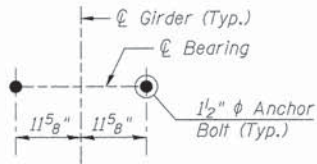
Bar No.	Size	Length	Shape
h(E)	32 #7	12'-5"	—
h1(E)	8 #7	17'-1"	—
h2(E)	4 #5	10'-6"	—
p(E)	10 #7	36'-11"	—
s2(E)	34 #5	14'-3"	□
s3(E)	10 #5	4'-0"	┌
*sp(E)	5 #4	2'-0"	MM
u(E)	10 #6	10'-7"	□
v1(E)	78 #8	6'-6"	—
v2(E)	8 #5	9'-10"	—
v3(E)	18 #5	15'-4"	—
Structure Excavation			CU YD 245
Concrete Structures			CU YD 25.0
Reinforcement Bars, Epoxy Coated			POUND 4,550
Furnishing Steel Piles HP14x73			FOOT 188
Driving Piles			FOOT 188
Test Pile Steel HP14x73			EACH 1

*Length is height of spiral.
 ① See Special Provisions

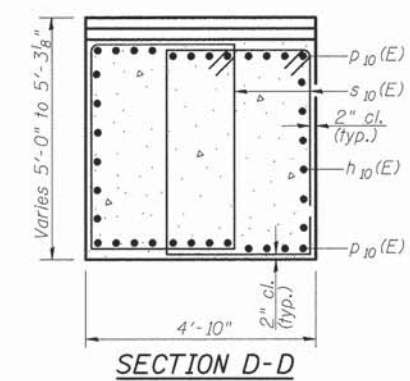
SOUTH ABUTMENT

SHEET NO. 23	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	51
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0099(054)		

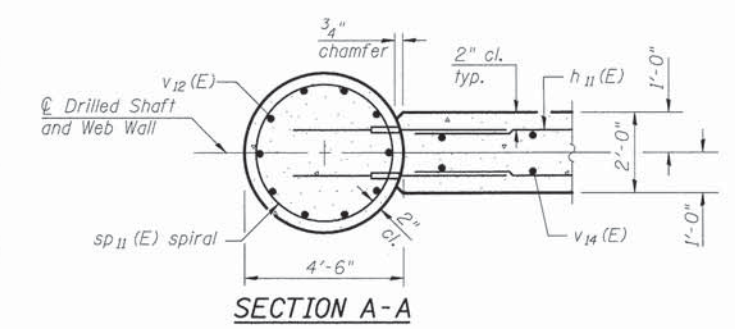
ANCHOR BOLT LAYOUT



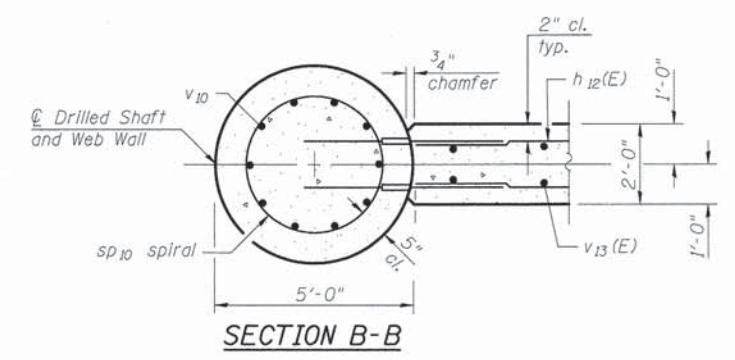
TOP PLAN



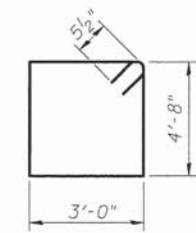
SECTION D-D



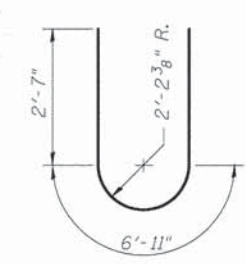
SECTION A-A



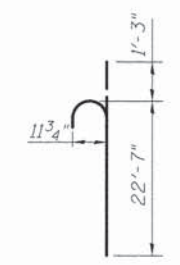
SECTION B-B



BAR s10(E)



BAR u10(E)



BAR v12(E)

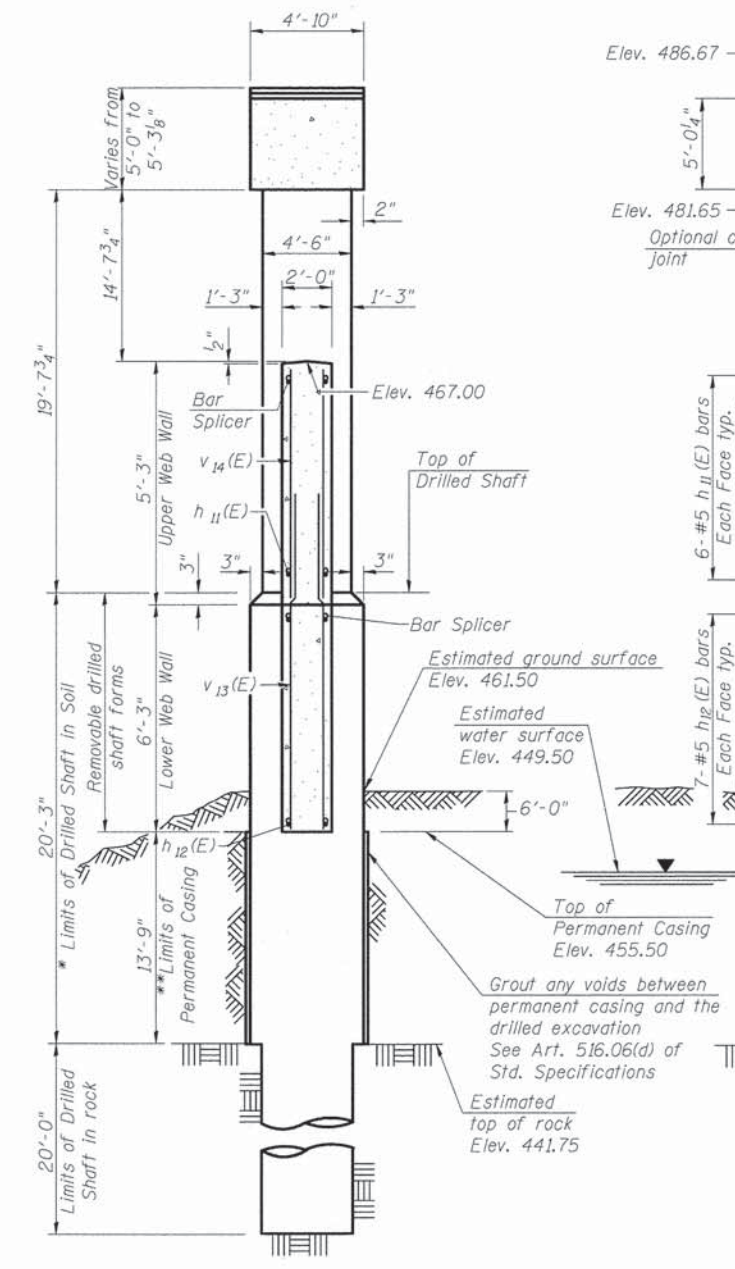
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	12	#5	33'-2"	—
h11(E)	24	#5	10'-6"	—
h12(E)	28	#5	10'-0"	—
p10(E)	24	#9	33'-2"	—
s10(E)	68	#5	16'-3"	□
sp10	3	#5	40'-3"	⋈
sp11(E)	3	#5	19'-10"	⋈
u10(E)	16	#6	12'-1"	U
v10	72	#9	40'-0"	—
v11(E)	72	#9	17'-2"	—
v12(E)	72	#9	23'-10"	—
v13(E)	44	#5	8'-9"	—
v14(E)	44	#5	5'-0"	—
Concrete Structures	CU YD		86.5	
Reinforcement Bars	POUND		13,180	
Reinforcement Bars, Epoxy Coated	POUND		18,310	
Bar Splicers	EACH		104	
Drilled Shaft in Soil	CU YD		44.2	
Drilled Shaft in Rock	CU YD		35.3	
Permanent Casing	FOOT		42	
Structure Excavation	CU YD		60	

Cast steps monolithically with cap. Space cap reinforcement to miss anchor bolts. Minimum lap for spirals = 2'-0"

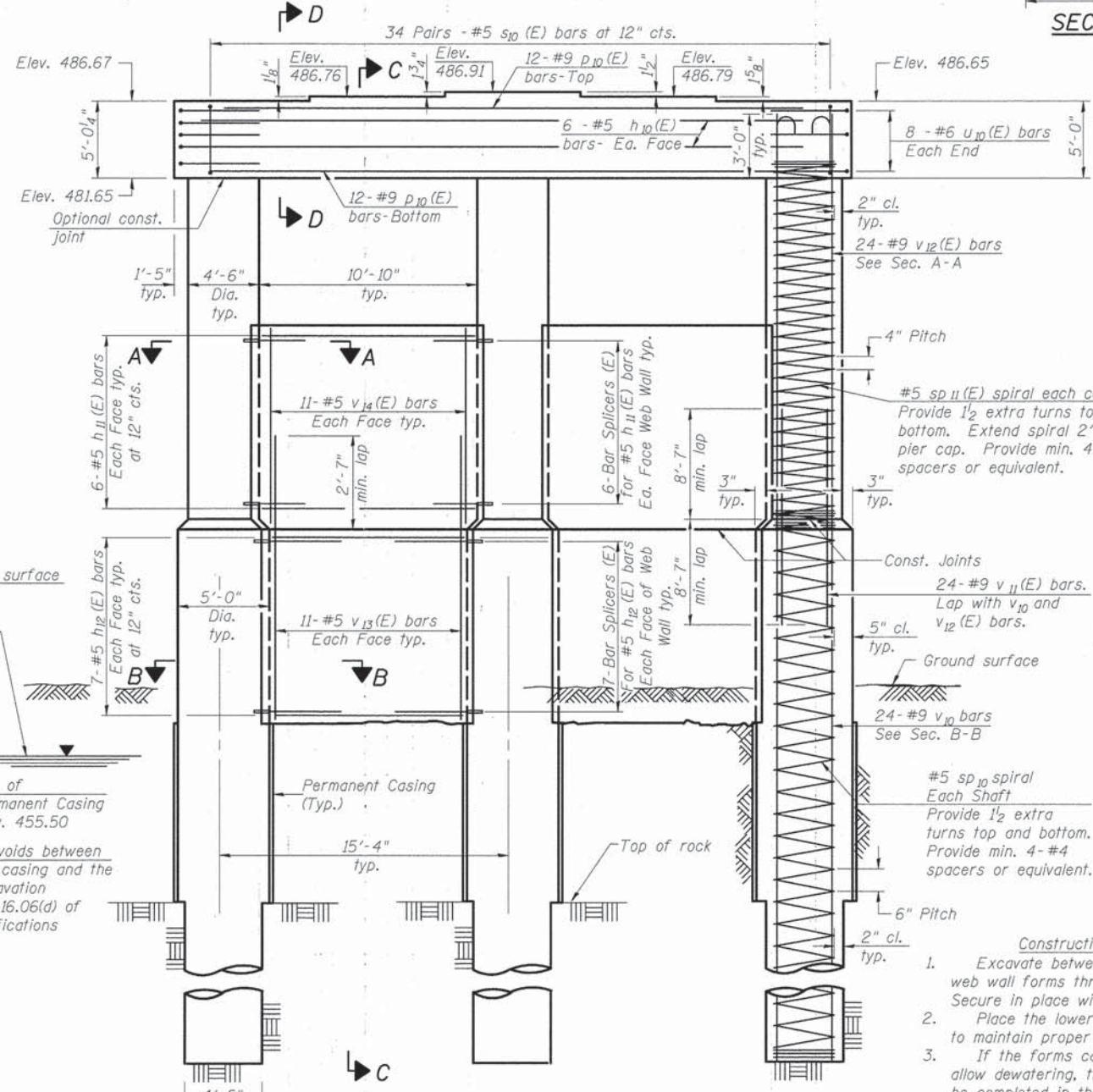
** Length is height of spiral.

① See Special Provisions



SECTION C-C

** Contractor is responsible for determining the casing thickness and the actual tie elevation to be used. See 516.06(d) of the Standard Specifications. Pay limits for permanent casing shall be based on the minimum length shown.



ELEVATION
(Looking South)

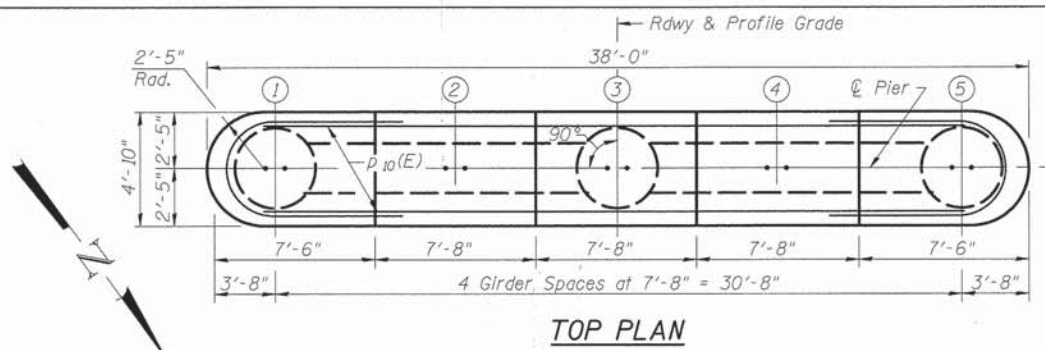
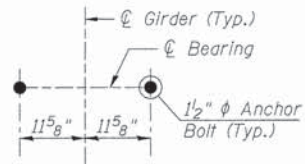
* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

- Construction Sequence for Web Wall:**
- Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
 - Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
 - If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
 - Construct Columns.
 - Construct upper web walls.

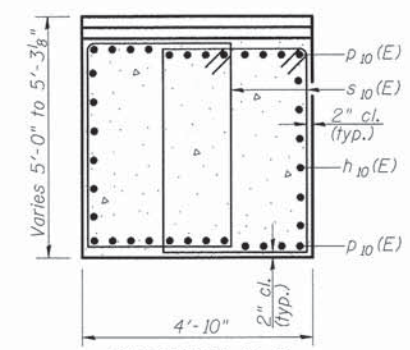
PIER #1

SHEET NO. 24	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	52
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0099054)		

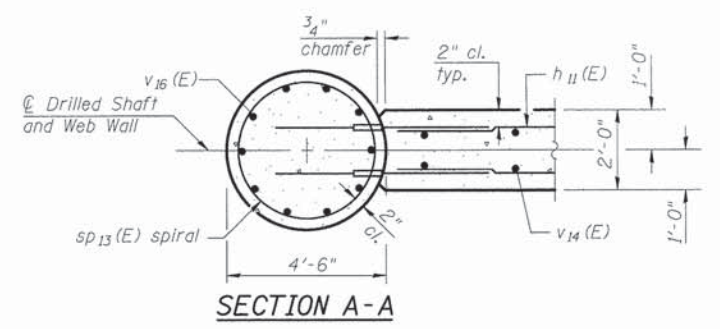
ANCHOR BOLT LAYOUT



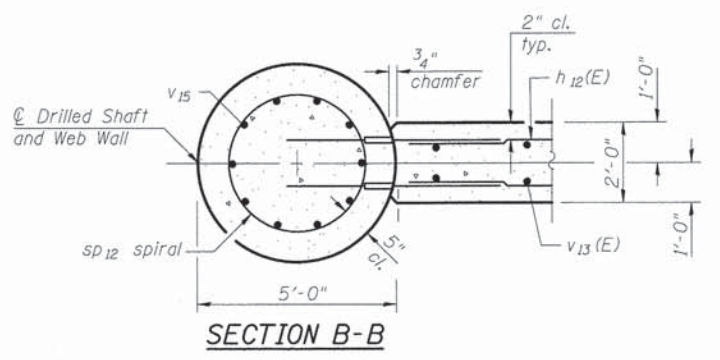
TOP PLAN



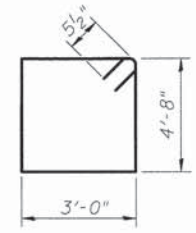
SECTION D-D



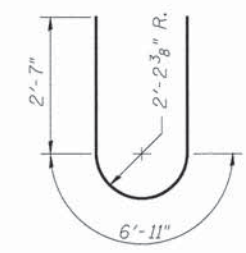
SECTION A-A



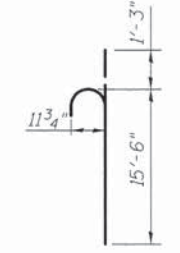
SECTION B-B



BAR s10(E)



BAR u10(E)

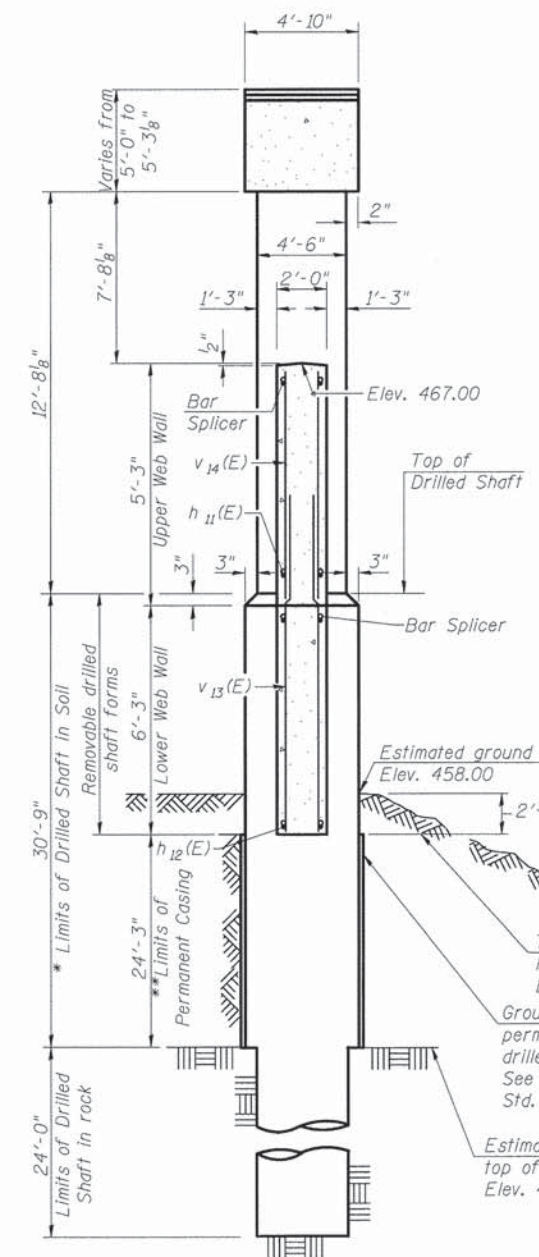


BAR v16(E)

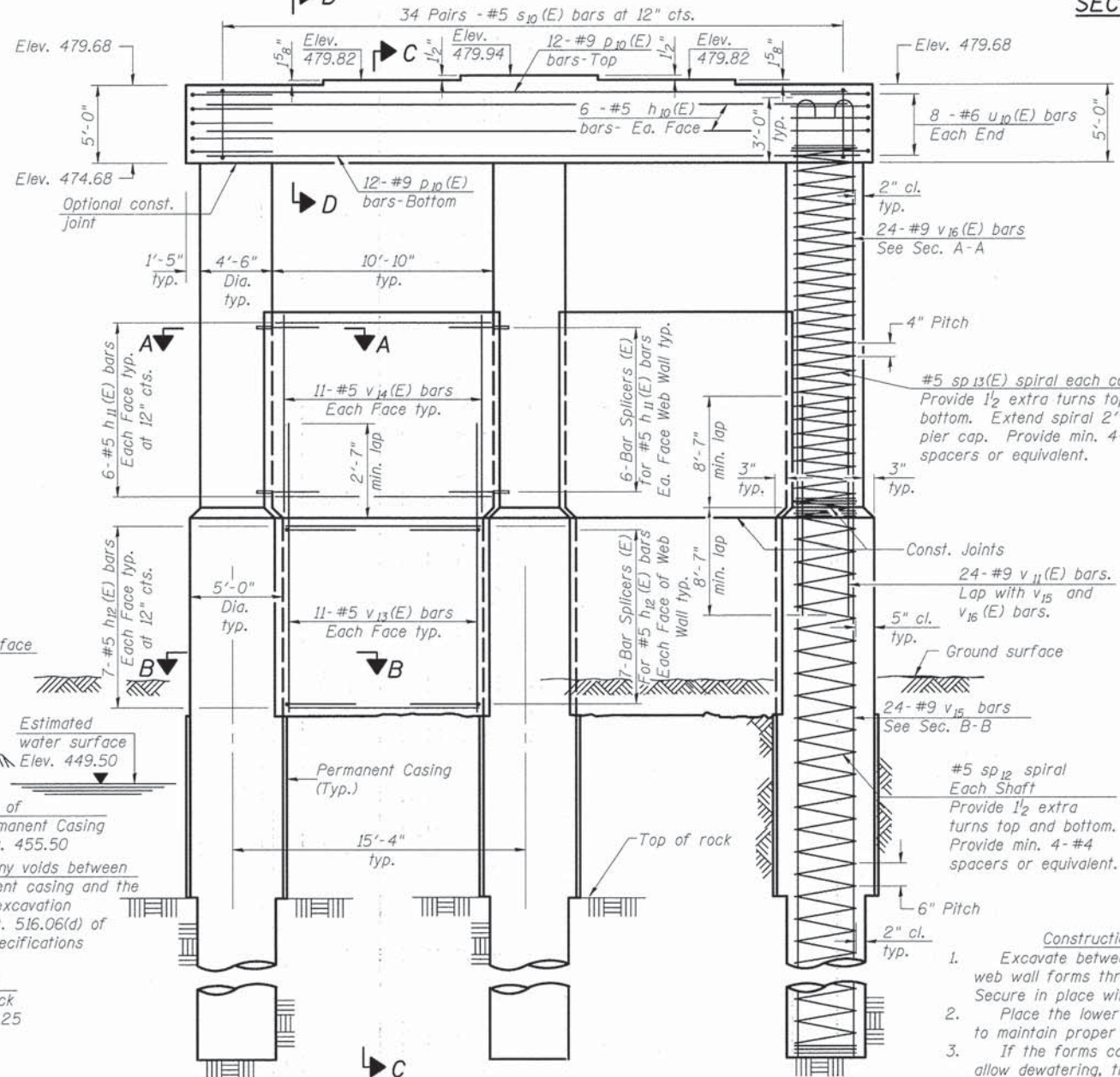
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	12	#5	33'-2"	—
h11(E)	24	#5	10'-6"	—
h12(E)	28	#5	10'-0"	—
p10(E)	24	#9	33'-2"	—
s10(E)	68	#5	16'-3"	⊠
sp12	3	#5	54'-9"	⊠
sp13(E)	3	#5	12'-10"	⊠
u10(E)	16	#6	12'-1"	U
v11(E)	72	#9	17'-2"	—
v13(E)	44	#5	8'-9"	—
v14(E)	44	#5	5'-0"	—
v15	72	#9	54'-6"	—
v16(E)	72	#9	16'-9"	—
Concrete Structures	CU YD		74.3	
Reinforcement Bars	POUND		17,910	
Reinforcement Bars, Epoxy Coated	POUND		15,740	
Bar Splicers	EACH		104	
Drilled Shaft in Soil	CU YD		67.1	
Drilled Shaft in Rock	CU YD		42.4	
Permanent Casing	FOOT		73	
Structure Excavation	CU YD		25	

Cast steps monolithically with cap. Space cap reinforcement to miss anchor bolts. Minimum lap for spirals = 2'-0". ** Length is height of spiral. ① Structure Excavation



SECTION C-C



ELEVATION (Looking South)

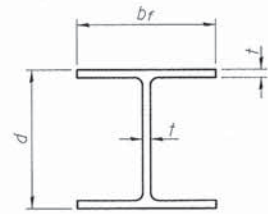
- Construction Sequence for Web Wall:**
- Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
 - Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
 - If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
 - Construct Columns.
 - Construct upper web walls.

** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See 516.06(d) of the Standard Specifications. Pay limits for permanent casing shall be based on the minimum length shown.

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

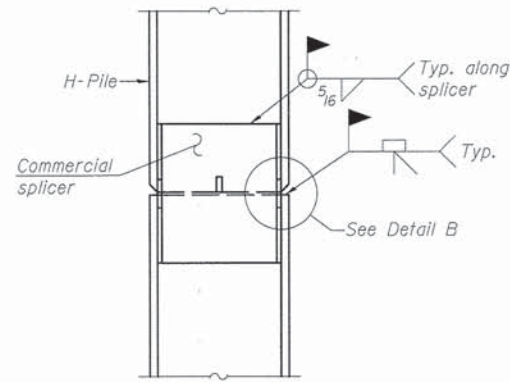
PIER #2

SHEET NO. 25	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	53
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		

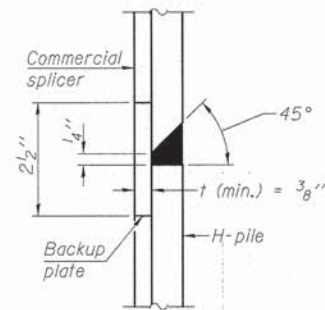


STEEL PILE TABLE

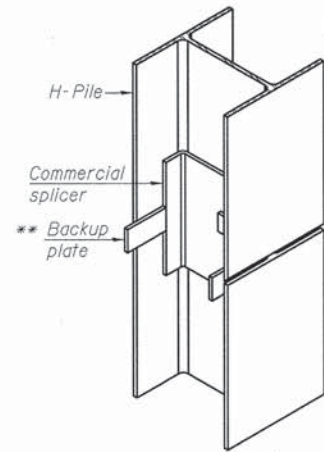
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

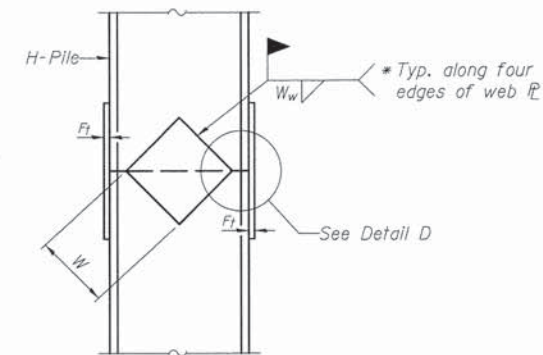


DETAIL "B"

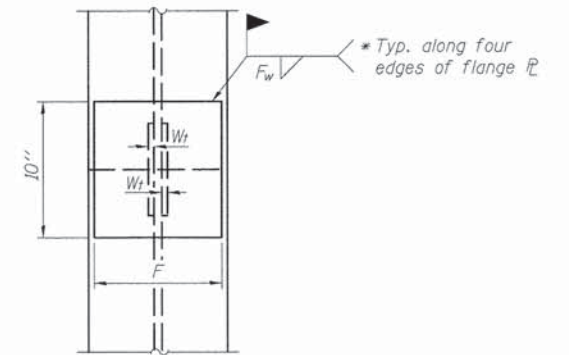


ISOMETRIC VIEW

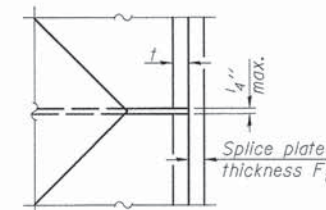
WELDED COMMERCIAL SPLICE



ELEVATION



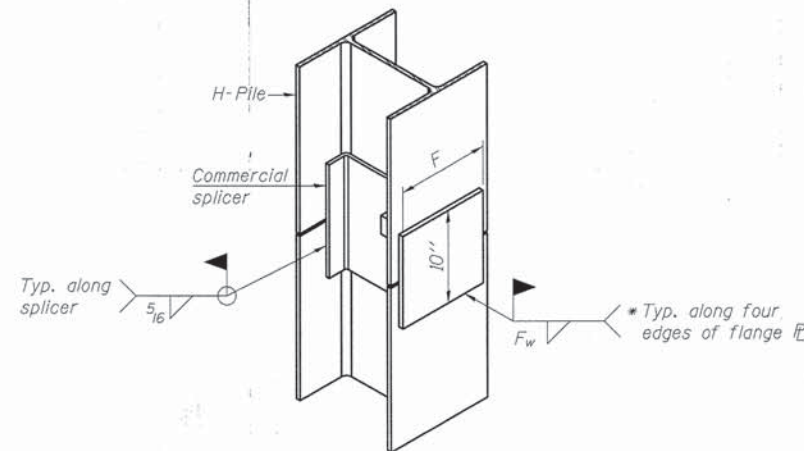
END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"



ISOMETRIC VIEW

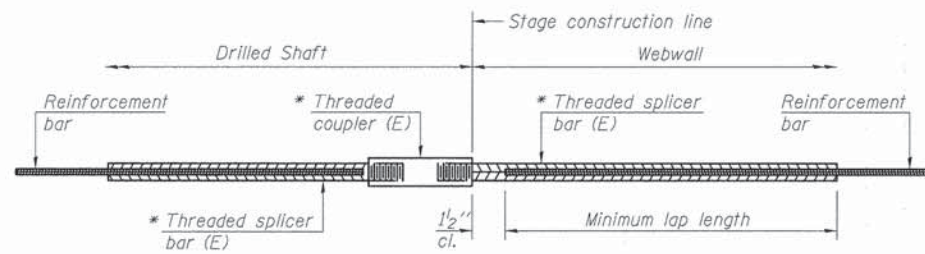
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

HP PILE DETAILS

SHEET NO. 26	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	54
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)		



STANDARD BAR SPLICER ASSEMBLY

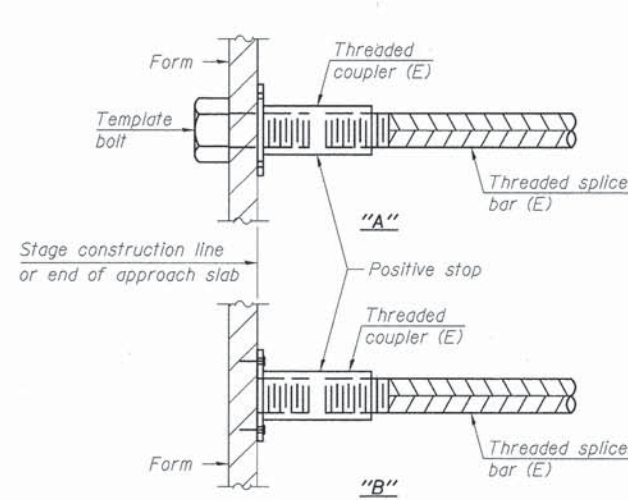
Bar size to be spliced	Minimum Lap Lengths					
	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- 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, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

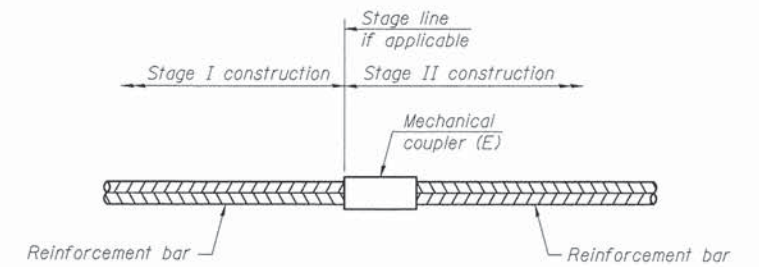
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Pier 1	5	104	5
Pier 2	5	104	5



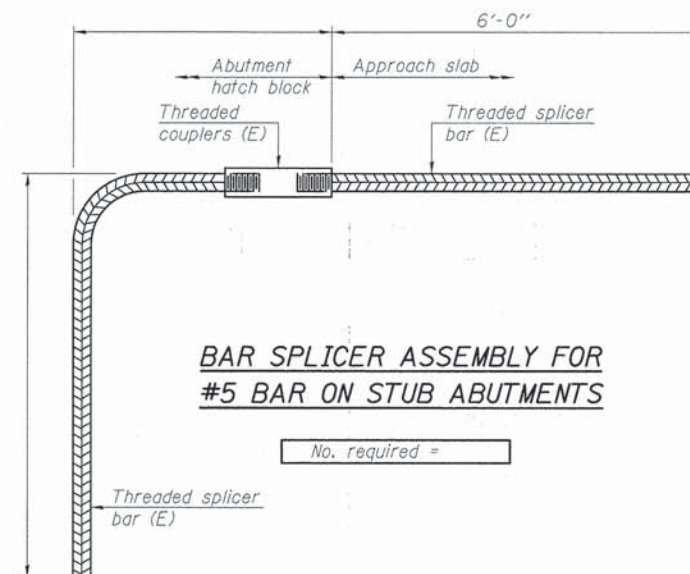
INSTALLATION AND SETTING METHODS

"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 STUB ABUTMENTS

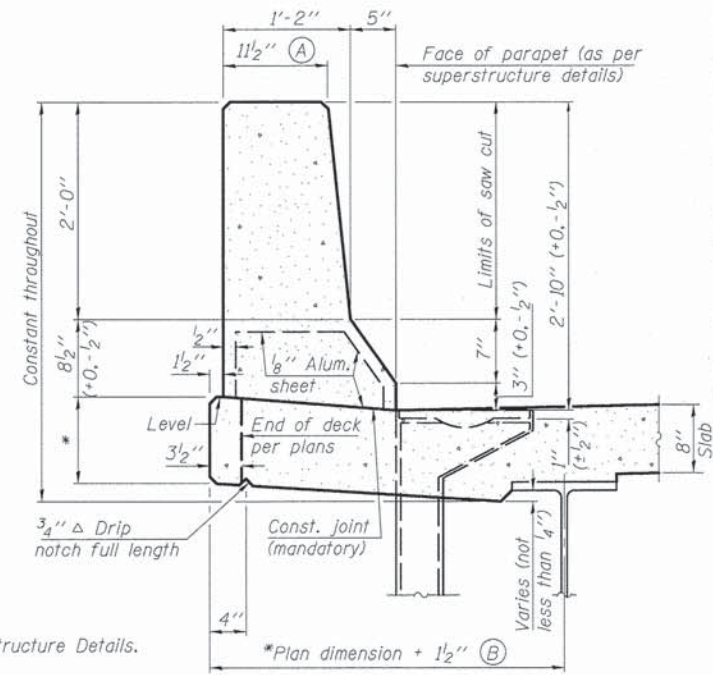
No. required =

NOTES

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

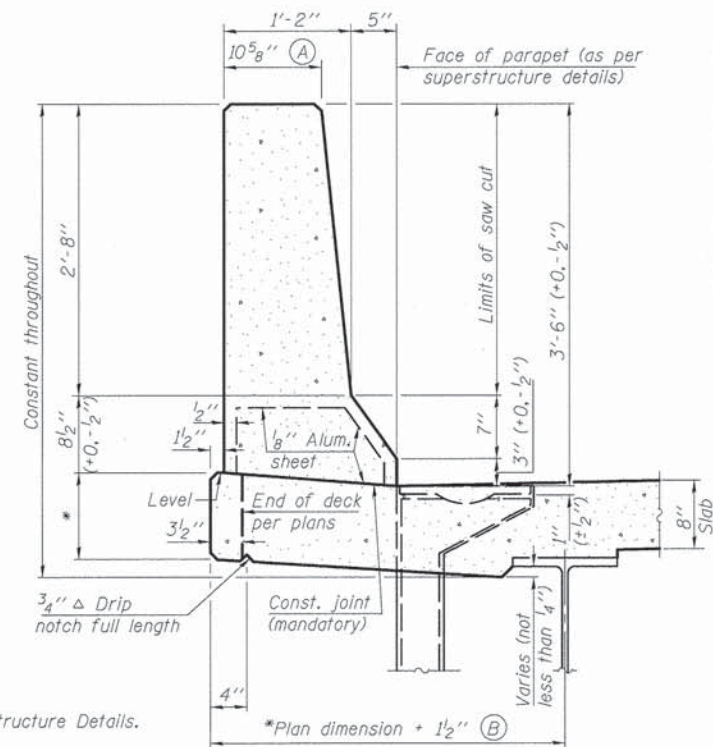
BAR SPLICER DETAILS

SHEET NO. 27	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	34 SHEETS	275	09-00031-02-BR	LASALLE	108
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0099(054)		



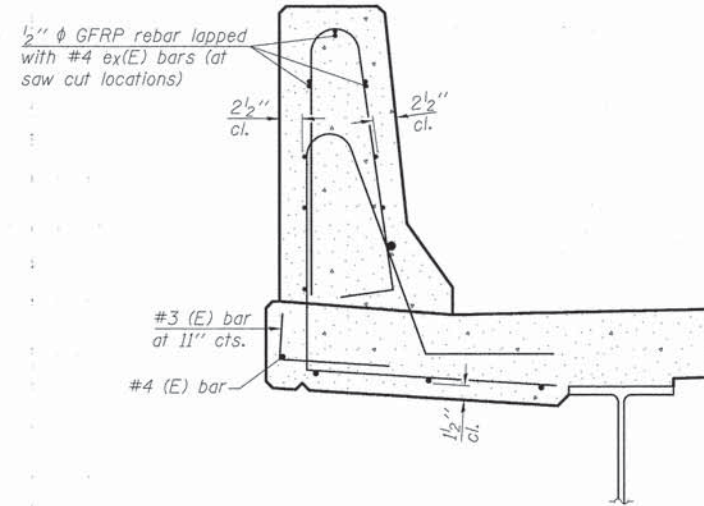
34" F SHAPE PARAPET SECTION
(Showing dimensions)

*See Superstructure Details.



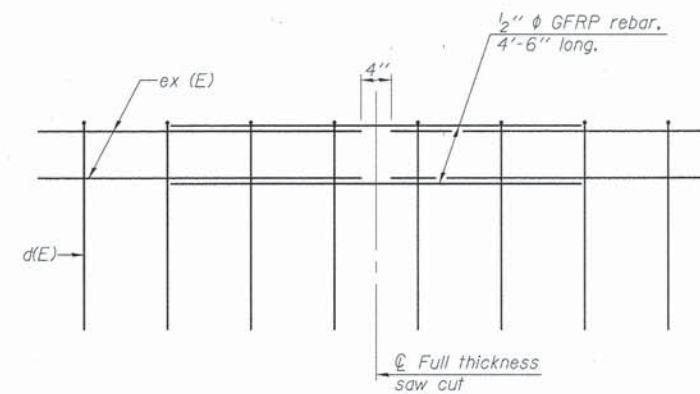
42" F SHAPE PARAPET SECTION
(Showing dimensions)

*See Superstructure Details.



SECTION

(34" parapet shown - 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

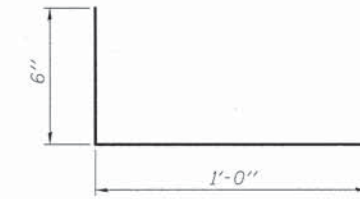


GFRP REBAR STIFFENING DETAIL

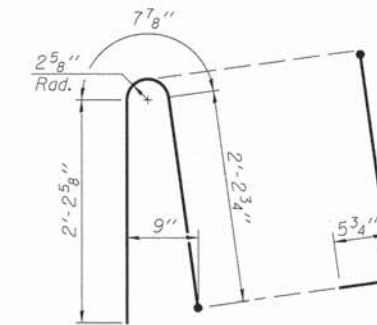
(Place as shown in parapet section at each parapet joint location.)

GENERAL NOTES

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler. Steel superstructure shown. Other superstructure types similar.

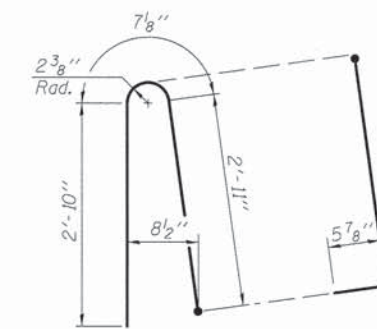


#3 (E) BAR



ALTERNATE BAR d(E)

(For 34" parapet when conduit is present)

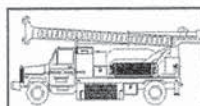


ALTERNATE BAR d(E)

(For 42" parapet when conduit is present)

CONCRETE PARAPET SLIPFORMING OPTION

SHEET NO. 28	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	56
	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)		



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 3

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

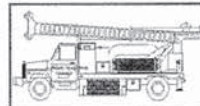
Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-1
Surface Elev. 503.34
Auger Depth 49.50 Rotary Depth NA
Start Date 09/24/14 Finish Date 09/24/14

Location: N. Abutment
Sta. 25+01 8' Rt.

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
503.34											
502.34	10" PCC over 4" Agg. Base		1								
501.34			2	1	SS	1.50	7	P	21.7		
500.34			3								
499.34	Stiff Mixture of black/brown/red/gray/yellow Silty Clay Fill		4	2	SS	1.50	6	P	25.4		
498.34			5								
497.34			6	3	SS	1.00	5	P	23.7		
496.34	Stiff Black Silty Clay Fill		7			1.00		P			
495.34			8								
494.34	Stiff Black/brown/yellow Silty Clay Fill		9	4	SS	1.50	5	P	19.3		
493.34			10								
492.34	Very Stiff Olive/brown Clay Fill		11	5	SS	2.84	8	B	19.5		
491.34			12								
490.34			13								
489.34			14	6	SS	2.62	8	B	22.5		
488.34	Stiff dark gray/black Silty Clay		15			1.50		P	27.7		
487.34	Stiff brown Silty Clay		16								
486.34	Stiff very organic black Silty Clay		17	7	SS	1.00	7	P	30.4		
485.34	Very Stiff Green/brown Silty Clay		18								
484.34			19	8	SS	2.00	13	P	21.6		
483.34	Very Stiff dark gray/black Silty Clay w/brick pieces		20			2.00		P			

Groundwater Data: First encounter at 45 ft.
Comments: *Hole Caved in at 18 ft.*



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 3

Phone: 815-223-6696
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e-mail: mts37@comcast.net

Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-1
Surface Elev. 503.34
Auger Depth 49.50 Rotary Depth NA
Start Date 09/24/14 Finish Date 09/24/14

Location: N. Abutment
Sta. 25+01 8' Rt.

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
482.34	Very Stiff dark gray/black Silty Clay w/brick pieces										
481.34			22								
480.34	Stiff brown/gray Silty Clay w/pieces kreosoted timber		23								
479.34			24	9	SS	1.50	11	P	21.7		
478.34			25								
477.34			26								
476.34			27								
475.34	Stiff orangish brown Silty Clay w/pieces of Sandstone		28								
474.34			29	10	SS	1.24	8	B	18.7		
473.34			30								
472.34			31								
471.34	Stiff Black Silty Clay mixed w/brown Silty Clay & pieces of timber		32								
470.34			33								
469.34			34	11	SS	1.50	15	P	20		
468.34	Stiff Brown Silty Clay, trace gravel		35								
467.34			36								
466.34			37								
465.34			38								
464.34	Very stiff gray/brown/orange Silty Clay		39	12	SS	2.68	21	B	19.7		
463.34			40								
462.34	Hard gray Silty Clay		41								

Groundwater Data: First encounter at 45 ft.
Comments: *Hole Caved in at 18 ft.*

SOIL BORING LOGS

SHEET NO. 29	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	57
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)			

Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG
Sheet 3 of 3

Phone: 815-223-6696
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e-mail: mts37@comcast.net

Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-1
Surface Elev. 503.34
Auger Depth 49.50 Rotary Depth NA
Start Date 09/24/14 Finish Date 09/24/14

Location: N. Abutment
Sta. 25+01 8' Rt.

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
-42.00											
460.34	Hard gray Silty Clay		43								
459.34			44	13	SS	9.38	35	S	10		
458.34			45								
457.34	Medium dense orangish brown Sand		46								
456.34			47								
455.34			48								
454.34	Very stiff brown Silty Clay		49	14	SS	3.5	50/3	P	7.5		
453.34	Hard weathered gray Shale End of Boring		50								
452.34			51								
451.34			52								
450.34			53								
449.34			54								
448.34			55								
447.34			56								
446.34			57								
445.34			58								
444.34			59								
443.34			60								
442.34			61								
441.34			62								

Groundwater Data: First encounter at 45 ft.
Comments: *Hole Caved in at 18 ft.*

Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG
Sheet 1 of 2

Phone: 815-223-6696
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Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-2
Surface Elev. 461.84
Auger Depth 22.00 Rotary Depth NA
Start Date 09/22/14 Finish Date 09/22/14

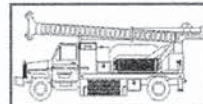
Location: Pier #1
Sta. 26+26.5 17' Lt.

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
461.84											
460.84			1								
459.84	Very Stiff Brown/gray & black Silty Clay w/ crushed limestone fill		2	1	SS	2.00	8	P	15.9		
458.84			3								
457.84			4	2	SS	2.00	8	P	16.7		
456.84			5								
455.84			6								
454.84	Very Stiff Brown/gray/red Sandy Clay fill		7	3	SS	2.50	7	P	20.4		
453.84			8								
452.84			9	4	SS	0.87	5	B	25.8		
451.84			10								
450.84	Medium Stiff Dark brown/gray Silty Clay w/sand, Organics		11								
449.84			12								
448.84			13								
447.84			14	5	SS		2	P	34.9		
446.84	Very Loose Gray silty clayey fine Sand w/organics		15								
445.84			16								
444.84	Medium Stiff Gray Sandy Clay Sand fraction is very fine		17	6	SS	0.62	3	B	29.7		
443.84			18								
442.84	Medium Stiff Gray clayey fine Sand		19	7	SS	0.50	12	P	17.2		
441.84	Yellow/brown very weathered Limestone		20								

Groundwater Data: First Encoutner at 14 ft.
Comments:

SOIL BORING LOGS

SHEET NO. 30	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	58
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)			



Midwest Testing Services, Inc.
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Peru, IL 61354

BORING LOG

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Sheet 2 of 2

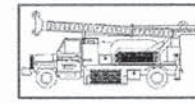
Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd)
Project Site: Structure #050-3038

Boring No. B-2
Surface Elev. 461.84
Auger Depth 22.00 Rotary Depth NA
Start Date 09/22/14 Finish Date 09/22/14

Location: Pier #1
Sta. 26+26.5 17' Lt.

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Budge / Shear	Moisture (%)		
440.84	Yellow/brown very weathered Limestone										
439.84	Auger refusal at 22'		22								
438.84	Dense white weathered Limestone See Rock Core Log		23	8	SS	50/1"	5.3				
437.84			24								
436.84			25								
435.84			26								
434.84			27								
433.84			28								
432.84			29								
431.84			30								
430.84			31								
429.84			32								
428.84			33								
427.84			34								
426.84			35								
425.84			36								
424.84			37								
423.84			38								
422.84			39								
421.84			40								
420.84			41								

Groundwater Data: First Encoutner at 14 ft.
Comments:



Midwest Testing Services Inc. ROCK CORE LOG
3705 Progress Blvd.
Peru IL 61354

Date: 9/22/14 Page: 1 of 1

Route: CH-23 Structure # 050-3038 (Exist.) (Prop.)

Section: Pier #2 Description: Pier #2

County: LaSalle Logged by: TLM

Boring No.: B-2 Coring Method: Wireline Core Diameter: 2 in

Station: 26+26.5 Barrel Type: NQ2

Offset: 17' Lt. Barrel Size: 2"

Latitude: Top of Rock Elev.: 439.84

Longitude: Begin Core Elev.: 439.59

Rock Type, Description and Observations	Depth Below Top of Core (ft.)	ELEV. (ft)	CORE No.	RECOV. (%)	R.Q.D. (%)	TIME (min/ft)	U.C.S. Qu (tsf)
Dense white Limestone	1	438.59	1	0.88	0.69	14.5	350.9
Possible void	2	437.59					
Clay (Sample of soft material was removed from core barrel by pick and hammer)	3	436.59					
	4	435.59					207.8
	5	434.59					
Dense white Limestone, slightly vuggy at 31.5', vug holes < 0.5"	6	433.59					
	7	432.59	2	0.63	0.61	3.0	486.2
	8	431.59					
	9	430.59					
	10	429.59					413.8
	11	428.59					
	12	427.59					
	13	426.59					
	14	425.59					
Very fractured Limestone. Possibly layered with Shale or some joints are filled with thick gouge material.	15	424.59	3	0.4	0	4.0	
	16	423.59					
	17	422.59					
	18	421.59					
Dense gray/white Limestone	19	420.59	4	0.79	0.45	4.0	211.0
	20	419.59					252.8

Color pictures of the cores taken (Y/N): Y Cores will be disposed of after: Construction of Bridge is Complete
Cores will be stored for examination at: McCleary Engineering
The U.C.S. Qu column represents the Unconfined Compressive Strength using ASTM D-2938

SOIL BORING LOGS

SHEET NO. 31	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34 SHEETS	275	09-00031-02-BR	LASALLE	108	59
S.N. 050-3617			CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		

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BORING LOG
Sheet 1 of 3

Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-3
Surface Elev. 460.33
Auger Depth 58.50 Rotary Depth NA
Start Date 09/23/14 Finish Date 09/23/14

Location: Pier #2
Sta. 28+17 22.5' Rt.

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	
460.33										
459.33	Medium stiff mix of black/brown/gray Silty Clay w/crushed limestone agg. Fill		1	1	SS	0.75	9	P	20.9	
458.33			2							
457.33	Stiff brown Silty Clay w/sand		3							
456.33			4	2	SS	1.00	6	P	23.1	
455.33	Soft dark gray Silty Clay		5							
454.33			6							
453.33			7	3	SS	0.41	3	B	33.4	
452.33	Loose brown silty fine Sand		8							
451.33			9	4	SS		2		23.9	
450.33	Soft gray Silty Clay		10							
449.33			11							
448.33	Loose brown silty fine Sand		12	5	SS	0.37	2	B	34.4	
447.33			13							
446.33	Medium dense brown angular Sand & Gravel w/pieces of limestone		14	6	SS		12		10.6	
445.33			15							
444.33			16							
443.33			17	7	SS		18		10	
442.33			18							
441.33			19	8	SS		19		11.1	
440.33			20							

Groundwater Data: First encounter at 14'
Comments:

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BORING LOG
Sheet 2 of 3

Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-3
Surface Elev. 460.33
Auger Depth 58.50 Rotary Depth NA
Start Date 09/23/14 Finish Date 09/23/14

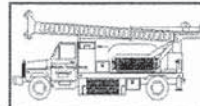
Location: Pier #2
Sta. 28+17 22.5' Rt.

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	
439.33	Med. Dense brown ang. Sand & Gravel w/ l.s. pieces									
438.33	Loose brown Sand & Gravel		22							
437.33			23							
436.33			24	9	SS		6		19.2	
435.33	Possible cobbles, auger rattling past this layer 26' to 28.5'		25							
434.33			26							
433.33	Dense to Very Dense Very weathered gray argilaceous Shale (appears reworked) w/cobble inclusions		27							
432.33			28							
431.33		29	10	SS		28		15.1		
430.33		30								
429.33		31								
428.33		32								
427.33		33								
426.33		34	11	SS	2.00	64		13.8		
425.33		35								
424.33		36								
423.33		37								
422.33		38								
421.33		39								
420.33		40	12	SS	3.00	52/6"		12.7		
419.33		41								

Groundwater Data: First encounter at 14'
Comments: "E" means the Qu was estimated using equations from the IDOT/UofI Study "Drilled Shafts in Weak Rock"

SOIL BORING LOGS

SHEET NO. 32	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	60
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)		



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 3

Phone: 815-223-6696
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Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-3
Surface Elev. 460.33
Auger Depth 58.50 Rotary Depth NA
Start Date 09/23/14 Finish Date 09/23/14

Location: Pier #2
Sta. 28+17 22.5' Rt.

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	
439.33										REMARKS
417.33			43							
416.33			44	13	SS	2.00 E	68		13.8	
415.33			45							
414.33			46							
413.33			47							
412.33			48							
411.33	Very Dense but Very Weathered gray argillaceous Shale (appears reworked) w/cobble inclusions		49	14	SS	6.00 E	50/3"		14	
410.33			50							
409.33			51							
408.33			52							
407.33			53							
406.33			54	15	SS	25.0 E	50/1"		16.6	
405.33			55							
404.33			56							
403.33			57							
402.33			58							
401.33	V. Dense Brown to dark brown Argillaceous Shale		59	16	SS	15.0 E	100/3"		16.8	
400.33	End of Boring		60							
399.33			61							
398.33			62							

Groundwater Data: First encounter at 14'
Comments: "E" means the Qu was estimated using equations from the IDOT/UofI Study "Drilled Shafts in Weak Rock"

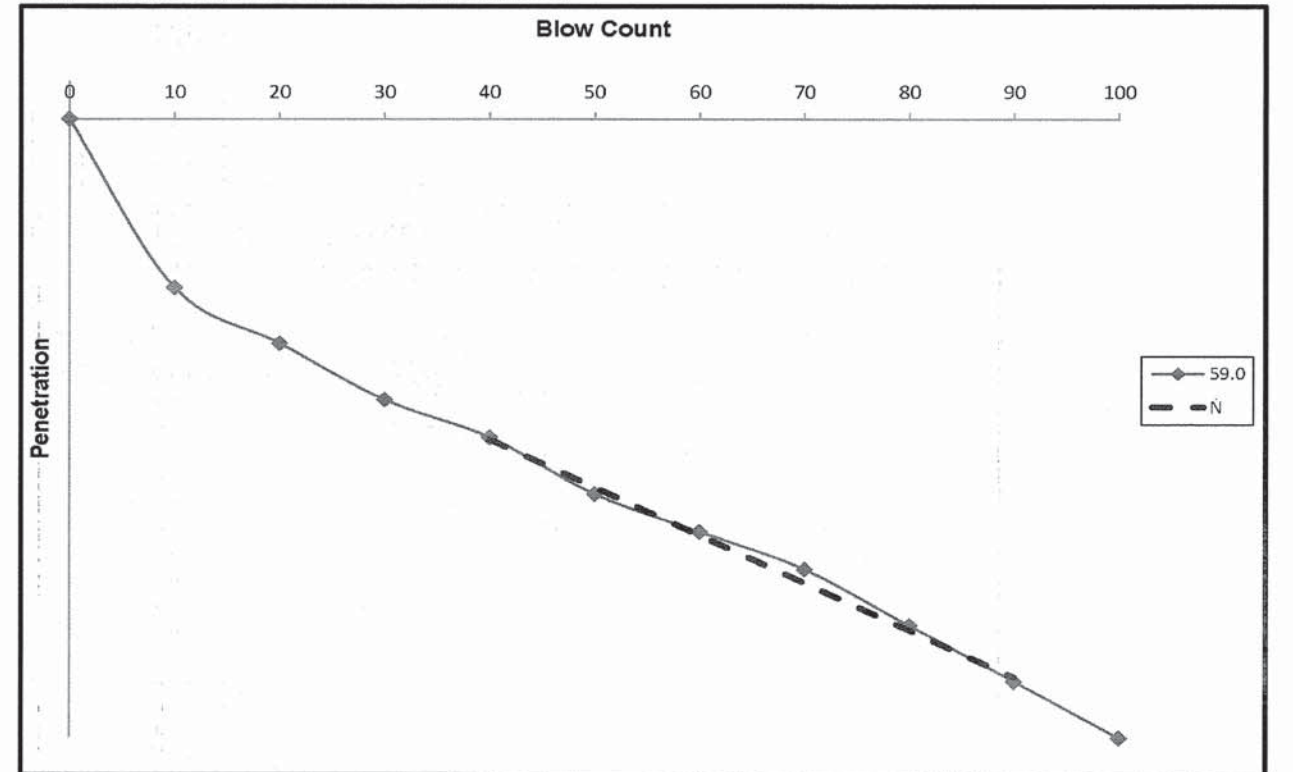


Modified SPT Log

Route: CH-23 Structure No.: 050-3038 (Exist.) 050-3617 (Prop.) Date: 9/23/14 Page: 1 of 1
Section: 09-00031-02-BR Description: South Pier
County: LaSalle Logged by: Terry McCleary Sampler Tube Length: 18 in.
Boring No.: B-3 Station: 28+17 Offset: 22.5' Rt Latitude: _____ Longitude: _____

Measured Rod Length (ft)	Blows where exposed rod length is measured (blows)											N (bpf)	qu (ksf)	Young's Modulus (ksi)
	0	10	20	30	40	50	60	70	80	90	100			
59.00	2	1.91	1.88	1.85	1.83	1.8	1.78	1.76	1.73	1.7	1.67	394.5	29.1	6.57

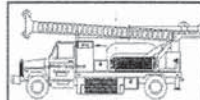
Note: "Values" indicates data used to calculate N.



File Name: BBS 139 - B-3.xlsm Printed: 7/27/2015 3:29 PM BBS 138 (Rev. 9/2/14)

SOIL BORING LOGS

SHEET NO. 33	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	61
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		



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BORING LOG

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Sheet 1 of 3

Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-4
Surface Elev. 486.28
Auger Depth 58.50 Rotary Depth NA
Start Date 09/24/14 Finish Date 09/24/14

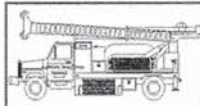
Location: S. Abutment
Sta. 29+18 7 Lt.

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES					DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	
486.28										
485.28	Red/brown Silty Clay, limestone agg. Fill		1							
484.28			2	1	SS		12		11.4	
483.28			3							
482.28	Loose Red/gray chips fill (mine waste) very dry, little cohesion		4	2	SS		5		16.4	
481.28			5							
480.28			6							
479.28			7	3	SS		6		18.4	
478.28			8							
477.28	Stiff to Very Stiff Red/gray/black Clay fill (mine waste)		9	4	SS	1.50	8	P	22.7	
476.28			10							
475.28			11							
474.28			12	5	SS	2.00	11	P	19	
473.28			13							
472.28			14	6	SS	1.50	8	P	19.9	
471.28			15							
470.28			16							
469.28			17	7	SS	1.50	8	P	24.9	
468.28			18							
467.28			19							
466.28	Stiff to Very Stiff Red/gray/black Clay Shale fill (mine waste)		20	8	SS	1.75	7	P	27.7	

Groundwater Data: First encountered at a depth of 42 ft.
Comments: *Hole Caved in at 15.5 ft.*

SOIL BORING LOGS

SHEET NO. 33A	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	62
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(054)			



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 3

Phone: 815-223-6696
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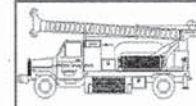
Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-4
Surface Elev. 486.28
Auger Depth 58.50 Rotary Depth NA
Start Date 09/24/14 Finish Date 09/24/14

Location: S. Abutment
Sta. 29+18 7' Lt.

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
465.28											
464.28			22								
463.28			23								
462.28			24	9	SS	1.38	8	S	24.7		
461.28	Stiff to Very Stiff Red/gray/black Clay Shale fill (mine waste)		25								
460.28			26								
459.28			27								
458.28			28								
457.28			29	10	SS	3.49	18	S	25.4		
456.28			30								
455.28			31								
454.28			32								
453.28	Loose dark gray/green Silty fine Sand		33								
452.28			34	11	SS		8		17.3		
451.28			35								
450.28			36								
449.28			37								
448.28			38								
447.28	Loose dark gray/green Silty fine Sand w/2" layers of clayey material		39	12	SS		6		27.9		
446.28			40								
445.28			41								

Groundwater Data: First encountered at a depth of 42 ft.
Comments: *Hole Caved in at 15.5 ft.*



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 3

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Client: Hutchison Eng.
Project Name: CH-23 (Ed Hand Rd.)
Project Site: Structure #050-3038

Boring No. B-4
Surface Elev. 486.28
Auger Depth 58.50 Rotary Depth NA
Start Date 09/24/14 Finish Date 09/24/14

Location: S. Abutment
Sta. 29+18 7' Lt.

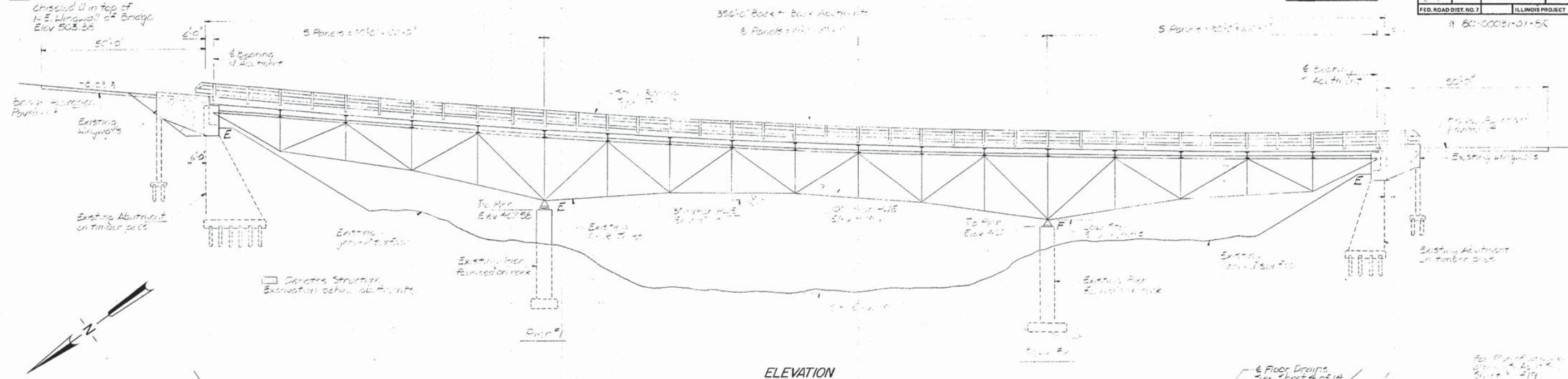
(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
444.28											
443.28			43								
442.28			44	13	SS		24		12.4		
441.28			45								
440.28	Medium dense Sand & Gravel		46								
439.28			47								
438.28			48								
437.28			49	14	SS		27		12.2		
436.28			50								
435.28			51								
434.28			52								
433.28	Dense very coarse Gravel		53								
432.28			54	15	SS		30		13.4		
431.28			55								
430.28	Dense weathered Shale w/limestone stringers		56								
429.28			57				86/6"				Recovered only blow in sand. Did not keep sample.
428.28			58								
427.28	End of Boring		59	16	SS		100/4.75"		10.8		
426.28			60								
425.28			61								
424.28			62								

Groundwater Data: First encountered at a depth of 42 ft.
Comments: *Hole Caved in at 15.5 ft.*

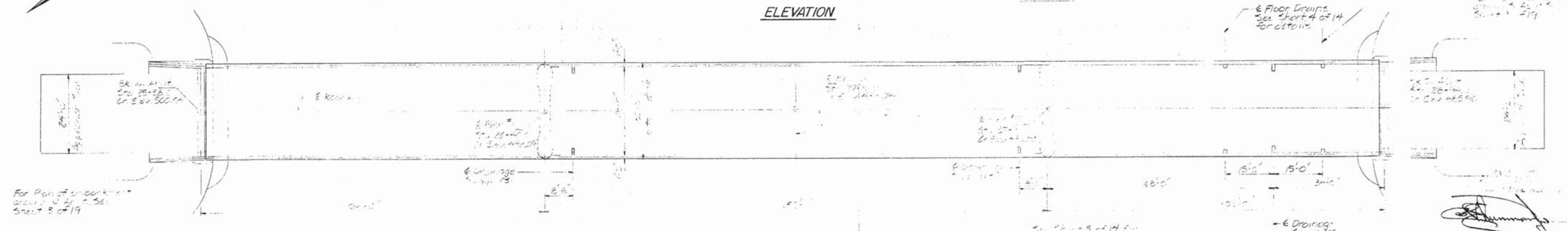
SOIL BORING LOGS

SHEET NO. 34	F.A. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	275	09-00031-02-BR	LASALLE	108	63
34 SHEETS	S.N. 050-3617		CONTRACT NO. 87605		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0099(054)		

Benchmark:
Chiselled in top of
N.E. Wingwall of Bridge
Elev 503.36



ELEVATION



PLAN

WATERWAY INFORMATION

DRAINAGE AREA = 1,329 SQ. MI. LOW GRADE ELEV. = 485.75 @ STA. 28+60

FLOOD YR.	FREQ.	Q C.F.S.	OPENING SQ. FT. EXIST.	PROP.	NAT. H.W.E.	PROP. HEAD-FT.	PROP. HEADWATER ELEV.
DESIGN	30	30,700	6037	5670	471.8	0.24	472.0
BASE	100	38,200	7109	6534	474.0	0.33	474.9
OVERTOPPING							
MAX. CALC.	500						

GENERAL NOTES

- All work shall be in accordance with the "Standard Specifications for Road and Bridge Construction," adopted October 1, 1979.
- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Class X Concrete shall be used throughout.
- Reinforcement bars shall conform to the requirements of AASHTO M31 or M53, Grade 60.
- Protective Coat shall be applied to the top and sides of the deck slab and to the top and sides of the curb.
- New Structural steel shall be AASHTO M-183. The basic lead silico chromate paint system shall be used for shop and field painting of new structural steel.
- Fasteners shall be high strength bolts. Bolts 7/8" ϕ , holes 15/16" ϕ , unless otherwise noted.
- Field welding of construction accessories will not be permitted to the trusses nor to the floor beams or the bottom flanges of the stringers. Field welding in other areas will be permitted only when approved by the Engineer.
- Calculated weight of Structural Steel = 192,200 pounds.
- See Special Provisions for cleaning and painting existing structural steel.
- Expansion bolts shall consist of approved expansion anchors, providing min. certified proof load = 4,080 lbs., and 3/4" ϕ hooked bolts.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the tension flanges, webs and all splice plate material of the steel floor beams and stringers.

TOTAL BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Remove Existing Superstructure	Cu Yds	1
Remove Existing Steel Bridge	Tons	1
Steel - Expansion	Cu Yds	304
Reinforcement Bars	Lbs	27,745
Reinforcement Bars - Existing	Lbs	47,130
Paint - Coat	Sq Yds	13,445
PIE Structure	Lbs	1
Drainage System	1"	1
Non-slip Expansion Joint	Lin Ft	20
Expansion Joint Seal	Lin Ft	750
Expansion Joint	Eq	5
Expansion Joint	Cu Yds	140
Sealing/Grubbing	Lbs	1
Riprap	Sp Yds	350
Concrete Removal	Cu Yds	37.0
Drainage Sumps	Each	5

The existing structure consists of a 66' reinforced concrete deck on steel stringers and floor beams supported by a 41' high span structure's steel deck truss on solid concrete piers and pile supported concrete abutments. Deck width is 50'-0". SK to be in line with 356'-0" See Special Provisions for removal of Existing Superstructure.

STATION 27+16.0
VERMILION RIVER BRIDGE
SUPERSTRUCTURE REBUILT 198
F.A.S. RT. 275
SEC. 80-00031-01-BR
LOADING HS 20
STR. NO. 050-3038

LETTERING FOR NAME PLATE

Locate Name Plate at Northwest Corner of abutment. See Section 711.

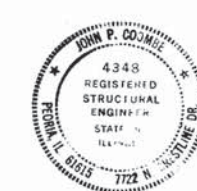
Do not use name plates. Cost is incidental to work. Name Plates.

DESIGN STRESSES

Superstructure - Concrete (Load Factor Design)
F_{cd} = 4.5 ksi
F_{td} = 0.02 ksi (existing AT)
F_{td} = 0.02 ksi (M 183)

Substructure - Concrete (Service Load Design)
F_{cd} = 4.5 ksi
F_{td} = 0.02 ksi

Deck - Loading HS 20-44 with
BS - Floor beams for future
HS 20-44



John P. Coombe
10/1/81



LOCATION SKETCH

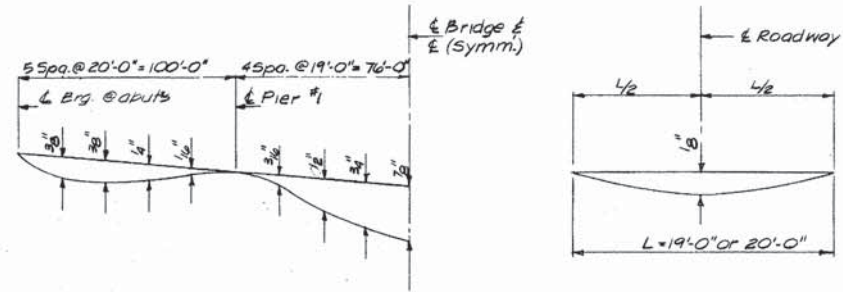
GENERAL PLAN & ELEVATION
F.A.S. ROUTE 275 (CH.23)
VERMILION RIVER BRIDGE
SECTION 80-00031-01-BR
LASALLE COUNTY
STATION 27+16.0



FOR INFORMATION ONLY

DESIGNED - JFC	CHECKED - JFC	FILE NO. 877	DATE 10-1-81														
<p>LASALLE COUNTY HIGHWAY DEPARTMENT</p> <p>C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS</p> <p>SCALE: N/A SHEET NO. 1 OF 30 SHEETS STA. TO STA.</p>		<table border="1"> <tr> <td>F.A. RTE.</td> <td>SECTION</td> <td>COUNTY</td> <td>TOTAL SHEETS</td> <td>SHEET NO.</td> </tr> <tr> <td>275</td> <td>09-00031-02-BR</td> <td>LA SALLE</td> <td>108</td> <td>64</td> </tr> <tr> <td colspan="3">CONTRACT NO. 87605</td> <td colspan="2">FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00910541</td> </tr> </table>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	275	09-00031-02-BR	LA SALLE	108	64	CONTRACT NO. 87605			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00910541	
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.													
275	09-00031-02-BR	LA SALLE	108	64													
CONTRACT NO. 87605			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00910541														

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		CHECKED -	REVISED -
		DATE -	REVISED -

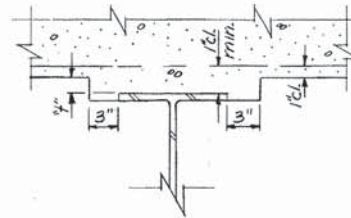


TRUSS DEFLECTION

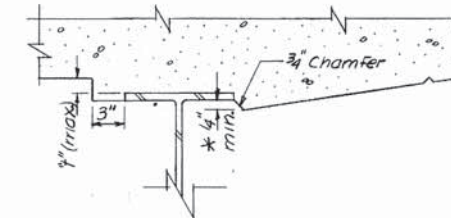
STRINGER DEFLECTION

DEAD LOAD DEFLECTION DIAGRAM

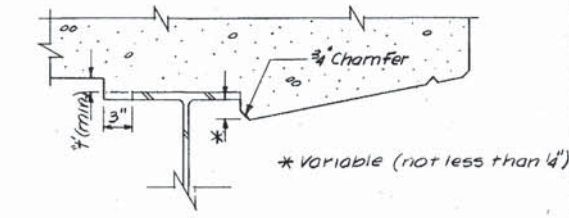
(Includes weight of concrete slab, curb & bridge rail)
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown below.



INTERIOR



At Maximum Fillet



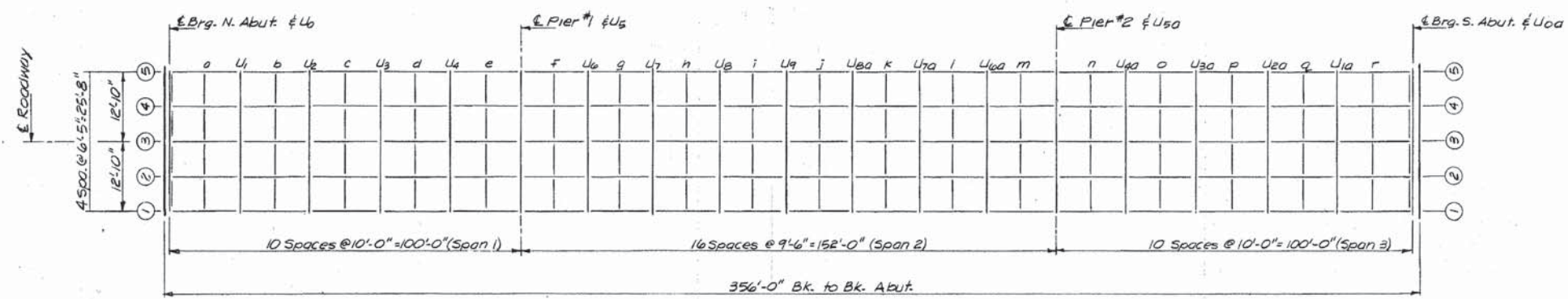
At Minimum Fillet

EXTERIOR

METHODS FOR DETERMING FILLET HEIGHTS "t"

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the stations shown on this sheet. These elevations, subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on this sheet, minus floor thickness equals the Fillet heights above top flange of beams.

STRINGER #1				STRINGER #2				STRINGER #3				STRINGER #4				STRINGER #5			
STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	STATION	THEORETICAL GRADE ELEVATIONS	THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION		
⊖ Brg. N. Abut. ⊖ Uo	25+40.00	499.924	499.924	25+40.00	500.144	500.144	25+40.00	500.363	500.363	25+40.00	500.520	500.520	25+40.00	500.678	500.678	⊖ Brg. N. Abut. ⊖ Uo	25+40.00	500.678	



DIAGRAMMATIC PLAN-TOP OF SLAB ELEVATIONS

TOP OF SLAB ELEVATIONS
F.A.S. ROUTE 275 (C.H. 23)
VERMILION RIVER BRIDGE
SECTION 80-00031-01-BR
LASALLE COUNTY
STATION 27+16.0

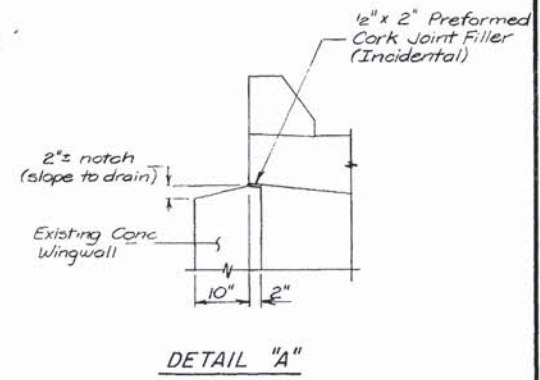
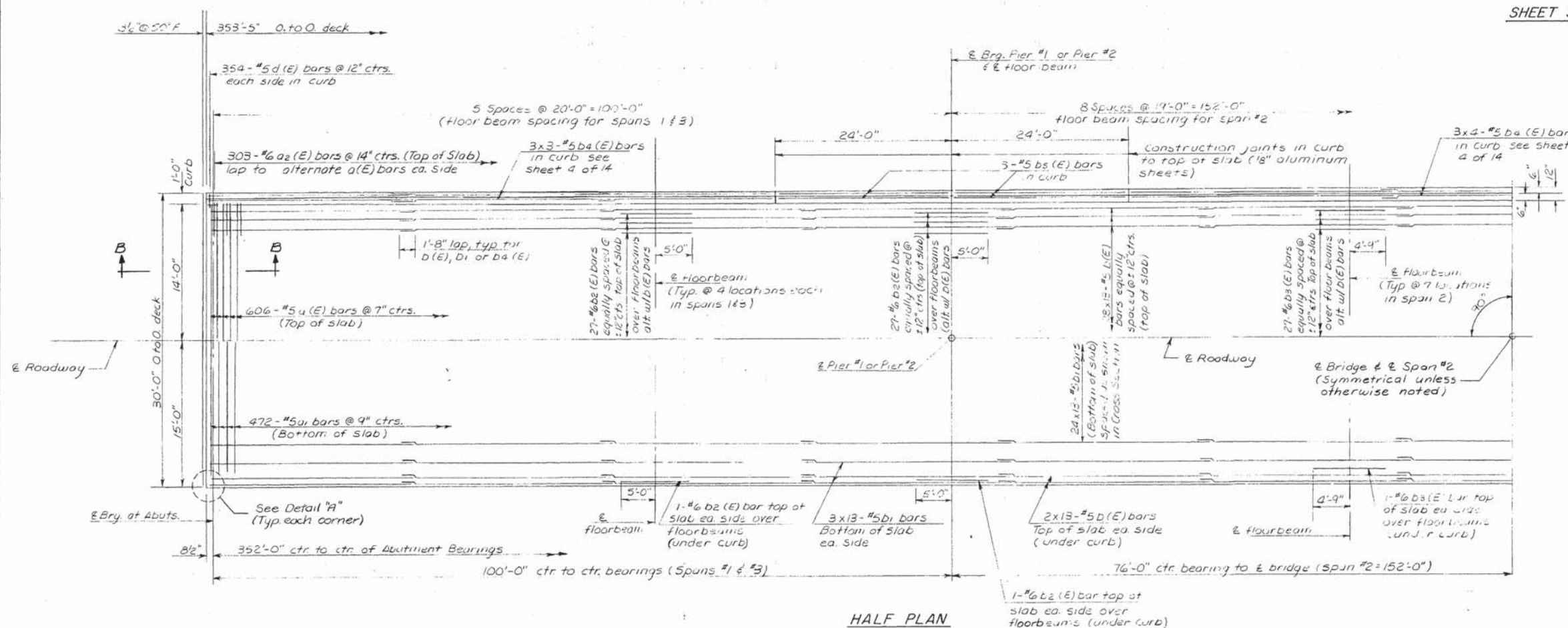
DESIGNED: JPC
CHECKED: DNF
DRAWN: DRE

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

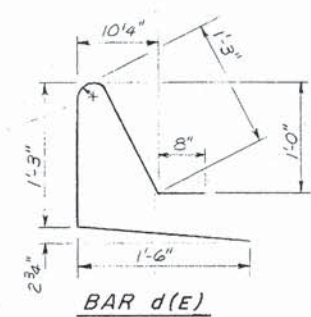
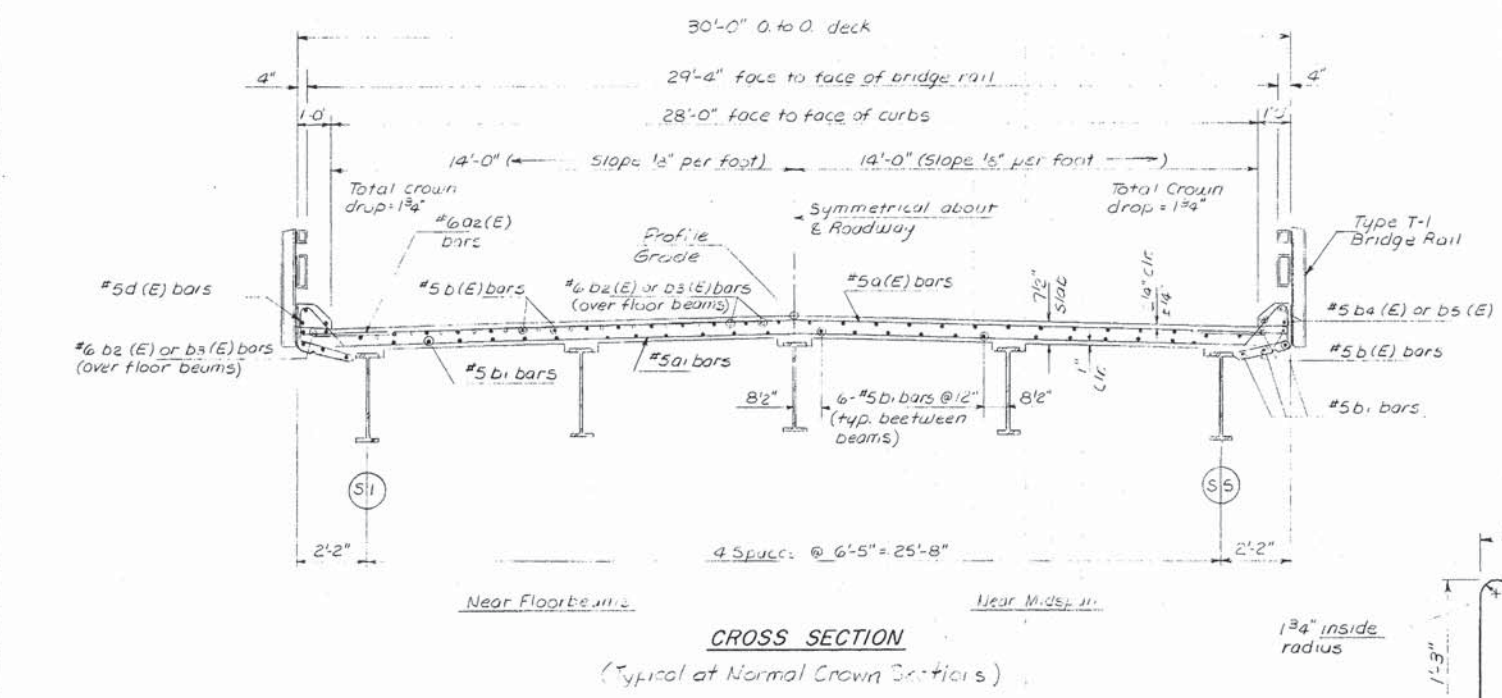
FILE NO: BOP1012
DATE: 10-1-81

FOR INFORMATION ONLY

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 275	*	LaSalle	17	3
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		
		* 80-00031-01-BR		



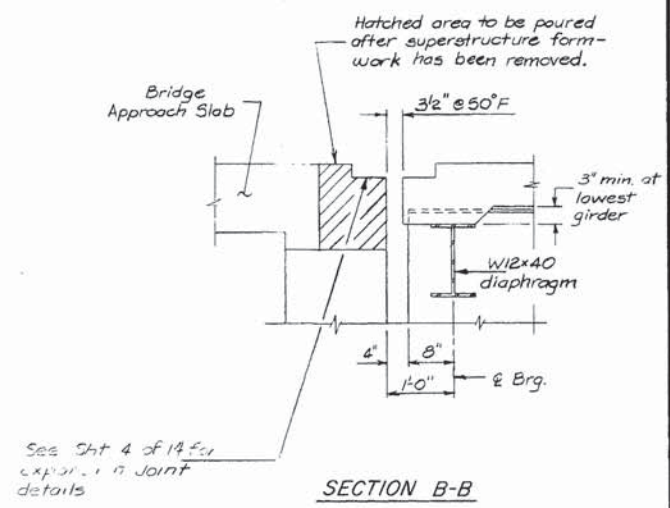
Note:
 Bars indicated thus 28x13-#5 etc. denotes 28 lines of bars with 13 lengths per line.
 See sheet 4 of 14 for Superstructure Details.
 Reinforcement Bars designated (E) shall be Epoxy Coated - See Special Provisions.



BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
d(E)	606	#5	28'-6"	
a1	472	#5	28'-6"	
a2(E)	606	#6	4'-0"	
b(E)	416	#5	28'-9"	
b1	390	#5	28'-9"	
b2(E)	270	#6	10'-0"	
b3(E)	203	#6	9'-6"	
b4(E)	60	#5	2'-2"	
b5(E)	24	#5	28'-4"	
b6(E)	72	#5	2'-0"	
d(E)	708	#5	8'-9"	⊔

Class X Concrete	Cu. Yds.	278.2
Reinforcement Bars	Lbs.	25,730
Rein. Bars (Epoxy Coated)	Lbs.	47,400
1/2\"/>		



SUPERSTRUCTURE
 F.A.S. ROUTE 275 (C.H.23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-01-BR
 LASALLE COUNTY
 STATION 27+16.0

FOR INFORMATION ONLY

DESIGNED JPC

 SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS
 FILE NO. 80P1012
 DATE 10-1-81

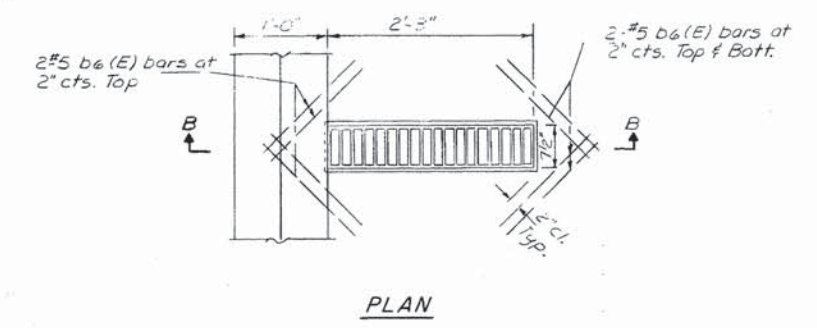
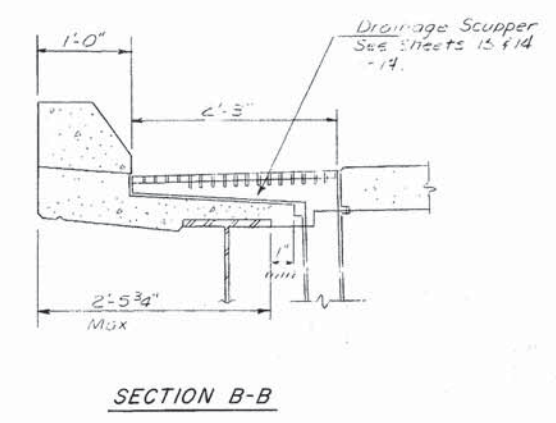
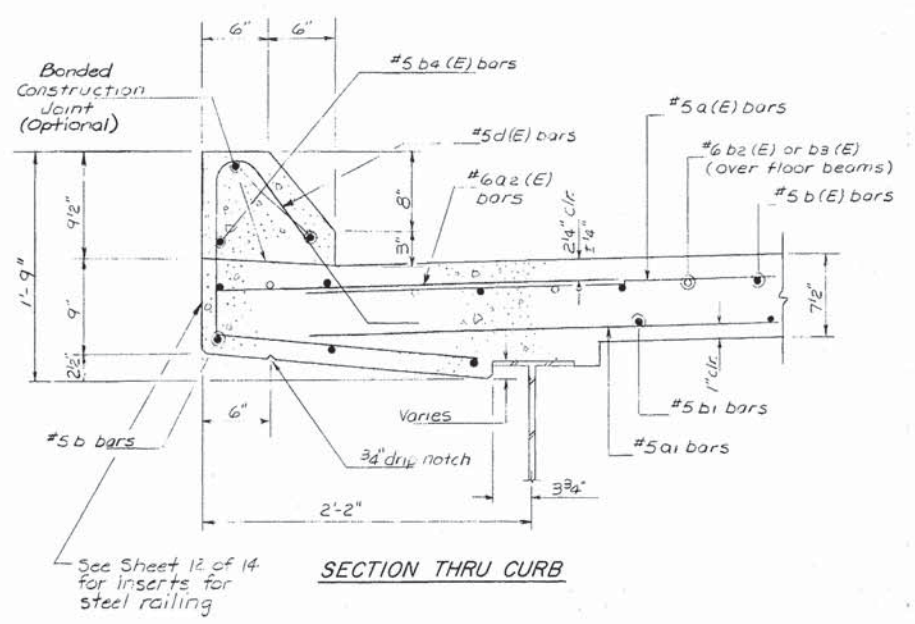
C.H. 23 (ED HAND HIGHWAY)		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
EXISTING STRUCTURE PLANS		275	09-00031-02-BR	LA SALLE	108	66
SCALE: N/A		SHEET NO. 3 OF 30 SHEETS		STA.	TO STA.	
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BRS-00990541	
		CONTRACT NO. 87605				

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PLOT DATE = 8/13/2015		DATE -	REVISED -

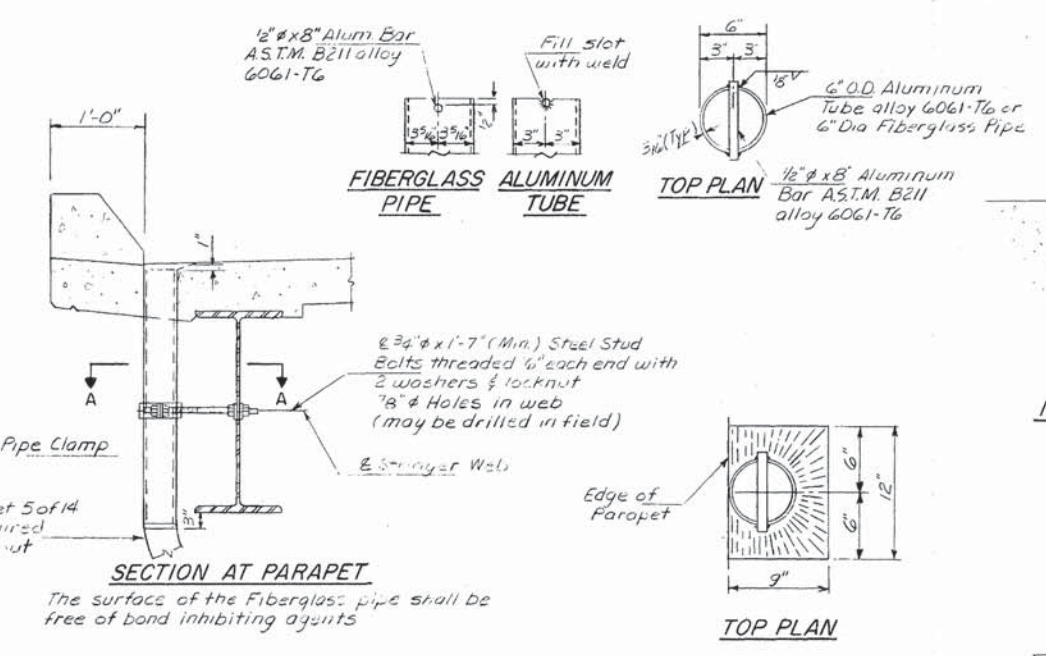
LASALLE COUNTY
 HIGHWAY DEPARTMENT

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 275	*	LASALLE	17	7
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		

* 80-00031-01-BR

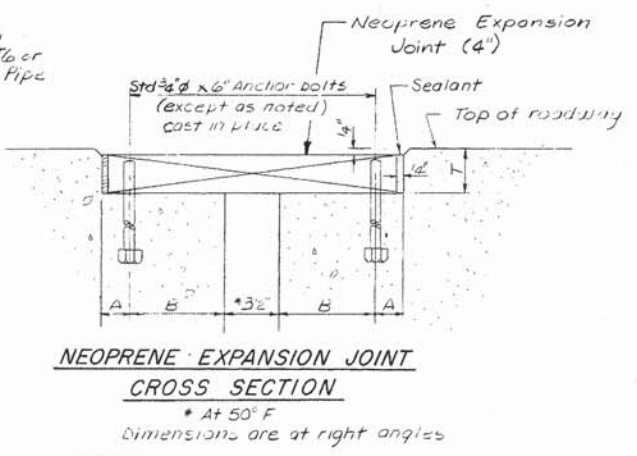


DRAINAGE SCUPPER DETAILS



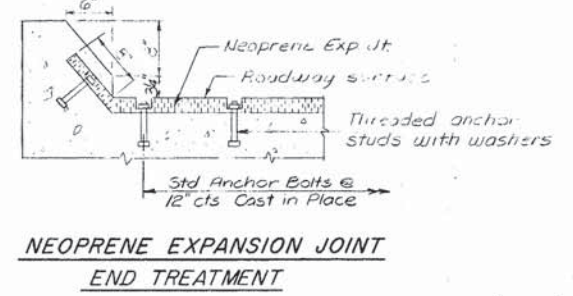
FLOOR DRAIN DETAILS

(The cost of Floor Drains & accessories shall be included in the lump sum bid price for "Drainage System.")



ALTERNATE NEOPRENE EXPANSION JOINTS (4")

MODEL	SUPPLIER	BLOCKOUT DIMENSIONS
TRUCK-FX MODEL 400A	General Tire Company	T=2 3/8" A=1 1/8" B=8 1/8"
FEL-SPAN MODEL T-10 Set Joint seal 2 1/2" @ 50°F Use 1/2" x 6" anchor bolts	Fel-Pro Building Products Inc.	T=2 1/4" A=2 1/4" B=2 5/16"
WAMO ELASTOUM TYPE 400 Set Joint seal 2 1/2" @ 50°F Use 1/2" x 6" anchor bolts	Watson Bowman Associates, Inc.	T=1 3/4" A=2 1/4" B=2 9/16"



EXPANSION JOINT - DETAILS

SUPERSTRUCTURE DETAILS
 F.A.S. ROUTE 275 (C.H. 23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-01-BR
 LASALLE COUNTY
 STATION 27+16.0



FOR INFORMATION ONLY

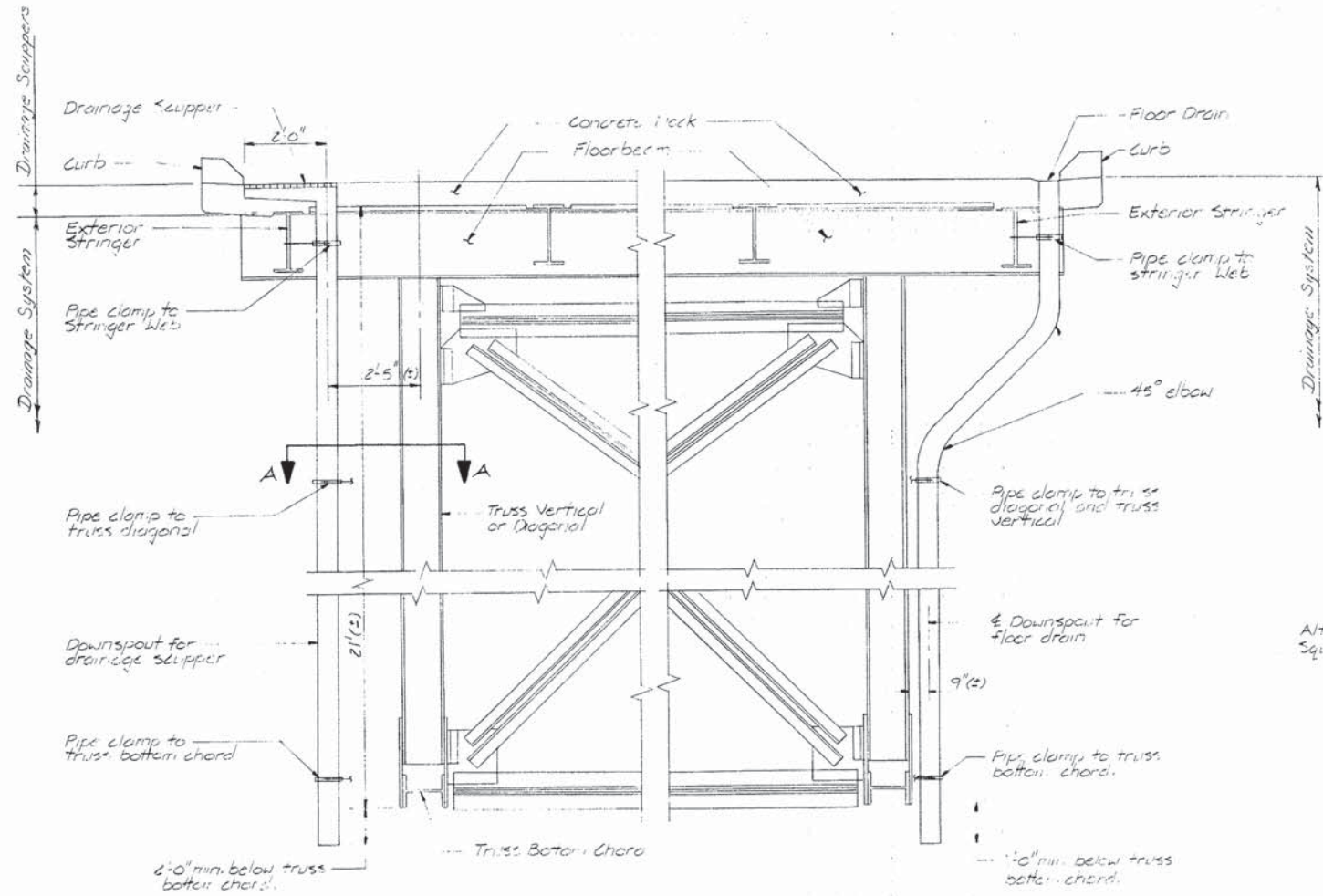
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		DATE -	REVISED -

LASALLE COUNTY HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS

SCALE: N/A SHEET NO. 4 OF 30 SHEETS STA. TO STA.

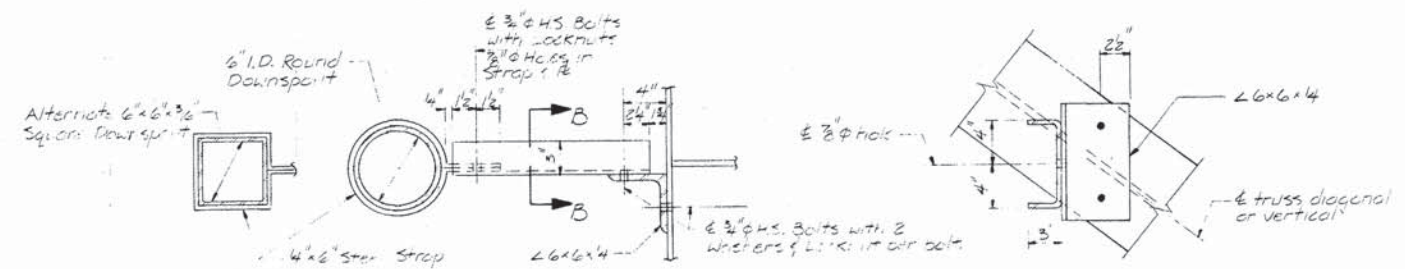
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	67
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BRS-00991054	



AT DRAINAGE SCUPPERS
AT FLOOR DRAINS
CROSS SECTION

NOTES

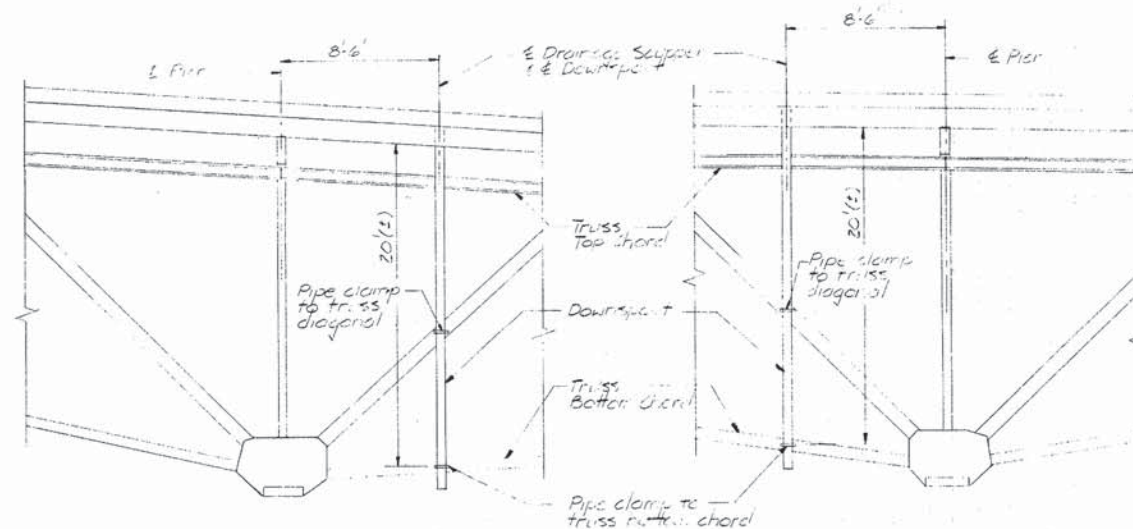
- See sheet 4 of 14 for details of downspout for floor drains.
- See sheet 13 of 14 (or 14 of 14) for details of downspout for drainage scuppers.
- The cost of the downspouts, pipe clamps, elbows, floor drains and miscellaneous fittings and hardware required for the complete installation of the downspouts shall be included in the Unit Price Bid price for "Drainage System".



SECTION A-A

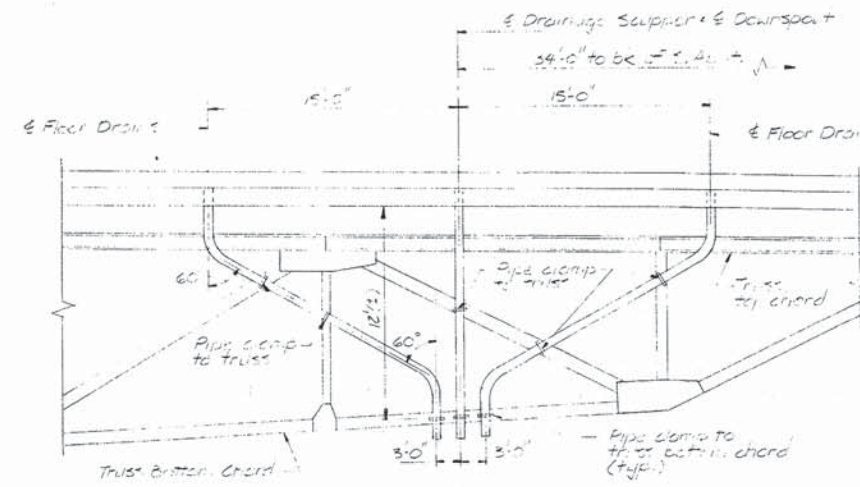
SECTION B-B

PIPE CLAMP DETAILS FOR SCUPPER DOWNSPOUTS



WEST ELEVATION AT PIER #1
(east elev. similar except opposite hand)

WEST ELEVATION AT PIER #2
(east elev. similar except opposite hand)



WEST ELEVATION AT DECK DRAINS IN SPAN 3
(east elev. similar except opposite hand)

SUPERSTRUCTURE DETAILS
F.A.S. ROUTE 275 (C.H. 23)
VERMILION RIVER BRIDGE
SECTION 80-00031-01-BR
LASALLE COUNTY
STATION 27+16.0



FILE NO.
BOP1012
DATE
10-1-81

FOR INFORMATION ONLY

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PLOT DATE = 8/13/2015	DATE -	REVISED -	REVISED -

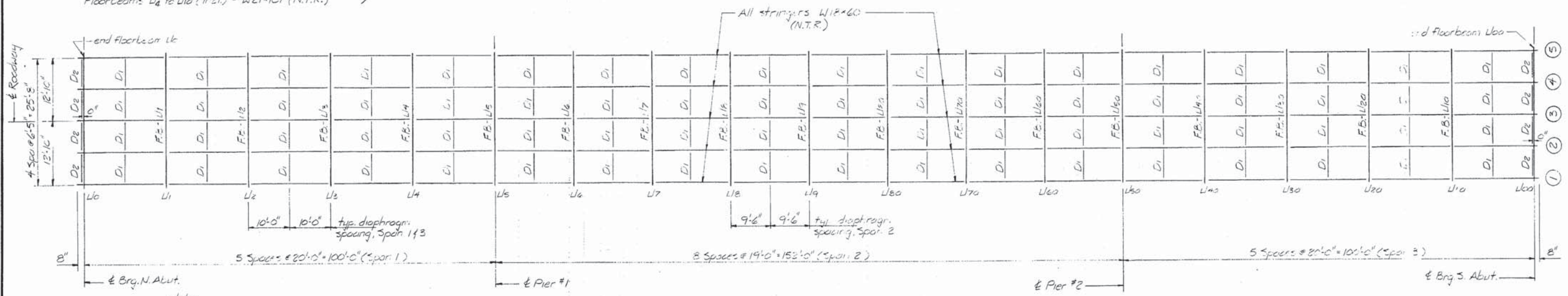
LASALLE COUNTY
HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

SCALE: N/A SHEET NO. 5 OF 30 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	68
CONTRACT NO. 87605			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-009910541	

End floorbeams at U₀ & U₆₀ - W21x92 (N.T.R.) (See Sht. 7 of 14)
 Floorbeams U₁ to U₅ (incl.) - 14"x9" Flange I_es (N.T.R.)
 7/16" web I_e (N.T.R.) } (See Sht. 8 of 14)
 Floorbeams U₆ to U₆₀ (incl.) - W21x101 (N.T.R.)



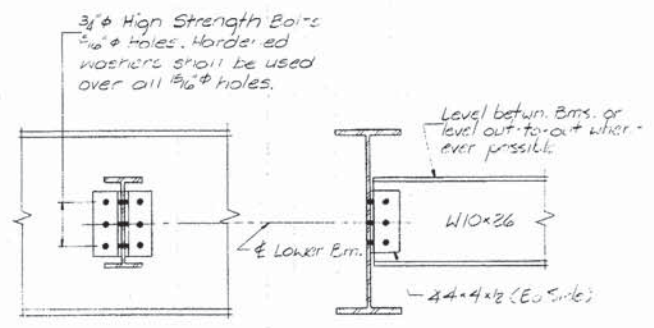
Notes:
 D1 - Interior diaphragms, Type D1
 See details, this sheet.
 D2 - End diaphragms, Type D2
 See Sht 7 of 14 for details.

FLOOR FRAMING PLAN

The Existing Floor System consists of the following:

End floor beams at U₀ & U₆₀ - 21 WF63
 Floorbeams U₁ to U₅ incl. 14" x 9" x 3/16" x 9' I_es
 7/16" web I_e
 Floorbeams U₆ to U₆₀ incl. 21 WF63
 Stringers - 18 LF 50

The existing floor system is to be removed and stockpiled. (See Special Provisions). Approximate weight of structural steel to be removed = 150,000 lbs. This quantity is approximate and is provided for information only.



INTERIOR DIAPHRAGM-D1

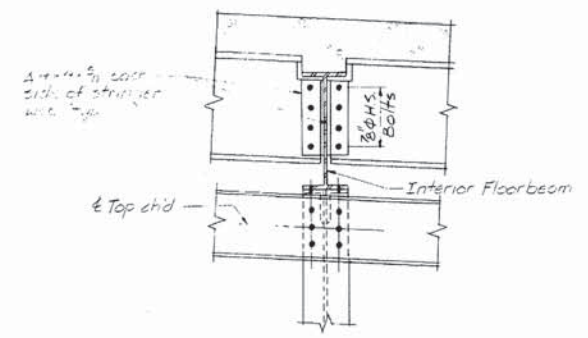
Note:
 1. N.T.R. refers to the supplemental requirements for notch toughness.
 2. I_x's are the moment of inertia and section modulus of the steel section, respectively.

INTERIOR STRINGER MOMENT TABLE

	20' span	19' span
I (in ⁴)	984	984
S (in ³)	108.0	108.0
E (ksi)	0.90	0.90
M _b (ft-k)	45.0	40.6
M _i (ft-k)	93.9	88.1
M _{IMP} (ft-k)	28.0	26.6
M _{tot} (ft-k)	166.9	155.7
F _s (ksi)	18.49	17.32

INTERIOR STRINGER REACTION TABLE

	R _L (k)	R _R (k)	I _{imp} (k)	R _{tot}
20' span	9.0	24.3	7.3	40.6
19' span	8.6	23.6	7.1	39.3



STRINGER CONNECTION DETAIL

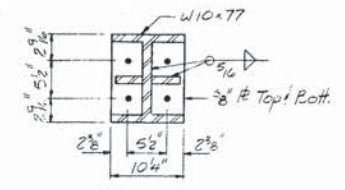
Note:
 All contact surfaces of joints for diaphragms or stringers shall be free of paint or lacquer.

STRUCTURAL STEEL
 F.A.S. ROUTE 275 (C.H. 23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-01-BR
 LASALLE COUNTY
 STATION 27 + 16.0

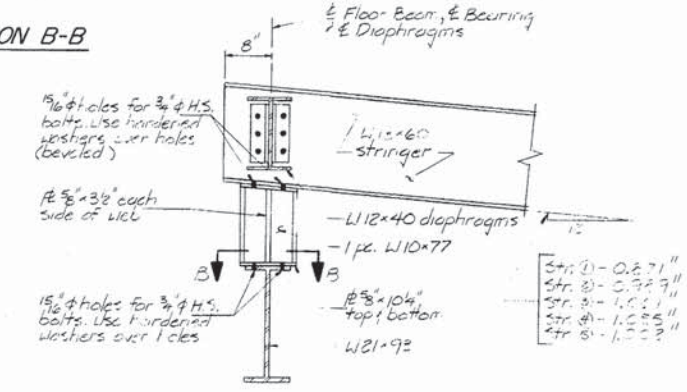
DESIGNED: JPL
 CHECKED: DJF
 FILE NO. 80P1012
 DATE 10-1-81
HANSON ENGINEERS
 INCORPORATED
 SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

FOR INFORMATION ONLY

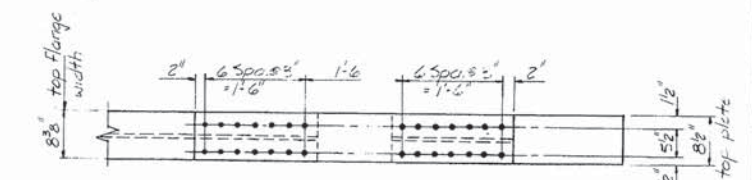
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275	*	LaSalle	17	7
FED. ROAD DIST. NO. 7			ILLINOIS PROJECT	
# Sec. 80-00031-01-BR				



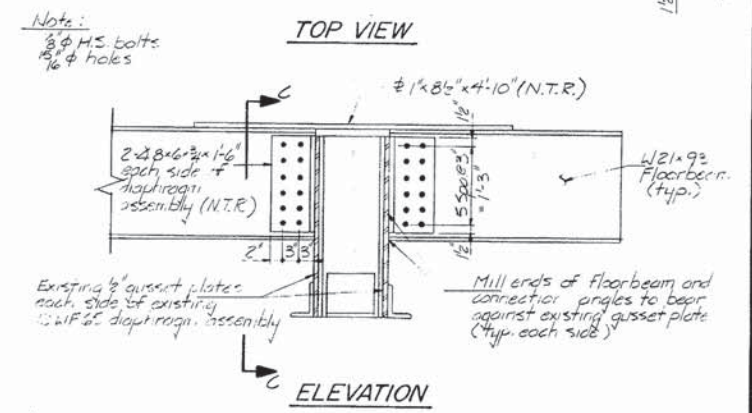
SECTION B-B



SECTION A-A

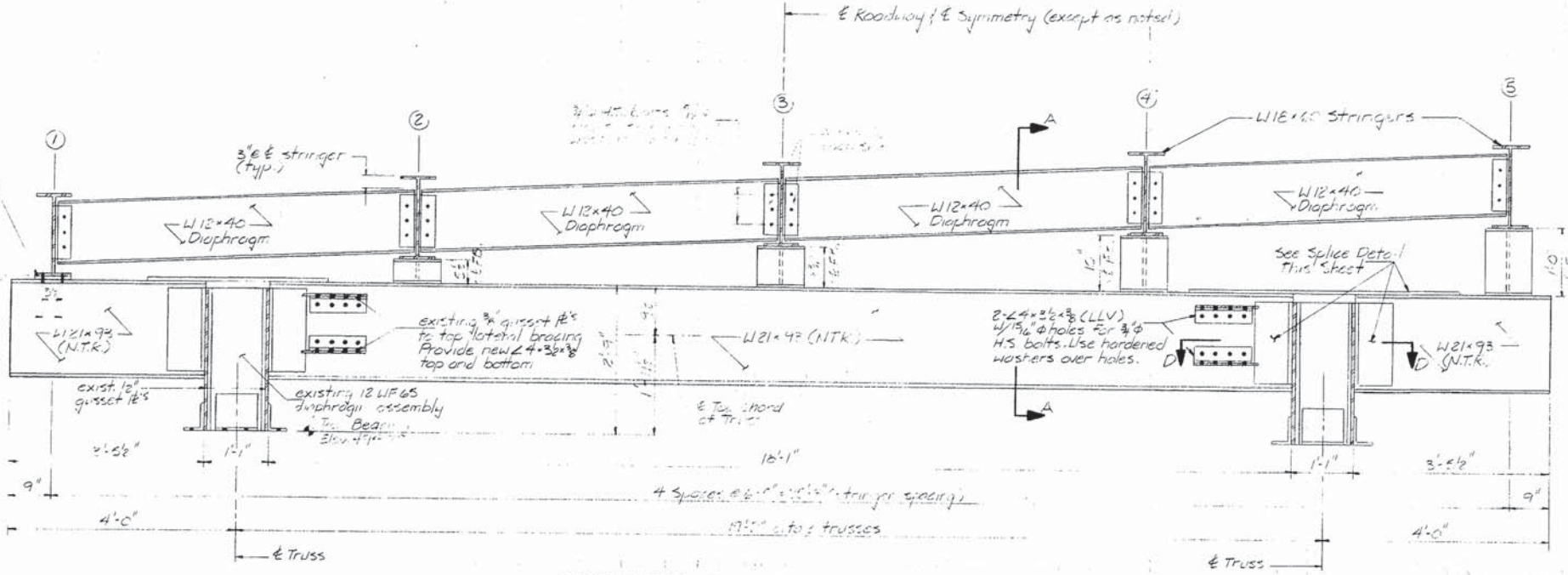


TOP VIEW

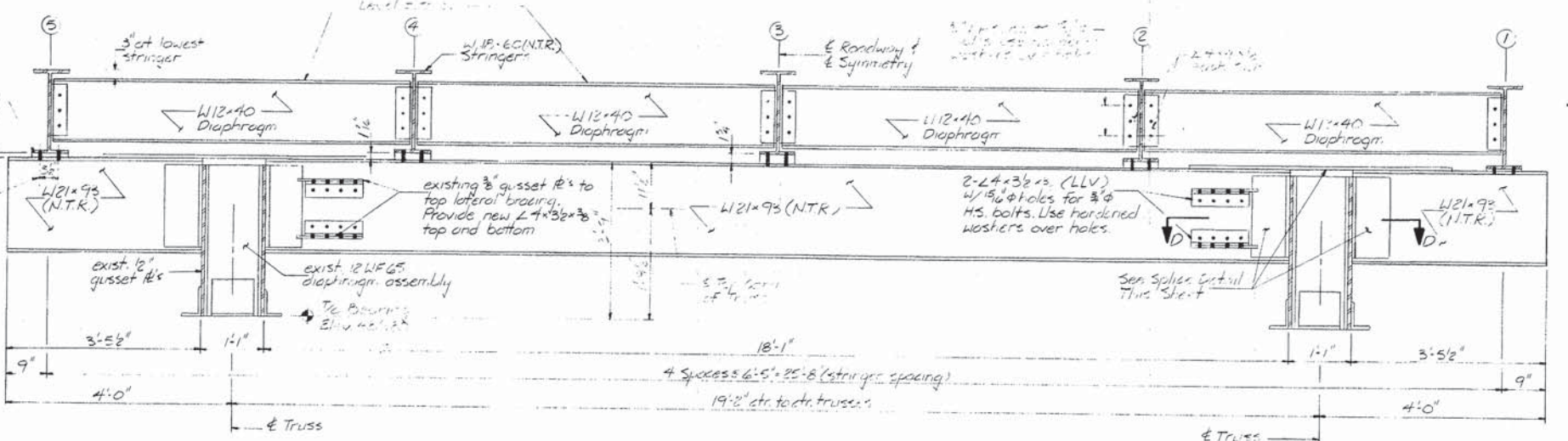


ELEVATION

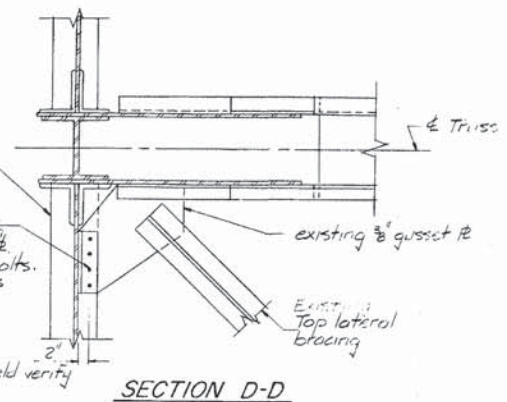
FLOORBEAM SPLICE DETAILS



FLOORBEAM AT U0 (NORTH ABUTMENT)
(looking north)



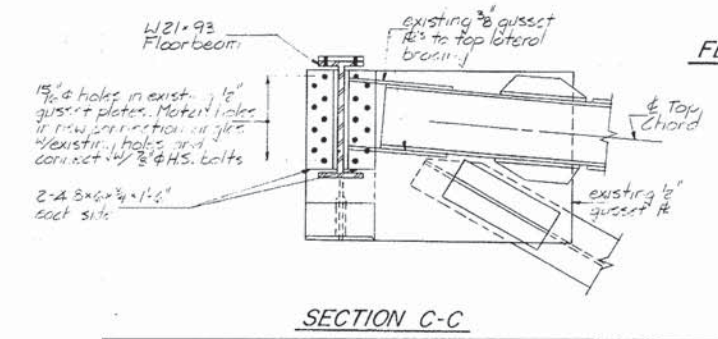
FLOORBEAM AT U0a (SOUTH ABUTMENT)
(looking south)



SECTION D-D

	I (in ⁴)	S (in ³)	Dead (k/ft)	M _d (ft-k)	M _l (ft-k)	Imp. (ft-k)	M _{tot} (ft-k)	F _s (KSI)
0.5 Ft.	2070	192.0	0.90	9.7	50.4	194.4	55.2	503.1
Support	2070	192.0	0.85	7.2	40.5	21.3	122.7	76.1

R ₁ (k)	R ₂ (k)	Sup. %	W _{tot} (k)
24.9	63.2	19.2	107.5



SECTION C-C

FOR INFORMATION ONLY

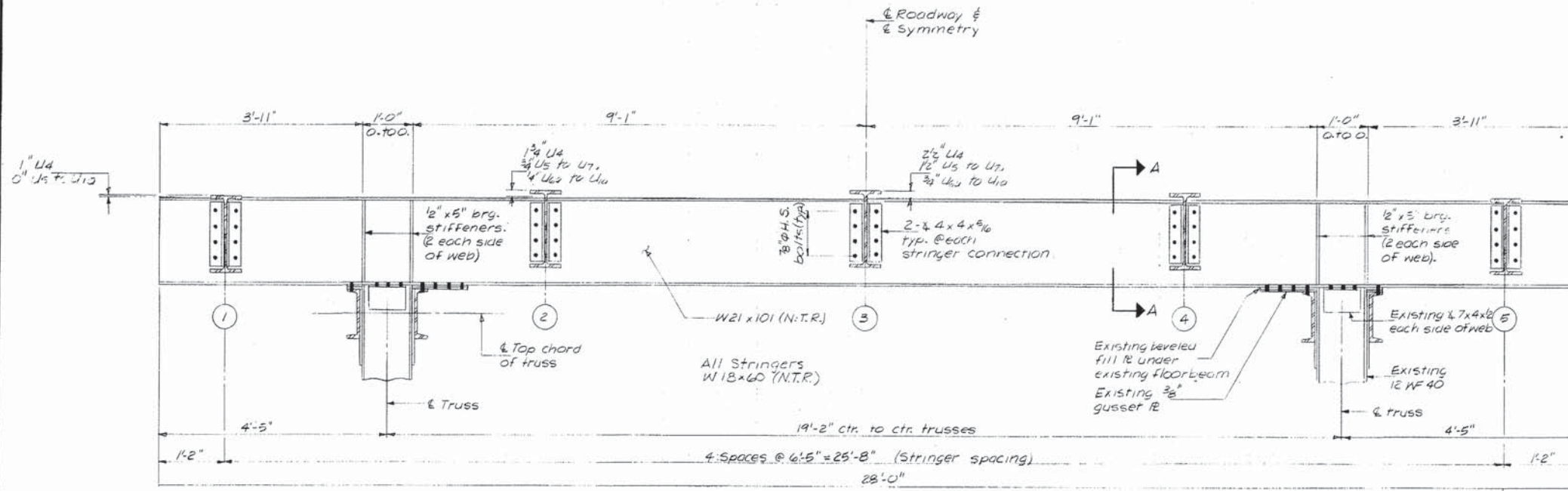
STRUCTURAL STEEL DETAILS
F.A.S. ROUTE 275 (C.H.23)
VERMILION RIVER BRIDGE
SECTION 80 00031 01 BR
LASALLE COUNTY
STATION 27+16.0

DESIGNED: VKS
CHECKED: CNF
DRAWN: KMS

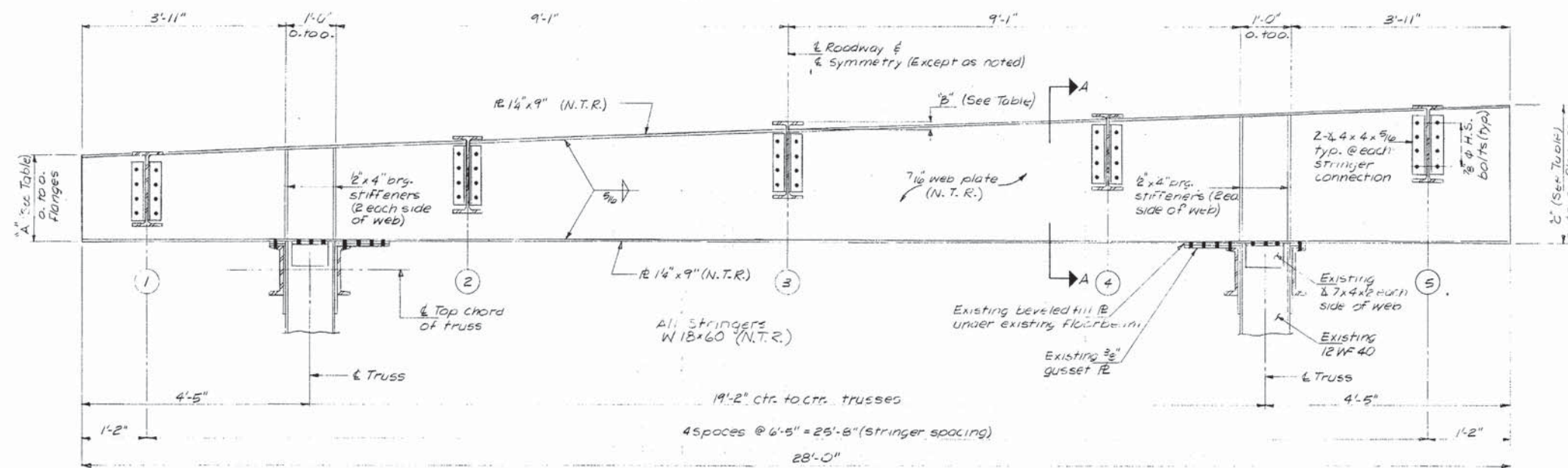
HANSON ENGINEERS
INCORPORATED

FILE NO: 80P101
DATE: 10-1-11

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 275	*	LaSalle	17	13
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		
		* Sec. 80-00031-01-BR		



FLOORBEAMS AT U₄ TO U₁₀



FLOORBEAMS AT U₁ TO U₃
(Looking North)

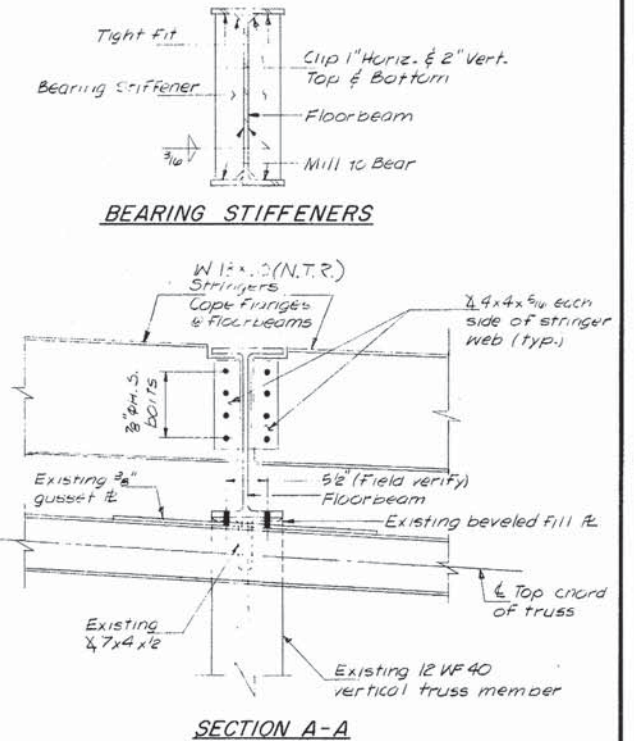
FLOOR BEAM MOMENT TABLE

SECTION	LOC.	I (in. ⁴)	S (in. ³)	Dead Load		M _D (K-Ft)	M _{LL} (K-Ft)	Imp. (K-Ft)	M _{TOTAL} (K-Ft)	F _s (KSI)
				K-Ft	K-in					
W21 x 101	0.5 Ft.	2420	227.0	0.90	18.0	92.1	206.9	62.1	361.1	14.09
	Support	2420	227.0	0.85	17.0	-56.1	-75.0	-22.5	-153.6	-8.18
Built-up Floor beam	0.5 Ft.	2902	255.2	0.90	18.0	92.1	206.9	62.1	361.1	16.98
	Support	2692	244.7	0.85	17.0	-56.1	-75.0	-22.5	-153.6	-7.53

FLOOR BEAM REACTION TABLE

R _D (K)	R _L (K)	Imp(K)	R _{total}
45.4	67.0	20.1	132.5

NOTE: 1. N.T.R. refers to the supplemental requirements for notch toughness.
2. I. & S. are the moment of inertia and section modulus of the steel section, respectively.



Dimension 'B' @ Stringer Number

Joint	A"	(1)	(2)	(3)	(4)	(5)	"C"
U ₁	1'-11"	1 1/2"	1"	1 1/2"	1"	1 1/2"	2'-6"
U ₂	1'-10 1/2"	1 1/2"	1"	1 1/2"	1"	1 1/2"	2'-2 1/2"
U ₃	1'-10"	1 1/2"	1 1/2"	2 1/2"	1 1/4"	2"	1'-11 1/2"

STRUCTURAL STEEL DETAILS
F.A.S. ROUTE 275 (C.H.23)
VERMILION RIVER BRIDGE
SECTION 80-00031-01-BR
LASALLE COUNTY
STATION 27+16.0

DESIGNED JPL
CHECKED DJF

FILE NO. 80-1012
DATE 10-1-81

FOR INFORMATION ONLY

C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

SCALE: N/A SHEET NO. 8 OF 30 SHEETS STA. TO STA.

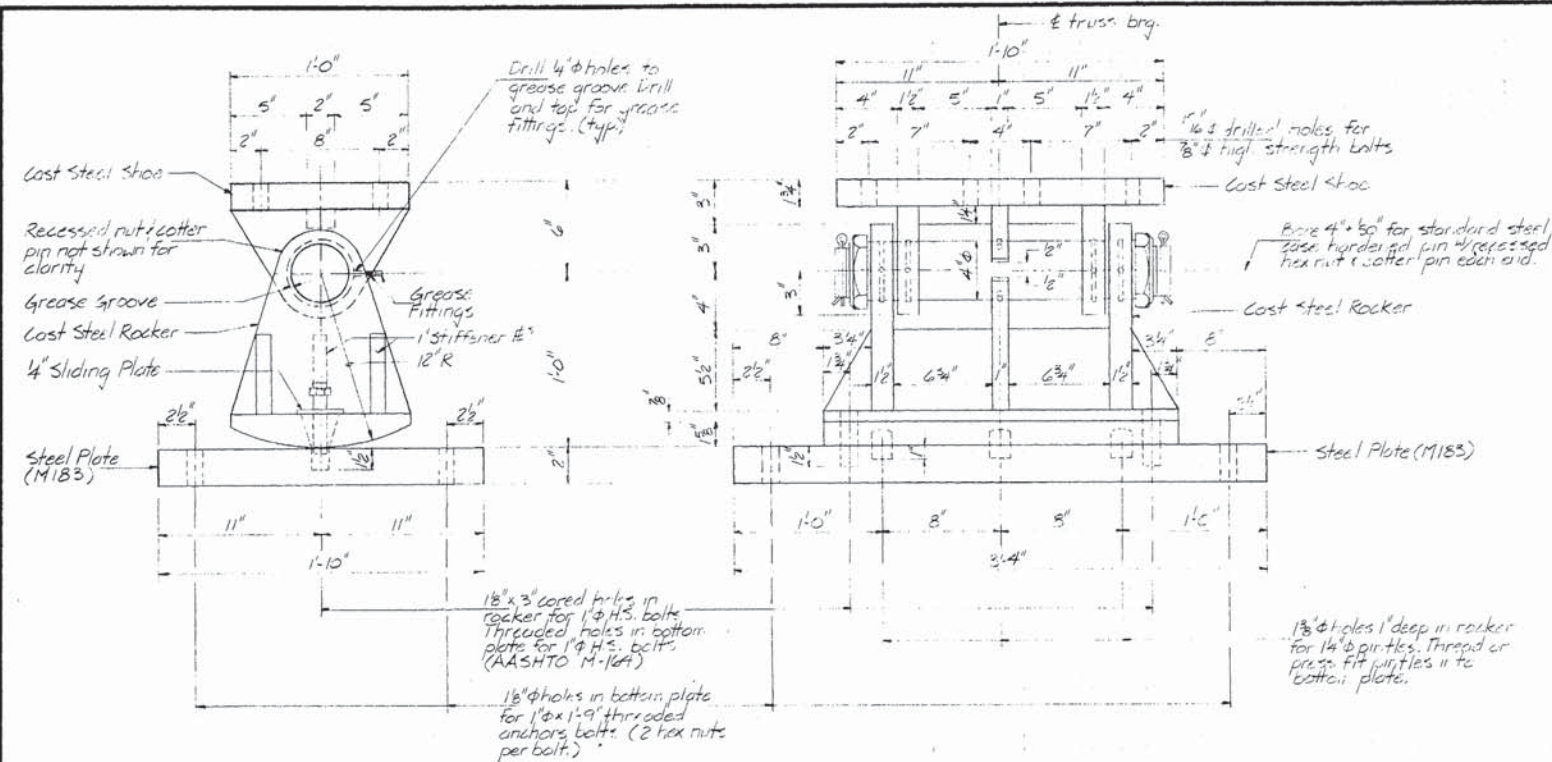
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	71
CONTRACT NO. 87605			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00910541	

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		DATE -	REVISED -

LASALLE COUNTY
HIGHWAY DEPARTMENT

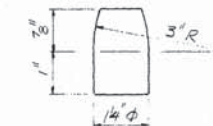
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 275	*	LaSalle	19	14
ILLINOIS PROJECT				

* Sec. 80-00031-01-BR

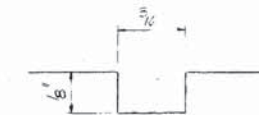


REPLACEMENT BEARINGS AT NORTH & SOUTH ABUTMENTS
 (2 req'd at each abutment)

Cast steel shoes & rockers shall meet the requirements of AASHTO M192 Class 70. Structural steel weldments of equal sections meeting the requirements of AASHTO M183 may be substituted for the castings subject to approval by the Engineer prior to fabrication. No extra compensation will be allowed for the substitution. Fillet or partial penetration weld shall be used for weldments. Minimum weld size shall be 1/4 thickness of plate being welded except maximum weld size need not exceed 3/4.

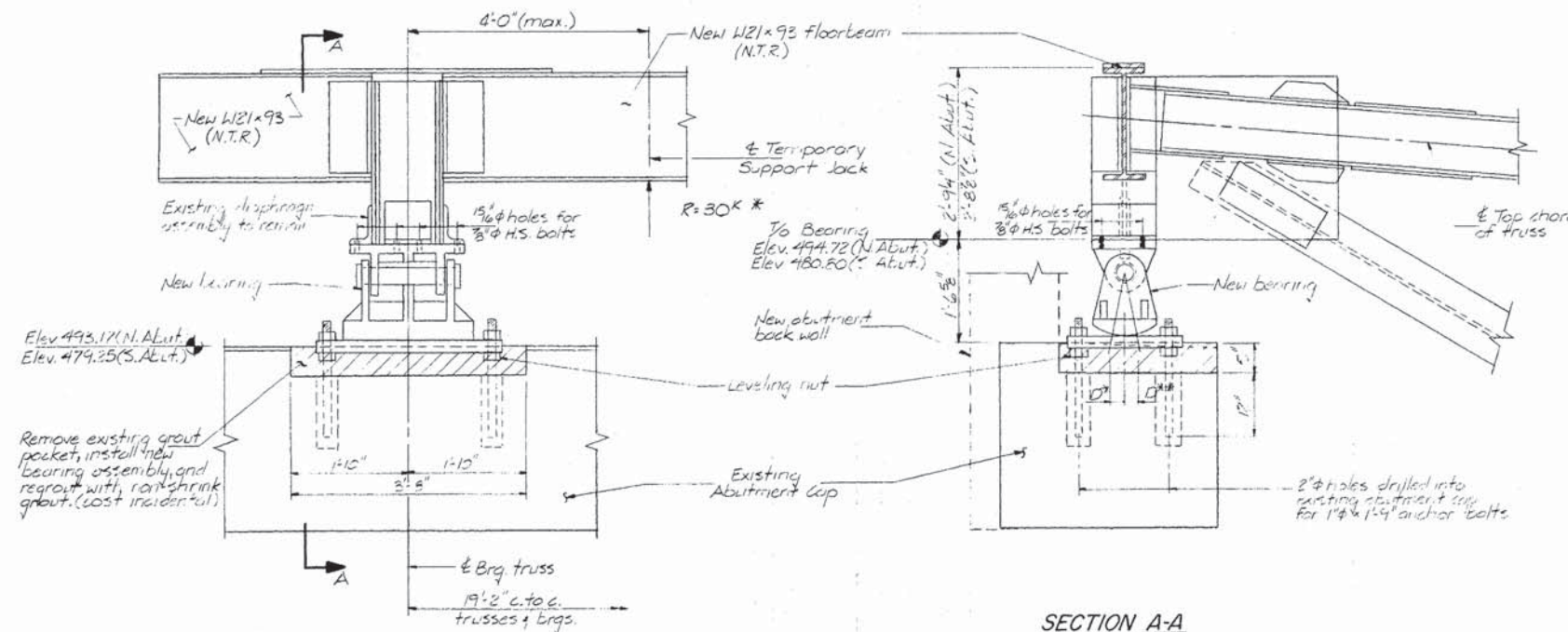


PINTLE DETAIL



GREASE GROOVE ON SADDLE

Note: Grease bearing assembly with polytetrafluoroethylene before installation



ELEVATION-END BEARINGS

*Jacking Reaction includes truss dead load and floor system dead load only. The entire concrete deck shall be removed prior to replacement of the bearings.

NOTES FOR SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

- D** (Side of bearing away from fixed bearing)
 D** = 8" per each 100' of expansion for every 15° fall below the normal temperature of 50°F.
 - D** (Side of bearing toward fixed bearing)
 D** = 18" per each 100' of expansion for every 15° rise above the normal temperature of 50°F.
- b) After dimensions D** & D** have been determined notes shall be drilled & anchor bolts shall be grouted in place before bearing assembly is installed

BEARING DETAILS
 F.A.S. ROUTE 275 (C.H. 23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-01-BR
 LASALLE COUNTY
 STATION 27+16.0

DESIGNED JPC
 CHECKED DNF

HANSON ENGINEERS
 INCORPORATED

FILE NO. 80P1012
 DATE 10-1-81

SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

FOR INFORMATION ONLY

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		DATE -	REVISED -

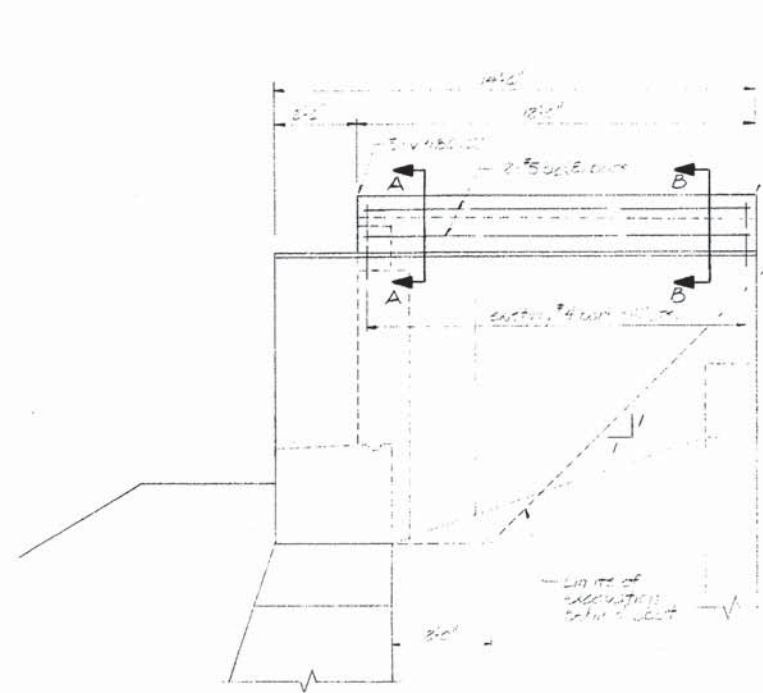
LASALLE COUNTY HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS

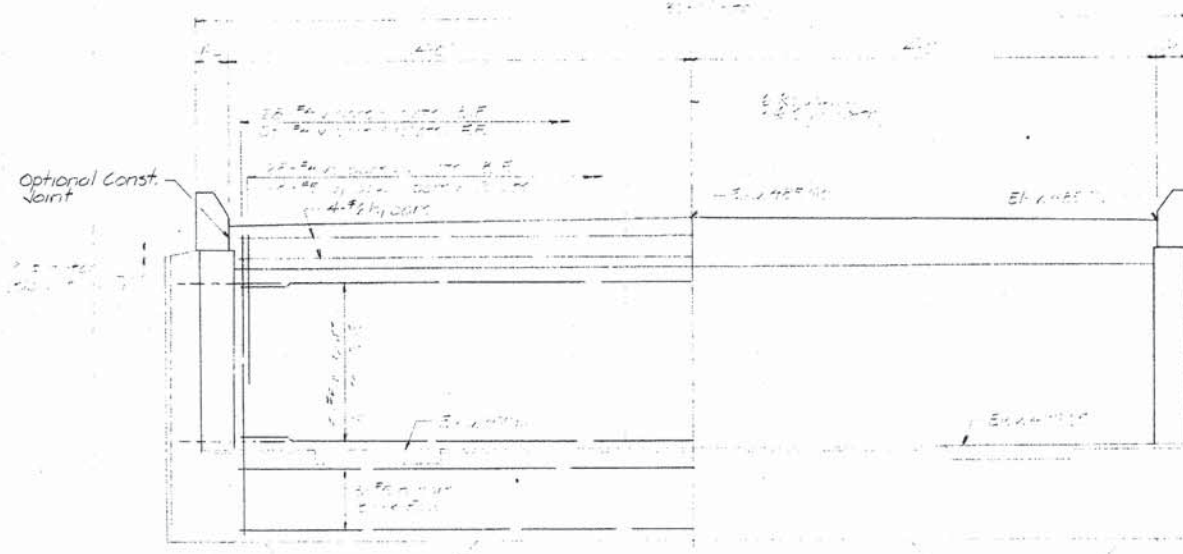
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 87605				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00990541				

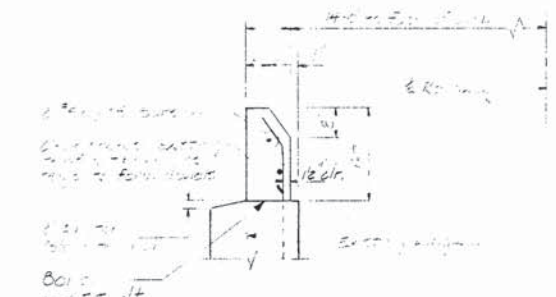
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F.A.S. RT 275	*	LASALLE	19	10
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				
* 80-00031-01-BR				



WINGWALL ELEVATION

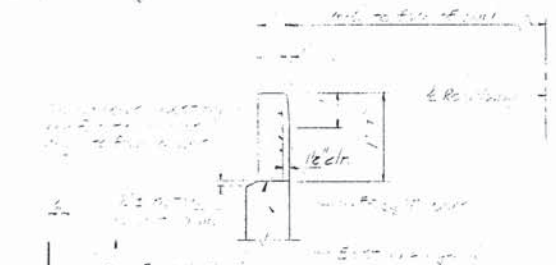


ELEVATION



SECTION A-A

NOTE:
See sheet 11 of 14
for details for
Steel Reinforcing

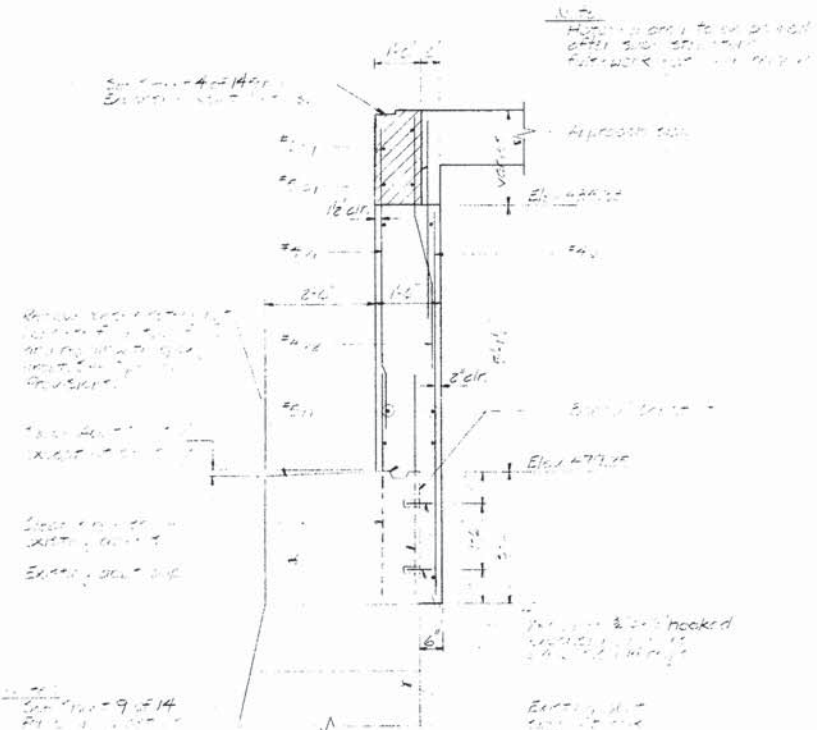


SECTION B-B

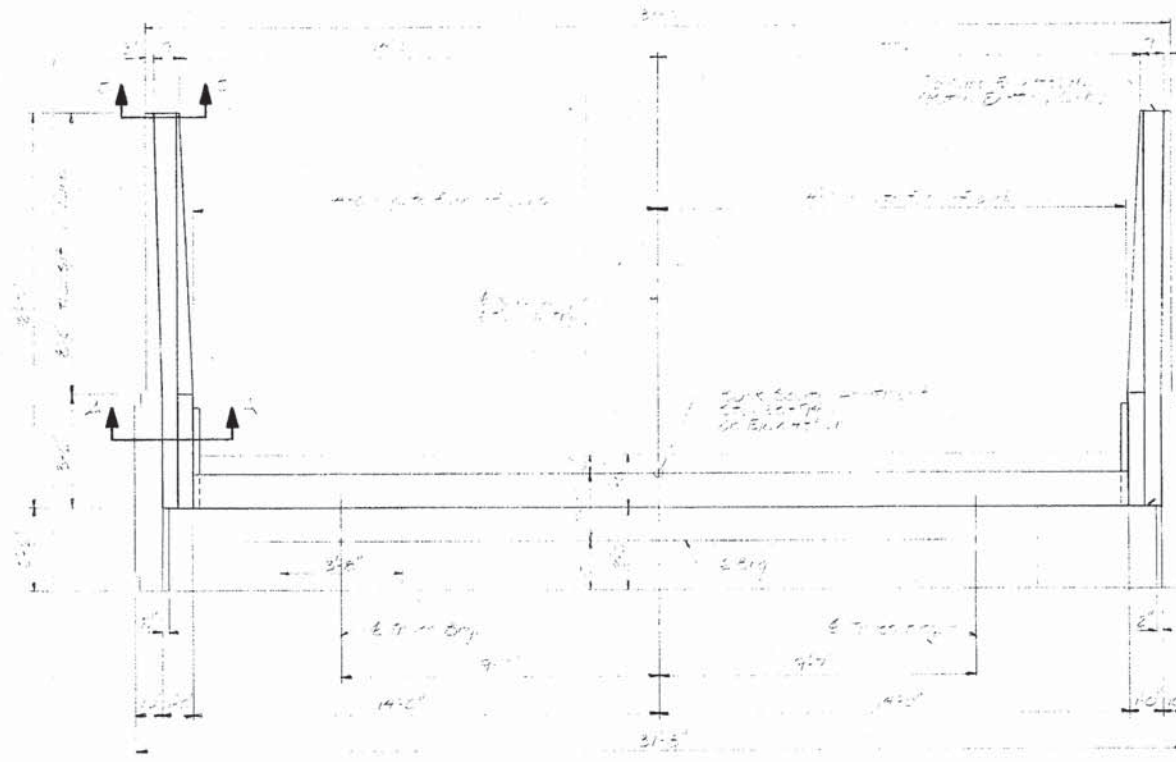
BAR v2

BILL OF MATERIALS

Bar	Qty	Size	Length	Shape	
Bar (E)		#5	11'-8"	---	
d1		#5	3'-0"	---	
h		#5	27'-0"	---	
h1		#6	27'-0"	---	
v		#4	4'-0"	---	
v1		#4	7'-10"	---	
v2		#4	4'-0"	---	
Sider x 2 = 20				20	12.1
Reinf. Bar = 20				20	960
Reinf. Bar = 20				20	50
Expansion = 20				20	14



SECTION THRU ABUTMENT



PLAN

SOUTH ABUTMENT
F.A.S. ROUTE 275 (C.H.23)
VERMILION RIVER BRIDGE
SECTION 80-00031-01-BR
LASALLE COUNTY
STATION 27+16.0



FOR INFORMATION ONLY

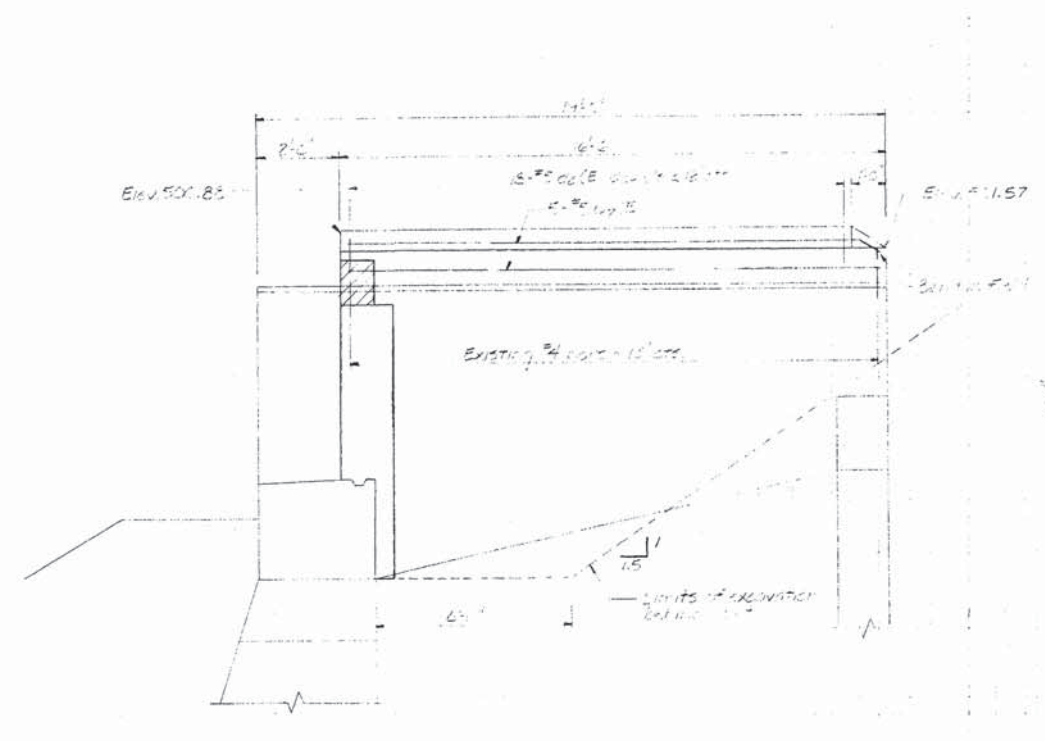
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LASALLE COUNTY
HIGHWAY DEPARTMENT

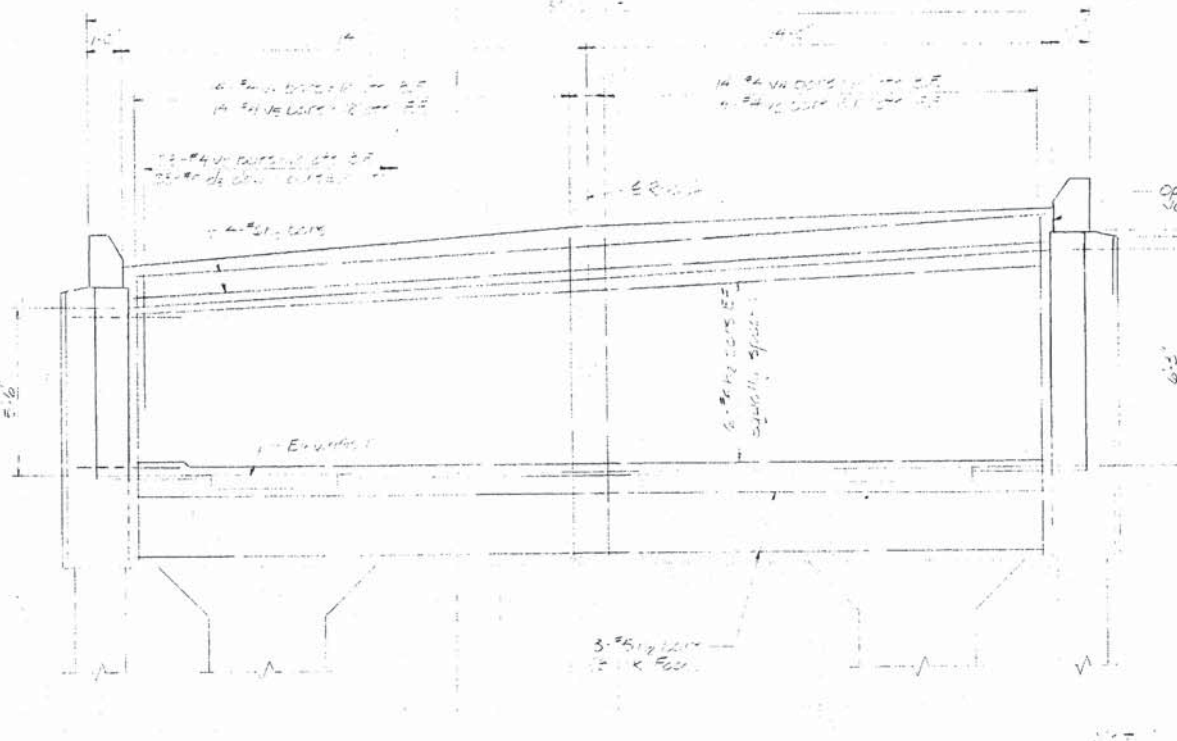
C.H. 23 (ED HAND HIGHWAY)		EXISTING STRUCTURE PLANS	
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 87605				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-009910541				

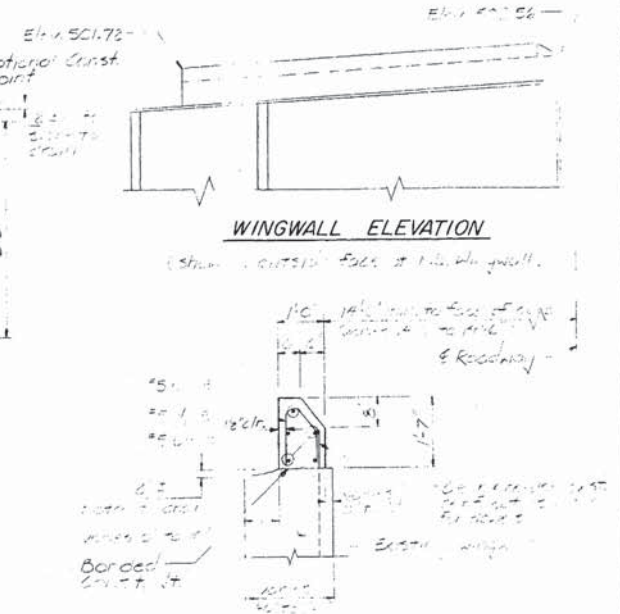
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FAS RT 275	*	LASALLE	19	12
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				
* 80-00031-01-BR				



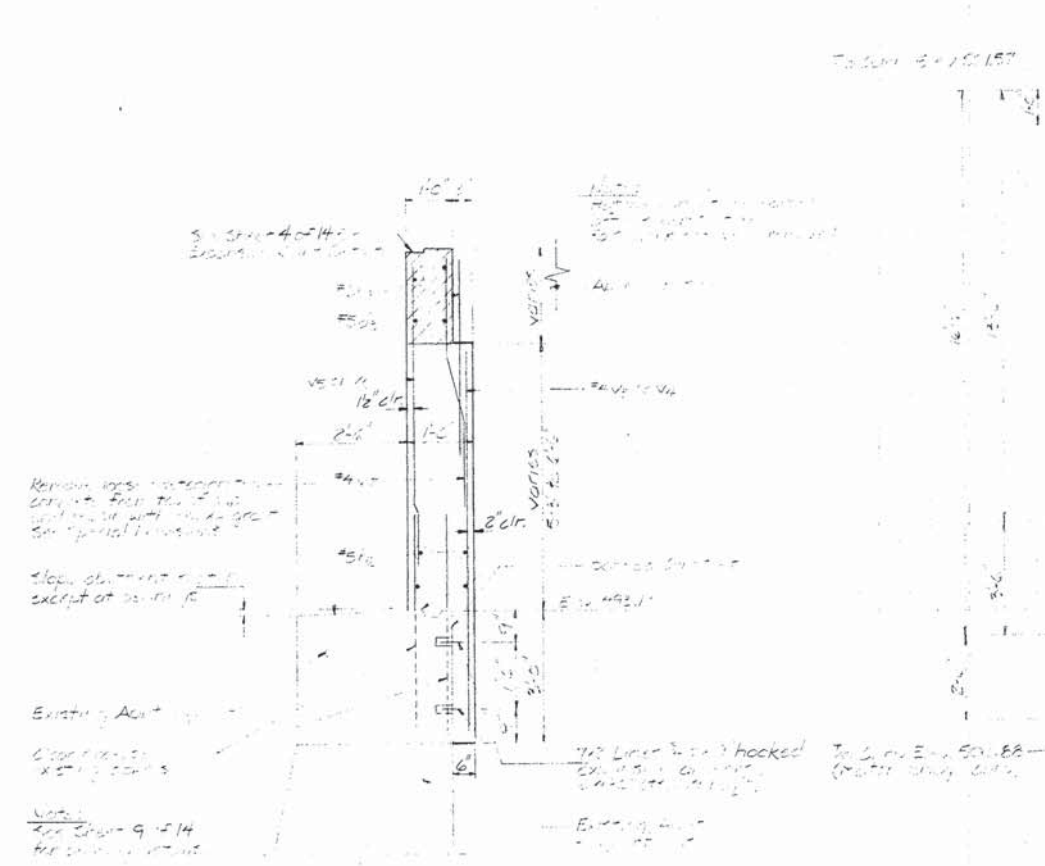
WINGWALL ELEVATION



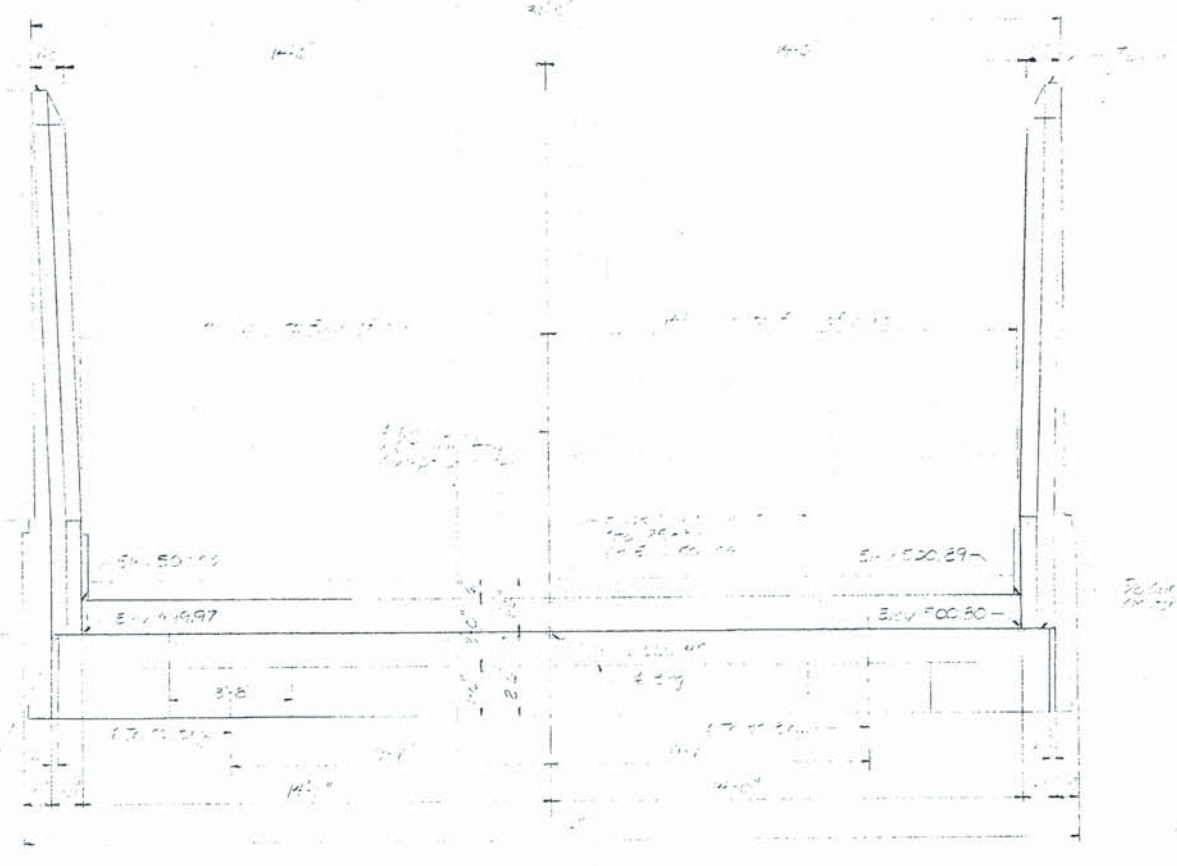
ELEVATION



SECTION THRU WINGWALL



SECTION THRU ABUTMENT



PLAN



BAR d1 (E) BAR d2 (E)

BILL OF MATERIALS				
Bar	Qty	Size	Length	Notes
C/E	10	#5	10'-0"	
d1/E	36	#5	3'-0"	
d1	25	#5	5'-0"	
F1	15	#5	27'-0"	
F2	4	#5	27'-0"	
V3	4	#4	7'-0"	
V4	4	#4	6'-0"	
V5	4	#4	6'-0"	
V6	4	#4	7'-0"	
V7	28	#4	4'-0"	
Start Concrete			6'-0"	137
Rein. 10' x 10' x 10'			10'-0"	1050
Rein. 12' x 12' x 12'			12'-0"	280
Rein. 14' x 14' x 14'			14'-0"	14

NORTH ABUTMENT
 F.A.S. ROUTE 275 (CH 23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-00-BR
 LASALLE COUNTY
 STATION 27+16.0

DESIGNED: [Signature]
 CHECKED: [Signature]

HANSON ENGINEERS
 INCORPORATED
 SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

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 DATE 10-1-81

FOR INFORMATION ONLY

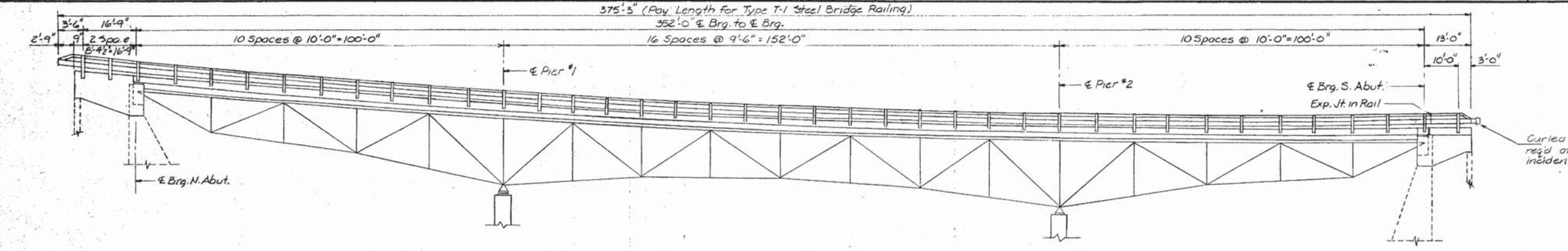
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LASALLE COUNTY
 HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY)
 EXISTING STRUCTURE PLANS

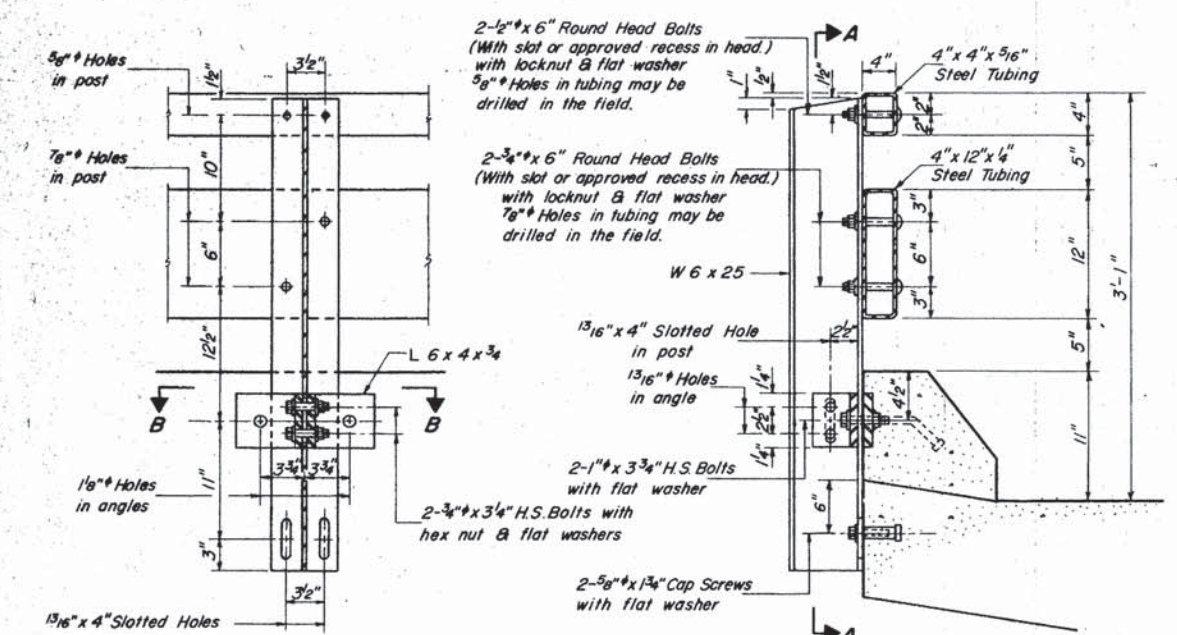
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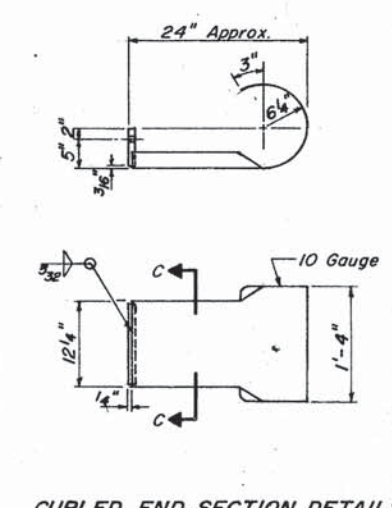


Curled End Section. Two req'd at S end (Cost incidental to Steel Railing.)

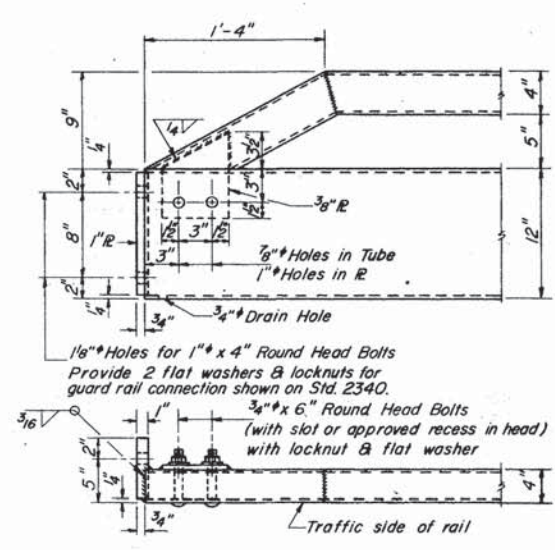
ELEVATION-RAIL POST SPACING



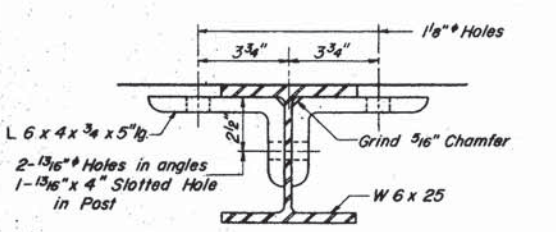
SECTION A-A **SECTION AT RAIL POST (similar at wingwalls)**



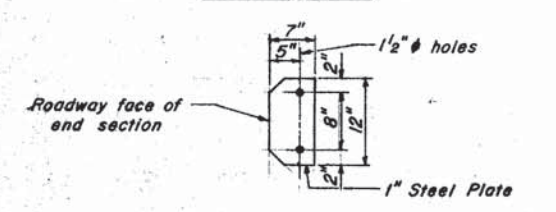
CURLLED END SECTION DETAILS



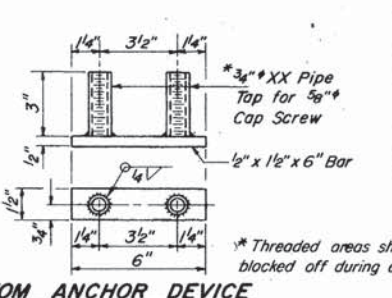
END OF RAIL DETAILS



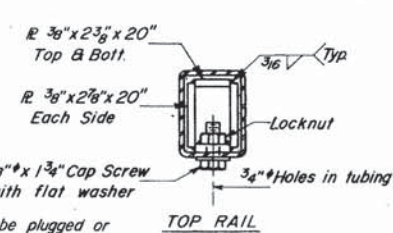
SECTION B-B



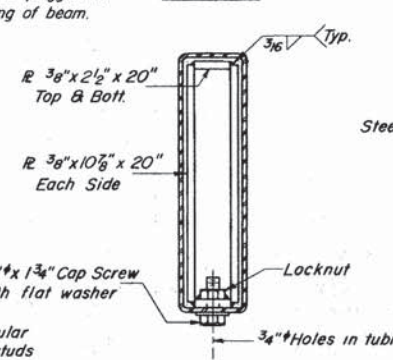
SECTION C-C



BOTTOM ANCHOR DEVICE



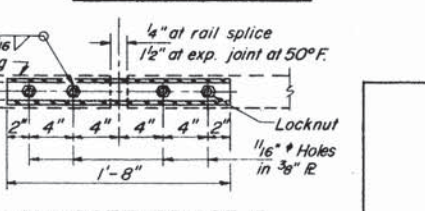
TOP RAIL



BOTTOM RAIL

SECTIONS AT RAIL SPICE

RAIL SPICE CONNECTION AT EXPANSION JT.



PLAN-BOTT SPICE R TYPICAL

NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M-183 except posts and angles shall conform to AASHTO M-223, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M-164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO M-232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO M-111 and ASTM A-385. Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for STEEL RAILING, TYPE T-1.

All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place 1/8" fabric bearing pad between the post and concrete.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Steel railing, Type T-1	Lin. Ft.	750

RAILING DETAILS
 F.A. S. ROUTE 275 (C.H.23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-01-BR
 LASALLE COUNTY
 STATION 27+16.0

DESIGNED JFC	 HANSON ENGINEERS INCORPORATED SPRINGFIELD, GEORGIA & MOBILE, ALABAMA	FILE NO. BCP012
CHECKED DMF		DATE 12-1-81
DRAWN JCH		
CHECKED JFC		

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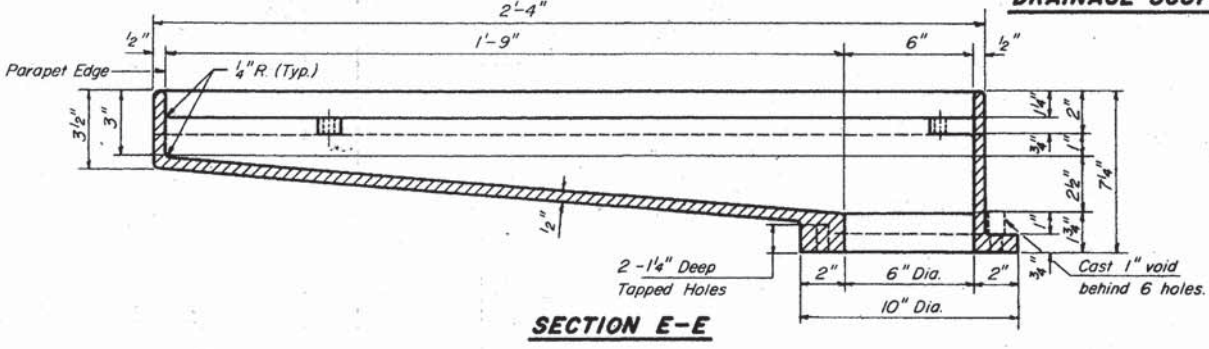
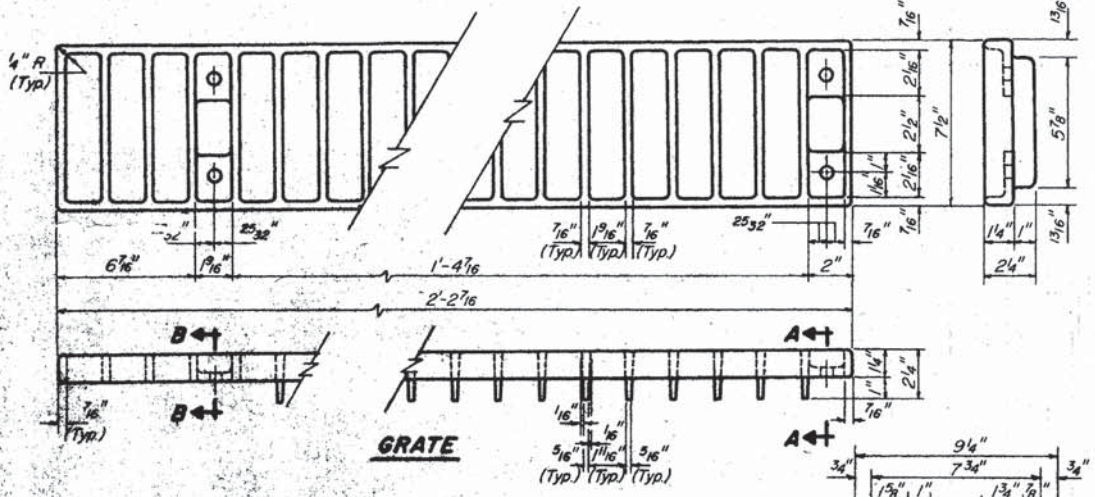
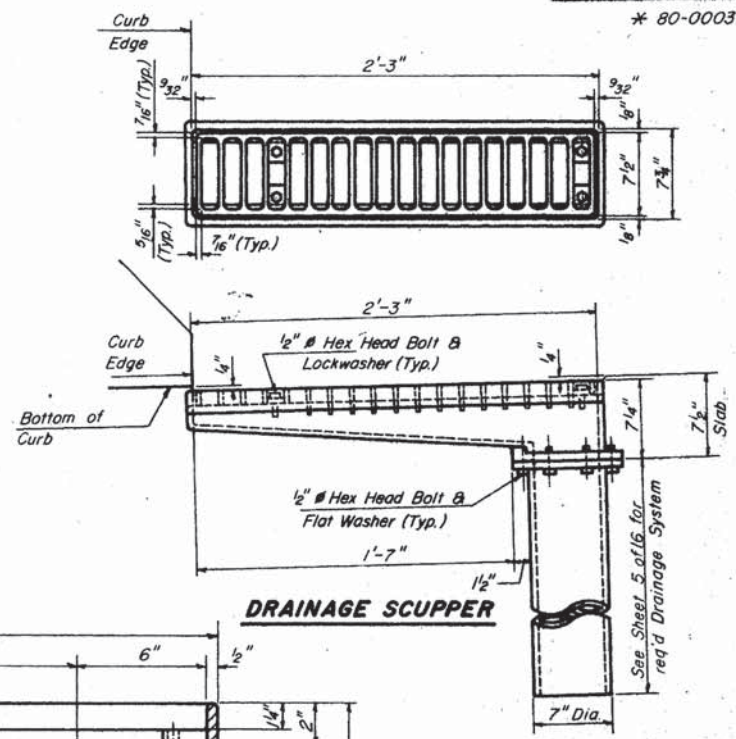
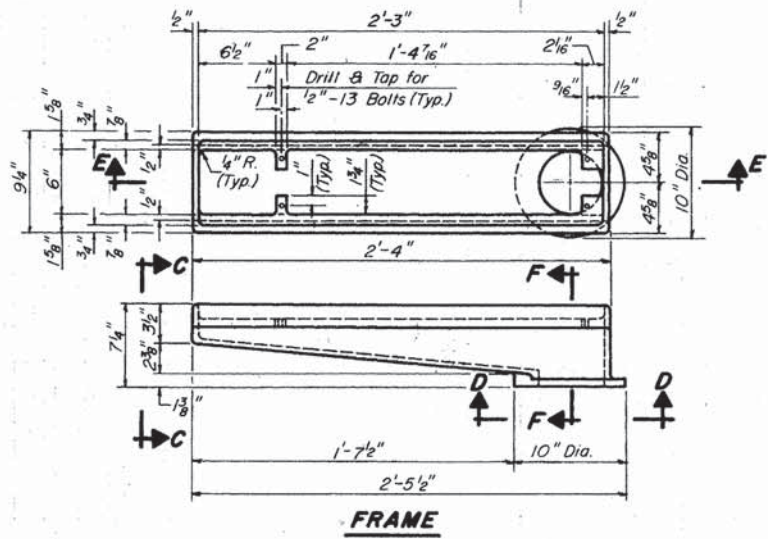
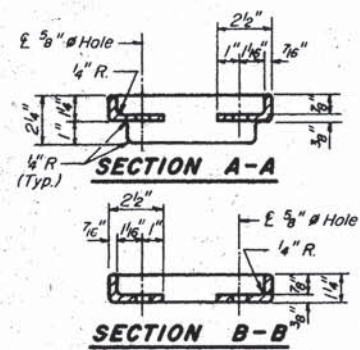
LASALLE COUNTY
HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

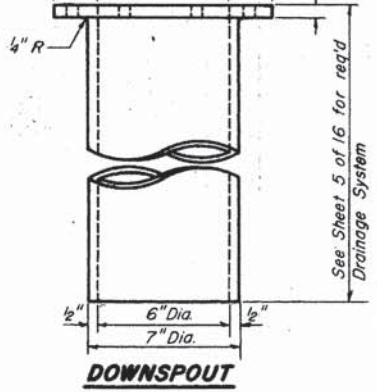
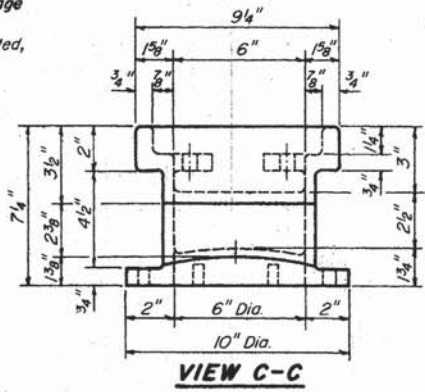
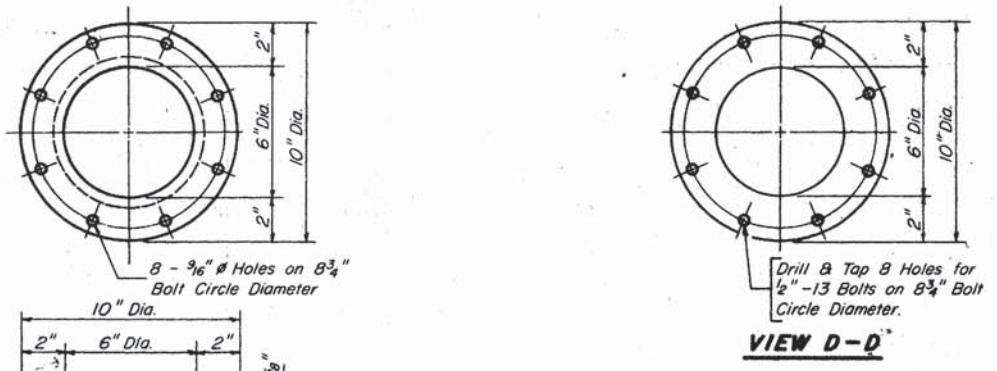
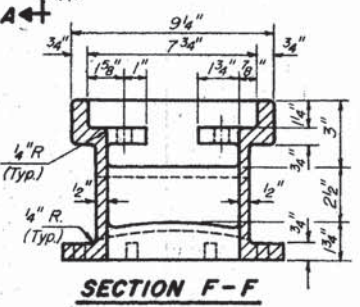
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275	09-00031-02-BR	LA SALLE	108	75
				CONTRACT NO. 87605
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT BRS-00910541	

PROJECT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 275	*	LASALLE	19	18
FED. ROAD DIST. NO.	ILLINOIS PROJECT			

* 80-00031-01-BR



Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M-105, Class 30.
 Bolts and washers shall conform to the requirements of A.S.T.M. A-307.
 All bolts and washers shall be galvanized in accordance with A.S.H.T.O. M-232.
 As an alternate bolts and washers may be stainless steel conforming to the requirements of A.S.T.M. A-193, Type 304.
 Cost of the Grate, Frame, Downspout, bolts and washers including complete installation of Scupper shall be included in the lump sum bid price for DRAINAGE SCUPPERS.
 The Contractor may use at his option steel drainage scuppers or cast iron drainage scuppers.
 Alternate scupper designs of similar design and configuration may be substituted, subject to the approval of the Engineer.



CAST IRON DRAINAGE SCUPPER
 F.A.S. ROUTE 275 (C.H.23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-01-BR
 LASALLE COUNTY
 STATION 27+16.0



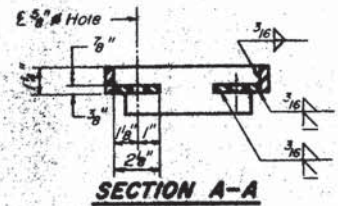
FOR INFORMATION ONLY

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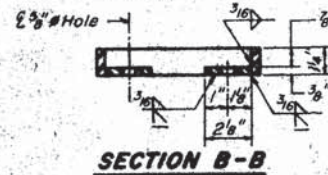
LASALLE COUNTY
HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY)		EXISTING STRUCTURE PLANS	
SCALE: N/A	SHEET NO. 13 OF 30 SHEETS	STA.	TO STA.

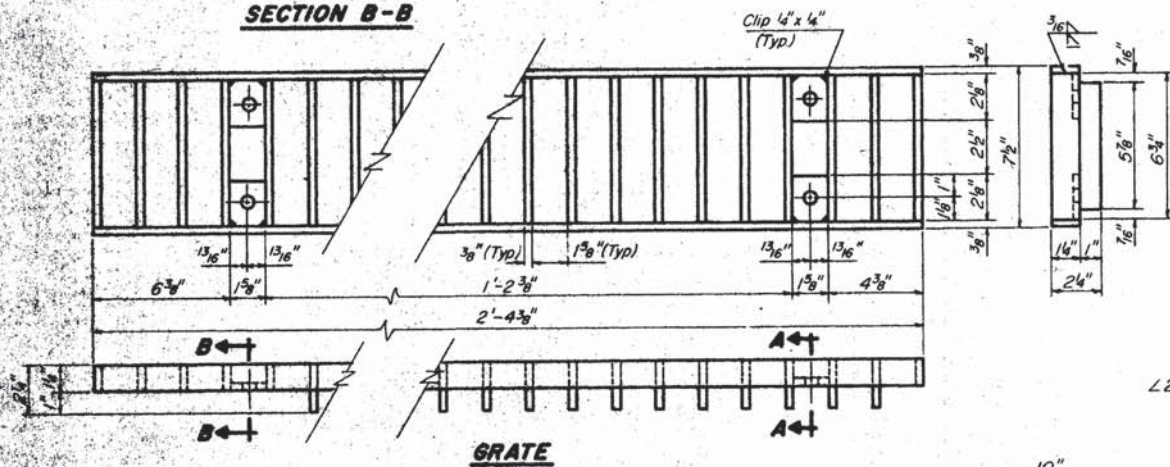
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CONTRACT NO. 87605			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00990549	



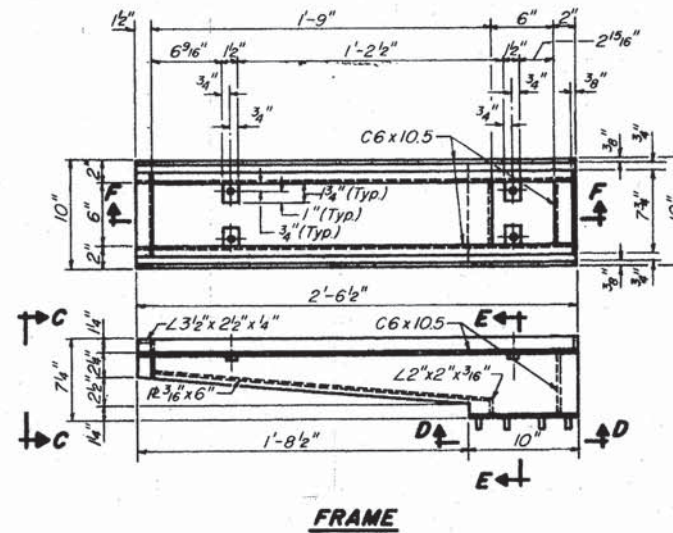
SECTION A-A



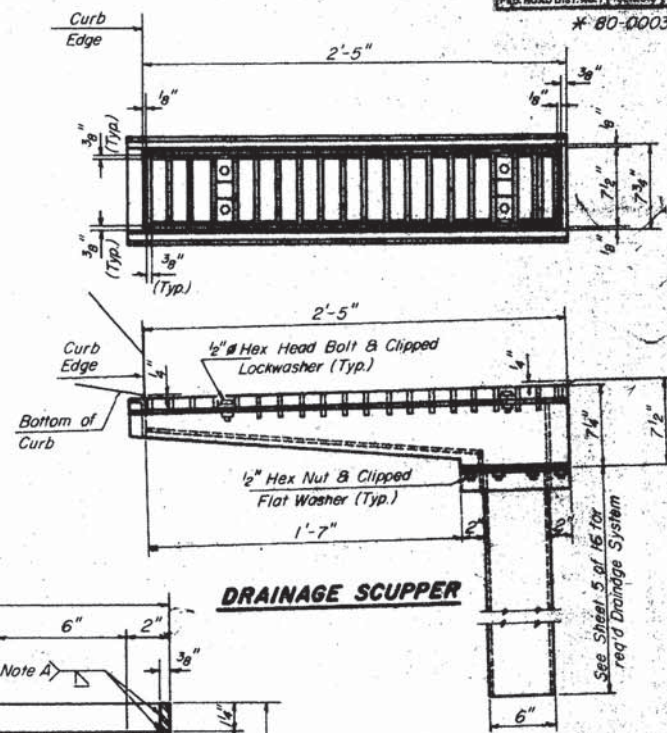
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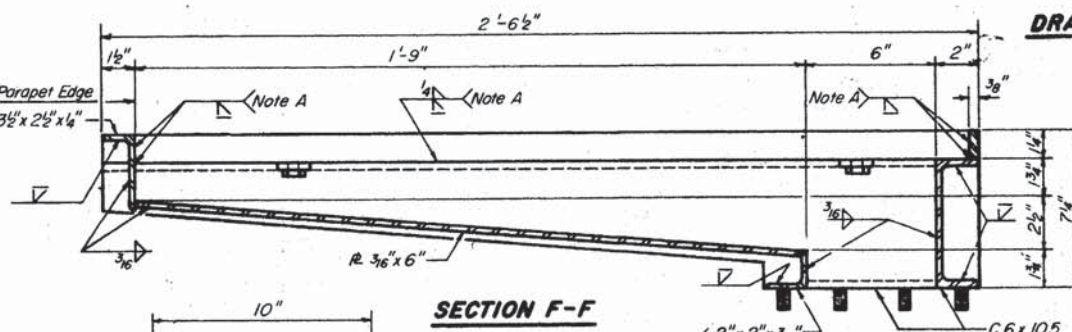
GRATE



FRAME

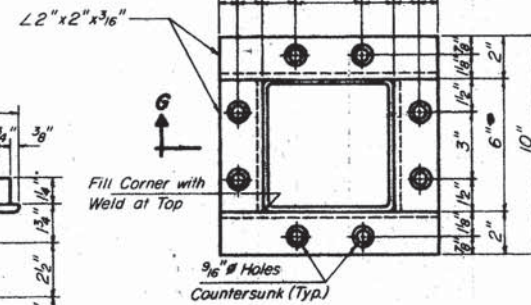


DRAINAGE SCUPPER

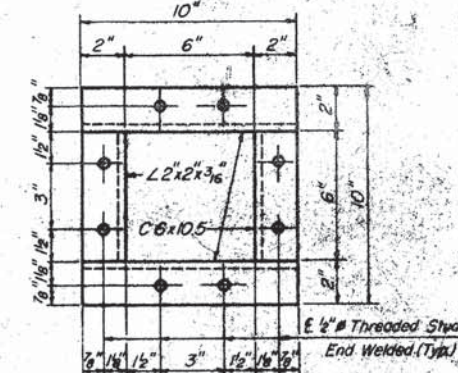


SECTION F-F

Note A: Surface of welds shall be recessed 1/16" Max. or placed flush with inside face of bars to provide clearance for Grate.

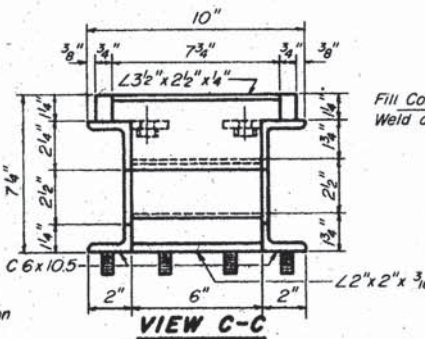


VIEW C-C

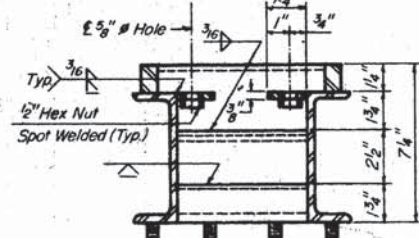


VIEW D-D

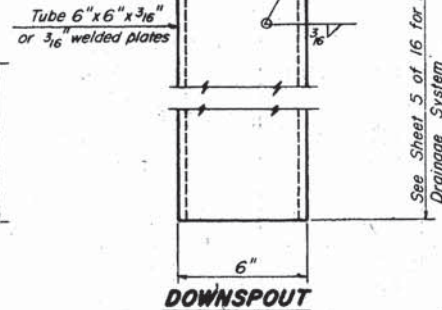
Notes:
 Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B, or A-501 Structural Steel Tubing.
 All other shapes, plates and bars shall conform to the requirements of A.A.S.H.T.O. M 183.
 Bolts, studs, washers and nuts shall conform to the requirements of A.S.T.M. A-307.
 The Grate, Frame, and Downspout shall be galvanized after shop fabrication in accordance with A.A.S.H.T.O. M-111 B A.S.T.M. A-385.
 All bolts, washers and nuts shall be galvanized in accordance with A.A.S.H.T.O. M 232.
 Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper shall be included in the lump sum bid price for DRAINAGE SCUPPERS



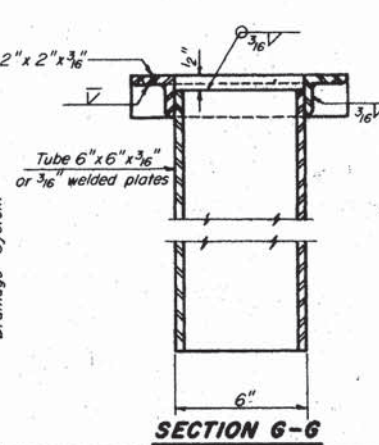
VIEW C-C



SECTION E-E



DOWNSPOUT



SECTION G-G

STEEL DRAINAGE SCUPPER
 F.A.S. ROUTE 275 (C.H. 23)
 VERMILION RIVER BRIDGE
 SECTION 80-00031-01-BR
 LASALLE COUNTY
 STATION 27+16.0

DESIGNED: JPC		DATE: 8/13/2015
CHECKED: DNF		SCALE: 1/8" = 1'-0"
DRAWN: JLH		SHEET NO. 14 OF 30 SHEETS
PROJECT: JPC		SECTION: 09-00031-02-BR

FOR INFORMATION ONLY

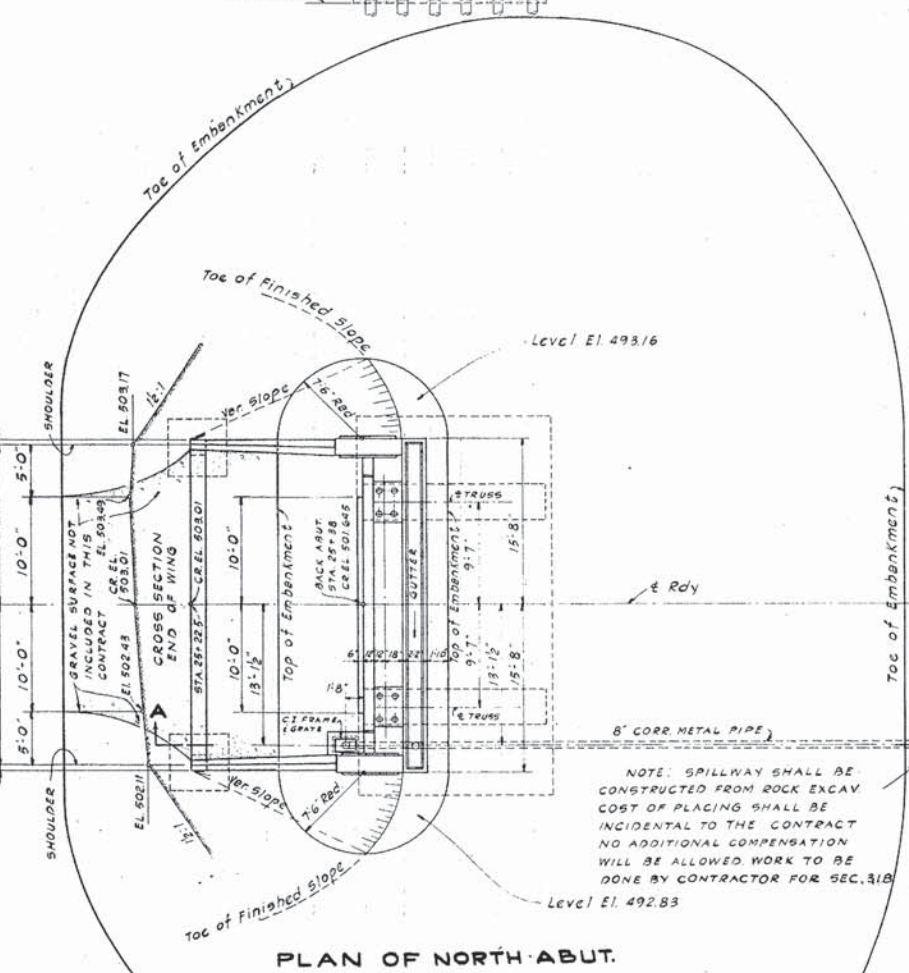
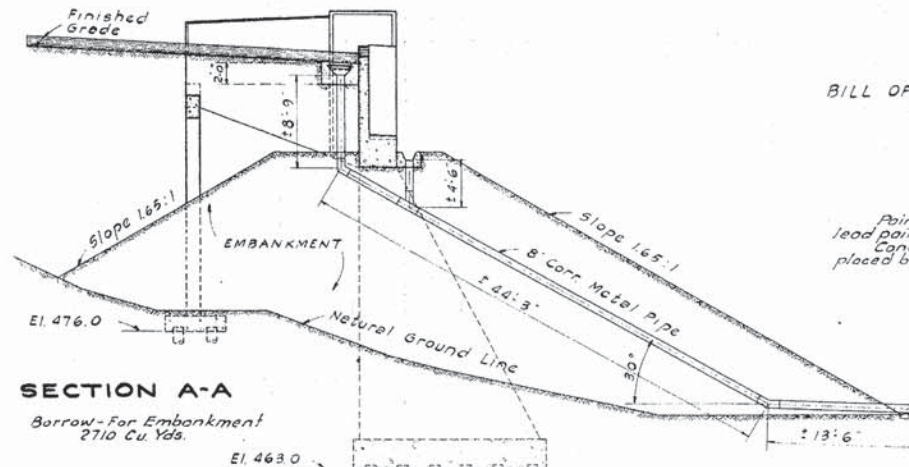
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PLOT DATE: 8/13/2015	DATE: -	REVISED: -	REVISED: -			CONTRACT NO. 87605							

**NORTH ABUTMENT
BILL OF MATERIAL**

BAR NO	NO	SIZE	LENGTH	BAR NO	NO	SIZE	LENGTH
C	8	3/4"	18'-6"	U3	2	1/2"	32'-0"
C1	8	3/4"	19'-6"	U4	4	1/2"	29'-9"
				U5	4	1/2"	25'-9"
d2	12	3/4"	6'-0"	U6	4	1/2"	21'-6"
d3	12	1/2"	6'-0"	U7	4	1/2"	17'-3"
d4	12	1/2"	5'-3"	U8	4	1/2"	13'-3"
d5	4	3/4"	4'-6"	U9	30	1/2"	9'-0"
d6	12	3/4"	4'-0"				
d7	28	3/4"	5'-0"	V7	10	1"	12'-0"
d8	28	1/2"	5'-0"	V8	10	1"	18'-3"
d9	56	1/2"	5'-3"	V9	8	1/2"	7'-3"
d10	32	1/2"	3'-6"	V10	8	1/2"	13'-3"
d12	15	1/2"	2'-9"	V11	8	1/2"	19'-0"
G	11	1"	33'-6"	V12	12	1/2"	27'-0"
G1	4	1 1/8"	28'-6"	V13	6	1/2"	29'-6"
G2	2	3/4"	28'-6"	V14	12	1/2"	7'-9"
				V15	4	1/2"	8'-6"
h5	12	1/2"	27'-6"	V16	4	1/2"	9'-3"
h6	4	1/2"	16'-3"	V17	4	1/2"	10'-0"
h7	45	3/4"	18'-9"	V18	4	1/2"	10'-6"
h8	27	3/4"	16'-3"	V19	4	1/2"	11'-3"
h11	7	1/2"	27'-0"	V20	11	1/2"	12'-6"
n	10	1"	7'-3"	V21	4	1/2"	3'-0"
n1	16	3/4"	4'-9"	V22	4	1/2"	8'-9"
n2	20	1/2"	2'-0"	V23	4	1/2"	9'-6"
s	38	1/2"	5'-9"	V24	4	1/2"	10'-3"
s1	20	1/2"	12'-3"	V25	4	1/2"	11'-3"
s2	14	1/2"	7'-3"	V26	4	1/2"	12'-3"
				V27	11	1/2"	13'-3"
t4	18	3/4"	22'-0"	W	19	1/2"	17'-0"
t5	18	1"	38'-0"				
t6	28	3/4"	7'-0"				

	SEC-31-D	SEC-31-B
Class X Concrete	Cu Yds	81 181.0
Reinforcement Bars	Lbs	630 11,530
Structural Steel	Lbs	315 505
8" Corrugated Metal Pipe	Lin Ft.	71
C.I. Frame & Grate	Lbs.	300
Borrow Excavation	Cu Yds	2710
Treated Piles (16'-0")	Lin Ft.	1152
Treated Piles (29'-0")	Lin Ft.	232
Test Piles	Each	1

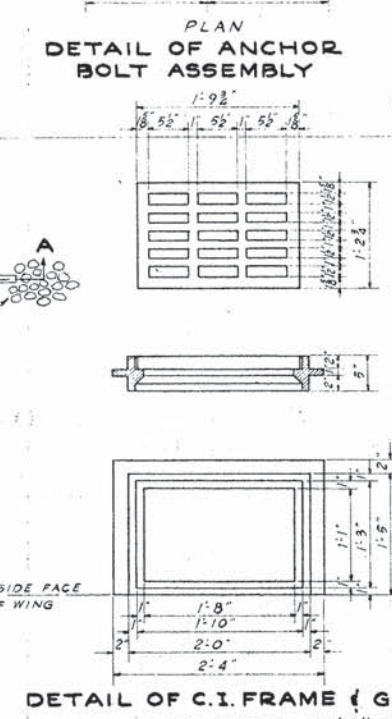
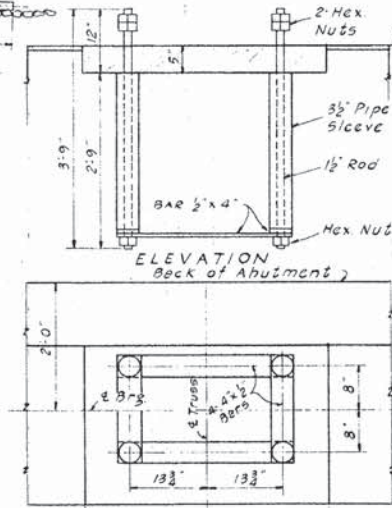
Note: *See Sheet #16 for location of d12-h11-n2 bars. Bars d9-d12-h5-h11-n2 included in contract for Sect. 31-D.



**SECTION 31-B
BILL OF MATERIAL FOR ONE ANCHOR
BOLT ASSEMBLY - 4-REQ'D.**

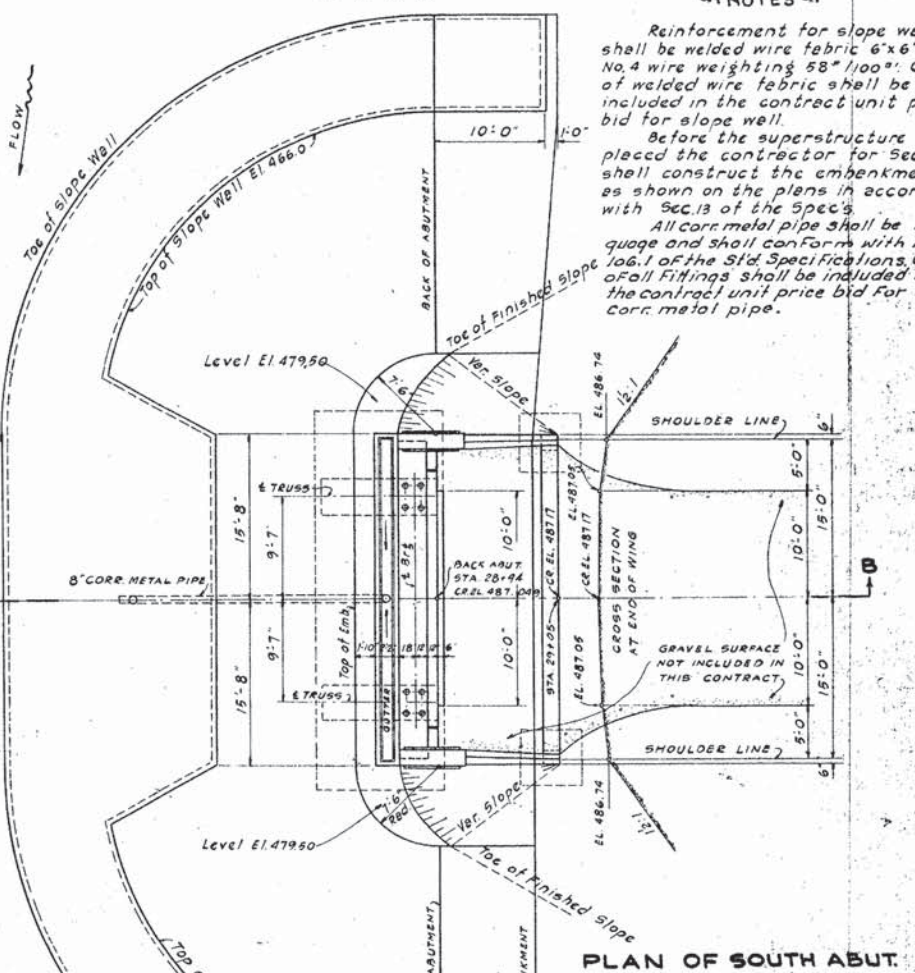
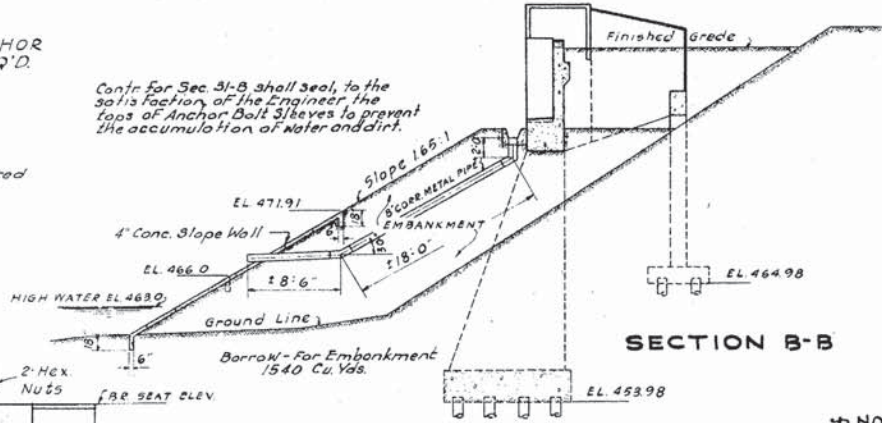
- 4- Rods - 1/2" x 3'-9" Long
 - 12- Hex NUTS
 - 4- Sleeves 3/4" x 2'-6" Long
 - 2- Bars 1/2" x 4'-2" Long
 - 2- Bars 1/2" x 4'-1" Long
- Point exposed metal one coat of red lead paint.
Concrete in Bearing Plate Pits to be placed by Contractor for Section 31-E

Scale of Embankment and Slope Wall Layout:
Vertical - 1" = 1'-0"
Horizontal - 1" = 8'-0"



DETAIL OF C.I. FRAME & GRATE
ONE REQ'D - Est. Mt. 300 Lbs.

Contr for Sec 31-B shall seal, to the satisfaction of the Engineer, the top of Anchor Bolt Sleeves to prevent the accumulation of water and dirt.



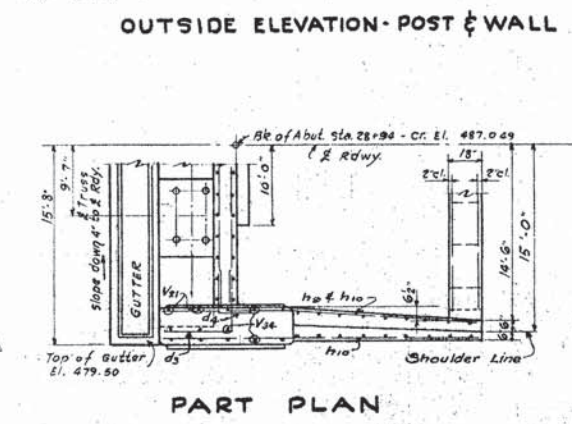
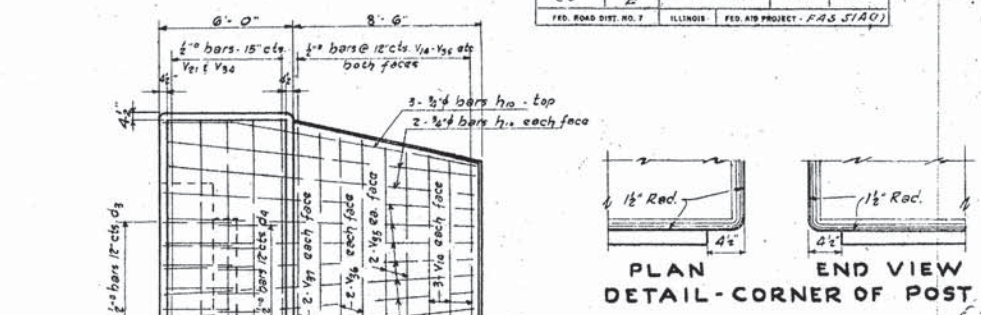
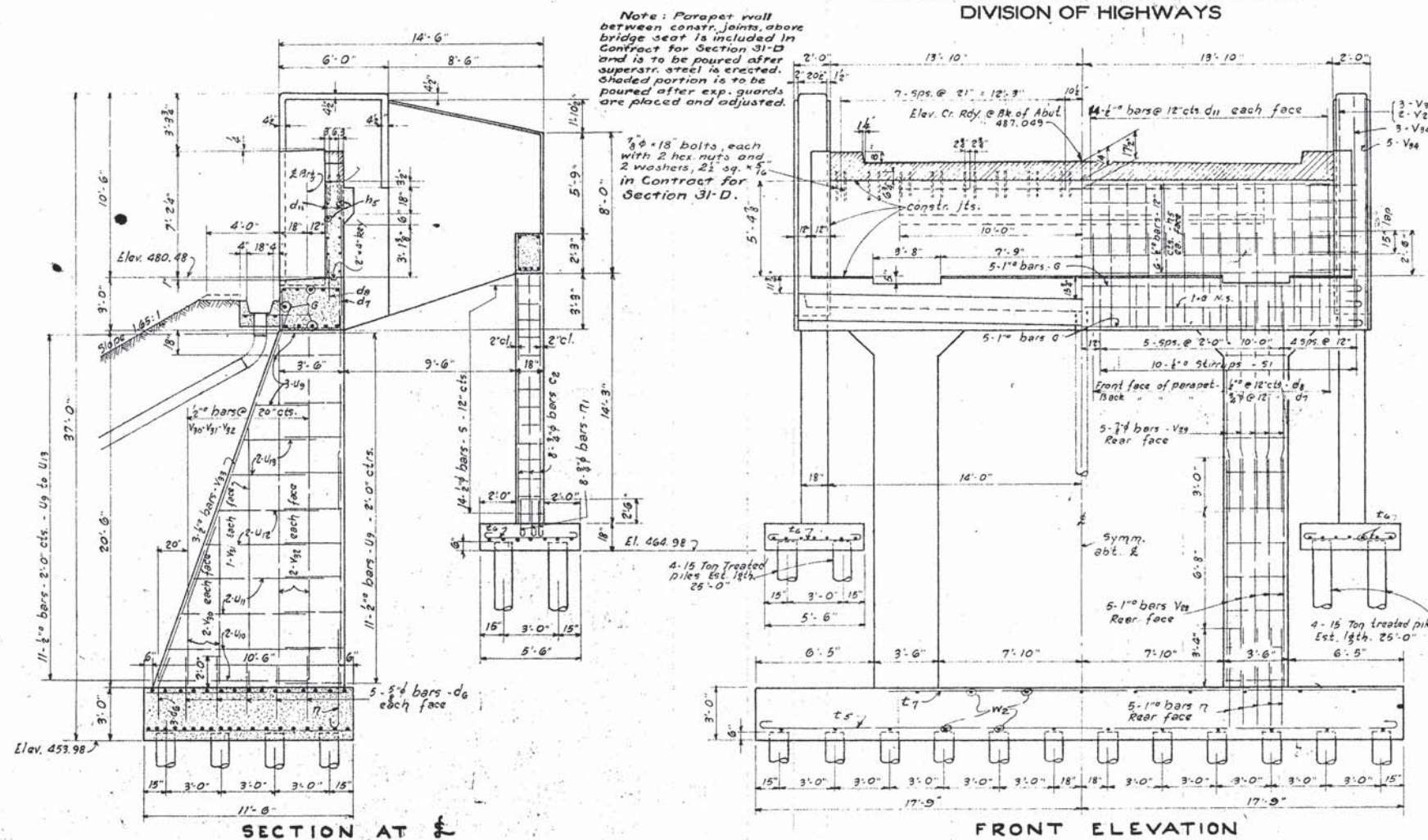
NOTES
Reinforcement for slope well shall be welded wire fabric 6"x6" mesh No. 4 wire weighting 58#/100'. Cost of welded wire fabric shall be included in the contract unit price bid for slope well.
Before the superstructure is placed the contractor for Sec. 31-B shall construct the embankments as shown on the plans in accordance with Sec. 13 of the Specs.
All corr. metal pipe shall be 16 gauge and shall conform with Art. 106.1 of the Std. Specifications. Cost of all fittings shall be included in the contract unit price bid for 8" corr. metal pipe.

**EMBANKMENTS & DRAINAGE
PROJECT 51-A
VERMILION RIVER BRIDGE
S.A. RT. 23 - SEC. 31-B-2
LASALLE COUNTY
STA. 27+16**

COMPUTED	<i>R. Hansen</i>	EXAMINED	<i>A-32-1940</i>
CHECKED	<i>Robert Summers</i>		
DRAWN	<i>Russ - G.O.</i>	PASSED	<i>[Signature]</i>
CHECKED	<i>R.T.S. - A.S.N.</i>	APPROVED	<i>[Signature]</i>
SPECIAL	ASSEMBLED		
	CHECKED		

FOR INFORMATION ONLY

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PLOT DATE = 8/13/2015		CHECKED -	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT BRS-0099105(4)				
		DATE -	REVISED -						

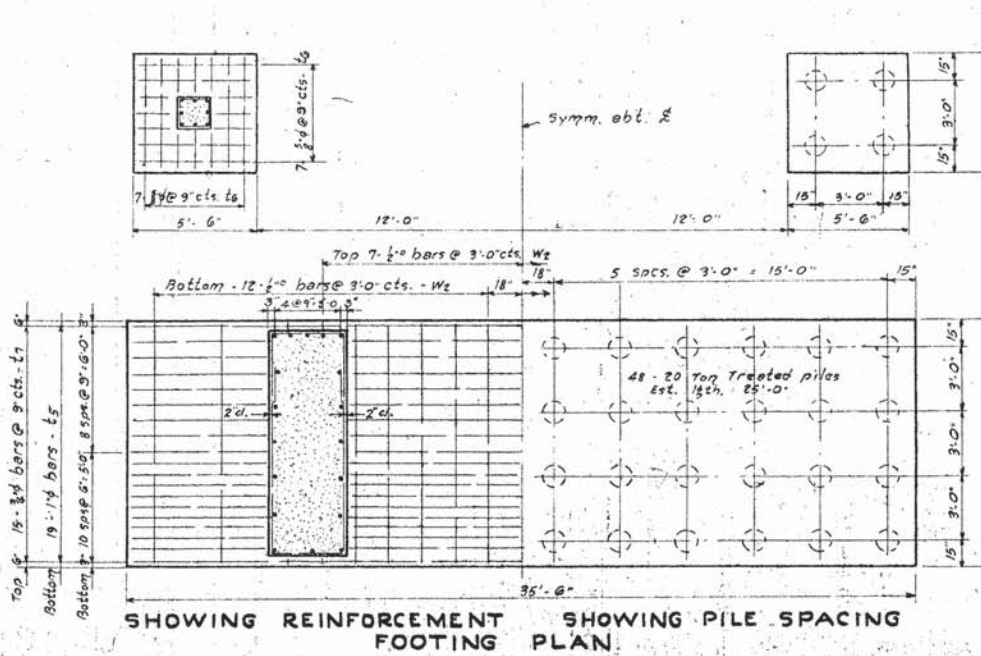
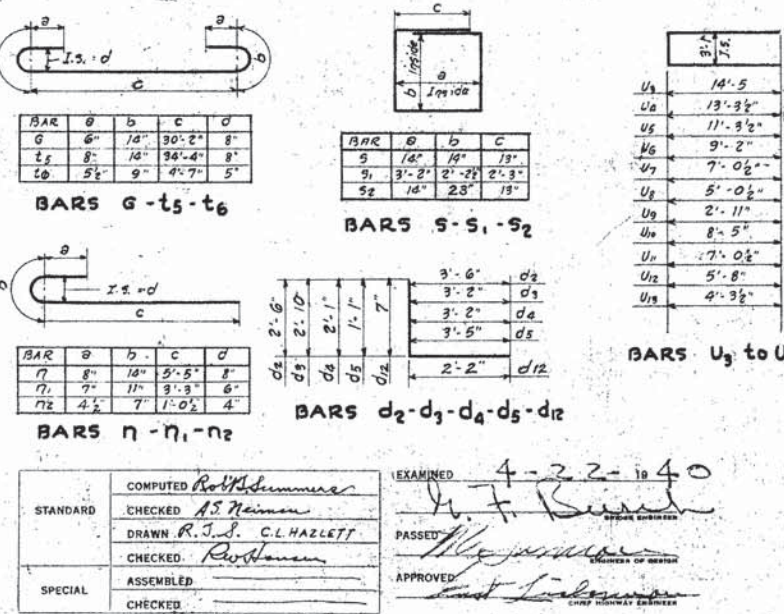


BILL OF MATERIAL-SOUTH ABUT.

BAR NO.	SIZE	LENGTH	BAR NO.	SIZE	LENGTH	BAR NO.	SIZE	LENGTH				
C ₂	16	3/4"	14'-3"	H ₁₀	32	3/4"	14'-3"					
d ₂	12	3/8"	6'-0"	H ₁₁	1	3/8"	27'-0"	V ₂₀	12	1/2"	7'-0"	
d ₃	12	1/2"	6'-0"	H ₁₂	10	1/2"	7'-3"	V ₂₁	4	1/2"	3'-0"	
d ₄	12	5/8"	5'-3"	H ₁₃	16	5/8"	4'-9"	V ₂₂	10	1/2"	13'-0"	
d ₅	26	3/4"	4'-0"	H ₁₄	20	3/4"	2'-0"	V ₂₃	10	3/4"	12'-0"	
d ₆	28	3/4"	5'-0"	H ₁₅	5	28	3/4"	3'-9"	V ₂₄	8	1/2"	10'-0"
d ₇	28	1/2"	5'-0"	H ₁₆	20	1/2"	12'-3"	V ₂₅	4	1/2"	15'-0"	
d ₈	28	1/2"	5'-0"	H ₁₇	14	1/2"	7'-3"	V ₂₆	8	1/2"	22'-0"	
d ₉	32	1/2"	3'-6"	H ₁₈	4	32	1/2"	17'-3"	V ₂₇	6	1/2"	23'-0"
d ₁₀	36	1/2"	4'-0"	H ₁₉	19	1"	35'-0"	V ₂₈	22	1/2"	12'-3"	
d ₁₁	15	1/2"	2'-9"	H ₂₀	28	3/4"	7'-0"	V ₂₉	8	5/8"	9'-0"	
G	11	1"	33'-6"	H ₂₁	15	3/4"	22'-0"	V ₃₀	8	1/2"	10'-0"	
g ₁	4	1/8"	28'-4"	H ₂₂	11	3/4"	22'-0"	V ₃₁	8	1/2"	11'-3"	
g ₂	2	3/8"	28'-6"	H ₂₃	4	3/4"	20'-0"	V ₃₂	19	1/2"	11'-0"	
h ₅	12	1/2"	27'-6"	H ₂₄	4	1/2"	17'-3"					
h ₆	4	1/2"	16'-3"	H ₂₅	4	1/2"	14'-6"					
h ₈	18	3/4"	11'-9"	H ₂₆	4	1/2"	11'-9"					

Class X concrete
Reinforcement Bars
Structural Steel
Slope Wall
8" corrugated Metal Pipe
Treated Piles (25'-0" Long)
Real Piles
Borrow Excavation

cu. Yds. 7.4
Lbs. 570
Lbs. 500
sq. Yds. 236
Lin. Ft. 29
Lin. Ft. 1400
Each One
cu. Yds. 1540



NOTES
Use class "X" Concrete throughout.
See Sh. #3 for Cross Section of Gutter.
See Sh. #2 for Anchor Bolt Assembly.
See Sh. #3 for Detail of top of Wing Wall.

* See Sh. #16 for location of bars d₁₂ thru #18. Bars d₁₁ thru #12 are included in Contract for Section 31-D.

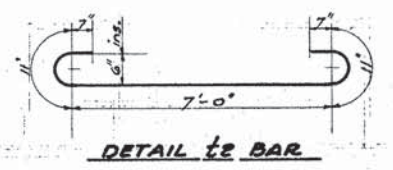
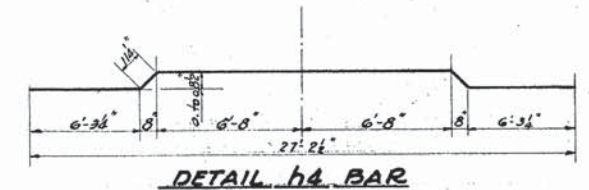
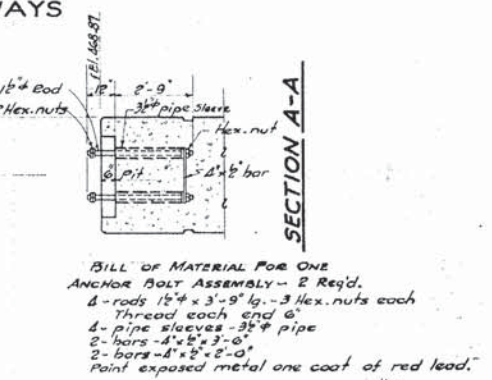
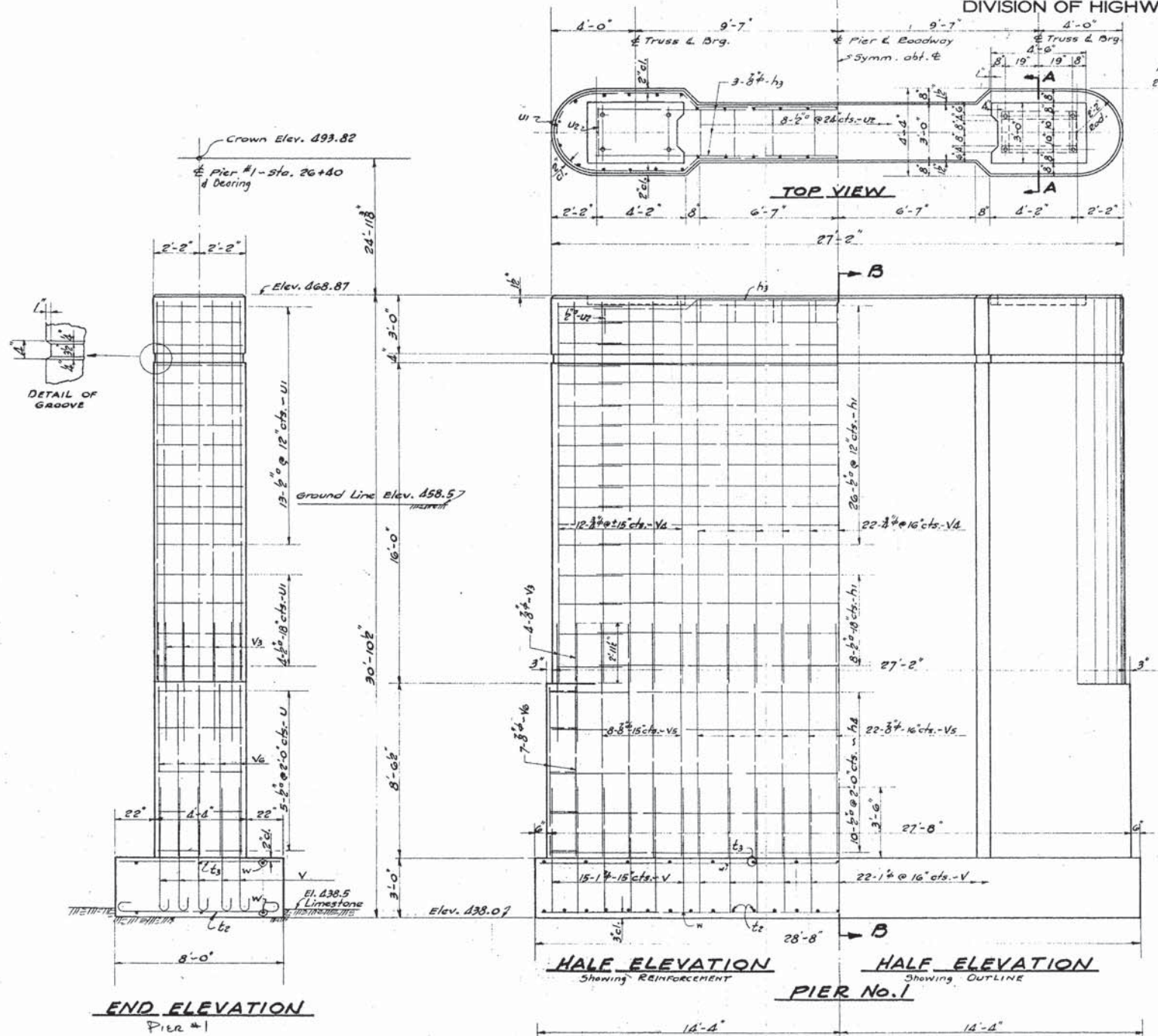
**SOUTH ABUTMENT
PROJECT 51-A
VERMILION RIVER BRIDGE
S.A. ROUTE 23 SEC. 31-B-D
LA SALLE COUNTY
STA. 27+16.0**

FOR INFORMATION ONLY

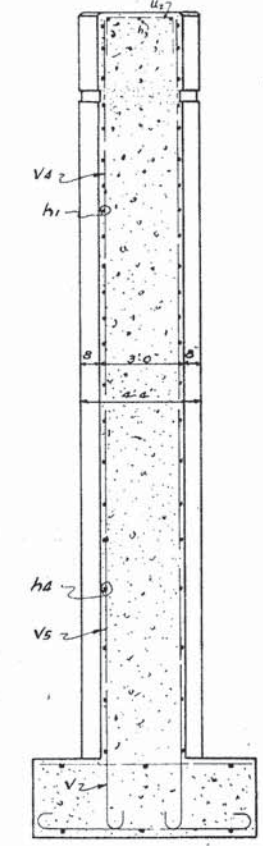
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		DATE	REVISED -						FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BRS-00990541	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD ISSUE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
S.A. 27	31-B	La Salle	20	6	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - F.A.S. 51 A			



NOTE:
For reinforcement bar Details not shown on this sheet see Sheet #6.



BILL OF MATERIAL

Bar	No.	Size	Length
h1	34	5/8"	23'-6"
h2	3	3/4"	23'-6"
h3	10	5/8"	27'-9"
V	52	1/2"	7'-9"
V3	8	3/4"	16'-0"
V4	46	3/4"	19'-8"
V5	38	3/4"	11'-0"
V6	14	3/4"	18'-3"
U	10	5/8"	7'-0"
U1	34	"	9'-3"
U2	10	"	5'-0"
t2	29	3/4"	10'-0"
t3	15	"	7'-0"
W	6	5/8"	28'-3"

Class X Concrete - Cu. Yds. 125.1
Reinforcement Bars - Lbs. 5800.
Structural Steel - Lbs. 545
Rock Groov. for structures Cu. Yds. 5.0'

Notes:
Class X Concrete shall be used thruout.
Concrete in Bearing Plate Pits to be placed by Contractor for Section 31-E.
For Test Borings at PIERS see Sheet #1.
Contractor for Sec. B. shall seal, to the satisfaction of the Engineer, the tops of Anchor Bolt Sleeves to prevent the accumulation of water & dirt.

PIER No. 1
PROJECT 31-A
VERMILION RIVER BRIDGE
S.A. ROUTE 23 SEC. 31-B-E
LASALLE COUNTY
STA. 27 + 10.0

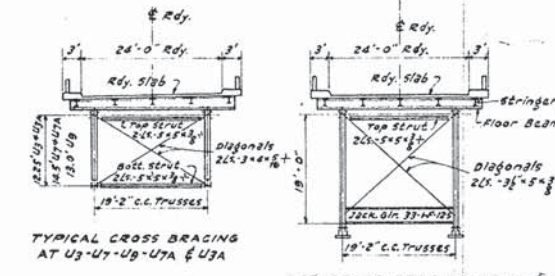
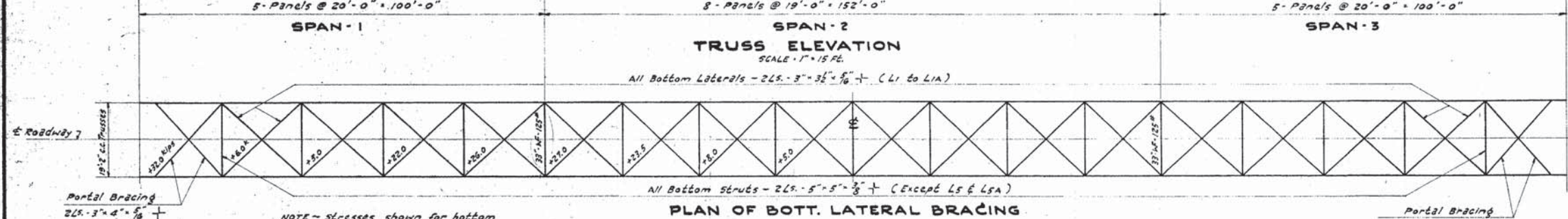
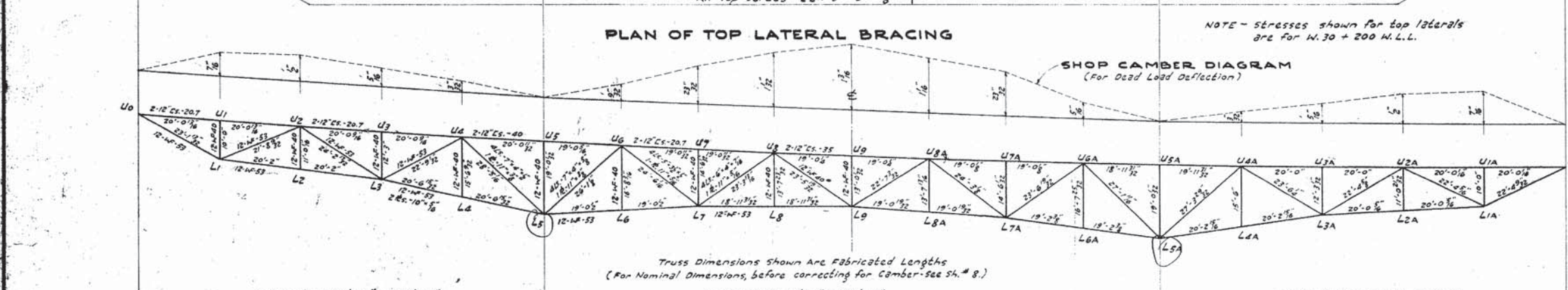
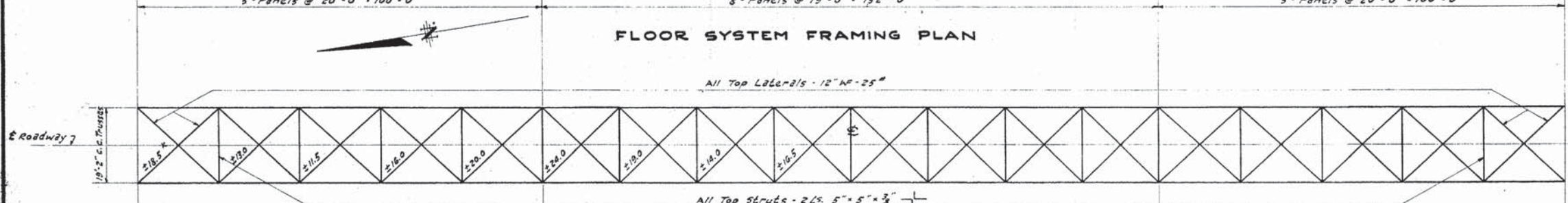
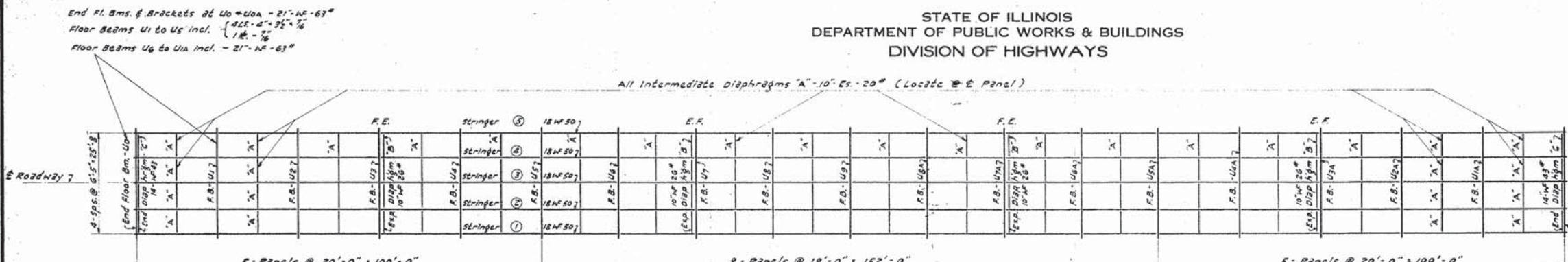
STANDARD	COMPUTED	EXAMINED
CHECKED	DESIGNED	REVISOR
DRAWN	CHECKED	APPROVED
CHECKED	ASSEMBLED	
SPECIAL	CHECKED	

FOR INFORMATION ONLY

FILE NAME =	USER NAME = bdeoraene	DESIGNED -	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
VA3461\CADD Drawings\CADD Sheets\3461-11-11-exist-structure-19.dgn		DRAWN -	REVISED -			275	09-00031-02-BR	LA SALLE	108	82		
PLOT SCALE = 1.000000" / 1"		CHECKED -	REVISED -			CONTRACT NO. 87605						
PLOT DATE = 8/13/2015		DATE -	REVISED -			SCALE: N/A	SHEET NO. 19 OF 30 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT BRS-009910541

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7
23	09-00031-02-BR	La Salle	20	8	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	FAS 51A		



MEMBER	STRESS (in kips)					SECTION	AREA	UNIT STRESS		
	D.L.	U.L.L.	C.L.L.	IMP.	TOTAL			GROSS	NET	ALLOW.
U0-U2	-85	-40	-24	-12	-161.0	2-12" WF-20.7	12.06	—	-14.3	-13.35
U2-U4	+9	-40	-21	-11	-63.0	"	12.06	—	-14.3	-5.22
U4-U6	+246	+71	+26	+17	+360.0	2-12" WF-40	23.46	20.44	+18.0	+17.6
U6-U8	-17	-28	-17	-8	-70.0	2-12" WF-20.7	12.06	—	-14.38	-5.80
U8-U9	-145	-64	-29	-17	-255.0	2-12" WF-35	20.52	—	-14.25	-12.42
L1-L3	+74	+51	+28	+14	+167.0	12" WF-53	15.59	13.29	+18.0	+12.55
L3-L5	-127	-49	-17	-12	-205.0	2x5-10" x 5"	21.84	—	-12.75	-9.40
L5-L7	-109	-38	-17	-10	-174.0	12" WF-53	15.59	—	-12.88	-11.16
L7-L9	+108	+53	+26	+14	+201.0	12" WF-53	15.59	12.80	+18.0	+15.95
U0-L1	+98	+46	+10	+15	+199.0	12" WF-53	15.59	13.29	+18.0	+15.0
L1-U2	+13	-21	-20	-7	-35.0	"	15.59	13.29	-12.07	-2.25
U2-L3	-100	-35	-30	-12	-177.0	"	15.59	—	-11.57	-11.35
L3-U4	+136	+36	+34	+13	+219.0	"	15.59	13.29	+18.0	+16.50
U4-L5	-172	-45	-35	-14	-266.0	4x5-7" x 4" x 5" E-11" x 5"	25.12	—	-12.06	-10.58
L5-U6	-196	-56	-33	-16	-301.0	4x5-7" x 4" x 5" E-11" x 5"	30.08	—	-12.44	-10.01
U6-L7	+101	+48	+32	+14	+255.0	4x5-5" x 5" x 5" E-11" x 5"	19.46	14.81	+18.0	+17.21
L7-U8	-116	-42	-29	-13	-200.0	4x5-6" x 4" x 5" E-11" x 5"	20.16	—	-11.84	-9.92
U8-L9	+46	+31	+23	+10	+110.0	12" WF-40	11.77	9.7	+18.0	+11.35
VERTICALS U1-L1, U3-L3, U5-L5, U7-L7, U9-L9	-36	-11.3	-23.6	-10.6	-81.5	12" WF-40	11.77	—	-11.5	-6.92
VERTICALS U2-L2, U4-L4, U6-L6, U8-L8	—	—	—	—	—	12" WF-40	11.77	9.7	+18.0	—

MEMBER	MOMENT (in kips)					SECTION	I/C	UNIT STRESS	MAX. END SHEAR
	D.L.	U.L.L.	C.L.L.	IMP.	TOTAL				
End Floor Beam	+20.8	—	+18.0	+41.0	+79.8	21" WF-63	128.0	+16.85	*63.6
Typical Interior Floor Bm (built up)	+39.0	—	+18.3	+35.9	+73.2	4x5-4" x 3" x 5" W6 x 25	133.0	+17.4	78.4
Typ. Interior Floor Bm (WF)	+36.6	—	+17.3	+36.1	+70.0	21" WF-63	128.0	+17.8	77.3
Typ. Interior 20" Stringer	29.6	—	77.0	26.6	133.2	18" WF-50	89.0	+18.0	30.8
Typ. Interior 19" Stringer	26.7	—	73.2	25.4	125.3	18" WF-50	89.0	+16.9	30.3
Typ. Outside 20" Stringer	45.0	—	64.0	22.1	131.1	18" WF-50	89.0	+17.7	27.5
Typ. Outside 19" Stringer	40.6	—	60.8	21.1	122.5	18" WF-50	89.0	+16.5	26.9

* D.L. Reaction (Steel + Conc.) Bridge supported on jacks under floorbeam.

FRAMING PLAN
PROJECT - 51-A
VERMILION RIVER BRIDGE
S.A. RTE-23 SEC. 31-E.F.F.
LA SALLE COUNTY
STA. 27+16.0

- GENERAL NOTES -

DESIGN LOAD H-15

Uniform Live Panel Load	20' Panel	19' Panel
	11.0 k	11.02 k
Concentrated Live Load for Moment	16.33 k	16.33 k
Concentrated Live Load for Shear	23.58 k	23.58 k
Impact	18 %	18 %

NOTATIONS:

- D.L. = Dead Load Stress
- U.L.L. = Uniform Live Load stress
- C.L.L. = Concentrated Live Load stress
- I. = Impact stress
- W30 = Wind Stress @ 30#/sq.ft. on 1/2 times area of one truss, including floor system and railings, plus 200#/lin.ft. on Live Load considered as a moving load.
- W50 = Wind Stress @ 50#/sq.ft. on same area of unloaded structure.

ALLOWABLE UNIT STRESS: (lbs. per sq. in.)

AXIAL TENSION	Carbon steel	18000
AXIAL COMPRESSION	Carbon steel	15000 - 1/4(L)

SHEAR: Pins, power driven rivets and turned bolts in reamed holes: 13500

BEARINGS: Pins, steel parts in contact & power driven rivets:

Open Bearing	24000
Closed Bearing	30000

Turned bolts in reamed holes:

Open Bearing	20000
Closed Bearing	24000

Expansion Rocker Pins: 15000

EXPANSION ROLLERS & ROCKERS (lbs. per lin. in.)

Diameters 10" to 25"	7000 + 1400(d-10)/3 (Cast Steel)
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FABRICATION:

All material shall be Carbon Steel, conforming to A.S.T.M. A7-36, except expansion guard R5 & L5, which shall be Copper bearing steel & cast steel shoes (see SH. # 17.)

Rivets: 3/8" - 0. Hs. 1/2" unless noted.

All main truss connections, both shop & field, shall be subsunged and reamed according to Art. 51.6 of the Standard Specs'.

All welding shall conform to the requirements of Art. 51.6 of the supplemental specs effective Oct. 1938. Inspection by Illinois Div. of Hwys before painting.

The Contractor for sec. 31-E shall furnish and apply one shop coat of red lead paint to all structural steel.

The Contractor for sec. 31-E shall furnish & apply sufficient red lead paint for spot painting after erection.

The Contractor for sec. 31-E shall furnish and apply two field coats of Aluminum paint, Serial # M-36-3d, to all structural steel.

See supplemental specs for contact and inaccessible surfaces. See Special Provisions for surfaces in contact with conc.

STANDARD	COMPUTED	EXAMINED
CHECKED	DESIGNED	11-23-1940
DRAWN	BY	
CHECKED	BY	
SPECIAL	ASSEMBLED	APPROVED
CHECKED		

FOR INFORMATION ONLY

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		CHECKED -	REVISED -
		DATE -	REVISED -

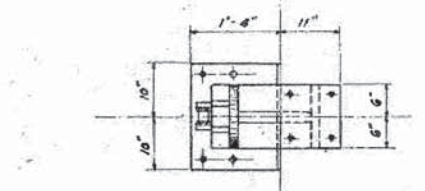
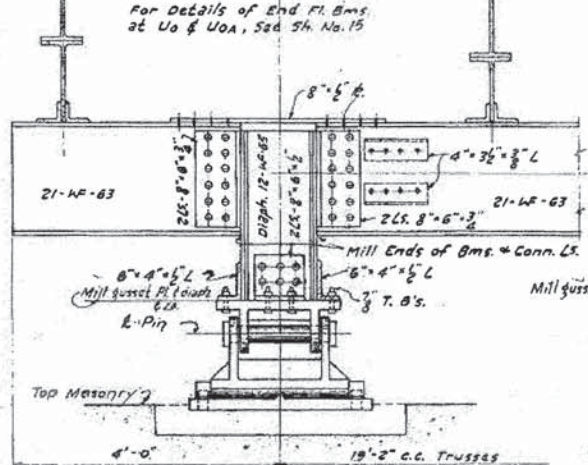
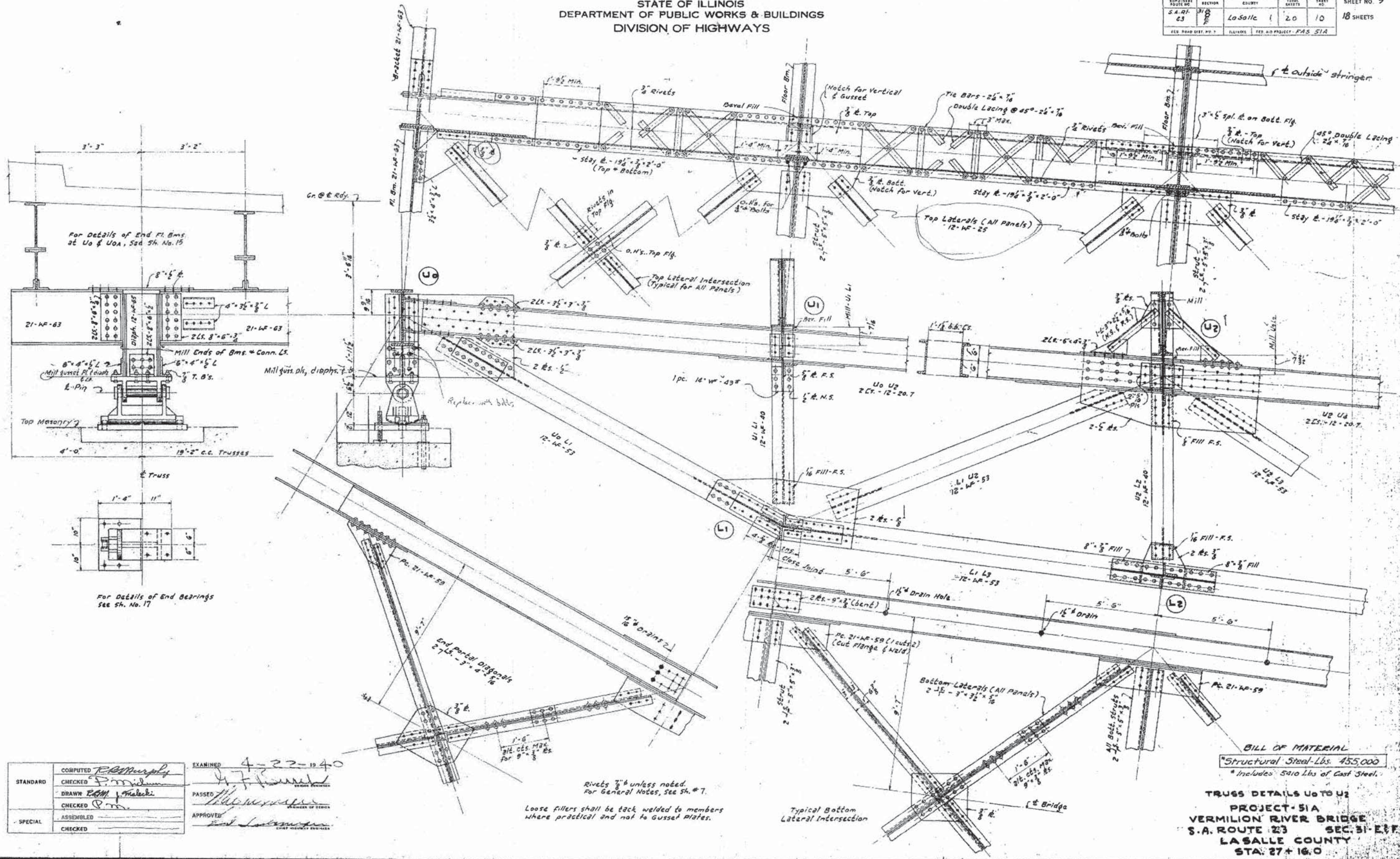
LASALLE COUNTY
HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	84
CONTRACT NO. 87605				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-009910541				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SHEET NO.	9
TOTAL SHEETS	18
SECTION	09-00031-02-BR
COUNTY	LA SALLE
ROUTE	275
STATION	27+16.0
PROJECT	VERMILION RIVER BRIDGE
FED. AID PROJECT	BR5-00991054



COMPUTED	<i>R. Murphy</i>	EXAMINED	<i>A. F. ...</i>
CHECKED	<i>P. ...</i>	PASSED	<i>M. ...</i>
DRAWN	<i>R. ...</i>	APPROVED	<i>E. ...</i>
CHECKED	<i>M. ...</i>		
SPECIAL			
ASSEMBLED			
CHECKED			

Rivets 3/8" unless noted for General Notes, see Sh. #7.
Loose fillers shall be tack welded to members where practical and not to Gusset plates.

BILL OF MATERIAL
Structural Steel-Lbs. 455,000
Includes 5000 Lbs of Cast Steel.

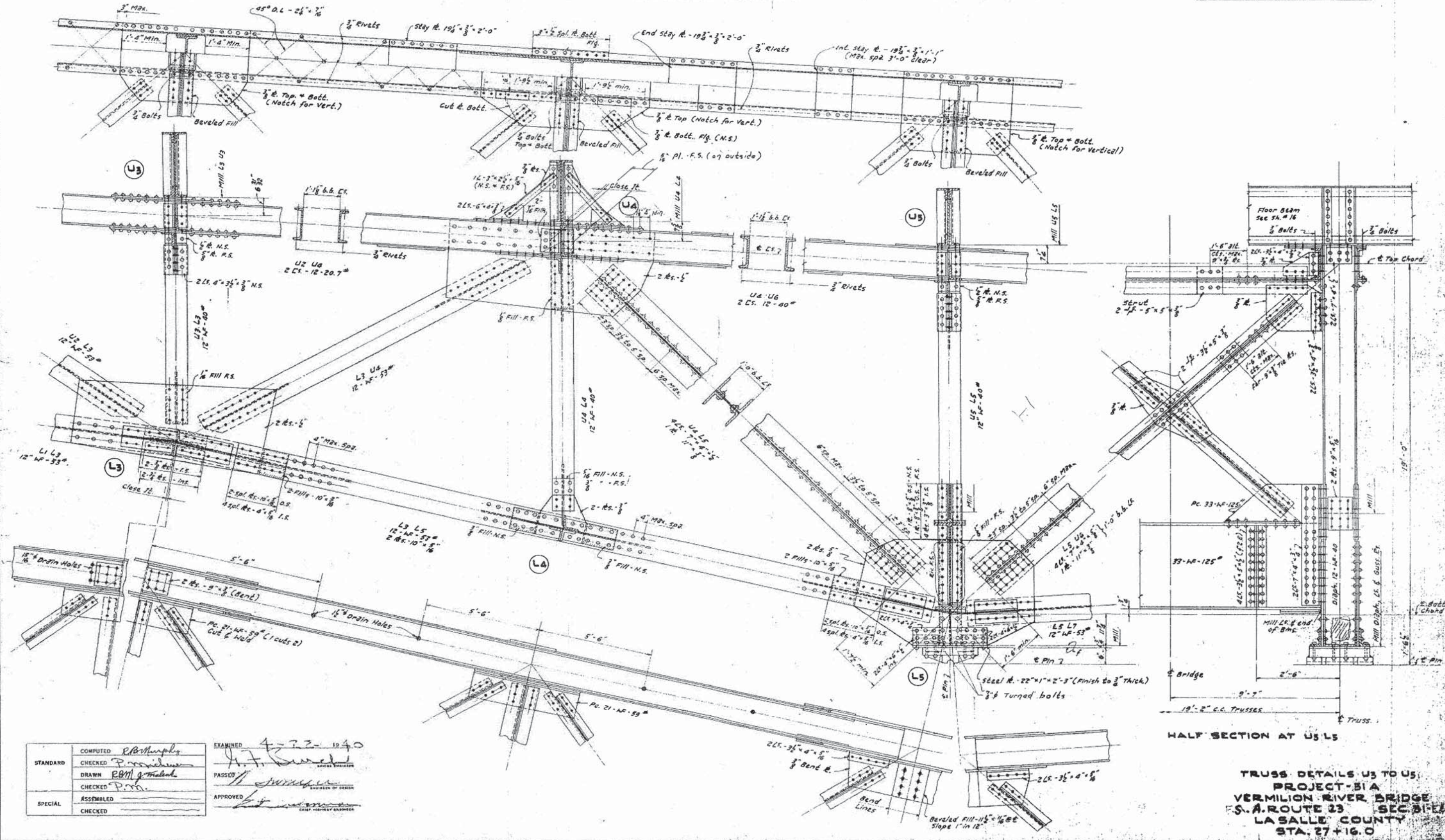
TRUSS DETAILS U₀ TO U₂
PROJECT - 51A
VERMILION RIVER BRIDGE
S.A. ROUTE 275 SEC. 31 - E. T.
LA SALLE COUNTY
STA. 27+16.0

FOR INFORMATION ONLY

FILE NAME	USER NAME	DESIGNED	REVISED	LASALLE COUNTY HIGHWAY DEPARTMENT	C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS	SCALE: N/A	SHEET NO. 22 OF 30 SHEETS	STA.	TO STA.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 1/8" = 1'-0"		CHECKED	REVISED							CONTRACT NO. 87605				
PLOT DATE = 8/13/2015		DATE	REVISED							FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BR5-00991054				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

BRIDGE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
S. A. RT. 23	23	La Salle	20	11	18 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: F.A.S. STA.			



STANDARD	COMPUTED	<i>R. Murphy</i>
	CHECKED	<i>P. ...</i>
	DRAWN	<i>R.M. ...</i>
	CHECKED	<i>P.M.</i>
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED *A.F. ...*
 PASSED *...*
 APPROVED *...*

TRUSS DETAILS U3 TO U5
 PROJECT-31A
 VERMILION RIVER BRIDGE
 S.A. ROUTE 23 SEC. 31 E 1/4
 LASALLE COUNTY
 STA. 27+16.0

FOR INFORMATION ONLY

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		CHECKED -	REVISED -
		DATE -	REVISED -

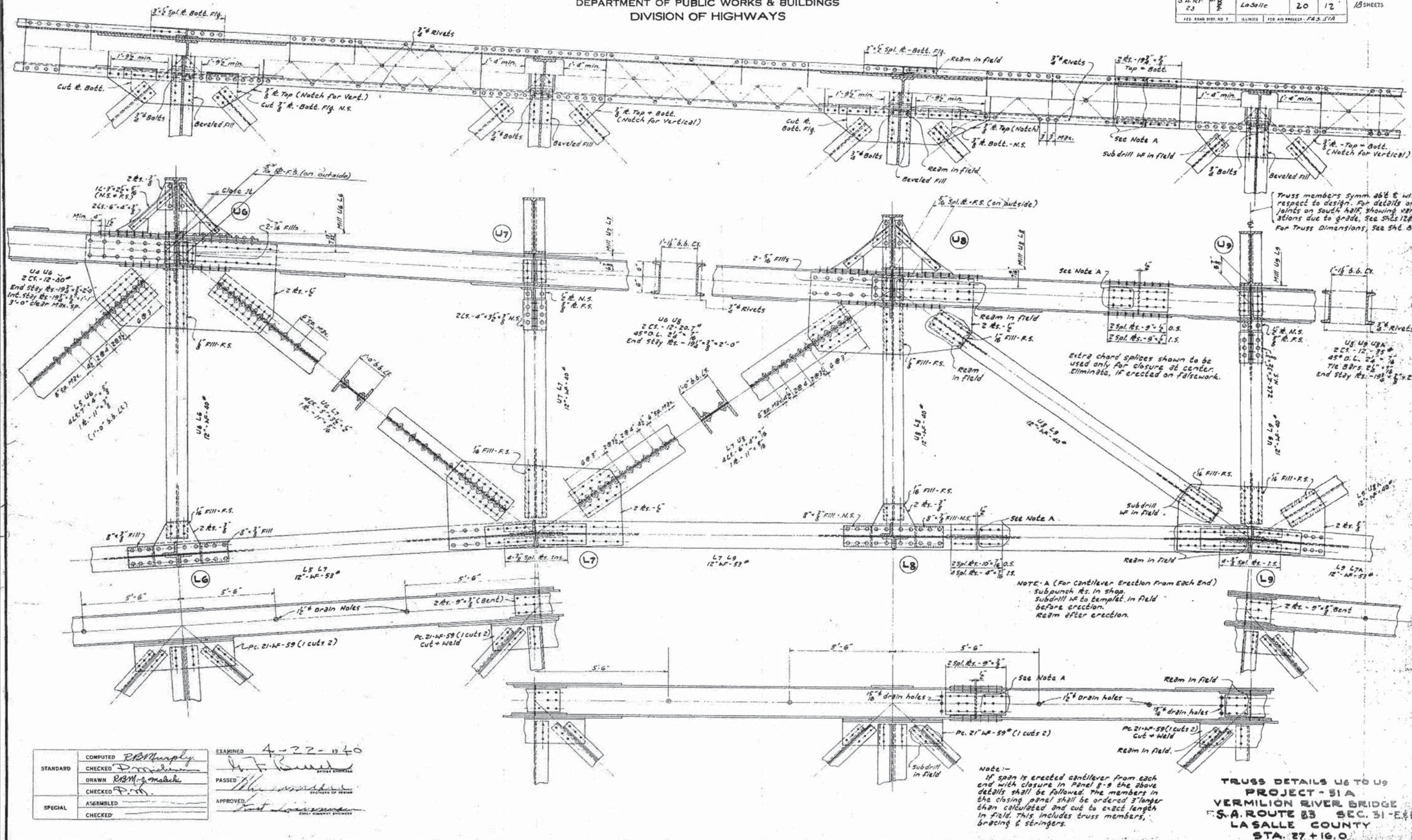
LASALLE COUNTY
HIGHWAY DEPARTMENT

SCALE: N/A	SHEET NO. 23 OF 30 SHEETS	STA. TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	86
CONTRACT NO. 87605				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00990541				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. //
S.A. RT. 23	31-2	LaSalle	20	12	13 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - F.A.S. 57A			



TRUSS DETAILS U6 TO U9
PROJECT - 51A
VERMILION RIVER BRIDGE
S.A. ROUTE 23 SEC. 31-E&F
LA SALLE COUNTY
STA. 27 + 16.0

FOR INFORMATION ONLY

C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

SCALE: N/A SHEET NO. 24 OF 30 SHEETS STA. TO STA.

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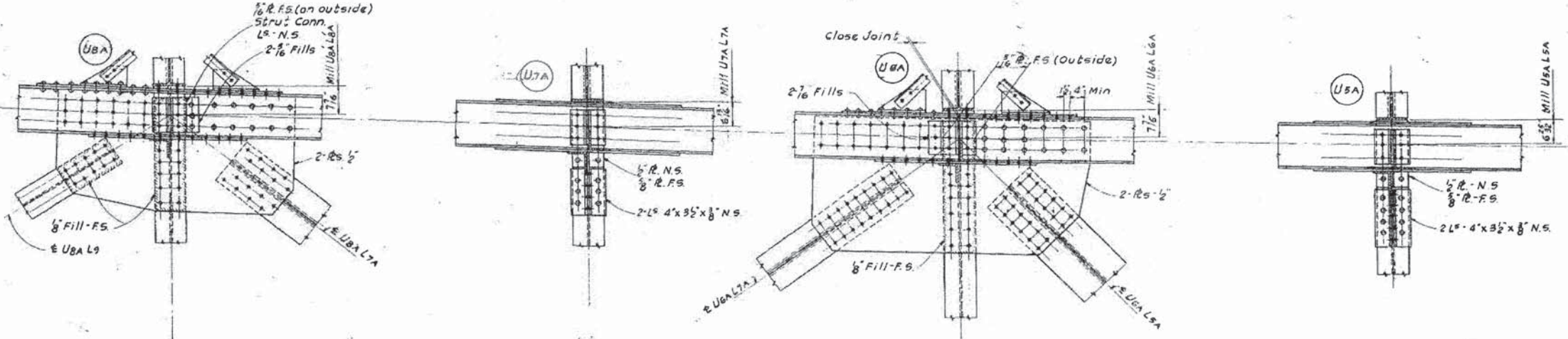
LASALLE COUNTY
HIGHWAY DEPARTMENT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	87
CONTRACT NO. 87605				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00990504				

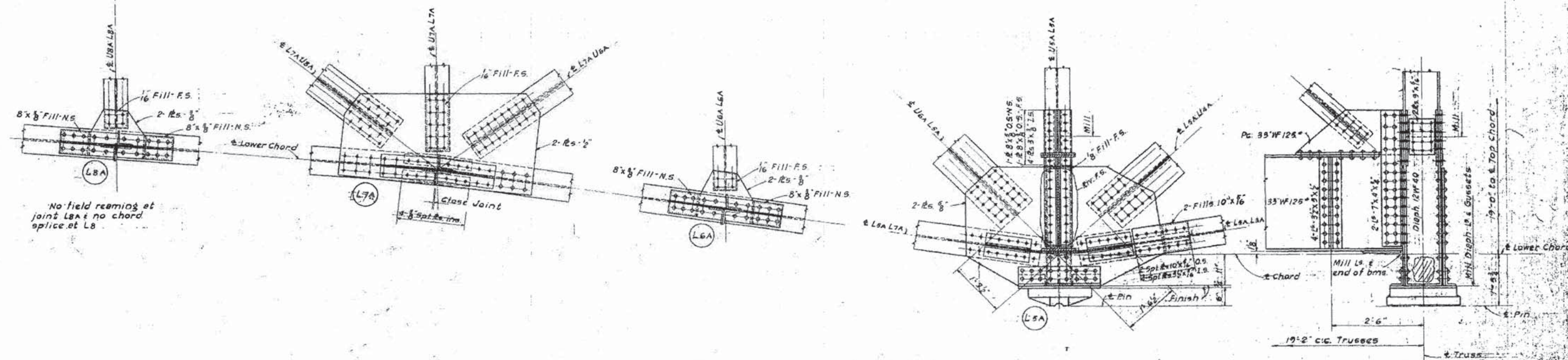
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.A. RT. 23	M 5	LaSalle	20	13
SHEET NO. 12				
18 SHEETS				

No field reaming required at joint U8A



No field reaming at joint L8A & no chord splice at L8



DETAILS NOT SHOWN SIMILAR TO CORRESPONDING MEMBERS ON NORTH HALF

TRUSS DETAILS: USA TO USA
PROJECT 51-A
VERMILION RIVER BRIDGE
S.A. ROUTE 23 SECTION 51-E6
LASALLE COUNTY
STA. 27+16

STANDARD	COMPUTED	EXAMINED
	RBH	4-22-1940
	CHECKED	J.F. Burch
	DRAWN	GP
	CHECKED	APPROVED
SPECIAL	ASSEMBLED	
	CHECKED	

FOR INFORMATION ONLY

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		CHECKED -	REVISED -
		DATE -	REVISED -

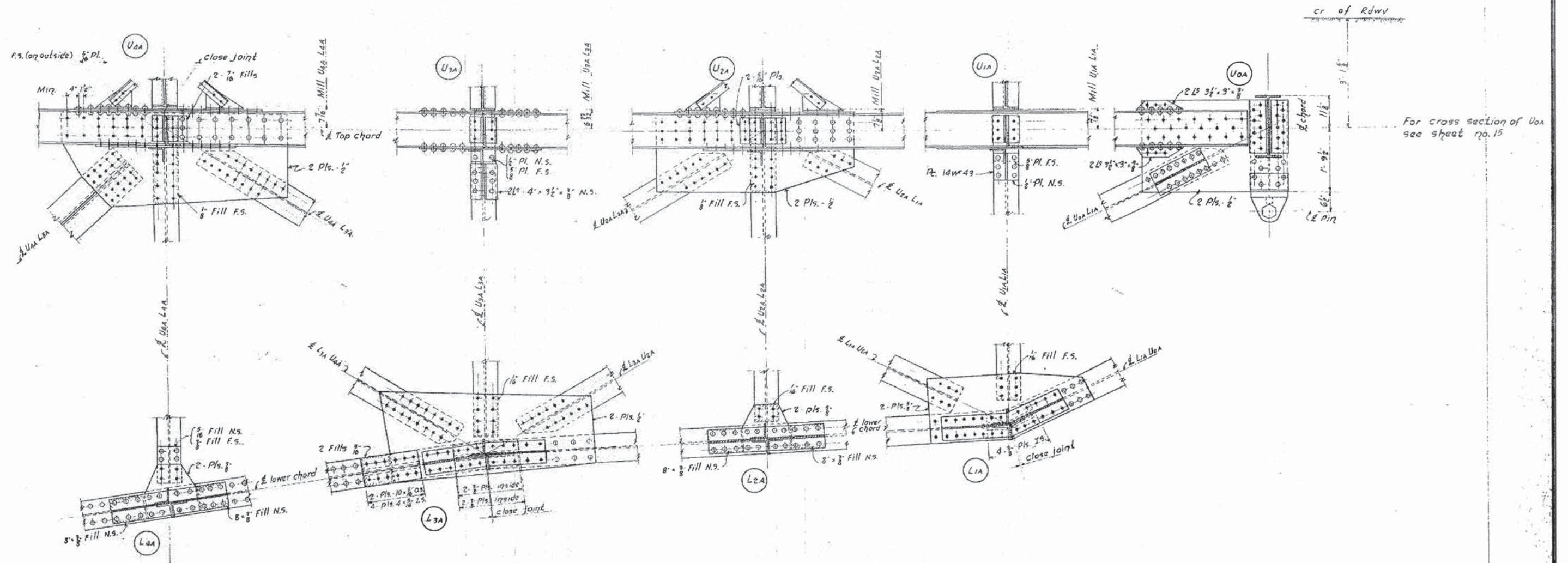
LASALLE COUNTY
HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS	
SCALE: N/A	SHEET NO. 25 OF 30 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	88
CONTRACT NO. B7605				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-G099054				

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
23	318	LaSalle	20	14	18 SHEETS
FED. AID DIST. NO. 7	ILLINOIS	FED. AID PROJECT - RAS, STA.			



For cross section of Uoa see sheet no. 15

Details not shown, similar to corresponding members on North half of truss.

COMPUTED	<i>B. Murphy</i>	EXAMINED	<i>4-22-1940</i>
CHECKED	<i>D. Miller</i>		
DRAWN	<i>B.M.</i>		
CHECKED	<i>B.M.</i>		
ASSEMBLED			
CHECKED			

TRUSS DETAILS U1A to U4A
PROJECT 51-A
VERMILLION RIVER BRIDGE
J.A. RT. 23 - SECTION 31-EF
LA SALLE COUNTY
STA. 27+16

J-7

FOR INFORMATION ONLY

FILE NAME =	USER NAME = bdecaene	DESIGNED -	REVISED -
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PLOT DATE = 8/13/2015		DATE -	REVISED -

LASALLE COUNTY
HIGHWAY DEPARTMENT

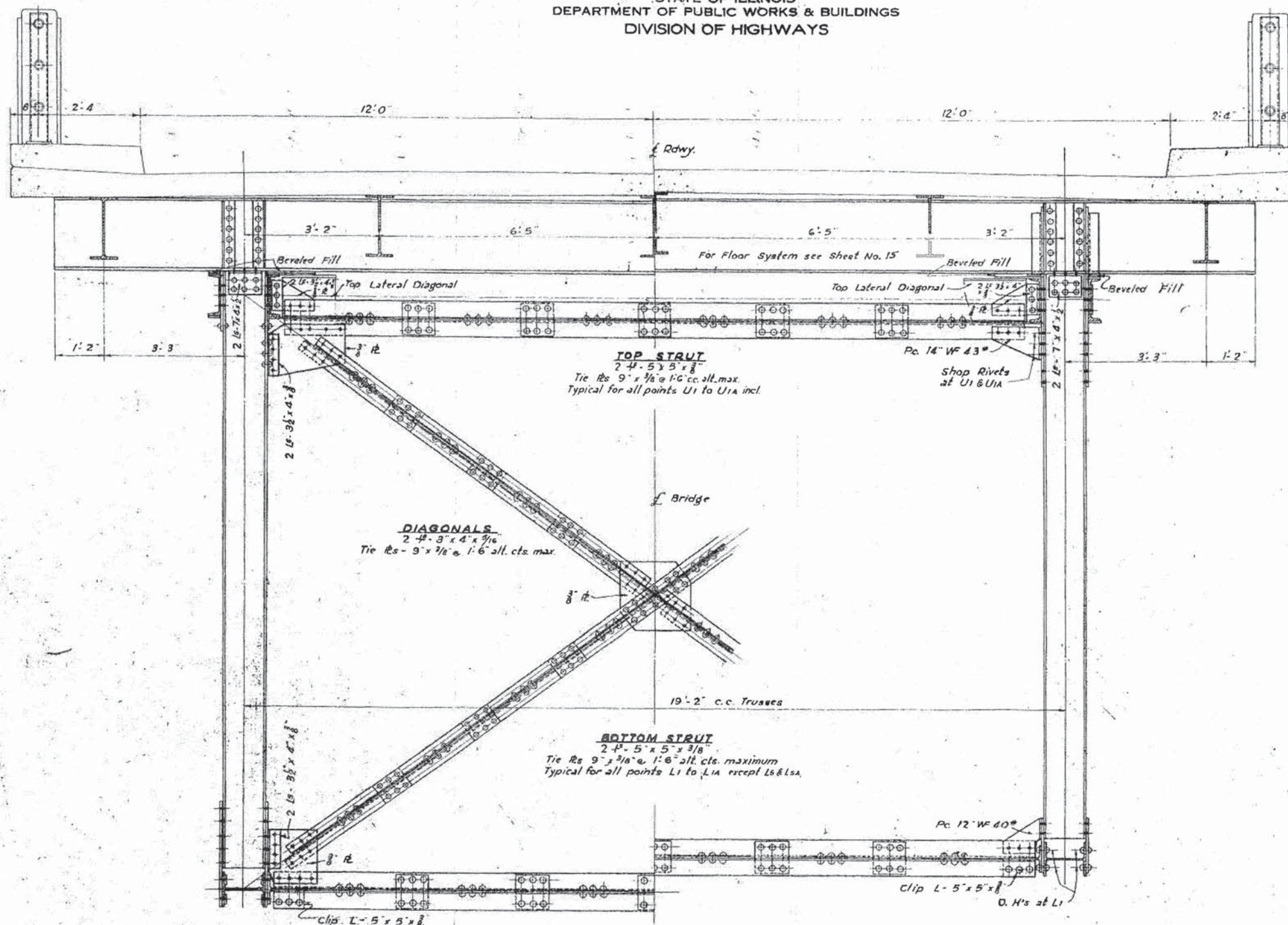
C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	89
CONTRACT NO. 87605				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BRS-009910541	

SCALE: N/A SHEET NO. 26 OF 30 SHEETS STA. TO STA.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14
S.A. RT. 23	318	La Salle	20	15	19 SHEETS
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	F.A.S. 31A		



HALF CROSS SECTION SHOWING
SWAY BRACING AT POINTS 3-7-9-7A & 3A

HALF CROSS SECTION SHOWING BRACING
AT POINTS 2-4-6-8-8A-6A-4A & 2A
STRUTS AT U1L1 & U1A-L1A SIMILAR EXCEPT AS NOTED
FOR CONNECTION TO TRUSS

FOR BRACING IN PLANE OF U₀L1 SEE SH. # 9
FOR CROSS SECTION AT U₀L5 SEE SH. # 10

CROSS SECTION SHOWING TRUSS BRACING
PROJECT 51-A
VERMILION RIVER BRIDGE
S.A. RTE. 23 - SECTION 31-E.F.
LASALLE COUNTY
STA. 27+16.0

STANDARD	COMPUTED	<i>[Signature]</i>	EXAMINED	<i>A-22-1940</i>
	CHECKED	<i>[Signature]</i>		<i>[Signature]</i>
SPECIAL	DRAWN	<i>RBM</i>	PASSED	<i>[Signature]</i>
	CHECKED	<i>[Signature]</i>		<i>[Signature]</i>
	ASSEMBLED		APPROVED	<i>[Signature]</i>
	CHECKED			

FOR INFORMATION ONLY

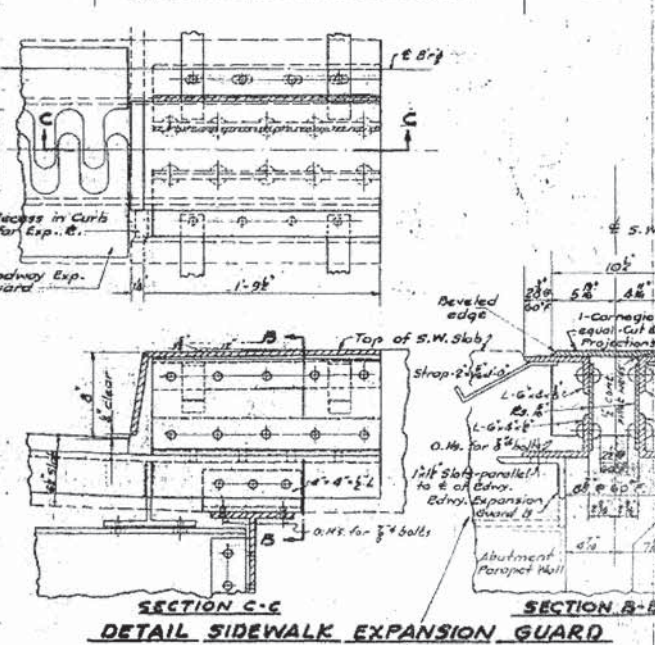
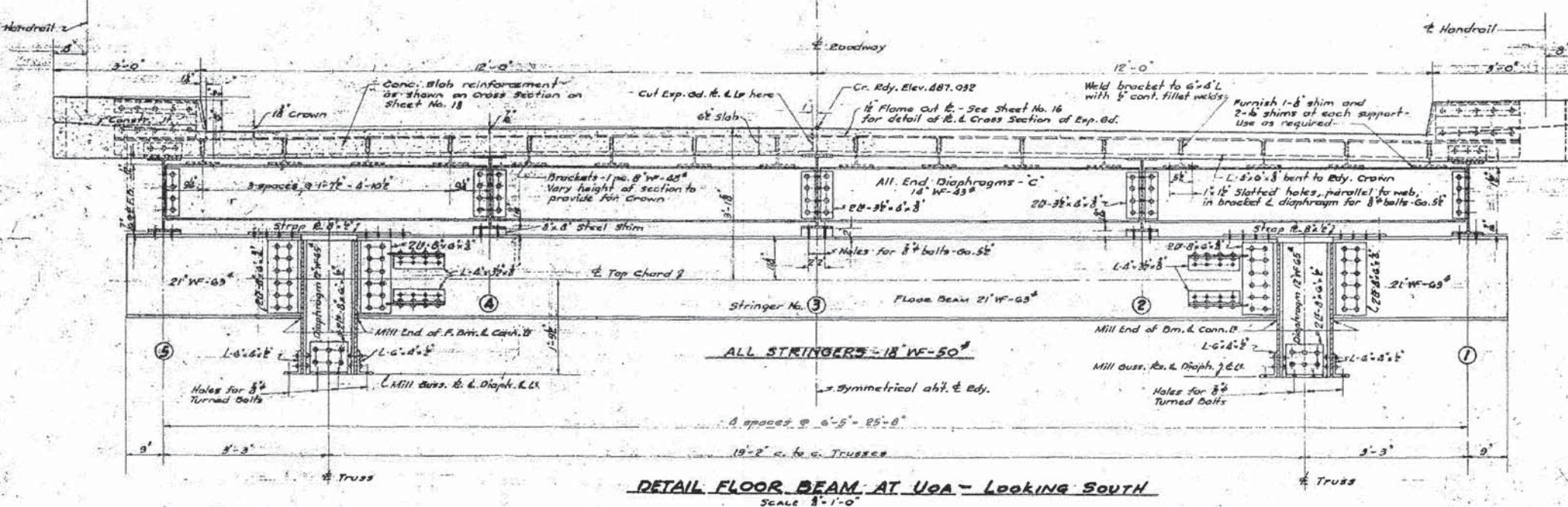
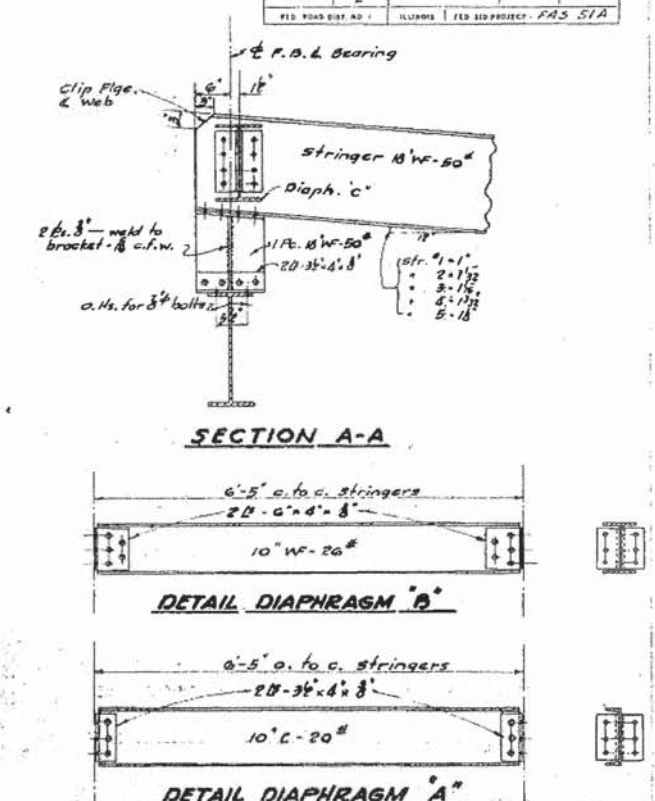
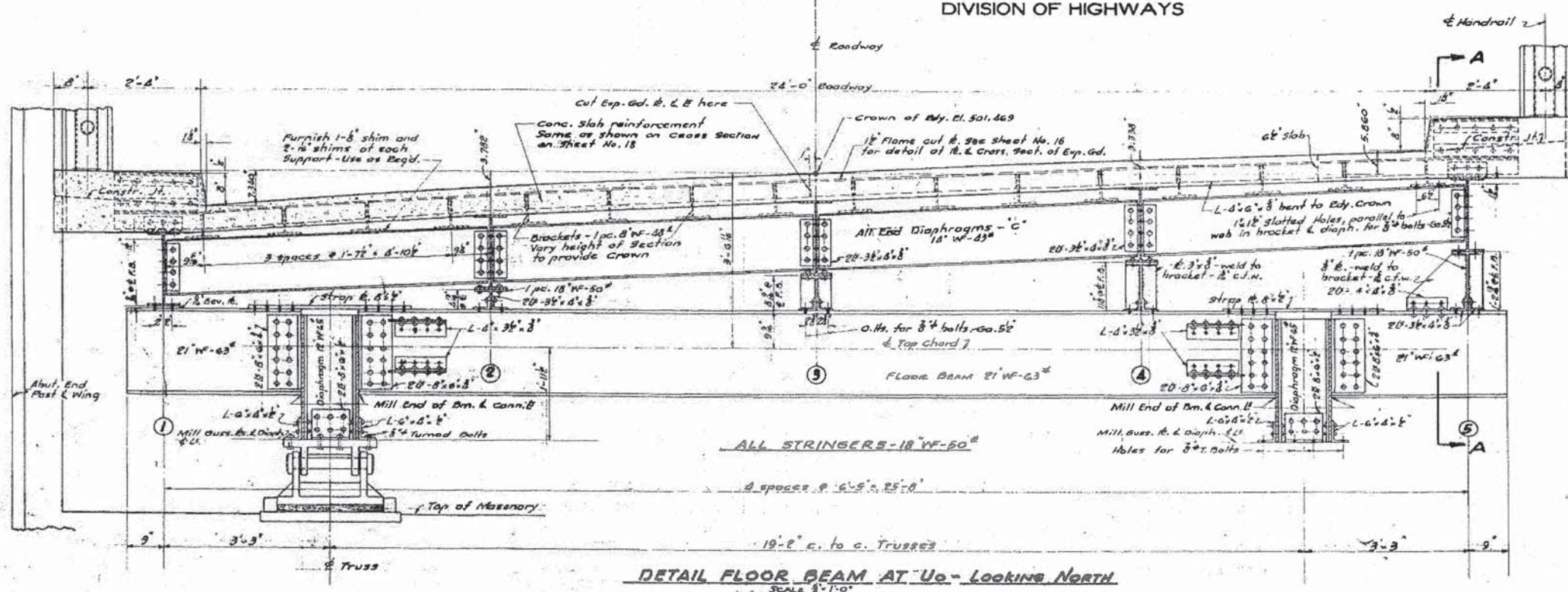
C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

SCALE: N/A SHEET NO. 27 OF 30 SHEETS STA. TO STA.

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		CHECKED -	REVISED -
		DATE -	REVISED -

LASALLE COUNTY
HIGHWAY DEPARTMENT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	90
CONTRACT NO. 87605				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	BRS-009910541	



COMPUTED	<i>W. J. ...</i>	EXAMINED	<i>A-23-1940</i>
CHECKED	<i>R.B.M.</i>	<i>W. J. ...</i>	
DRAWN	<i>R. E. ...</i>	PASSED	<i>W. J. ...</i>
CHECKED	<i>R.B.M.</i>	APPROVED	<i>W. J. ...</i>
SPECIAL			

NOTE: About half of Rdy & sidewalk expansion guard to be furnished by Contr. for sec. E and placed and adjusted by Contr. for sec. E at the time of pouring final section of abut. parapet wall. Anchor bolts for Exp. Guard in parapet wall furnished and installed by Contr. for sec. D.

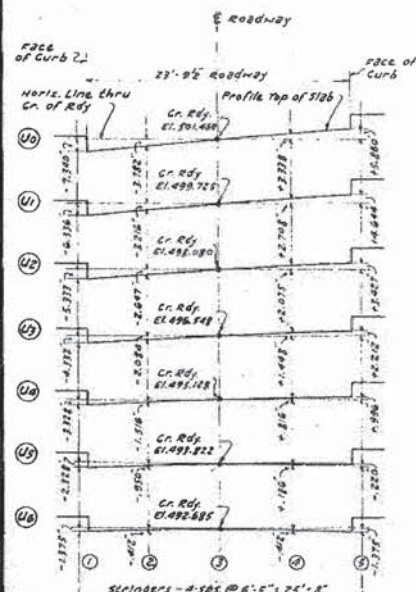
FLOOR SYSTEM DETAILS
PROJECT 51A
VERMILION RIVER BRIDGE
S.A. ROUTE 23 - SECTION 31-DEF
LA SALLE COUNTY
STA. 27 + 160

FOR INFORMATION ONLY

FILE NAME = V:\3461\CADD Drawings\CADD Sheets\3461-ent-ent-structure-28.dgn	USER NAME = bdecarane	DESIGNED -	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 1,000,000 / in.	DESIGNED -	REVISED -	275			09-00031-02-BR	LA SALLE	108	91	
PLOT DATE = 8/13/2015	CHECKED -	REVISED -	CONTRACT NO. 87605							
	DATE	REVISED -	SCALE: N/A			SHEET NO. 28 OF 30 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT BRS-00990504

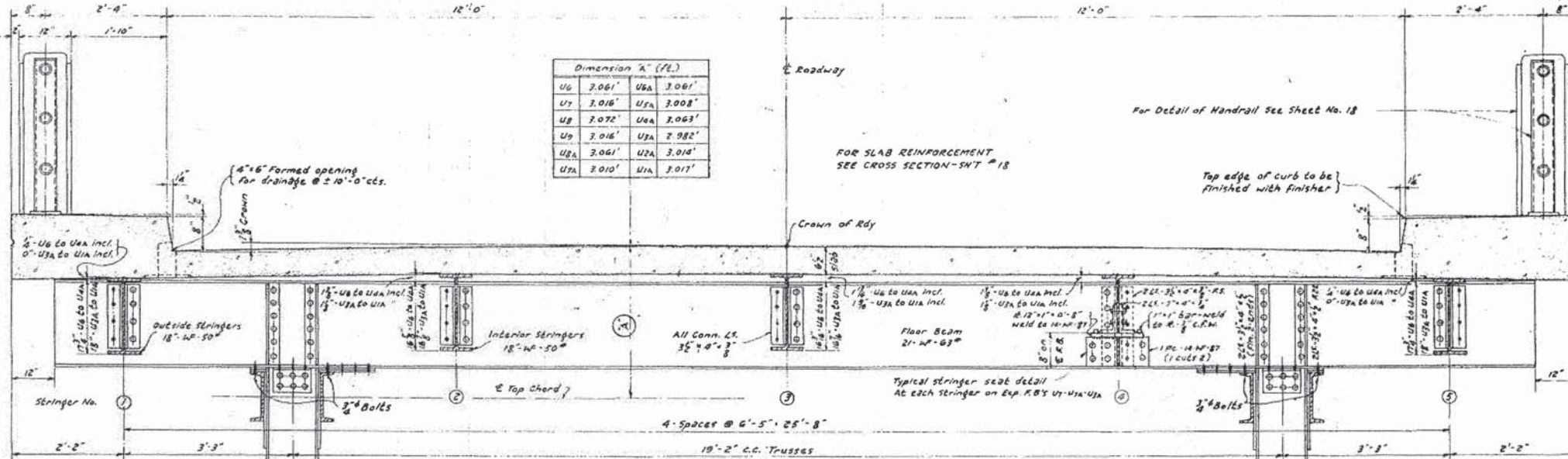
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DISTRICT NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. OF SHEETS
23	23	La Salle	20	17
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT - P23-51A



PROFILE TOP OF SLAB

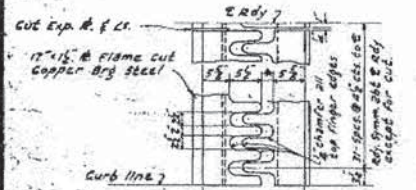
Slab profiles at floor beams U6 to U10A same as shown above for U6, except crown elevation.



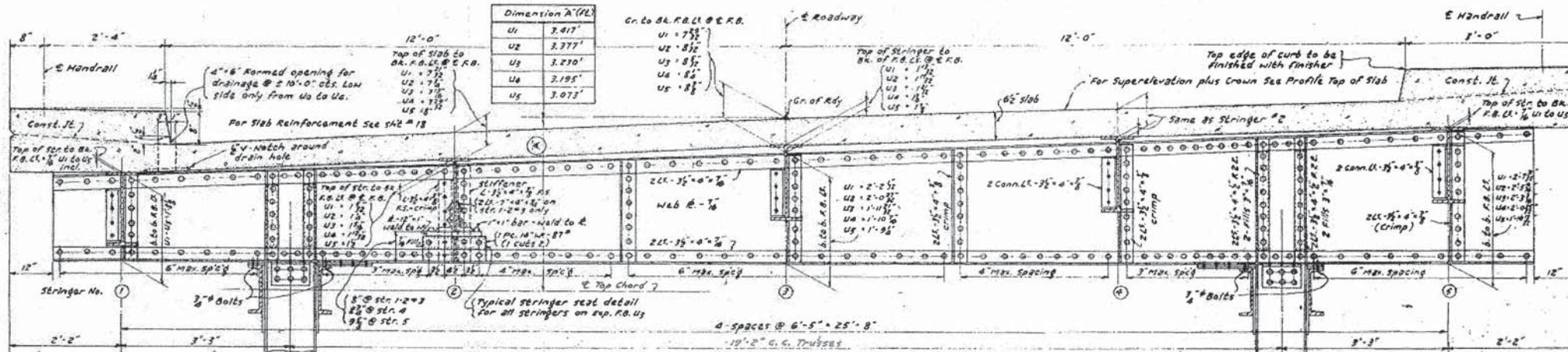
TYPICAL FLOOR BEAM DETAIL U6 TO U10A (incl.)

Dimension A' (ft.)

U6	2.061'	U6A	2.061'
U7	2.016'	U7A	2.008'
U8	2.072'	U8A	2.063'
U9	2.016'	U9A	2.982'
U10A	2.061'	U10A	2.014'
U11A	2.010'	U11A	2.017'



DETAIL AT U6



TYPICAL FLOOR BEAM DETAIL U1 TO U5 (incl.)

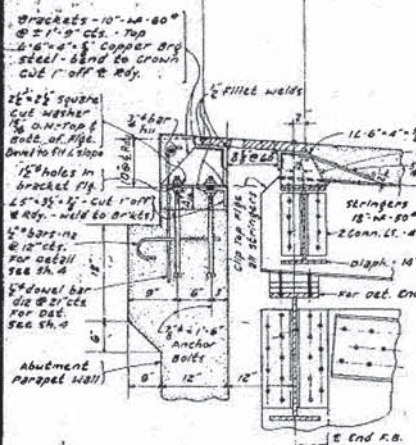
Dimension A' (ft.)

U1	2.417'
U2	2.777'
U3	2.730'
U4	2.195'
U5	3.073'

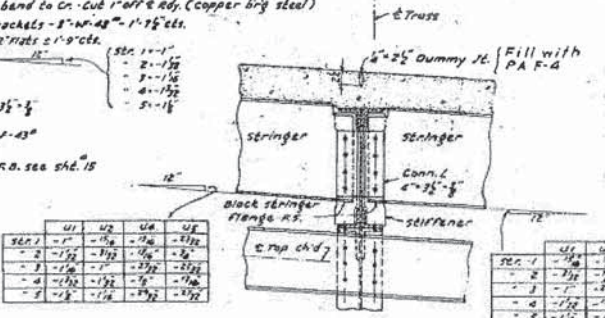
TABLE OF DIMENSIONS FOR SETTING FINGER PLATES

Temp. (°F)	Abutment	Abut.
10°	3 1/2"	2 1/2"
20°	3 1/2"	2 1/2"
30°	2 1/2"	2 1/2"
40°	2 1/2"	2 1/2"
50°	2 1/2"	2 1/2"
60°	2 1/2"	2 1/2"
70°	2 1/2"	2 1/2"
80°	2 1/2"	2 1/2"
90°	2 1/2"	2 1/2"
100°	2 1/2"	2 1/2"
110°	2 1/2"	2 1/2"

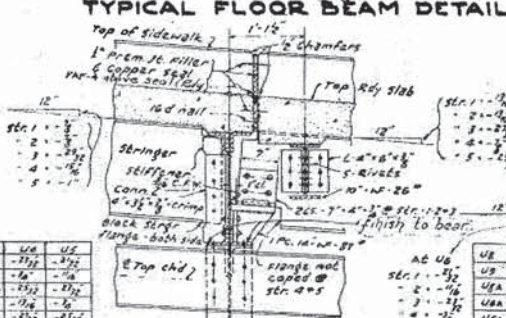
Assumed Normal Temp. Fabricate steel for 60°F.



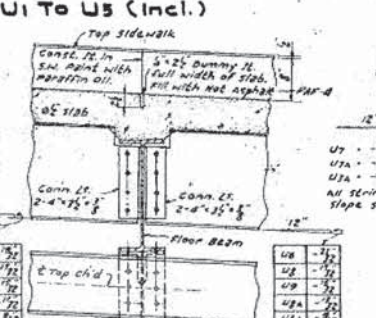
DETAIL AT U10



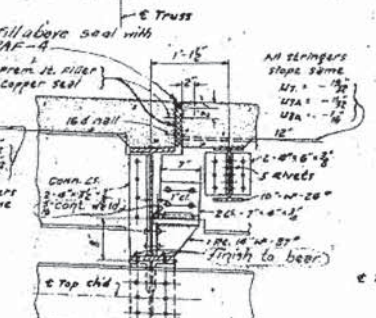
DET. STR' CONN. AT U1-U2-U4-U5



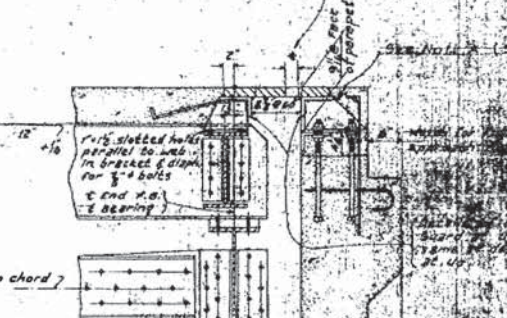
STRINGER EXPAN. DETAIL AT U3



DET. STR'G'R CONNECT'N AT U6-U8-U9-U10A-U11A-U12A-U13A



STRINGER EXP. DETAIL AT U7-U8-U9-U10A-U11A-U12A-U13A



EXPANSION DET. AT U14

FLOOR SYSTEM DETAIL
PROJECT - 51A
VERMILION RIVER BRIDGE
S.A. ROUTE 23 SEC. 31 P.E.
LA SALLE COUNTY
STA. 27+15.0

STANDARD	COMPUTED	P. P. M. M.
	CHECKED	R. M. M.
	DRAWN	P. M. M.
	CHECKED	R. M. M.
SPECIAL	ASSEMBLED	
	CHECKED	

EXAMINED 4-22-1940
A. F. B. B. B.
PASSED
APPROVED

REV. 5-11-40 STR. EXP. SEAT AT U3 (L3) 211

FOR INFORMATION ONLY

FILE NAME =	USER NAME = bdecrone	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

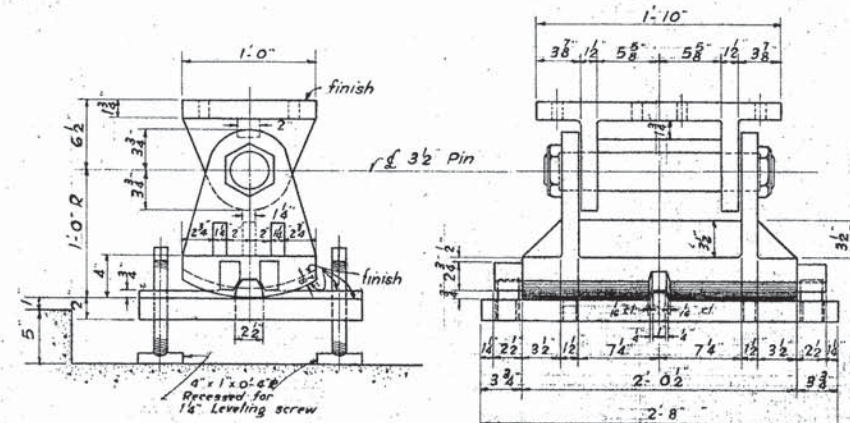
LASALLE COUNTY
HIGHWAY DEPARTMENT

C.H. 23 (ED HAND HIGHWAY) EXISTING STRUCTURE PLANS	
SCALE: N/A	SHEET NO. 29 OF 30 SHEETS STA. TO STA.

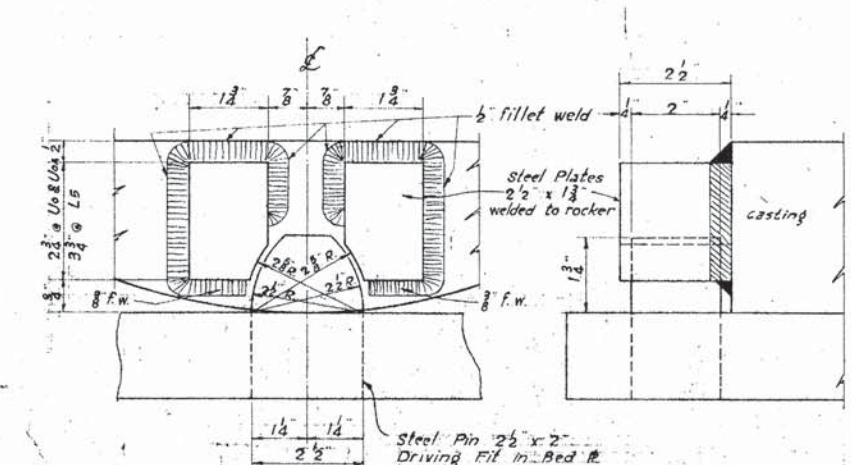
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	92
CONTRACT NO. 87605			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-00990541	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET DATE
S.A. RT. 318 23		LaSalle	20	16	18 SHEETS
FED. ROAD DIST. NO. 111	ILLINOIS	FED. AID PROJECT: BR5, S1A			



DETAIL OF EXPANSION BRG. AT Uo & Uoa



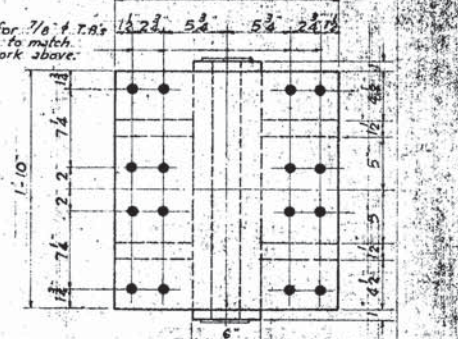
DETAIL OF CENTERING PIN

MATERIAL FOR ONE END BRG AT L5 - 2 REQUIRED

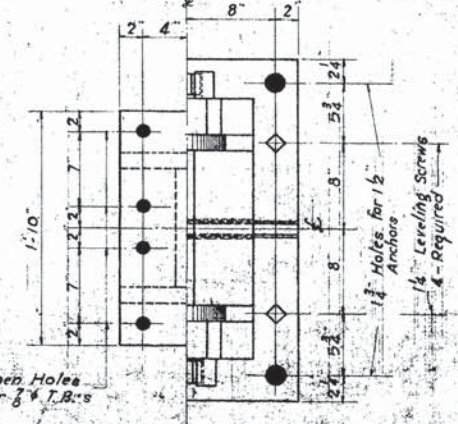
UPPER SHOE
STEEL R - 20" x 3/4" x 1'-10" (FIN. TO 3)
- 24 1/2 x 3" x 0.6" C.
- STIFFS - 1/2" THICK

LOWER SHOE
CAST STEEL ROCKER
4 STEEL R6 - 3 3/8" x 1 1/2" x 2 1/2"

BEARINGS, P.S.
24 x 4 1/2 x 3/4" G (FIN. TO 3 1/2")
2 CENTERING PINS - 2 1/2" x 2" x 5/4"
PINS AND TWO NUTS - SEE DETAILS
4 2" Leveling Screws (4 RTs - 5" x 1" x 0" - 5")



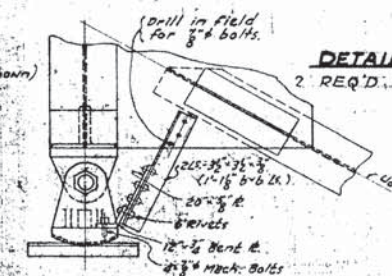
PLAN - UPPER SHOE



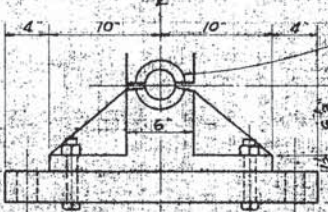
HALF PLAN UPPER SHOE
HALF PLAN LOWER SHOE & BASE

MATERIAL FOR ONE BRG ASSEMBLY
4 - REQUIRED

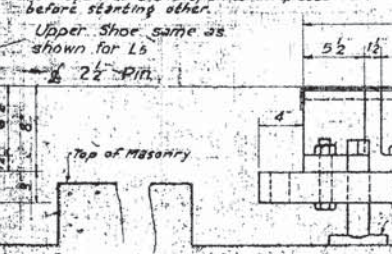
1 - cast steel upper shoe
1 - Cast Steel Rocker (4 lbs. 25" x 7 1/2" x 2 1/2")
1 - Steel Brg. R - 20" x 3/4" x 2'-8" (Fin. to 2" of skid)
2 - Centering Pins - 2 1/2" x 2" x 5/4"
1 - Pin & 2 Nuts (Standard)
4 - 1 1/2" Leveling Screws
4 - RTs - 5" x 1" x 0" - 5" (recessed)



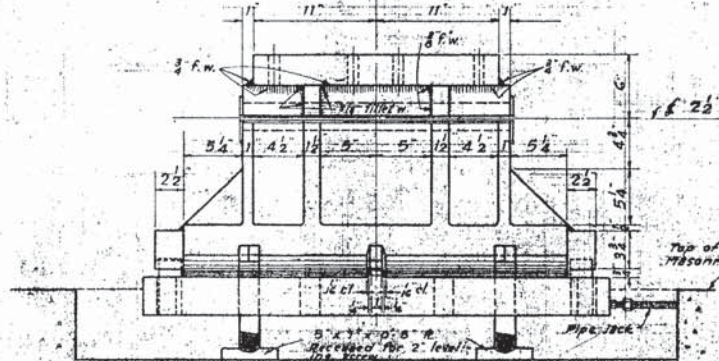
ROCKER LOCK AT Uo & Uoa



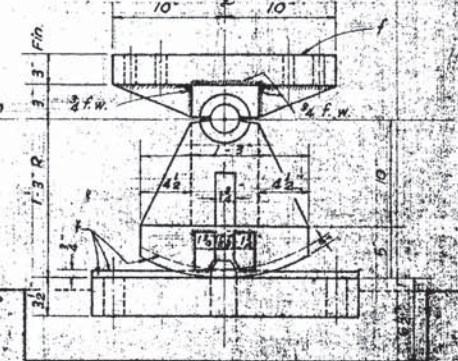
SIDE ELEVATION



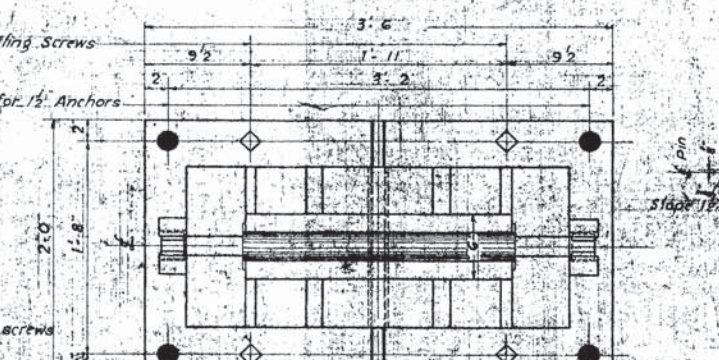
ELEVATION - END BRGS AT L5A



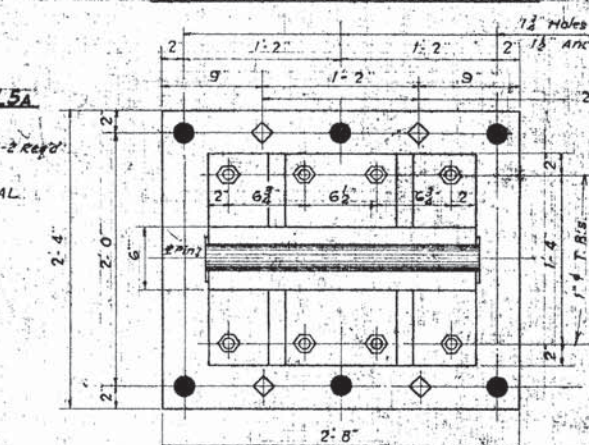
ELEVATION END BEARINGS AT L5



SIDE ELEVATION



PLAN - LOWER CASTINGS AND RED PLATE

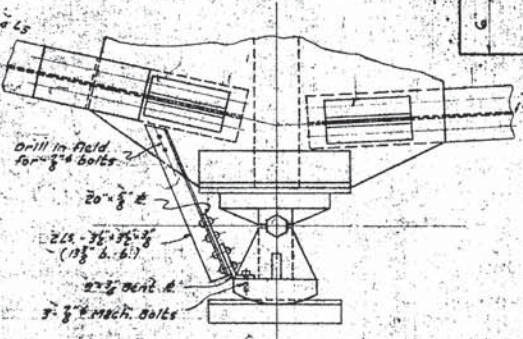


PLAN - LOWER CASTING & BASE

DETAILS - FIXED BRG AT L5a

MATERIAL REQUIRED FOR ONE BEARING - 2 req'd

UPPER SHOE - SAME AS FOR L5
LOWER SHOE - CAST STEEL PEDESTAL
BEARING R - 28" x 3" x 2'-8"
PINS AND 2 NUTS - SEE DETAIL
4 - 2" Leveling Screws
4 RTs - 5" x 1" x 0" - 5"



ROCKER LOCK DEVICE AT L5
- 2 req'd
To be removed after closing center span.

NOTE - Incorporate equal cement concrete in the bearing pits by concrete for 2' depth minimum. Screws shall be removed and holes patched after concrete has set. For dimensions of pits, see sheets 17 & 18.

TRUSS BEARINGS
PROJECT 51A
VERMILION RIVER BRIDGE
S.A. ROUTE 135 SEC 5
LA SALLE COUNTY
STA 27 + 00

COMPUTED	R.M. Murphy
CHECKED	R.M. Murphy
DRAWN	R.M. Murphy
CHECKED	P.M. Murphy
ASSEMBLED	
CHECKED	

EXAMINED	4-22-1940
PASSED	
APPROVED	

FOR INFORMATION ONLY

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DESIGNED	REVISED	DATE	REVISED

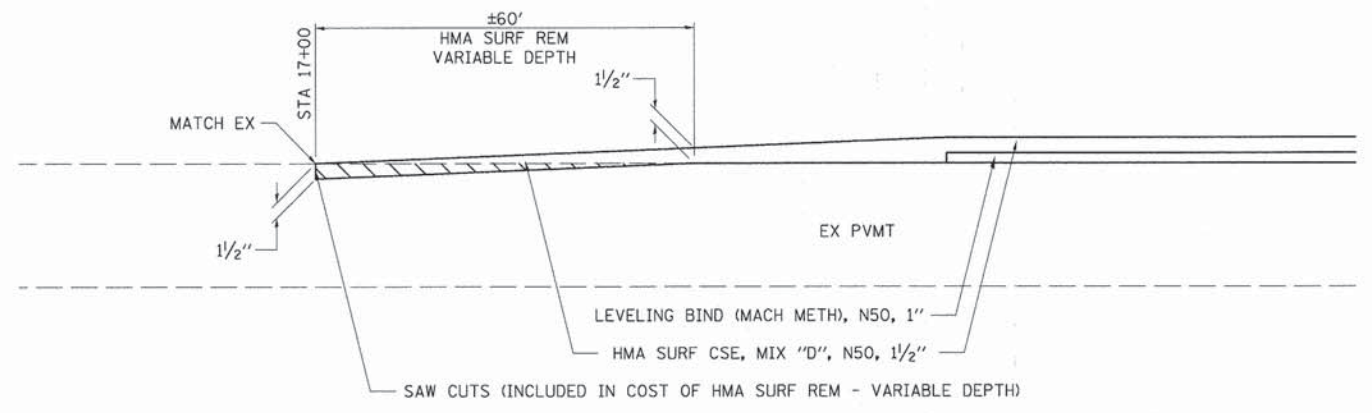
LASALLE COUNTY
HIGHWAY DEPARTMENT

SCALE	SHEET NO.	SHEETS	STA.	TO STA.
N/A	30 OF 30			

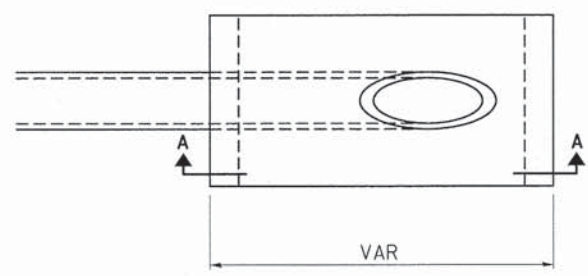
C.H. 23 (ED HAND HIGHWAY)
EXISTING STRUCTURE PLANS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	93
CONTRACT NO. 87605				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BR5-00910541

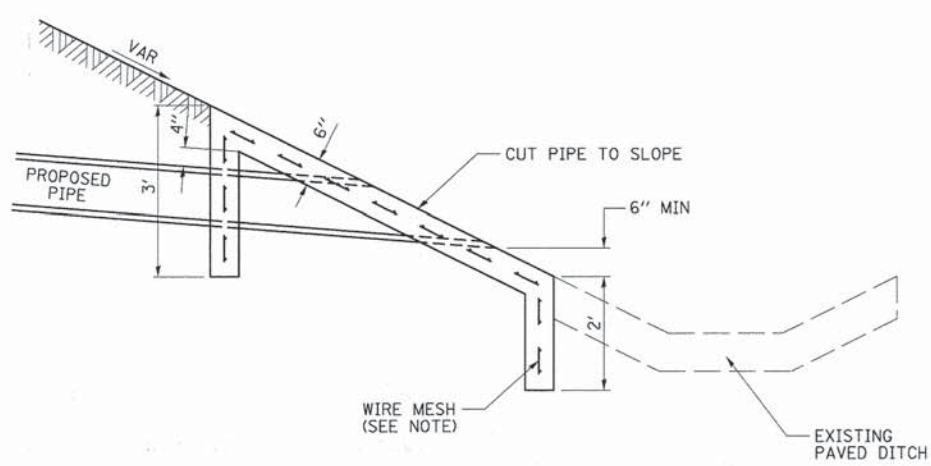


BEGINNING TRANSITION DETAIL

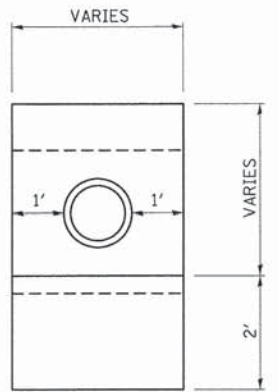


PLAN VIEW

NOTE:
 COST OF FURNISHING AND INSTALLING WIRE MESH SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR MISCELLANEOUS CONCRETE. WIRE MESH TO WEIGH NOT LESS THAN 58# PER 100 SQ. FT.

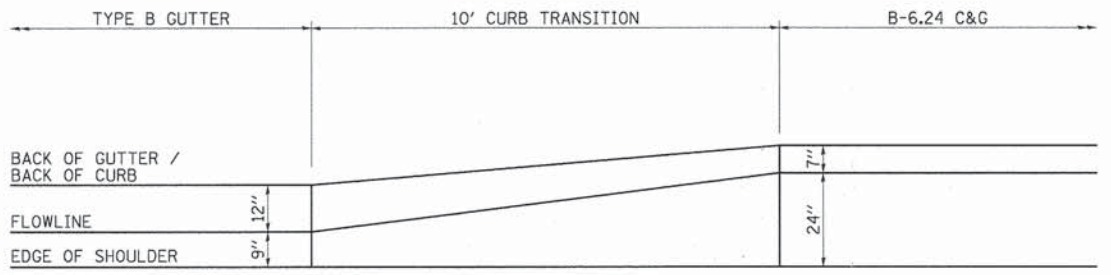


SECTION A-A



FRONT VIEW

**SLOPE WALL (SPECIAL)
 MISCELLANEOUS CONCRETE**



CURB TRANSITION DETAIL

TRANSITION INCLUDED IN THE COST OF THE COMBINATION CURB & GUTTER B-6.24

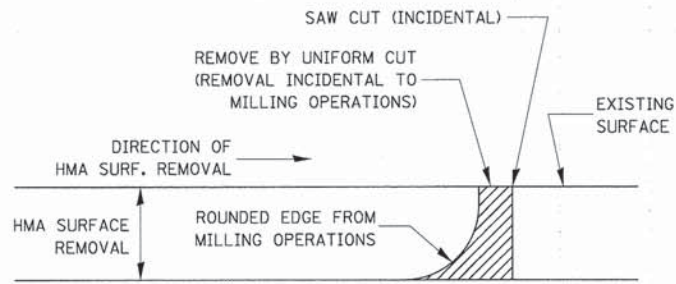
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PLOT SCALE = 20.0000' / 1"		CHECKED - DJD	REVISED -
PLOT DATE = 8/13/2015		DATE - 8/3/2015	REVISED -

**LASALLE COUNTY
 HIGHWAY DEPARTMENT**

**CH 23 (ED HAND HIGHWAY)
 SPECIAL DETAILS**

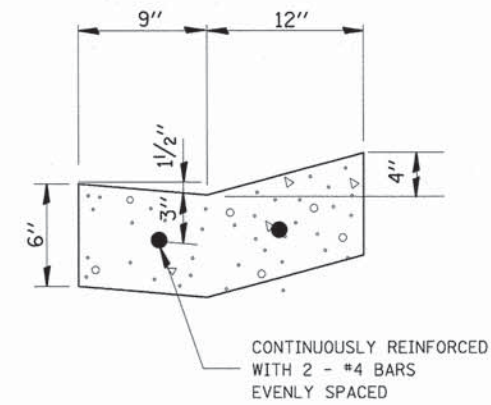
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	94
CONTRACT NO. 87605				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT BRS-0099054				



NOTE:
 WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL.

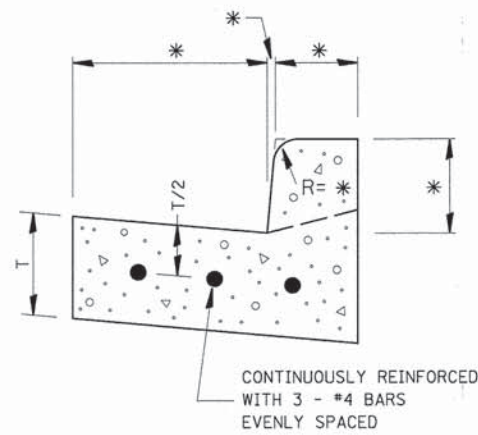
HMA DETAIL AT BUTT JOINTS



REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR GUTTER.

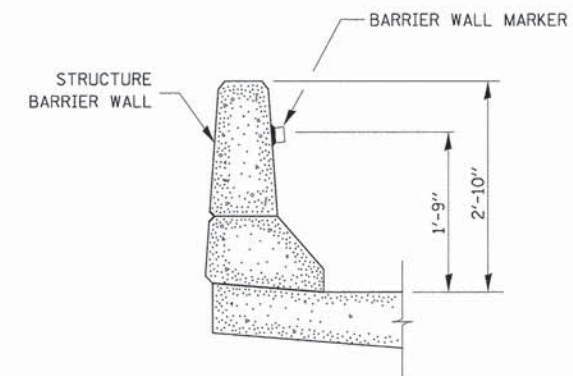
REINFORCEMENT DETAIL FOR TYPE V GUTTER

* VARIES - SEE STANDARD 606001



REINFORCEMENT SHALL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CC&G.

REINFORCEMENT DETAIL FOR COMBINATION CONCRETE CURB AND GUTTER

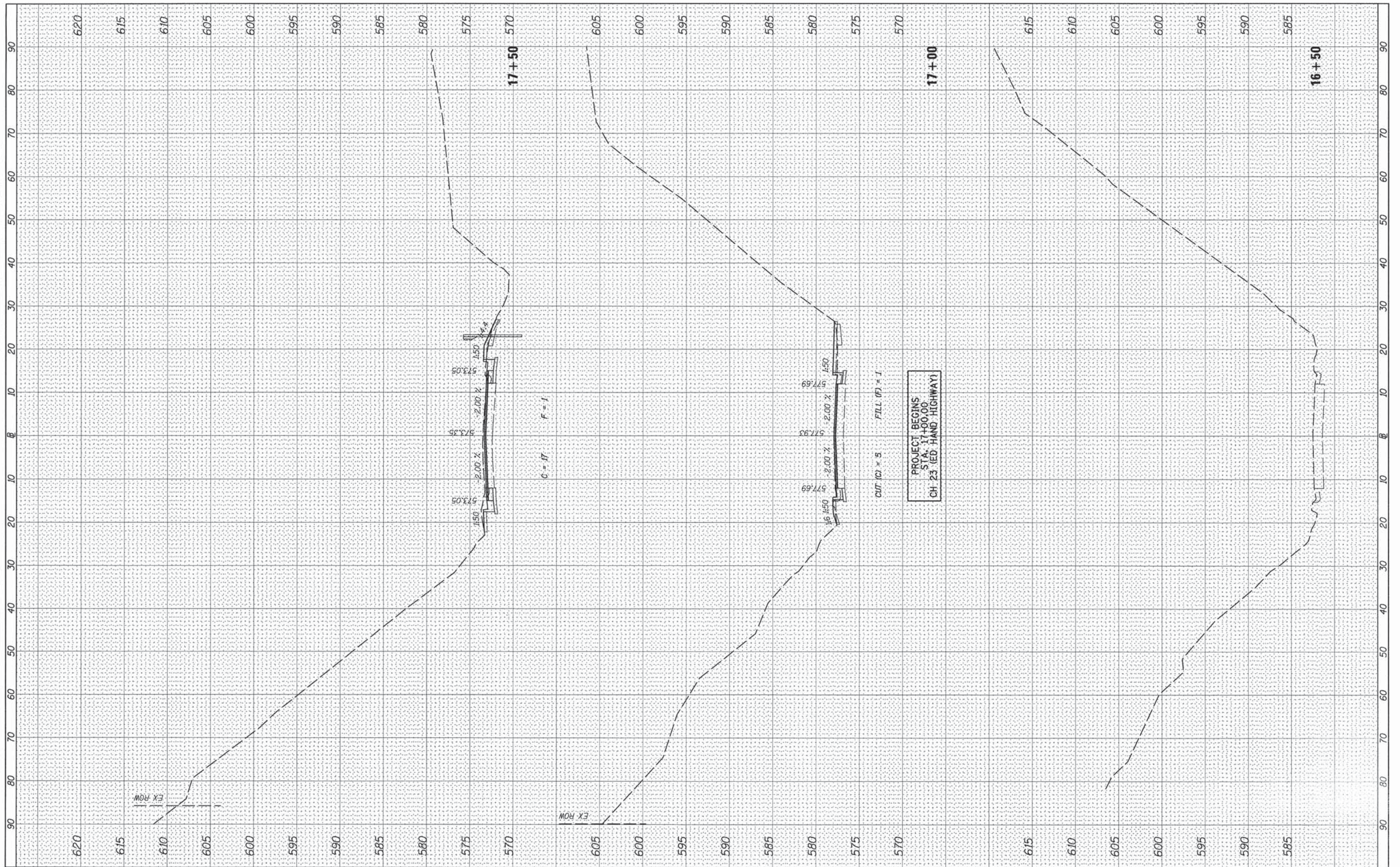


BARRIER WALL MARKER

FILE NAME =	USER NAME = bdecreone	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) SPECIAL DETAILS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLLOT DATE = 8/13/2015	DATE - 8/3/2015	REVISED -		SCALE: N/A	SHEET NO. 2 OF 2 SHEETS	STA. N/A	TO STA. N/A	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT BRS-00980541		

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

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



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**LASALLE COUNTY
HIGHWAY DEPARTMENT**

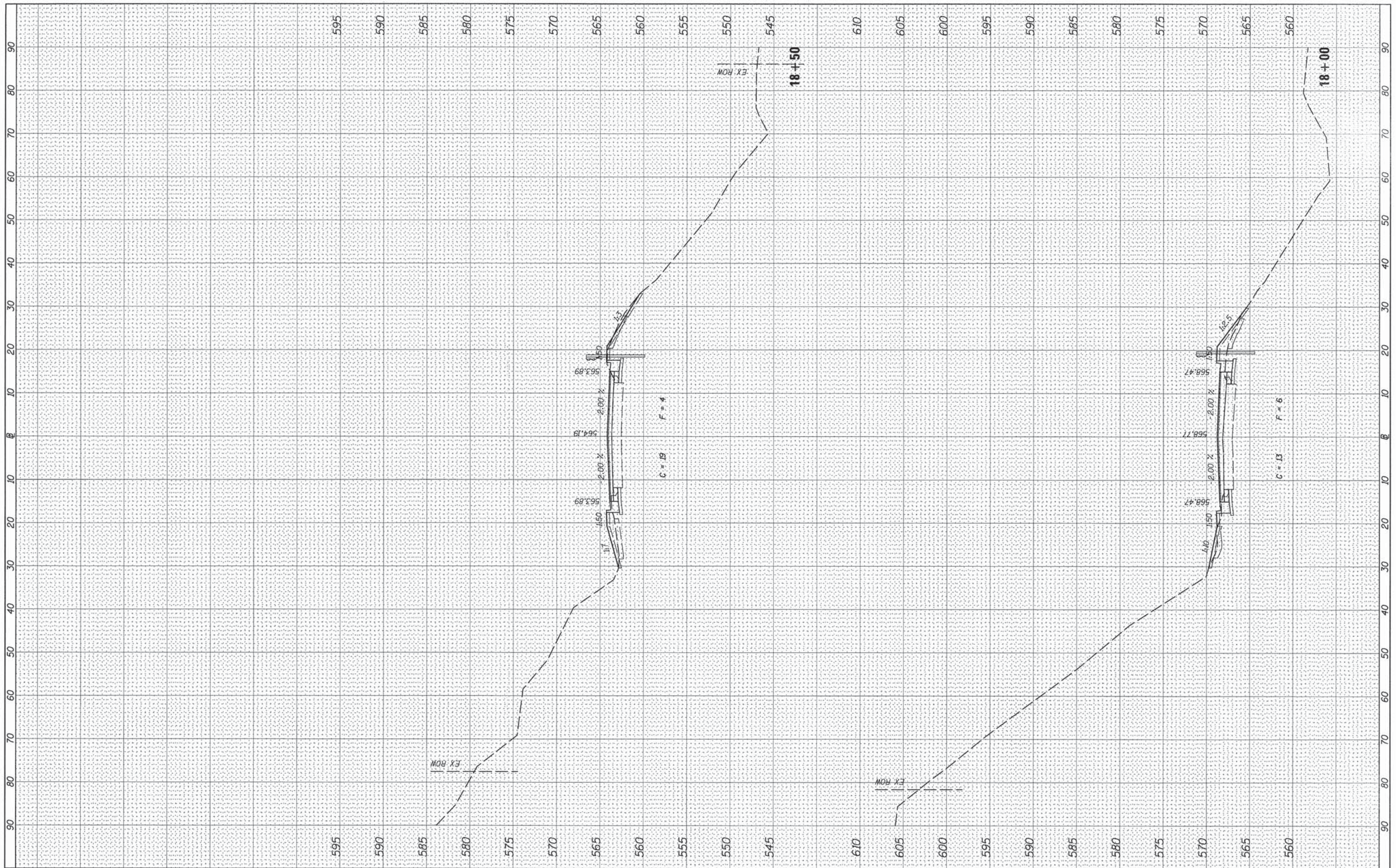
CH 23 (ED HAND HIGHWAY) CROSS SECTIONS

SCALE: H=10 V=5 SHEET 1 OF 13 SHEETS STA. 16+50 TO STA. 17+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	96
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

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

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



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 USER NAME = bdecrane
 PLOT SCALE = 10.0000' / 1" / 1" / 1"
 PLOT DATE = 8/13/2015

DESIGNED - LDZ	REVISED -
DRAWN - RMD	REVISED -
CHECKED - DJD	REVISED -
DATE - 8/3/2015	REVISED -

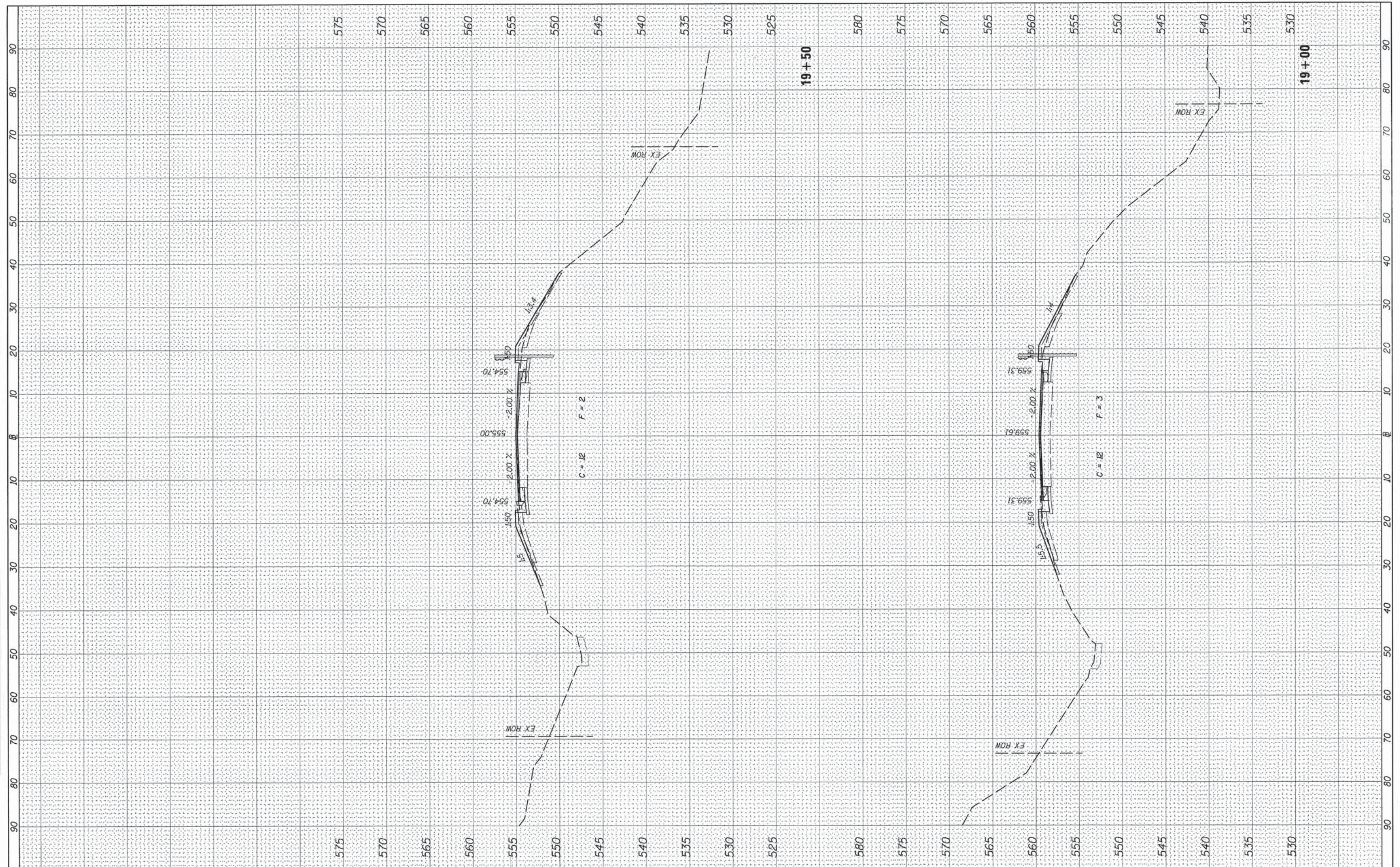
**LASALLE COUNTY
HIGHWAY DEPARTMENT**

CH 23 (ED HAND HIGHWAY) CROSS SECTIONS
 SCALE: H=10 V=5 SHEET 2 OF 13 SHEETS STA. 18+00 TO STA. 18+50

F.A. RTE. 275	SECTION 09-00031-02-BR	COUNTY LA SALLE	TOTAL SHEETS 108	SHEET NO. 97
CONTRACT NO.				ILLINOIS FED. AID PROJECT

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NOTE BOOK	PLOTTED	BY
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	AREAS	
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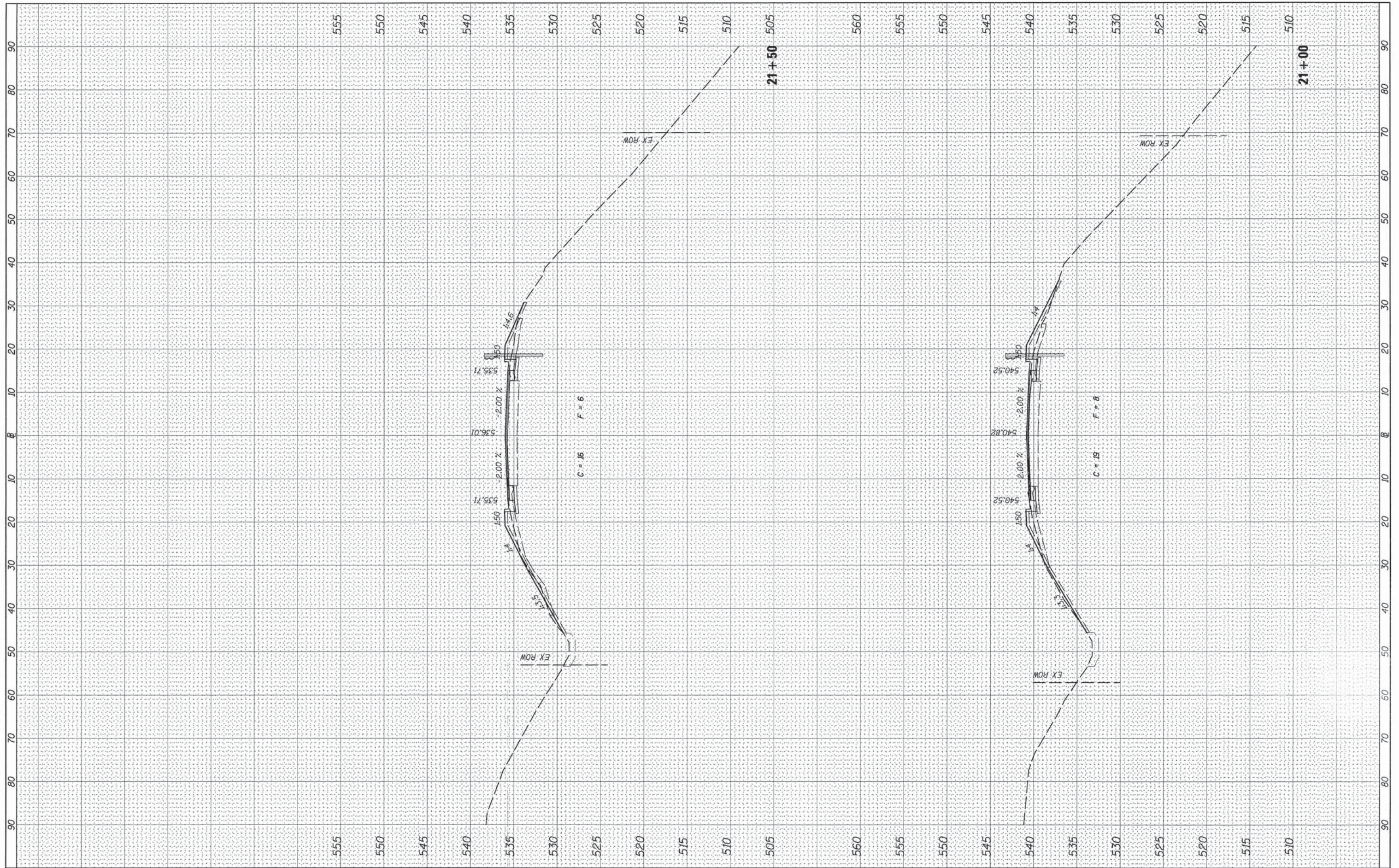
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NOTE BOOK	PLOTTED	BY
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	PLOT DATE = 8/13/2015	CHECKED - DJD	REVISED -			STA. 19+00 TO STA. 19+50						
		DATE - 8/3/2015	REVISED -									

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

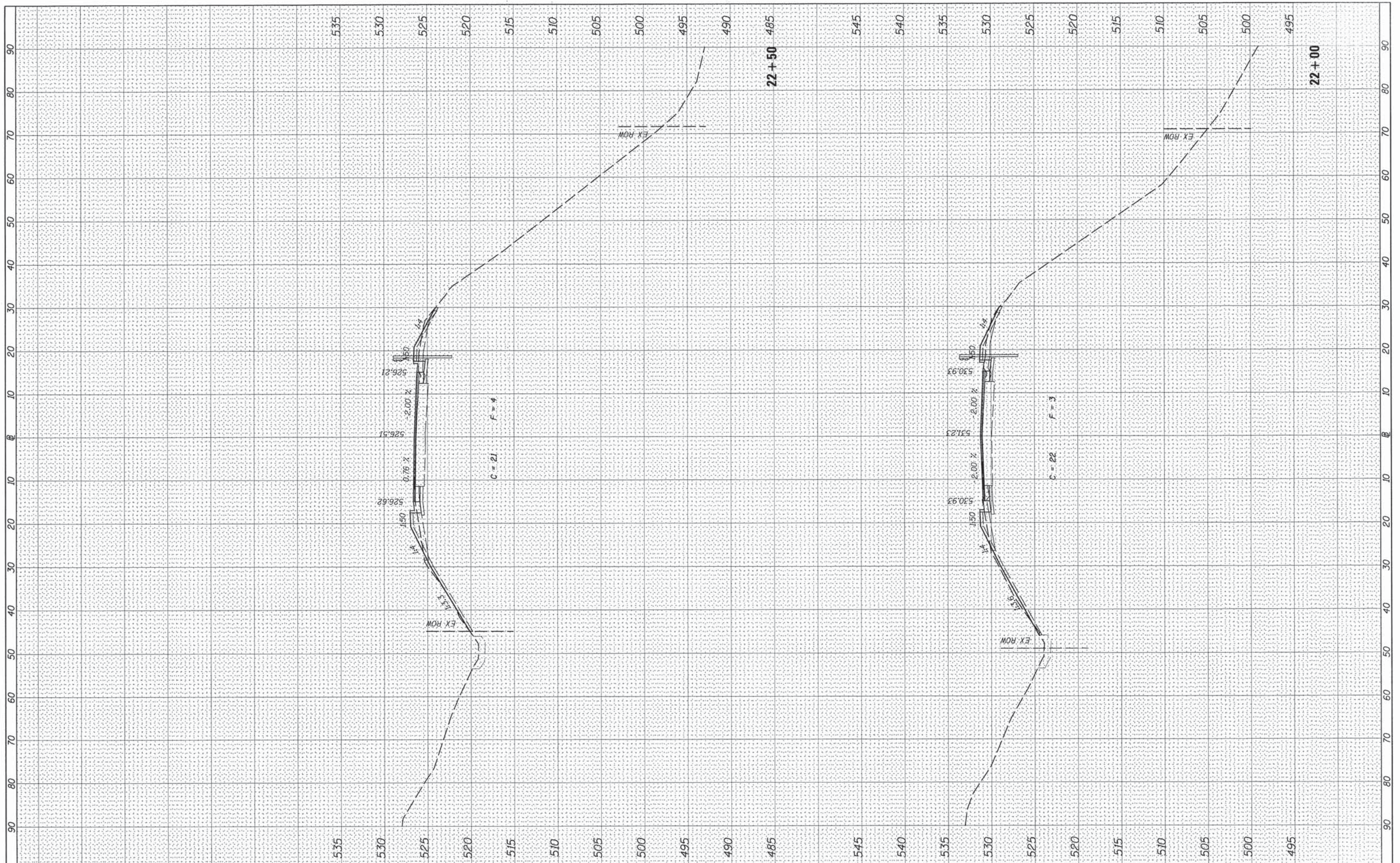
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NOTE BOOK NO.	PLOTTED		
	DATE		
	AREAS CHECKED		



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PLOT SCALE = 10,0000' / 1" =		DRAWN - RMD	REVISED -		SCALE: H=10 V=5	SHEET 5	OF 13 SHEETS	STA. 21+00	TO STA. 21+50	CONTRACT NO.		
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		DATE - 8/3/2015	REVISED -									

FINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
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**LASALLE COUNTY
HIGHWAY DEPARTMENT**

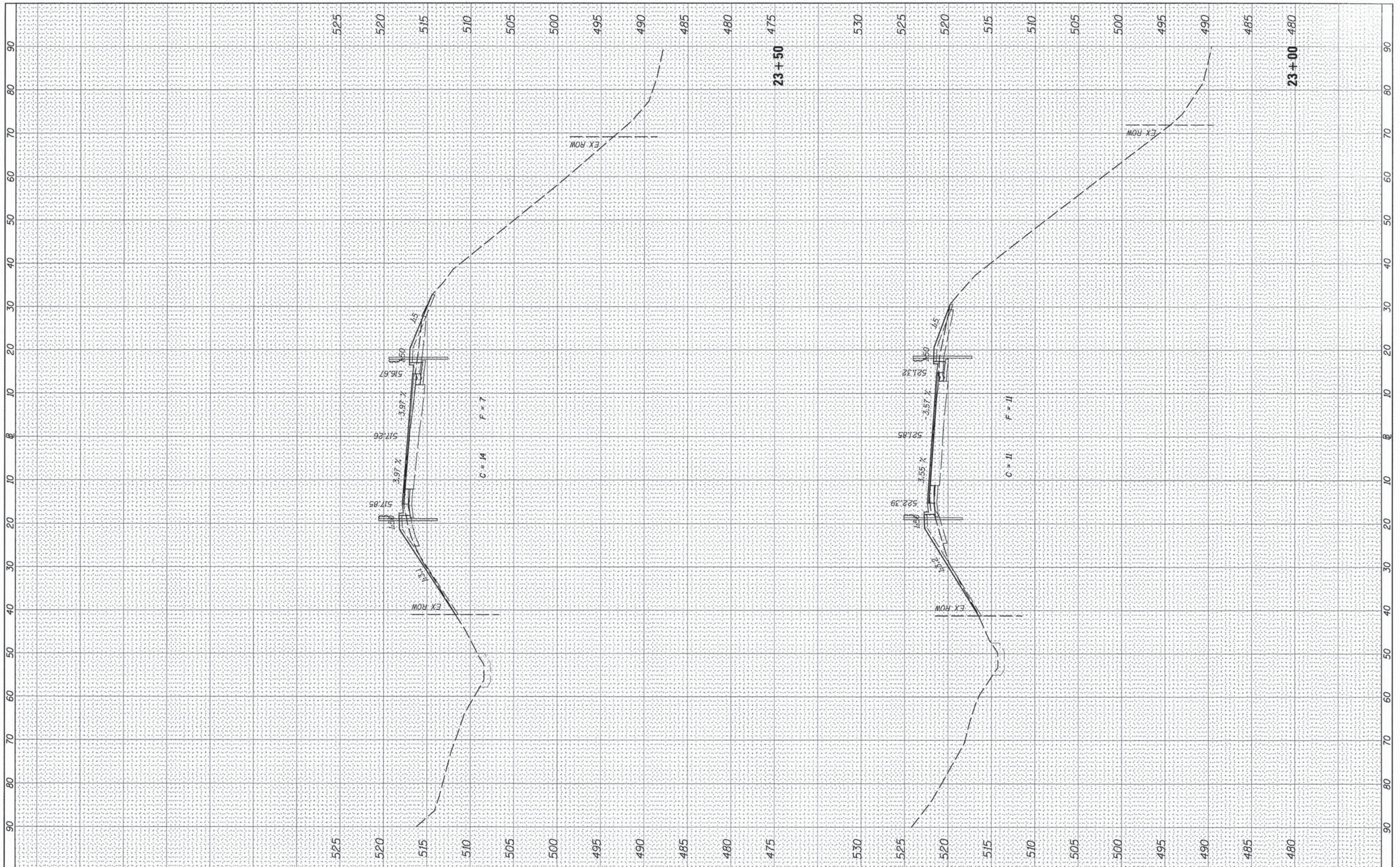
CH 23 (ED HAND HIGHWAY) CROSS SECTIONS

SCALE: H=10 V=5 SHEET 6 OF 13 SHEETS STA. 22+00 TO STA. 22+50

F.A. RTE. 275	SECTION 09-00031-02-BR	COUNTY LA SALLE	TOTAL SHEETS 108	SHEET NO. 101
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

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

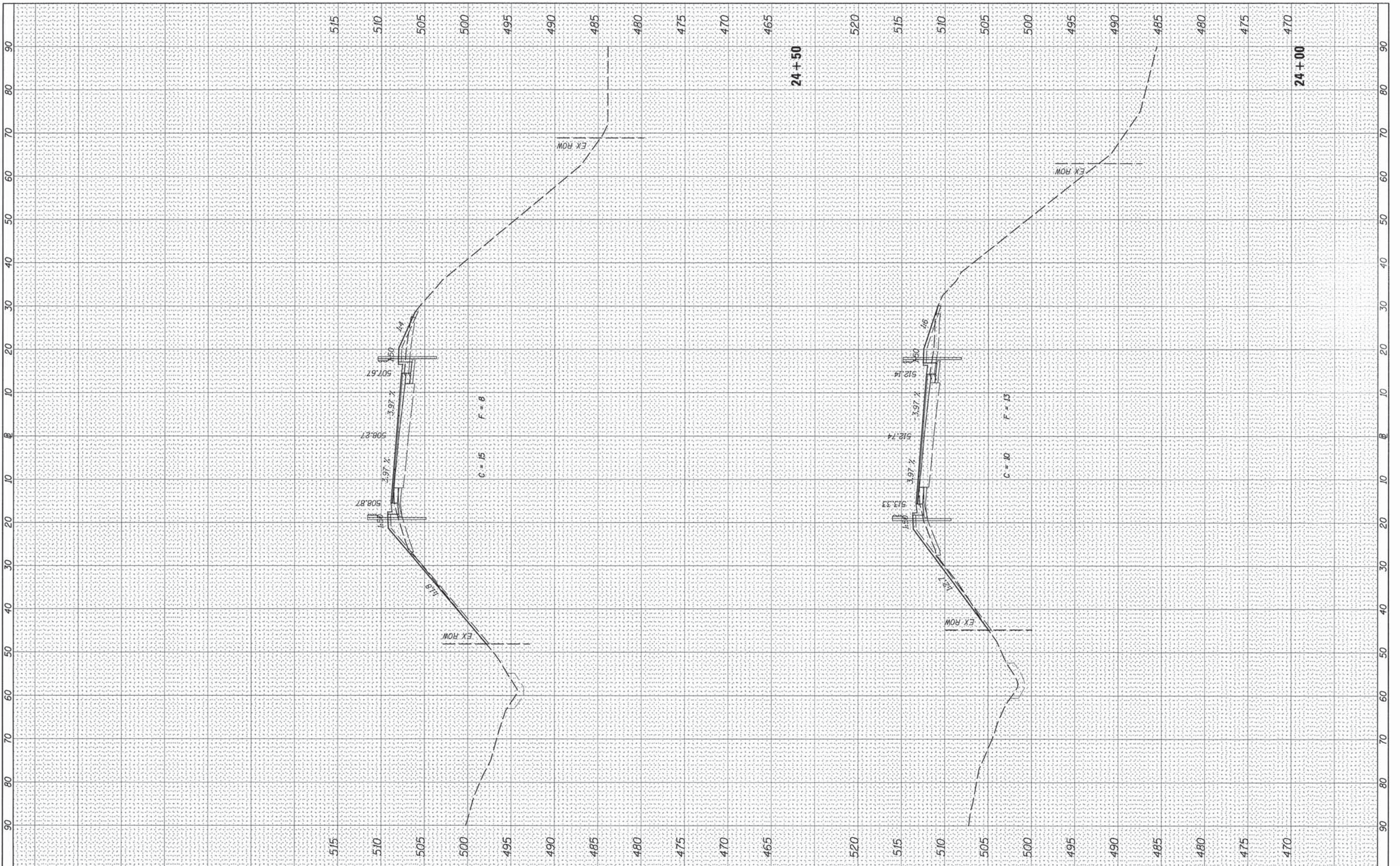
ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	



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Default	PLOT SCALE = 10.0000' / 1"	DRAWN - RMD	REVISED -			SCALE: H=10 V=5	SHEET 7 OF 13 SHEETS	STA. 23+00	TO STA. 23+50	CONTRACT NO.	
	PLOT DATE = 8/13/2015	CHECKED - DJD	REVISED -							ILLINOIS FED. AID PROJECT	
		DATE - 8/3/2015	REVISED -								

FINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		



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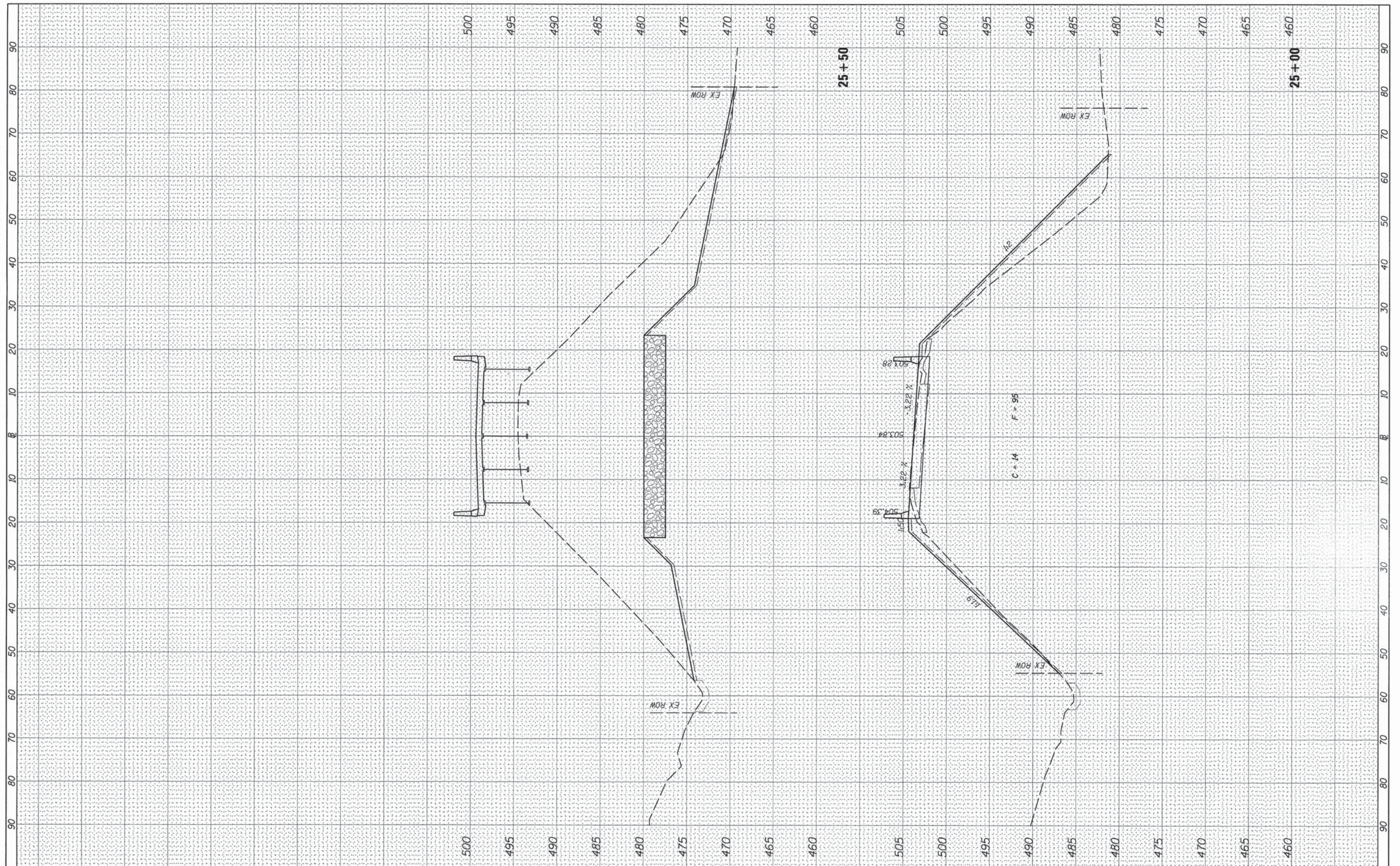
**LASALLE COUNTY
HIGHWAY DEPARTMENT**

CH 23 (ED HAND HIGHWAY) CROSS SECTIONS
SCALE: H=10 V=5 SHEET 8 OF 13 SHEETS STA. 24+00 TO STA. 24+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	103
				CONTRACT NO.
ILLINOIS FED. AID PROJECT				

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

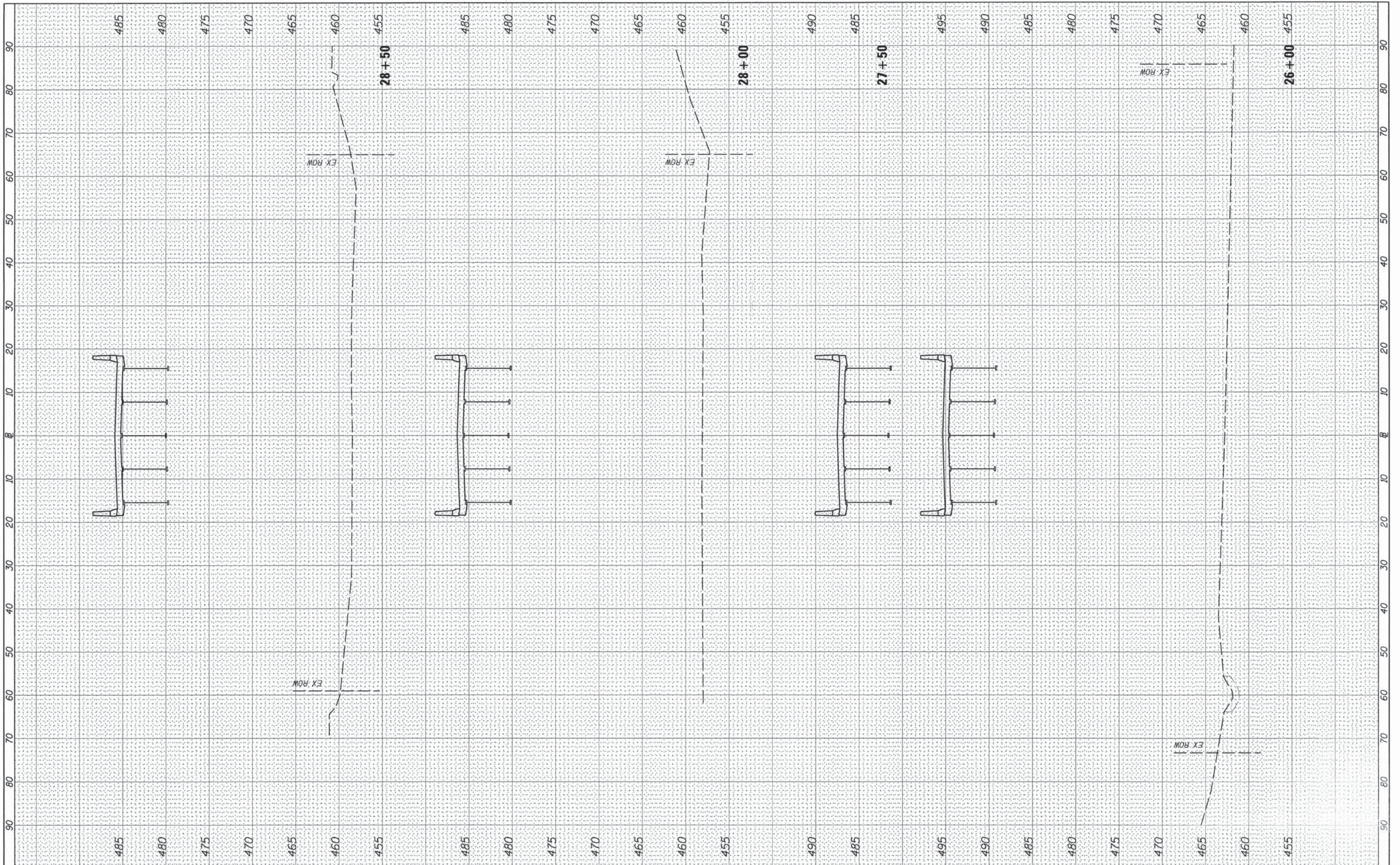
ORIGINAL SURVEY NO.	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
	AREAS CHECKED		



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Default	PLOT SCALE = 10.0000' / in.	DRAWN - RMD	REVISED -		SCALE: H=10 V=5	SHEET 9 OF 13 SHEETS	STA. 25+00 TO STA. 25+50	CONTRACT NO.		ILLINOIS FED. AID PROJECT	
	PLOT DATE = 8/13/2015	CHECKED - DJD	REVISED -								
		DATE - 8/3/2015	REVISED -								

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

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



FILE NAME =	USER NAME = bdecrone	DESIGNED - LDZ	REVISED -
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**LASALLE COUNTY
HIGHWAY DEPARTMENT**

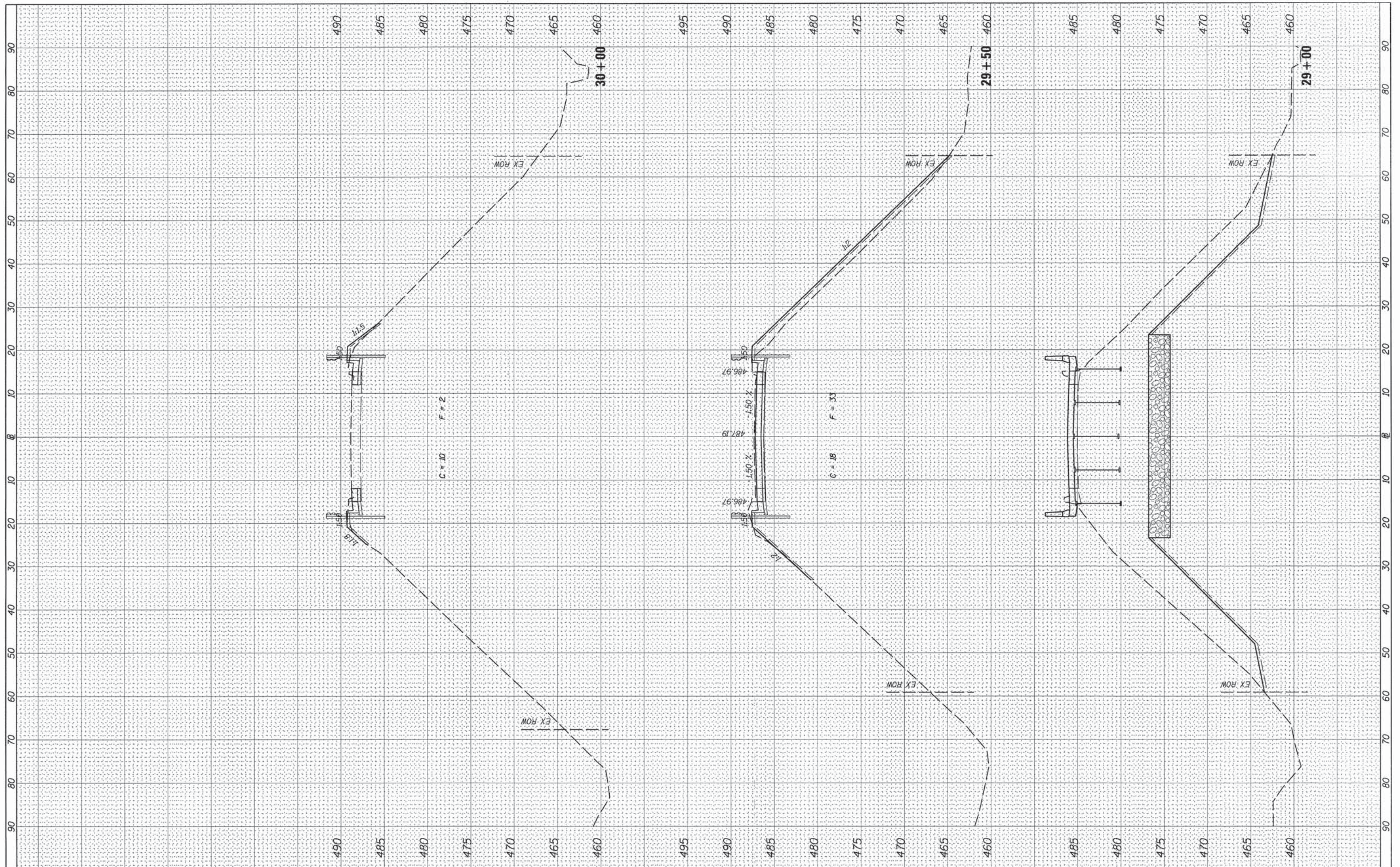
CH 23 (ED HAND HIGHWAY) CROSS SECTIONS

SCALE: H=10 V=5 SHEET 10 OF 13 SHEETS STA. 26+00 TO STA. 28+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	105
CONTRACT NO.				
[ILLINOIS] FED. AID PROJECT				

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

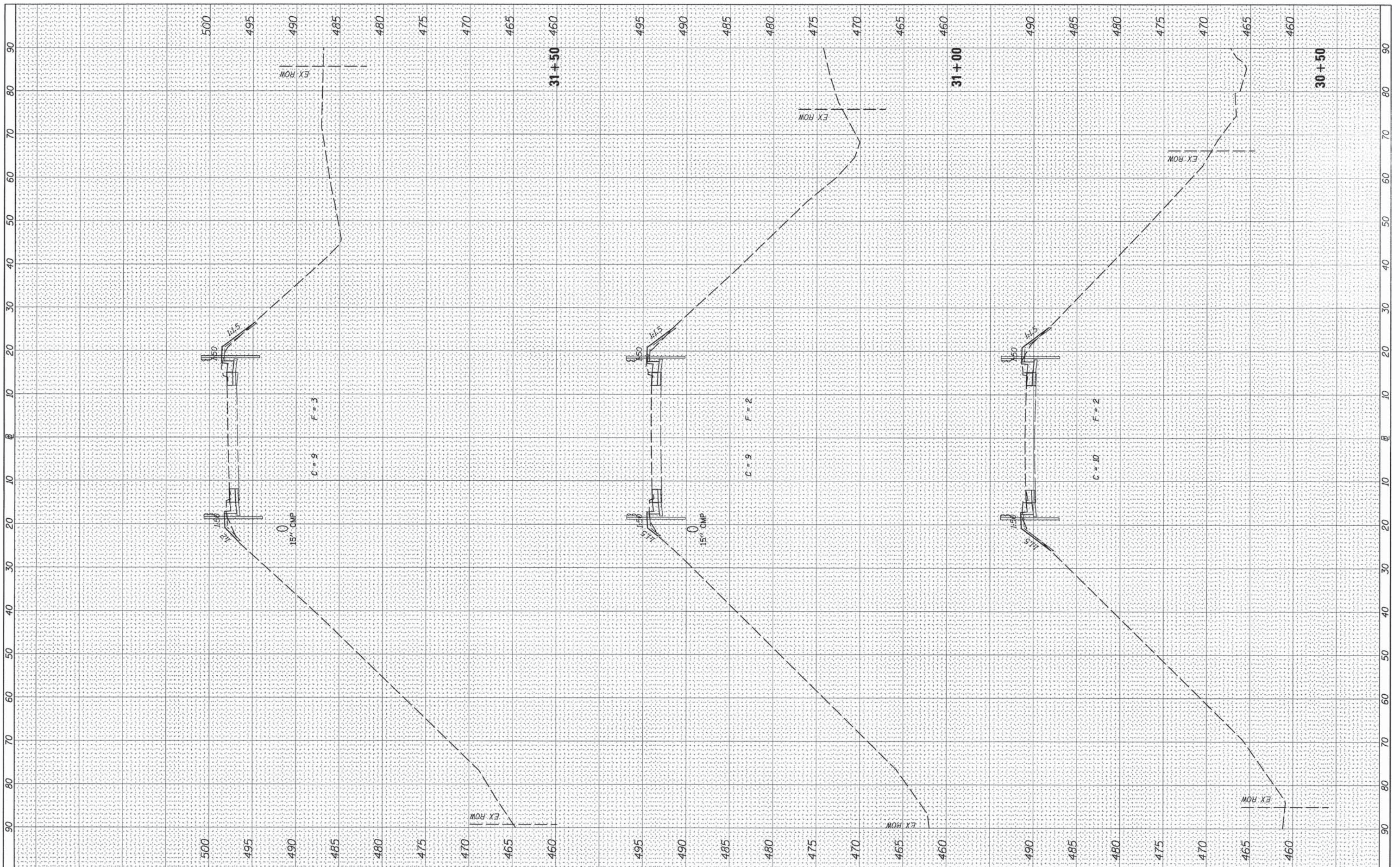
ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	REPLATE	
	AREAS CHECKED	



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Default	PLOT SCALE = 10.0000' / 1"	DRAWN - RMD	REVISED -			SCALE: H=10 V=5	SHEET 11 OF 13 SHEETS	STA. 29+00 TO STA. 30+00	CONTRACT NO.			
	PLOT DATE = 8/13/2015	CHECKED - DJD	REVISED -			ILLINOIS FED. AID PROJECT						
		DATE - 8/3/2015	REVISED -									

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

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



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 PLOT SCALE = 10.0000' / in.
 PLOT DATE = 8/13/2015

DESIGNED - LDZ
 DRAWN - RMD
 CHECKED - DJD
 DATE - 8/3/2015

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**LASALLE COUNTY
 HIGHWAY DEPARTMENT**

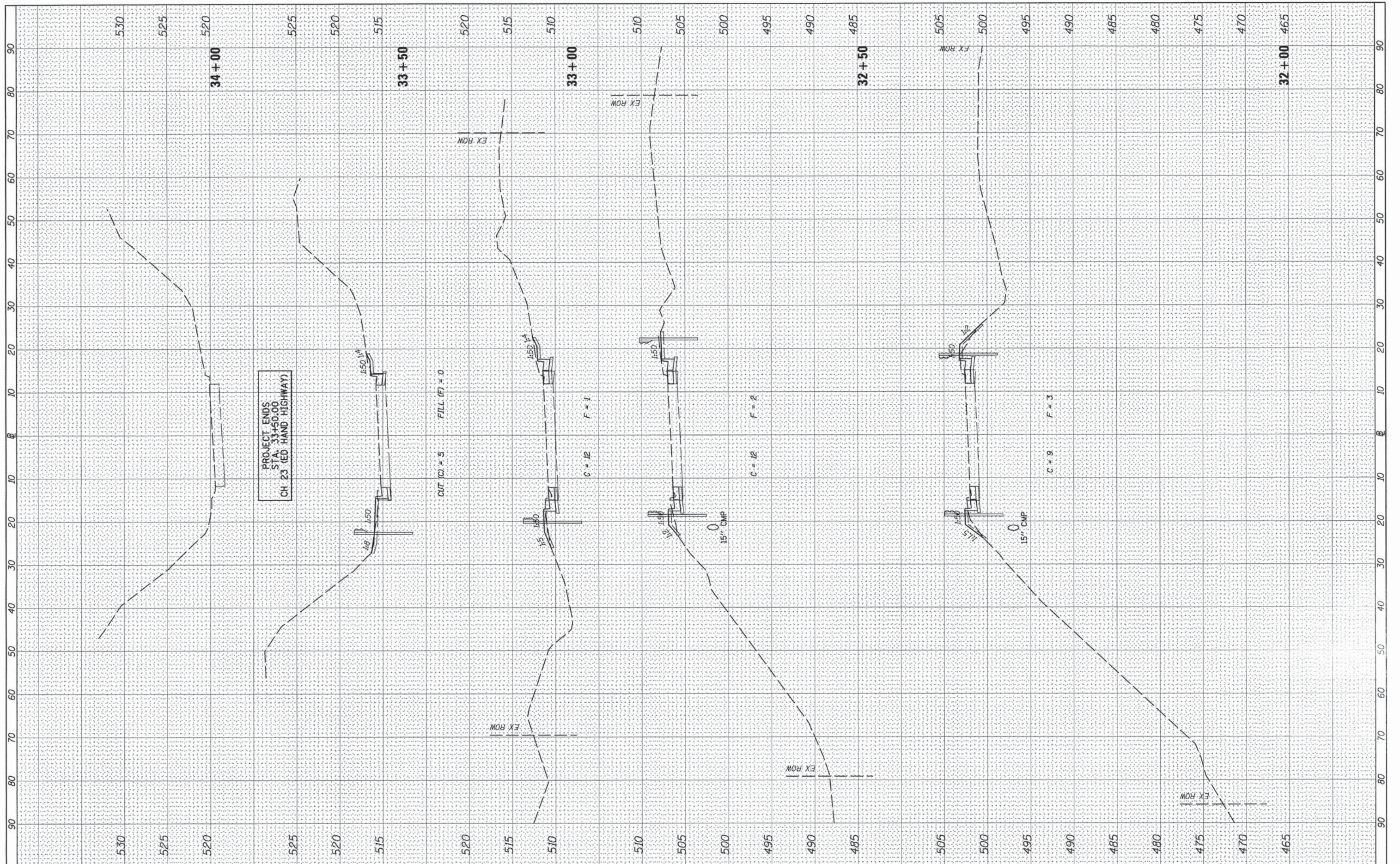
CH 23 (ED HAND HIGHWAY) CROSS SECTIONS

SCALE: H=10 V=5 SHEET 12 OF 13 SHEETS STA. 30+50 TO STA. 31+50

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
275	09-00031-02-BR	LA SALLE	108	107
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				

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

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



FILE NAME =	USER NAME = bdcraene	DESIGNED - LDZ	REVISED -	LASALLE COUNTY HIGHWAY DEPARTMENT	CH 23 (ED HAND HIGHWAY) CROSS SECTIONS	F.A. RTE. 275	SECTION 09-00031-02-BR	COUNTY LA SALLE	TOTAL SHEETS 108	SHEET NO. 108	
Default	PLOT SCALE = 10.0000' / in.	DRAWN - RMD	REVISED -			SCALE: H=10 V=5	SHEET 13 OF 13 SHEETS	STA. 32+00 TO STA. 34+00	CONTRACT NO.		ILLINOIS FED. AID PROJECT
	PLOT DATE = 8/13/2015	CHECKED - DJD	REVISED -								
		DATE - 8/3/2015	REVISED -								