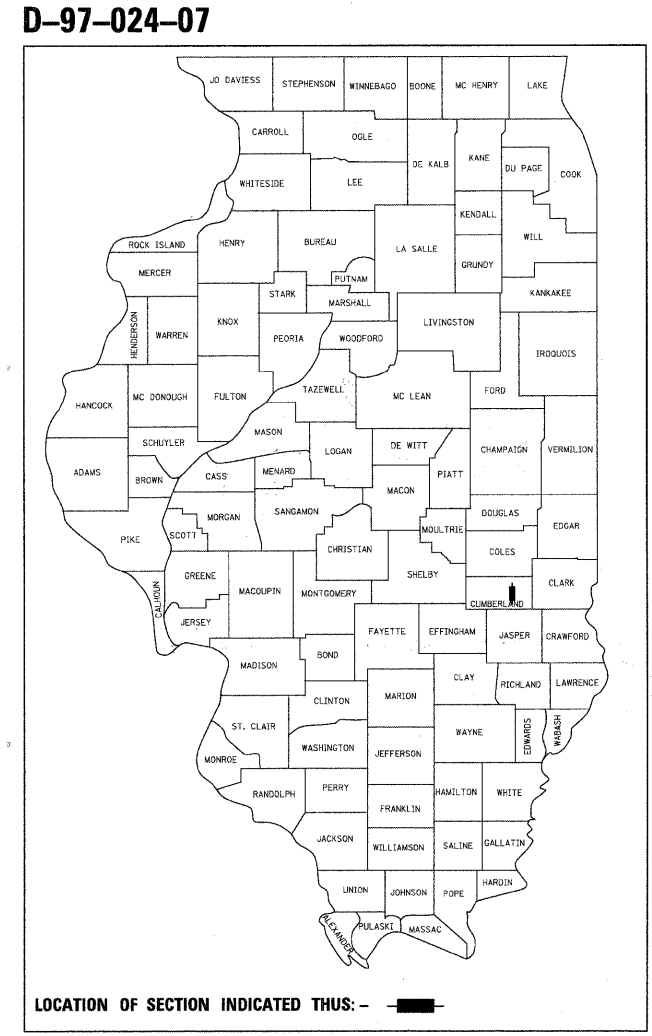


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	(112BR1)B	CUMBERLAND	72	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 74236		

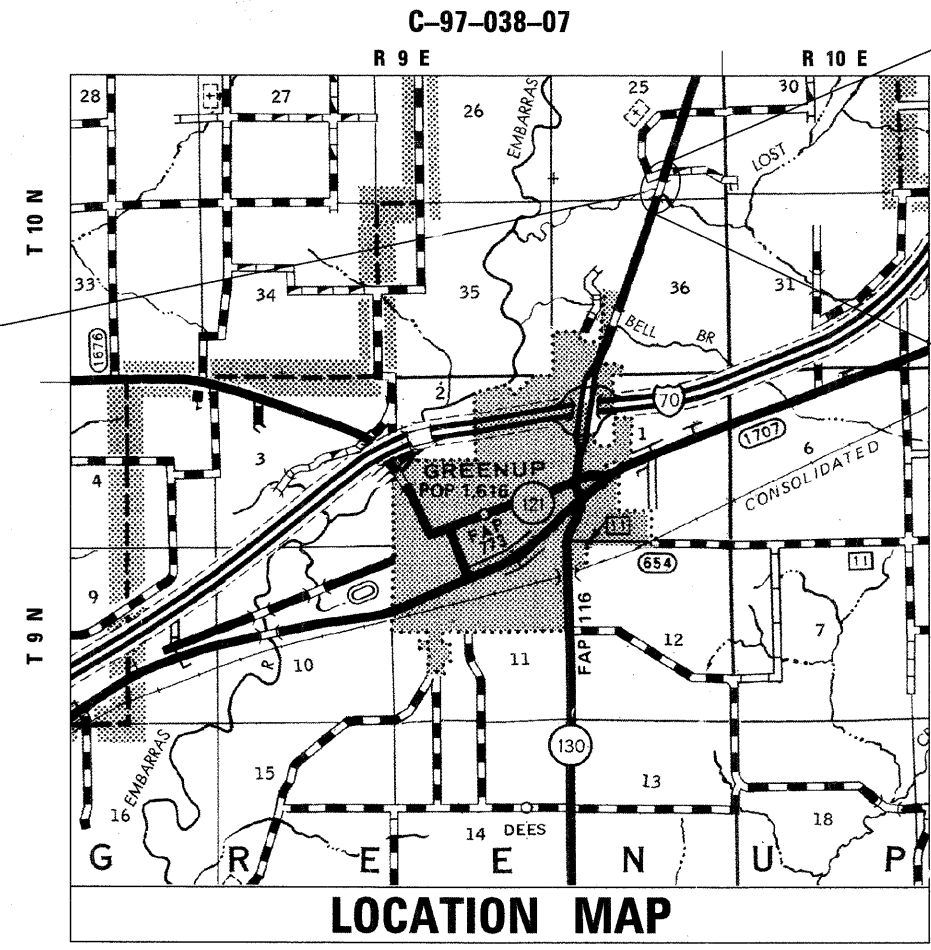
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF HIGHWAY STANDARDS
3	GENERAL NOTES
4-8	SUMMARY OF QUANTITIES
9	TYPICAL SECTIONS
10-12	SCHEDULE OF QUANTITIES
13	ALIGNMENT, TIES, & BENCHMARKS
14-16	PLAN AND PROFILE SHEETS
17	ENTRANCE DETAILS
18-24	MAINTENANCE OF TRAFFIC
25-31	STORM WATER POLLUTION PREVENTION PLANS
32-64	STRUCTURE PLANS
65-72	CROSS SECTIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**
F.A.P. RTE. 116 (IL 130)
SECTION (112BR1)B
PROJECT: *ACF-0116(051)*
STRUCTURE REPLACEMENT
CUMBERLAND COUNTY

IDOT HIGHWAY STANDARDS
SEE SHEET 2

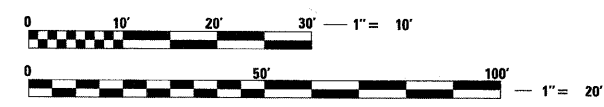


REMOVE AND REPLACE BRIDGE
CARRYING IL 130 OVER LOST CREEK
EXISTING S.N. 018-0059
PROPOSED S.N. 018-0064
STA. 375 + 55.45



PROJECT BEGINS
STA. 370 + 40.00

PROJECT ENDS
STA. 380 + 10.00



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.

ie CONSULTANTS, INC.
6420 SOUTH SIXTH STREET
SPRINGFIELD, ILLINOIS 62712
TEL. (217) 529-8027
FAX (217) 529-4543
WWW.IE-CONSULTANTS.COM

CALL **J.U.L.I.E.** (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS)
48 Hours (2 working days) Before You Dig.
TOLL FREE: 1 (800) 892-0123 OR 811

PROJECT ENGINEER: MARK DAUGHERTY (217) 342-3951
PROJECT MANAGER
CONTRACT NO. 74236

APPROXIMATE SCALE: 0 1 2 MILES
NET LENGTH OF IMPROVEMENT = 970.00 FEET (0.184 MILES)
CLASSIFICATION = RURAL MINOR ARTERIAL
CURRENT ADT: 2,170 (2007) PROJECTED ADT: 3,220 (2027)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 17 20 09
Roger Z. Ornduff
DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

December 4, 20 09
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

December 4, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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



DRB
DAVID R. BOOHER ILLINOIS P.E. 062-043769 DATE 8-13-09
EXPIRES 11/30/2009

IDOT HIGHWAY STANDARDS

SHEET NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
482011-03	HMA SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
542401-01	METAL END SECTIONS FOR PIPE CULVERTS
609001-05	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
630001-08	STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-08	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
666001-01	RIGHT OF WAY MARKERS
667101-01	PERMANENT SURVEY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-03	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH
701306-02	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS \geq 45 MPH
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
701321-10	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-01	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
BLR 17-4 701326-03	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION

FILE NAME =	USER NAME = JE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF HIGHWAY STANDARDS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
G:\S0026-7\CADDD Sheets\0774236-sht-5to	standards.dgn	DRAWN -	REVISED -			116	(112BR)B	CUMBERLAND	72	2	
	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 74236					
	PLOT DATE = 8/13/2009	DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON THE PLANS ARE ESTABLISHED FROM U.S.G.S. MEAN SEA LEVEL DATUM.
2. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUB-NUMBERS LISTED IN THE INDEX OF SHEETS, OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
3. IN ACCORDANCE WITH STATE OF ILLINOIS P.A. 86-0674, THE CONTRACTOR IS TO NOTIFY ALL UTILITY COMPANIES NOT MORE THAN 14 DAYS NOR LESS THAN 48 HOURS (EXCLUSIVE OF SATURDAYS, SUNDAYS, AND HOLIDAYS) IN ADVANCE OF THE START OF EXCAVATION OR DEMOLITION.
4. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE, AND ARE SHOWN FOR CONTRACTOR INFORMATIONAL USE ONLY, AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATIONS, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVE GROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. IN ADDITION TO FIELD SURVEYS AND AERIAL SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
6. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT-OF-WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARDS SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS.
8. GUARDRAIL MARKERS SHALL NOT BE ATTACHED TO PROPOSED "TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL" RAIL ELEMENTS. MARKERS IN THE AREA OF THE TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL SHALL BE MOUNTED ON THE NEAREST POST.
9. THE THICKNESS OF HOT-MIX ASPHALT SHOWN ON THE PLANS IS THE NORMAL THICKNESS. DEVIATIONS FROM THE NORMAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT-MIX ASPHALT IS PLACED.

10. BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.
11. EXCAVATION FOR RIPRAP SHALL BE INCLUDED IN THE COST FOR STONE DUMPED RIPRAP. THE CONTRACTOR SHALL CONDUCT GRADING SUCH THAT THE TOP 4" +/- IS SUITABLE MATERIAL FOR ESTABLISHING AND MAINTAINING THE GROWTH OF GRASS. THIS WORK SHALL BE INCLUDED IN THE COST FOR FURNISHED EXCAVATION.
12. THE CONTRACTOR WILL PROVIDE INTERNET ACCESSIBILITY TO THE BITUMINOUS PLANT QUALITY CONTROL LAB SO THAT BITUMINOUS PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL BITUMINOUS ITEMS.
13. FOR THE PAY ITEM BITUMINOUS MATERIALS (PRIME COAT), THE CONTRACTOR SHALL USE EITHER RC-70 OR AN EMULSIFIED POLYMER PRIME SS-1HP.
14. MATERIAL USED FOR AGGREGATE SURFACE COURSE, TYPE B SHALL BE CHRUSHED STONE OR CHRUSHED CONCRETE.
15. MATERIAL USED FOR AGGREGATE SHOULDERS, TYPE B SHALL BE RAP, CRUSHED STONE, OR CHRUSHED CONCRETE.
16. PAINT PAVEMENT MARKING-LINE 4" SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD, AS SHOWN ON THE TYPICAL SECTIONS AND AS DETERMINED BY THE ENGINEER. THE TOTAL QUANTITY CALCULATED CONSISTS OF 2054 FEET OF WHITE AND 257 FEET OF YELLOW.
17. THE FOLLOWING APPLICATION RATES WERE USED FOR QUANTITY CALCULATIONS.

AGGREGATE ITEMS	2.05 TON / CU YD
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	112 lbs/sq. yd. Inch
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	112 lbs/sq. yd. Inch
HOT-MIX ASPHALT SHOULDER	112 lbs/sq. yd. Inch
INCIDENTAL BITUMINOUS SURFACE	112 lbs/sq. yd. Inch
BITUMINOUS MATERIAL (PRIME COAT) (ON BITUMINOUS)	0.08 GAL / SQ YD
BITUMINOUS MATERIAL (PRIME COAT) (ON AGGREGATE)	0.35 GAL / SQ YD
TEMPORARY EROSION CONTROL SEEDING	100 LB / ACRE
RIPRAP	1.50 TON / CU YD

18. THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

MIXTURE USE(S):	SURFACE	BINDER (UPPER LIFTS)	BINDER (LOWER LIFTS)	HMA SHOULDER	WIDENING	INCIDENTAL SURFACING
PG	PG 64-22	PG 64-22	PG 64-22	PG 58-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% @ N70	4.0% @ N70	4.0% @ N70	4.0% @ N30	4.0% @ N70	4.0% @ N50
MIXTURE COMPOSITION	IL 9.5	IL 19.0	IL 19.0	IL 19.0L	IL 19.0	IL 9.5
(GRADATION MIXTURE)						
FRICITION AGGREGATE	MIX "C"	----	----	----	----	MIX "C"

19. TEMPORARY BRIDGE TRAFFIC SIGNALS SHALL ONLY BE USED FROM APRIL 1 TO OCTOBER 1.

FILE NAME = G:\S08026-7\CADD Sheets\0774236-sh1-Gernote.dgn	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 10.0000 FT / IN.	CHECKED -	REVISED -	116			(112BR1)B	CUMBERLAND	72	3	
PLOT DATE = 8/13/2009	DATE -	REVISED -	CONTRACT NO. 74236							
						SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	80% FED. 20% STATE	ROADWAY	STRUCTURE		
			TOTAL QUANTITY	I000	X071- 2A		
20100500	TREE REMOVAL, ACRES	ACRE	0.2	0.2			
20200100	EARTH EXCAVATION	CU YD	3,940	3,940			
20400800	FURNISHED EXCAVATION	CU YD	2,635	2,635			
* 20700300	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	257		257		
20800150	TRENCH BACKFILL	CU YD	32	32			
* 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	1.7	1.7			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	170	170			
28000305	TEMPORARY DITCH CHECKS	FOOT	120	120			
28000400	PERIMETER EROSION BARRIER	FOOT	215	215			
28000500	INLET AND PIPE PROTECTION	EACH	3	3			
28100107	STONE RIPRAP, CLASS A4	SQ YD	828		828		
28200200	FILTER FABRIC	SQ YD	828		828		
35101400	AGGREGATE BASE COURSE, TYPE B	TON	25	25			
35501316	HOT-MIX ASPHALT BASE COURSE, 8"	SQ YD	306	306			
35650300	BASE COURSE WIDENING 8"	SQ YD	593	593			
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	66	66			
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	44	44			
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1,273	1,273			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	175	175			

* SEE SPECIAL PROVISIONS

FILE NAME =	USER NAME = JE Consultants	DESIGNED -	REVISED -
G:\S08826-7\CADD Sheets\0774236-sh1-500.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	(112BR)B	CUMBERLAND	72	4
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 74236	

Rev

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	80% FED. 20% STATE	ROADWAY	STRUCTURE		
			TOTAL QUANTITY	I000	X071-2A		
40600990	TEMPORARY RAMP	SQ YD	40	40			
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	1,735	1,735			
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	223	223			
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	47	47			
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	172	172			
44000100	PAVEMENT REMOVAL	SQ YD	125	125			
* 44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	1,760	1,760			
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	121	121			
44004250	PAVED SHOULDER REMOVAL	SQ YD	48	48			
48101200	AGGREGATE SHOULDERS, TYPE B	TON	205	205			
48203005	HOT-MIX ASPHALT SHOULDERS, 2"	SQ YD	612	612			
* 50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1		1		
* 50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1	1			
* 50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1	1			
50200100	STRUCTURE EXCAVATION	CU YD	351		351		
50300225	CONCRETE STRUCTURES	CU YD	307		307		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	380		380		
50300260	BRIDGE DECK GROOVING	SQ YD	992		992		
50300280	CONCRETE ENCASEMENT	CU YD	17.6		17.6		

* SEE SPECIAL PROVISIONS

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
GRS08026-7\CAADD Sheets\0774236-sht-500.dgn		DRAWN -	REVISED -			116	(112BR1)B	CUMBERLAND	72	5	
		PLOT SCALE = 10.0000' / IN.	REVISED -			CONTRACT NO. 74236					
		PLOT DATE = 8/13/2009	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	80% FED. 20% STATE	ROADWAY	STRUCTURE		
			TOTAL QUANTITY	I000	X071-2A		
50300300	PROTECTIVE COAT	SQ YD	899		899		
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	1,064.5		1,064.5		
50500505	STUD SHEAR CONNECTORS	EACH	432		432		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	112,820		112,820		
50800515	BAR SPLICERS	EACH	1,035		1,035		
51201400	FURNISHING STEEL PILES HP10X42	FOOT	1,624		1,624		
51201500	FURNISHING STEEL PILES HP10X57	FOOT	1,276		1,276		
51202305	DRIVING PILES	FOOT	2,900		2,900		
51203400	TEST PILE STEEL HP10X42	EACH	2		2		
51203500	TEST PILE STEEL HP10X57	EACH	2		2		
51500100	NAME PLATES	EACH	1		1		
52000110	PREFORMED JOINT STRIP SEAL	FOOT	98		98		
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	24		24		
52100520	ANCHOR BOLTS, 1"	EACH	52		52		
542D0220	PIPE CULVERTS, CLASS D, TYPE 1, 15"	FOOT	40	40			
542D0235	PIPE CULVERTS, CLASS D, TYPE 1, 30"	FOOT	194	194			
* 54215547	METAL END SECTIONS 12"	EACH	4	4			
* 54215550	METAL END SECTIONS 15"	EACH	2	2			
* 54215565	METAL END SECTIONS 30"	EACH	4	4			

* SEE SPECIAL PROVISIONS
RR quantity items

FILE NAME = G:\S8826-7\CADD Sheets\0774236-sh1-500.dgn	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 10.0000' / IN.	CHECKED -	REVISED -	REVISED -						116	(112BR)B	CUMBERLAND	72	6
PLOT DATE = 8/13/2009	DATE -	REVISED -	REVISED -		CONTRACT NO. 74236				ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	80% FED. 20% STATE	ROADWAY	STRUCTURE		
			TOTAL QUANTITY	I000	X071-2A		
58700300	CONCRETE SEALER	SQ FT	1,100		1,100		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	68		68		
60100945	PIPE DRAINS 12"	FOOT	148	148			
* 60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	164		164		
60900215	TYPE C INLET BOX, STANDARD 609001	EACH	4	4			
60900515	CONCRETE THRUST BLOCKS	EACH	4	4			
** 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	425	425			
** 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4			
* ** 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	5	5			
63200310	GUARDRAIL REMOVAL	FOOT	696	696			
* 63300905	VERTICAL ADJUSTMENT OF GUARD RAIL, TYPE A	FOOT	524	524			
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	9	9			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12			
67100100	MOBILIZATION	L SUM	1	1			
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1			
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1			
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1			
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	6			
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1			
* 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1			
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	561	561			

* SEE SPECIAL PROVISIONS

** Specialty Items

FILE NAME = G:\S88026-7\CADD Sheets\0774236-shr-500.dgn	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -					116	(112BR)B	CUMBERLAND	72	7	
		CHECKED -	REVISED -					CONTRACT NO. 74236					
		DATE -	REVISED -					SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	80% FED. 20% STATE	ROADWAY	STRUCTURE		
			TOTAL QUANTITY	1000	X071-2A		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2,311	2,311			
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	187	187			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	675	675			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	675	675			
**78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2,311	2,311			
**78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	26	26			
* **78200410	GUARDRAIL MARKERS, TYPE A	EACH	11	11			
* **78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	5	5			
78300100	PAVEMENT MARKING REMOVAL	SQ FT	342	342			
* X5080600	MECHANICAL SPLICERS	EACH	120		120		
* **X0321866	REMOVE, STORE AND RE-ERECT SIGN PANEL	SQ FT	25	25			
* X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	276		276		
* X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1		
* X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1		
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	40		40		
* Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2			
* Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2			
Δ Z0076600	TRAINEES	HOUR	500	500			

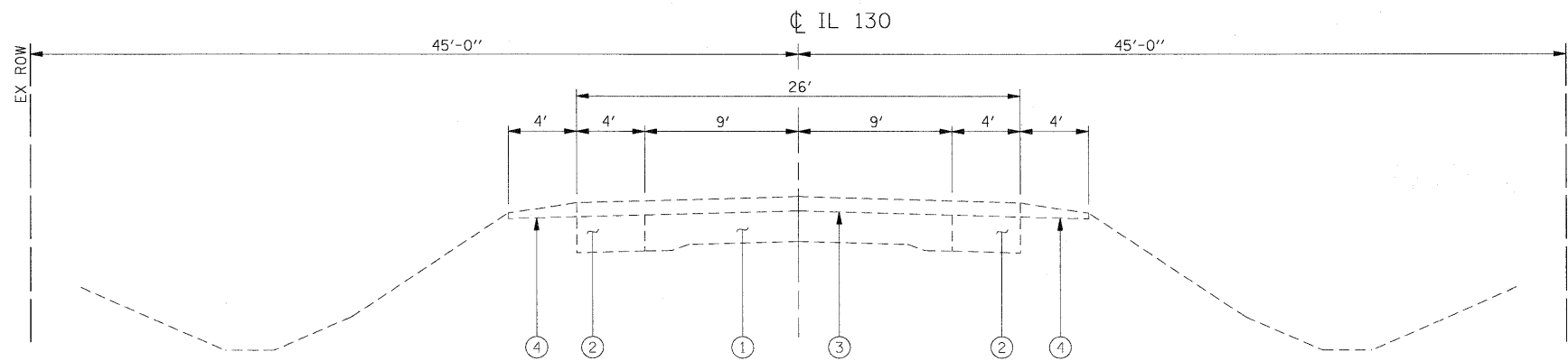
* SEE SPECIAL PROVISIONS

** Specialty Items

Δ Y080

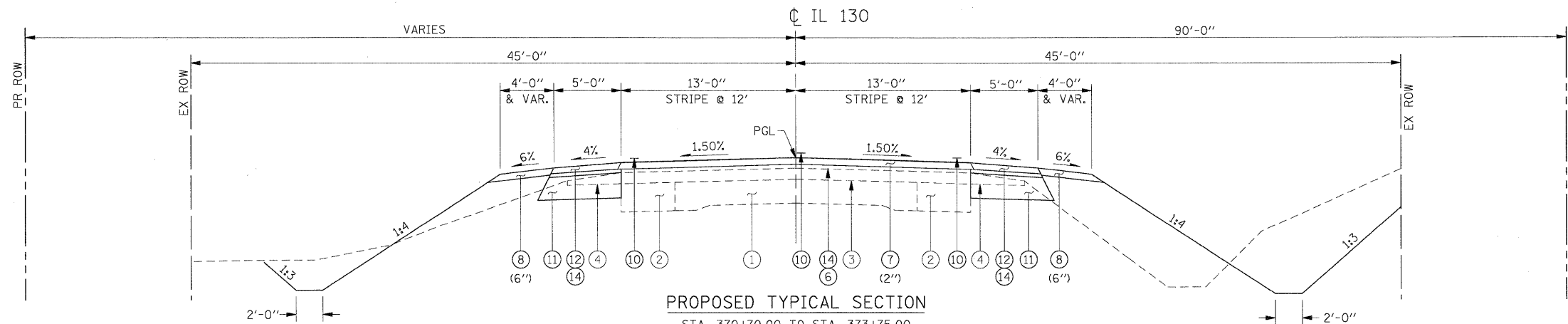
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		DRAWN -	REVISED -						116	(112BR)B	CUMBERLAND	72	8
		CHECKED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 74236
		DATE -	REVISED -										

Rev.

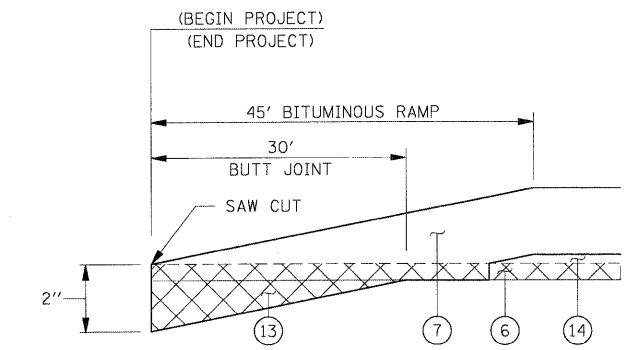


EXISTING TYPICAL SECTION
 STA. 370+40.00 TO STA. 380+10
 EX BRIDGE OMISSION - STA. 374+72.84 TO STA. 376+35.15

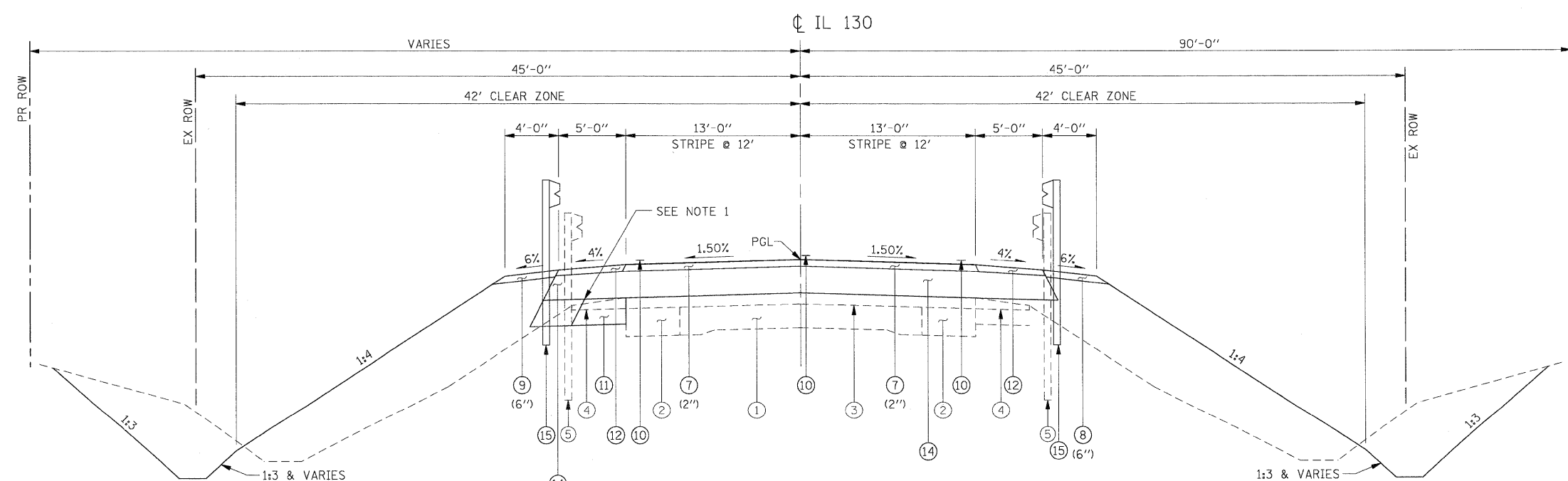
- LEGEND**
- ① EX 9-6-9 PAVEMENT
 - ② EX BASE COURSE WIDENING, 9"
 - ③ EX BITUMINOUS RESURFACING
 - ④ EX AGGREGATE SHOULDERS
 - *⑤ EX GUARDRAIL
 - ⑥ HMA SURFACE REMOVAL, VAR. DEPTH
 - ⑦ HOT-MIX ASPHALT SURFACE COURSE MIX C, N70
 - ⑧ AGGREGATE SHOULDERS, TYPE B
 - ⑨ AGGREGATE SHOULDERS, TYPE B, SPECIAL
 - ⑩ PAINT PAVEMENT MARKING - LINE 4"
 - ⑪ BASE COURSE WIDENING 8"
 - ⑫ HOT-MIX ASPHALT SHOULDERS, 2"
 - ⑬ HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT
 - ⑭ HMA BINDER COURSE, IL 19.0 N70
 - *⑮ GUARDRAIL



PROPOSED TYPICAL SECTION
 STA. 370+70.00 TO STA. 373+75.00
 STA. 377+42.00 TO STA. 379+80.00



BUTT - JOINT DETAIL



PROPOSED TYPICAL SECTION
 STA. 373+75.00 TO STA. 374+10.00
 EX BRIDGE OMISSION - STA. 374+62.65 TO STA. 376+48.35
 STA. 377+00.00 TO STA. 377+42.00

NOTE:

1. WHERE EXISTING GUARDRAIL IS WITHIN WIDENING LIMITS, CONSTRUCT WIDENING TO EXISTING GUARDRAIL PRIOR TO STAGE 1 AND CONSTRUCT THE REMAINDER IN STAGE 2, OTHERWISE CONSTRUCT ALL WIDENING ON LT IN STAGE 1.

* SEE "PLAN SHEETS" FOR GUARDRAIL LOCATIONS.

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
G:\S0026-7\CADD Sheets\0774236-shr-Typel.dgn		DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	116	(112BR1)B	CUMBERLAND	72	9
		CHECKED -	REVISED -											CONTRACT NO. 74236	
		DATE -	REVISED -											FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

PAVING SCHEDULE															
STA	TO	STA	LT / RT	DISTANCE	35650300	40600100	40600982	40600990	40603085	40603315	42001430	44000100	44000198	44004250	48203005
					BASE COURSE WIDENING 8"	BITUMINOUS MATERIALS (PRIME COAT)	HMA SURFACE REMOVAL BUTT JOINT	TEMPORARY RAMP	HMA BINDER COURSE IL-19.0, N70	HMA SURFACE COURSE MIX "C" N70	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	PAVEMENT REMOVAL	HMA SURFACE REMOVAL, VARIABLE DEPTH	PAVED SHOULDER REMOVAL	HMA SHOULDERS, 2"
				(FOOT)	(SQ YD)	(GALLON)	(SQ YD)	(SQ YD)	(TON)	(TON)	(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)	(SQ YD)
370+40.00		370+70.00		30.0		7.0	87.1			9.8			87.1		
370+70.00		373+75.00		305.0		363.3			631.3	98.7			881.2		
373+75.00		374+10.00		35.0		107.4			168.6	11.4					
377+00.00		377+42.00		42.0		128.8			193.0	13.6					
377+36.30		379+80.00		243.7		290.3			533.9	78.9			704.1		
379+80.00		380+10.00		30.0		7.0	87.2			9.8			87.2		
374+05.00		374+10.00		5.0				20.0							
377+00.00		377+05.00		5.0				20.0							
371+44.00		374+10.00	LT	266.0	147.8	47.3			95.7						147.8
377+00.00		379+50.00	LT	250.0	138.9	44.5			81.9						138.9
379+50.00		380+10.00	LT	60.0	20.0	1.6		2.0							20.0
370+70.00		370+90.00	RT	20.0	6.7	0.6									6.7
370+90.00		371+17.00	RT	27.0	15.0	1.2									15.0
371+87.00		373+75.00	RT	188.0	104.5	33.5									104.5
373+75.00		374+10.00	RT	35.0		6.3			13.9						19.5
377+00.00		377+42.00	RT	42.0		7.5			13.8						23.4
377+42.00		379+50.00	RT	208.0	115.6	37.0									115.6
379+50.00		380+10.00	RT	60.0	20.0	1.6									20.0
374+10.00		374+32.00		22.0	12.3						63.6			24.5	
376+79.00		377+00.00		21.0	11.7						60.7			23.4	
374+10.00		374+32.00		22.0						88.0					
376+79.00		377+00.00		21.0						84.0					
INCLUDED FROM ENTRANCE SCHEDULE						188									
TOTALS					592.5	1,272.9	174.3	40.0	1,734.1	222.2	172.0	124.3	1,759.6	47.9	611.4
USE					593	1,273	175	40	1,735	223	172	125	1,760	48	612

NOTE: EARTHWORK FOR CONSTRUCTION OF HMA SHOULDERS IS INCLUDED IN THE EARTHWORK QUANTITIES.

DRAINAGE SCHEDULE													
STA	LT / RT	AVERAGE DEPTH	TRENCH LENGTH	FROM IDOT TRENCH BACKFILL TABLE	20800150 TRENCH BACKFILL	54200640 PIPE CULVERTS, TYPE 1, CS/A CULVERT PIPE 15"	54200655 PIPE CULVERTS, TYPE 1, CS/A CULVERT PIPE 30"	54215547 METAL END SECTION, 12"	54215550 METAL END SECTION, 15"	54215565 METAL END SECTION, 30"	60100945 PIPE DRAINS 12"	60900215 TY C INLET BOX, STANDARD 609001	60900515 CONCRETE THRUST BLOCKS
		(FOOT)	(FOOT)	(CU YD / FT)	(CU YD)	(FOOT)	(FOOT)	(EACH)	(EACH)	(EACH)	(FOOT)	(EACH)	(EACH)
371+67.95	RT	5.0	24	0.706	17		90			2			
374+33.00	LT							1			42	1	1
374+63.00	RT							1			38	1	1
376+48.00	LT							1			32	1	1
376+78.00	RT							1			36	1	1
379+21.58	LT	2.0	28	0.11	3	40			2				
379+42.00	RT	4.8	17	0.68	12		104			2			
TOTAL					32	40	194	4	2	4	148	4	4

SIGN SCHEDULE				
STA	OFFSET	LT / RT	TYPE	X0321866 REMOVE, STORE AND RE-ERECT SIGN PANEL (SQ FT)
370+75	23'	RT	STREET	3
370+84	45'	RT	STOP	6.25
371+44	56'	LT	PRIVATE	9
371+79	48'	RT	STOP	6.25
TOTAL				24.50
USE				25

EROSION CONTROL SCHEDULE					
STA	OFFSET	LT / RT	28000300 TEMPORARY DITCH CHECKS (EACH)	28000400 PERIMETER EROSION BARRIER (FOOT)	28000500 INLET AND PIPE PROTECTION (EACH)
371+35 TO 373+50				215	
371+09	50'	RT			1
374+90	67'	LT	1		
375+30	65'	LT	1		
375+95	64'	RT	1		
376+50	65'	RT	1		
379+42	25'	LT			1
379+69	55'	RT			1
TOTAL			4	215	3

TREE REMOVAL SCHEDULE					
STA	TO	STA	LT / RT	AREA FROM CAD (SQ FT)	20100500 TREE REMOVAL (ACRES)
373+25		375+00	LT	4,334	0.10
375+30		378+60	LT	4,232	0.10
TOTALS					0.2

RIGHT OF WAY MARKER SCHEDULE			
STA	OFFSET	LT / RT	66600105 FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS (EACH)
370+40.00	45'	RT	1
371+29.65	45'	LT	1
371+62.38	90'	RT	1
372+23.21	90'	RT	1
373+00.00	100'	LT	1
376+00.00	100'	LT	1
378+50.00	45'	LT	1
379+50.00	90'	RT	1
380+50.00	45'	RT	1
TOTAL			9

TEMPORARY CONCRETE BARRIER SCHEDULE									
STA.	OFFSET	TO	STA.	OFFSET	LOCATION	70400100 TEMPORARY CONCRETE BARRIER (FOOT)	70400200 RELOCATE TEMPORARY CONCRETE BARRIER (FOOT)	Z0030250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)	Z0030350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)
372+39	4		373+36	-4	STAGE 1	98			
373+36	-4		378+07	-4	STAGE 1	471			
378+07	-4		379+04	4	STAGE 1	98			
372+30					STAGE 1			1	
379+13					STAGE 1			1	
372+29	-4		373+13	3	STAGE 2		85		
373+13	3		377+96	3	STAGE 2		483		
377+96	3		378+80	-4	STAGE 2		85		
QUANTITY NOT NEEDED FROM STAGE 1							12.5		
372+20					STAGE 2				1
378+89					STAGE 2				1
TOTALS						667.0	666	2	2
USE						675.0	675.0	2	2

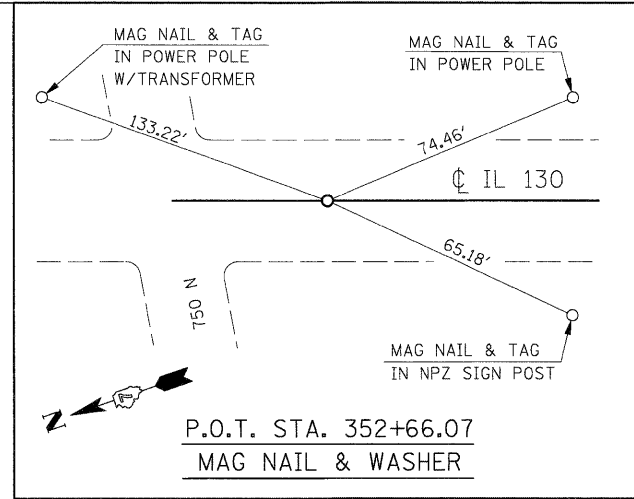
EARTHWORK			
20200100 EARTH EXCAVATION [CUT] (CU YD)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%) (CU YD)	EMBANKMENT [FILL] (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
3940	2955	5590	-2635
3940	2955	5590	-2635

AGGREGATE SHOULDER SCHEDULE						
STA	TO	STA	LT / RT	SHOULDER WIDTH	DISTANCE	48101200 AGGREGATE SHOULDERS, TYPE B
				(FOOT)	(FOOT)	(TON)
370+40		370+75	LT	4	35	5.3
370+75		370+90	LT	2	40	3.0
370+97		371+31	LT	2	51	3.9
371+31		373+00	LT	4	169	25.7
373+00		374+15	LT	4	115	17.5
376+62		378+60	LT	4	198	30.1
378+60		379+08	LT	4	48	7.3
379+38		380+10	LT	4	72	10.9
370+40		371+71	RT	2	155	11.8
371+70		371+79	RT	2	45	3.4
371+79		374+49	RT	4	270	41.0
376+96		379+32	RT	4	236	35.8
379+51		380+10	RT	4	59	9.0
TOTALS						204.7
USE						205

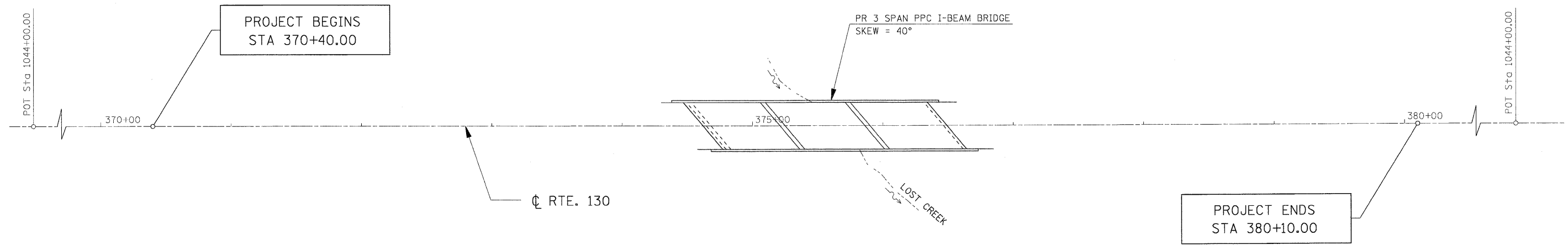
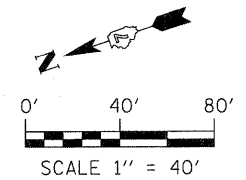
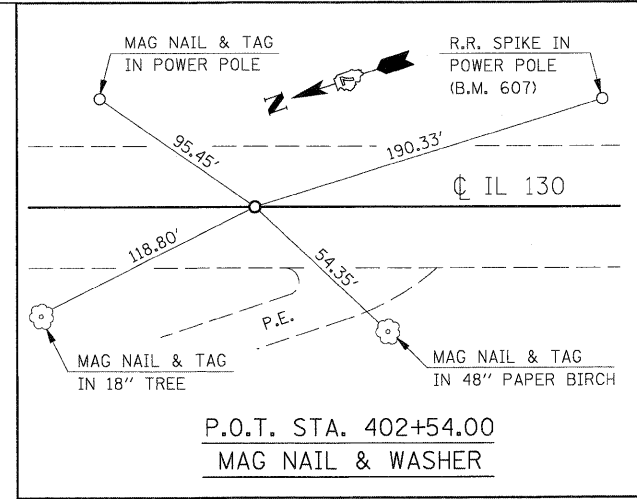
STRIPING SCHEDULE								
STA.	TO	STA.	70300100 SHORT-TERM PAVEMENT MARKING	70300220 TEMPORARY PAVEMENT MARKING-LINE 4"	70301000 WORK ZONE MARKING REMOVAL	78001110 PAINT PAVEMENT MARKING - LINE 4"	78100100 RAISED PAVEMENT MARKER	78300100 PAVEMENT MARKING REMOVAL
			(FOOT)	(FOOT)	(SQ FT)	(FOOT)	(EACH)	(SQ FT)
STAGE I								
370+53		379+90						313
370+53		372+30						15
379+00		380+67						14
FINAL								
370+40		380+67		1,027		1,027		
370+40		380+67	561	257	187	257	26	
370+40		380+67		1,027		1,027		
FINAL SUB TOTAL								
TOTALS			561	2,311	187	2,311	26	342

GUARDRAIL SCHEDULE										
STA	TO	STA	LT / RT	63000001 STEEL PLATE BEAM GUARD RAIL, TY A, 6' POSTS	63100085 TRAFFIC BARRIER TERMINAL, TYPE 6	63100167 TRAFFIC BARRIER TERMINAL, TY 1 (SP) TAN	63200310 GUARDRAIL REMOVAL	63300905 VERTICAL ADJUSTMENT OF GUARD RAIL, TYPE A	78200410 GUARDRAIL MARKERS TYPE A	78201000 TERMINAL MARKER - DIRECT APPLIED
				(FOOT)	(EACH)	(EACH)	(FOOT)	(FOOT)	(EACH)	(EACH)
370+20		370+70	LT			1				1
372+00.0		372+50.0	RT			1				1
372+50.0		374+25.0	RT	175.0					3	
374+25.0		374+68.0	RT		1				1	
372+49.0		374+25.0	RT					176		
372+49.0		374+68.0	RT				219			
372+95.0		373+45.0	LT			1				1
373+45.0		373+95.0	LT	50.0					1	
373+95.0		374+38.0	LT		1				1	
373+07.0		373+95.0	LT					88		
373+07.0		374+38.0	LT				131			
376+43.0		376+86.0	LT		1				1	
376+86.0		378+36.0	LT	150.0					2	
378+36.0		378+86.0	LT			1				1
376+86.0		378+59.0	LT					173		
376+43.0		378+59.0	LT				216			
376+73.0		377+16.0	RT		1				1	
377+16.0		377+66.0	RT	50.0					1	
377+66.0		378+16.0	RT			1				1
377+16.0		378+03.0	RT					87		
376+73.0		378+03.0	RT				130			
TOTALS				425.0	4	5	696	524	11	5

SEEDING SCHEDULE						
STATION TO STATION	LT / RT	25001000 SEEDING, CLASS 2 (SPECIAL)	28000250 TEMPORARY EROSION CONTROL SEEDING			
		(ACRE)	(POUND)			
370+40		370+90	LT	0.02	2	
371+00		374+90	LT	0.39	39	
375+18		379+11	LT	0.26	26	
379+31		380+10	LT	0.03	3	
370+40		371+69	RT	0.09	9	
371+70		376+18	RT	0.42	42	
376+08		379+35	RT	0.39	39	
379+48		380+45	RT	0.10	10	
TOTALS					1.70	170
USE					1.7	170



BENCHMARK 611
RAILROAD SPIKE IN POWER POLE, 45' EAST OF THE CENTERLINE OF IL 130, 220' NORTH OF LOST CREEK STA. 373+35, 45' LT., EL 533.796

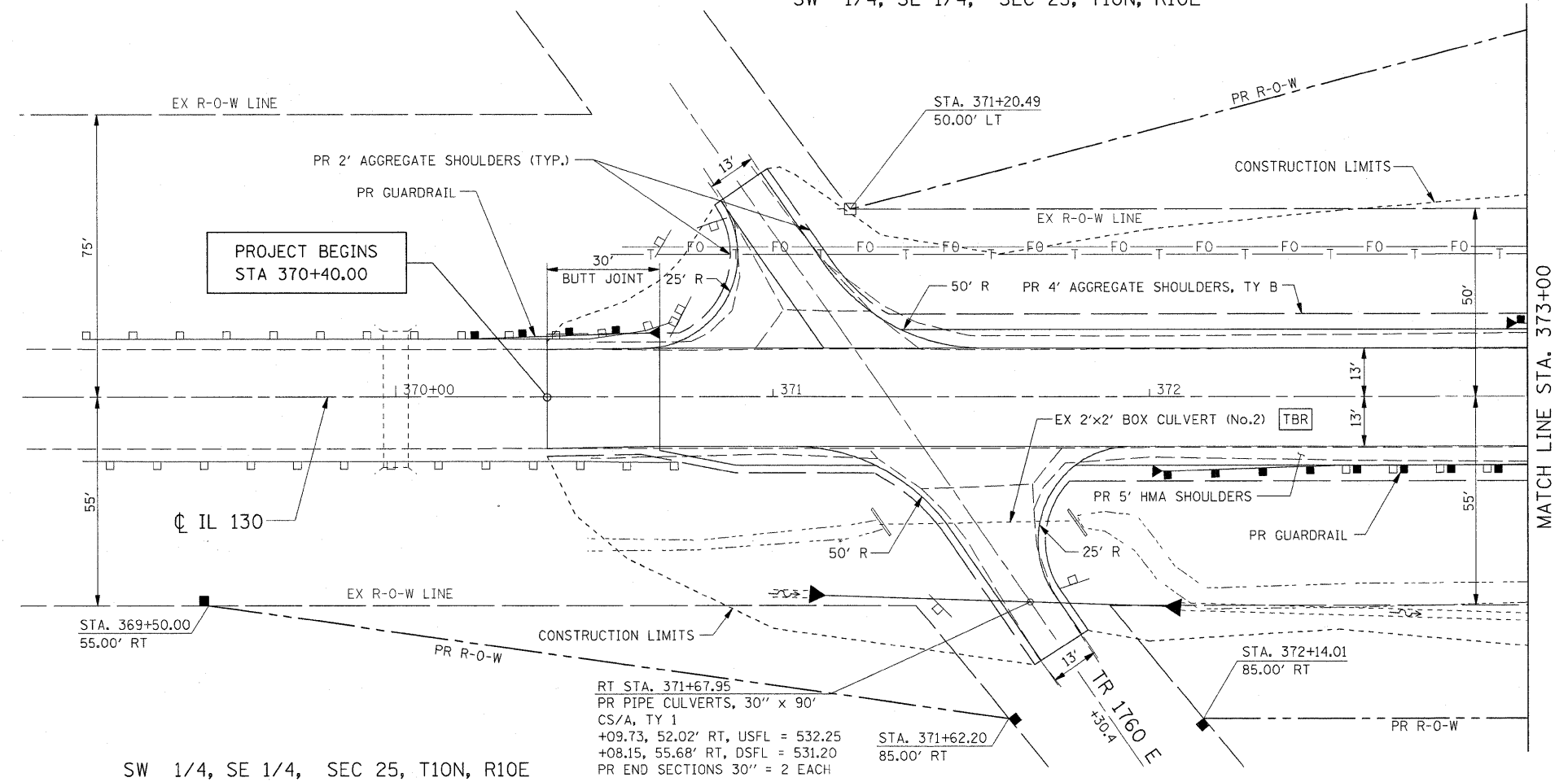
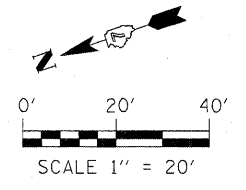


BENCHMARK 610
CHISELED SQUARE ON THE NORTHWEST WINGWALL OF A BRIDGE OVER LOST CREEK, 19' WEST OF THE CENTERLINE OF IL 130. STA. 374+90, 19' RT., EL 540.535

BENCHMARK 609
CHISELED SQUARE ON THE SOUTHWEST WINGWALL OF A BRIDGE OVER LOST CREEK, 19' WEST OF THE CENTERLINE OF IL 130. STA. 376+50, 19' RT., EL 540.579

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALIGNMENT, TIES & BENCHMARKS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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PLOT DATE = 8/13/2009	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT									
						SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.

SW 1/4, SE 1/4, SEC 25, T10N, R10E



SW 1/4, SE 1/4, SEC 25, T10N, R10E

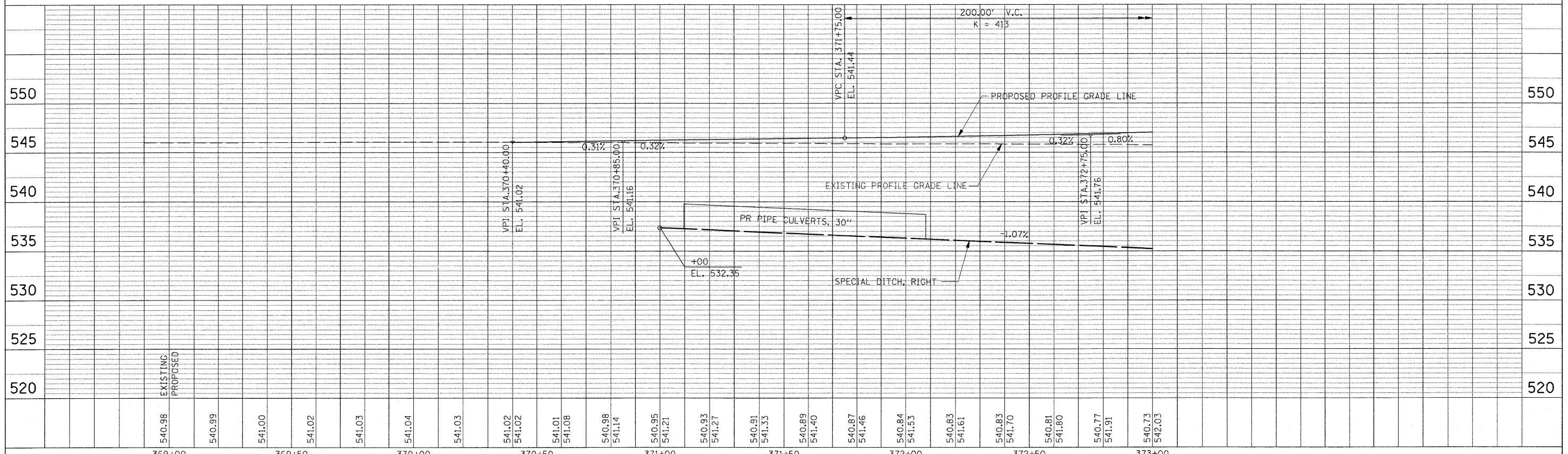
RT STA. 371+67.95
 PR PIPE CULVERTS, 30" x 90"
 CS/A, TY 1
 +09.73, 52.02' RT, USFL = 532.25
 +08.15, 55.68' RT, DSFL = 531.20
 PR END SECTIONS 30' = 2 EACH

PLAN

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
NOTED	
STRUCTURE	
NOTATIONS	
GRID	

PROFILE

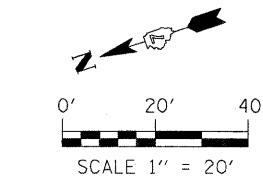
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NOTED	
STRUCTURE	
NOTATIONS	
GRID	



FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE STA. 369 + 00 TO STA. 373 + 00			F.A.S. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = 09/01/2009		DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

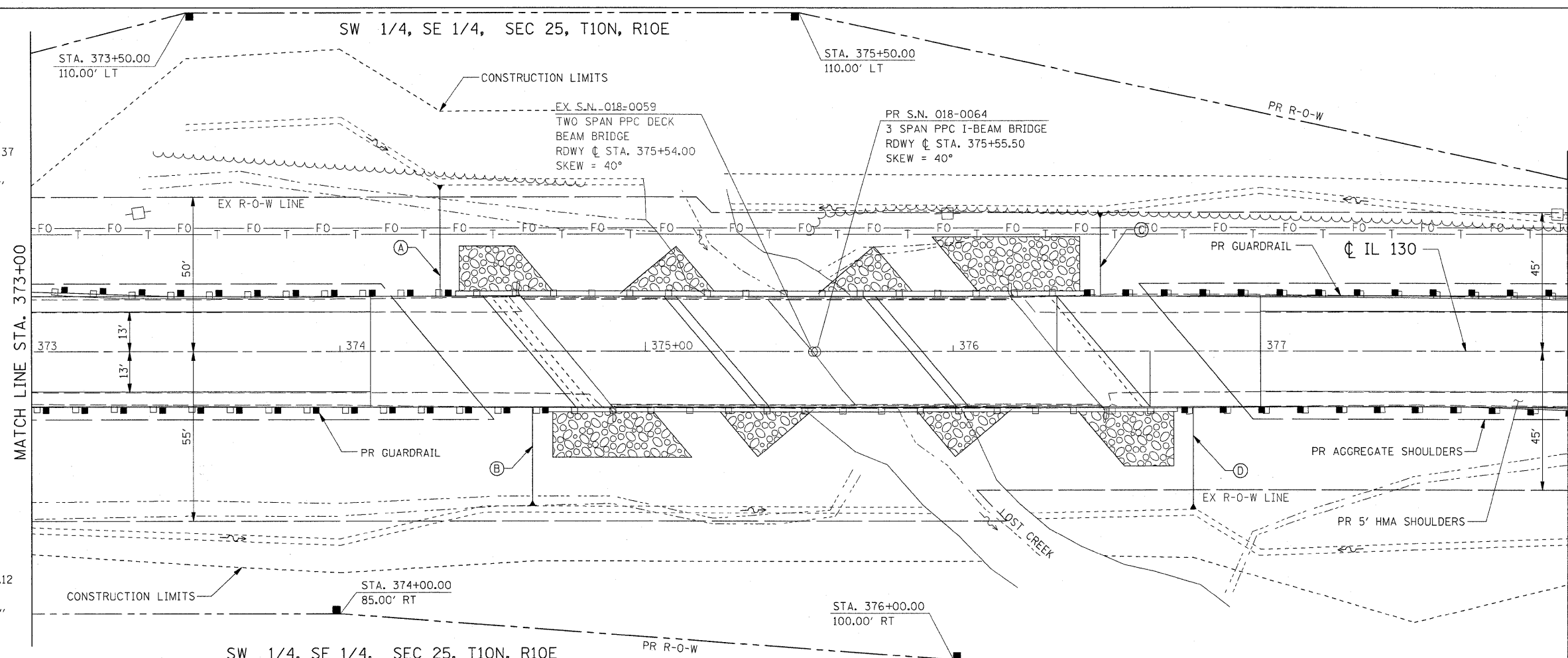
Ⓐ STA. 374+33.00, LT
PR BRIDGE APPROACH
SHOULDER PAVEMENT
& DRAIN (STD 609001)
INLET, TY C
TOG= 543.02, INV= 526.37
PR PIPE DRAIN 12"x42"
METAL END SECTION 12"

Ⓑ STA. 374+63.00, LT
PR BRIDGE APPROACH
SHOULDER PAVEMENT
& DRAIN (STD 609001)
INLET, TY C
TOG= 543.04, INV= 528.12
PR PIPE DRAIN 12"x38"
METAL END SECTION 12"



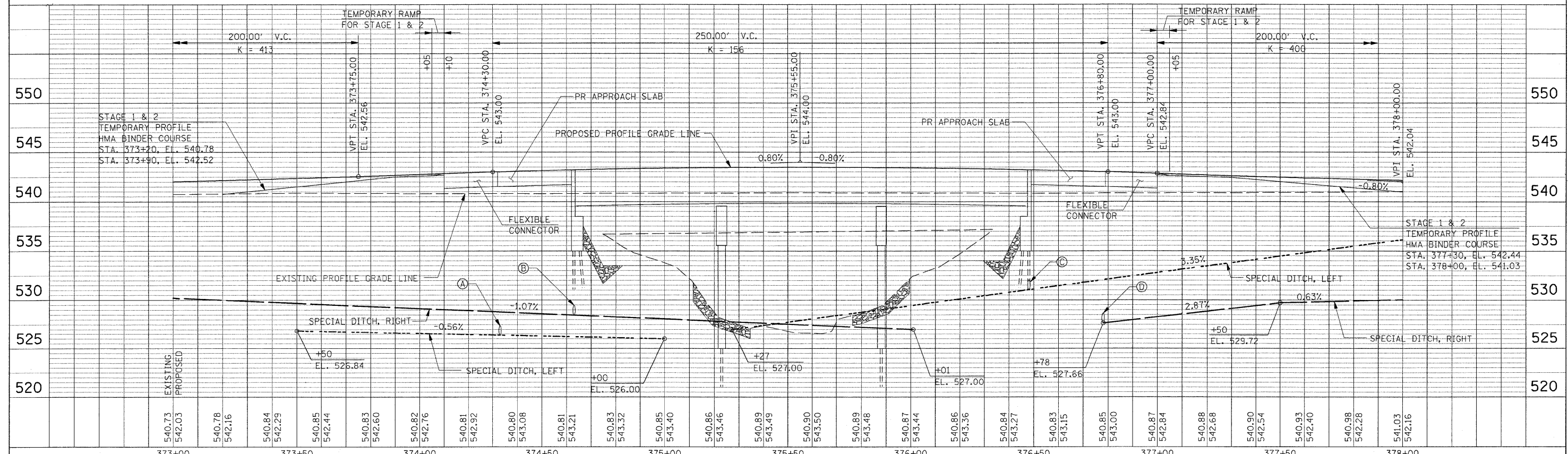
Ⓒ STA. 376+48, LT
PR BRIDGE APPROACH
SHOULDER PAVEMENT
& DRAIN (STD 609001)
INLET, TY C
TOG= 543.03, INV= 530.70
PR PIPE DRAIN 12"x32"
METAL END SECTION 12"

Ⓓ STA. 376+78, LT
PR BRIDGE APPROACH
SHOULDER PAVEMENT
& DRAIN (STD 609001)
INLET, TY C
TOG= 542.82, INV= 527.65
PR PIPE DRAIN 12"x36"
METAL END SECTION 12"



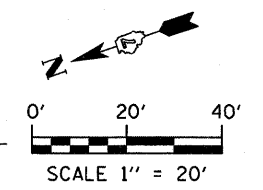
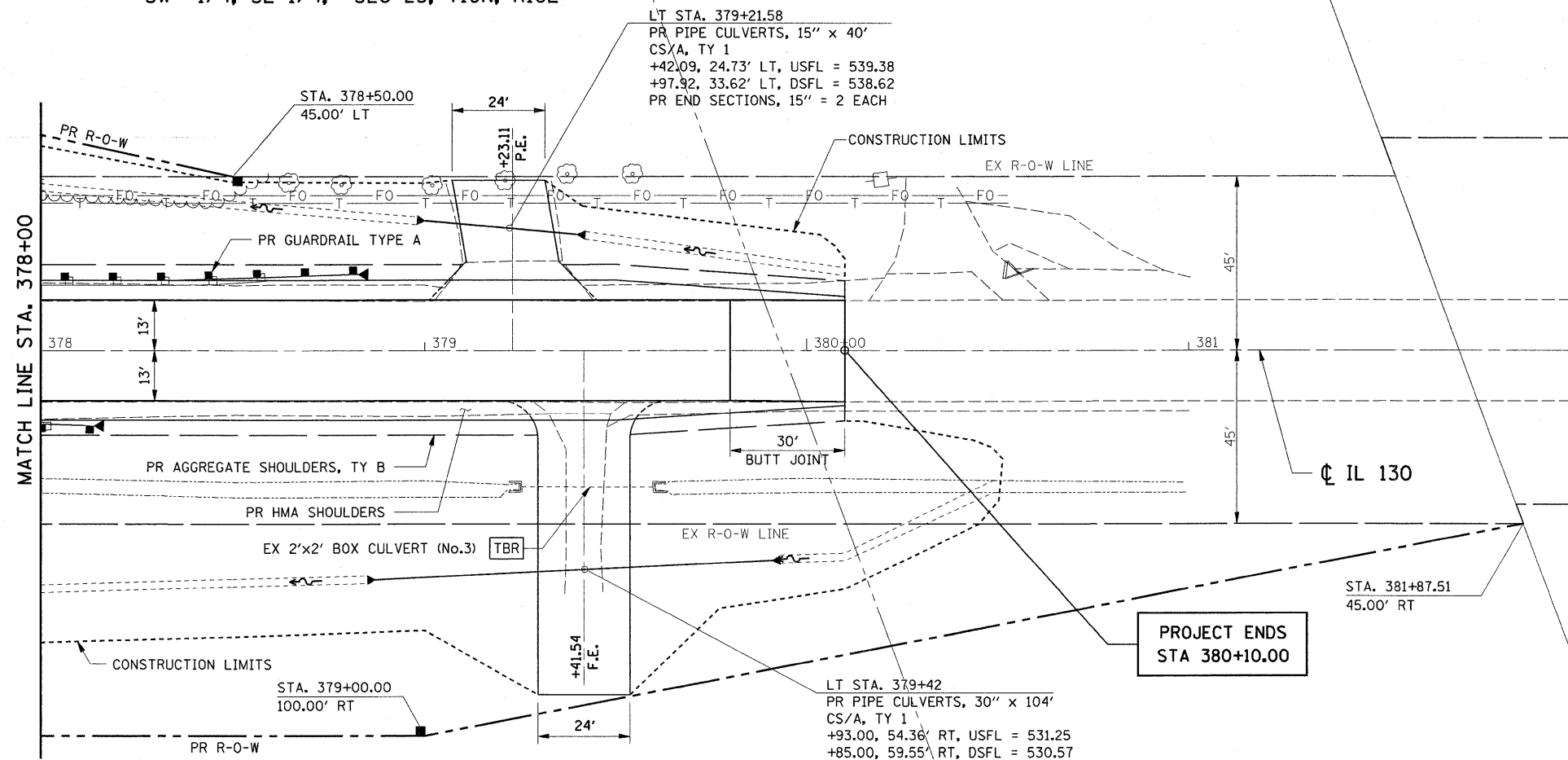
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BY	
REVISIONS	
NO.	

PROFILE	DATE
BY	
REVISIONS	
NO.	



FILE NAME =	USER NAME = JE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE STA. 373 + 00 TO STA. 378 + 00	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLT SCALE = 20.0000' / IN.	CHECKED -	REVISED -	116			112BR1B	CUMBERLAND	72	15	
PLT DATE = 09/01/2009	DATE -	REVISED -	CONTRACT NO. 74236							
SCALE: SHEET NO. OF SHEETS STA. TO STA.						FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

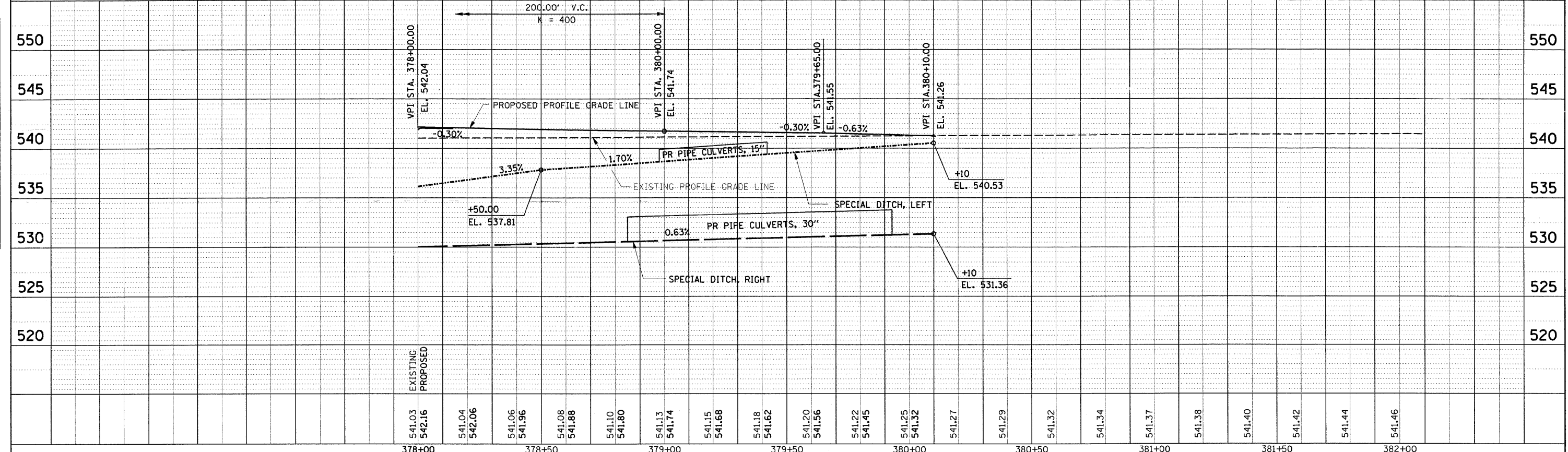
SW 1/4, SE 1/4, SEC 25, T10N, R10E



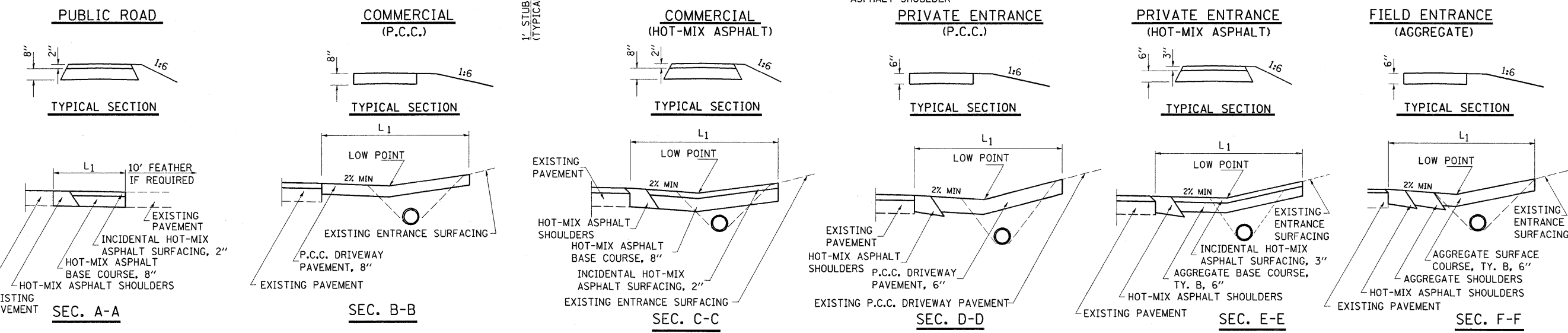
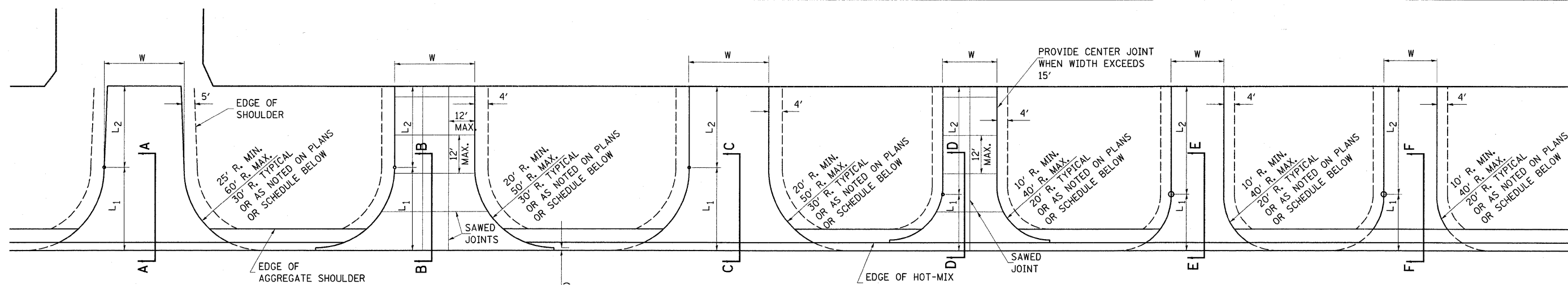
PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNMENT CHECKED	
	NOTE BOOK	
	NO.	
	ADD FILE NAME	

PROFILE	DESIGNED	DATE
	GRADES CHECKED	BY
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK	
	NO.	

SW 1/4, SE 1/4, SEC 25, T10N, R10E



FILE NAME =	USER NAME = teasleyck	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE STA. 378 + 00 TO STA. 380 + 10				F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr:\pw\work\pwsdot\teasleyck\dms67114\077436-sht-P1nPrf03.dgn		DRAWN -	REVISED -		116	(112BR)B	CUMBERLAND	72	16				
PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISED -		CONTRACT NO. 74236								
PLOT DATE = 1/14/2010		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



ENTRANCE SCHEDULE

TYPE	SIDE / STATION	WIDTH	LENGTH		RADI	35101800 AGGREGATE BASE, COURSE, TY. B, 6"		40200800 AGGREGATE SURFACE COURSE, TYPE B	40201000 AGGREGATE FOR TEMPORARY ACCESS	40600100 BITUMINOUS MATERIALS (PRIME COAT)	40800050 INCIDENTAL HOT-MIX ASPHALT SURFACING	44000200 DRIVEWAY PAVEMENT REMOVAL	
			L ₁	L ₂		TON	SQ. YD.						TON
PR	LT STA. 371+30.40	13	48/26	0/31	25/50		143.8		12.8	73.3	16.1	37.5	
PR	RT STA. 371+30.40	13	26/43	43/13	50/25		162.2		15.7	82.7	18.2	45.9	
PE	LT STA. 379+23.11	24	10	21			24.9		12.9	31.3	12.2	37.6	
FE	RT STA. 379+41.54	24	10	66	20/20			65.1	2.3				
TOTALS							24.9	306.0	65.1	43.7	187.3	46.5	121.0
USE							25	306	66	44	188	47	121

NOTES: QUANTITY FOR PRIME COAT IS INCLUDED IN PAVING SCHEDULE.

NOTES:

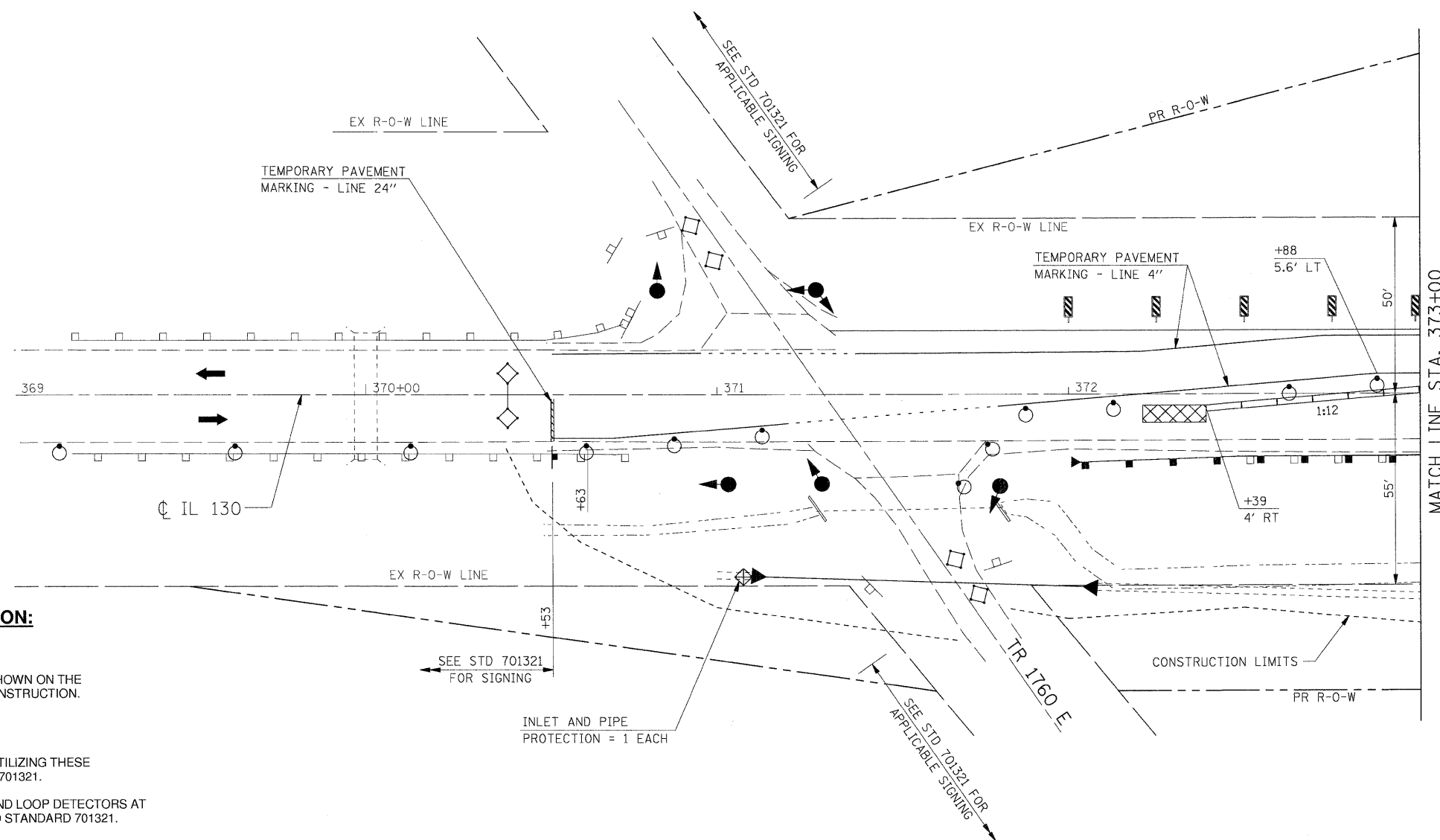
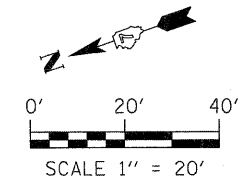
L₁ = DISTANCE FROM EDGE OF PAVEMENT TO RADIUS POINT OR MAXIMUM DISTANCE OF 30'.
 L₂ = DISTANCE FROM RADIUS POINT OR MAXIMUM DISTANCE OF 30' FROM EDGE OF PAVEMENT TO R.O.W. LINE
 MATERIAL USED TO CONSTRUCT L₂ LENGTH SHALL BE THE SAME TYPE OF MATERIAL AS THE EXISTING ENTRANCE

THE THICKNESS OF THE HOT-MIX ASPHALT SHOULDERS THROUGH COMMERCIAL ENTRANCES (HOT-MIX ASPHALT) AND PUBLIC ROADS SHALL BE 10". THE COST OF THE EXTRA THICKNESS SHALL BE INCLUDED WITH THE HOT-MIX ASPHALT SHOULDERS PAY ITEM.

THE COST OF THE BITUMINOUS MATERIALS AND AGGREGATE (PRIME COAT) FOR ENTRANCES AND PUBLIC ROAD APPROACHES SHALL BE INCLUDED IN THE PAY ITEM INCIDENTAL HOT-MIX ASPHALT SURFACING.

HOT-MIX ASPHALT SHOULDERS SHALL NOT BE CONSTRUCTED THROUGH PCC ENTRANCE OR PUBLIC ROAD APPROACH.

FE=FIELD ENTRANCE PRA - PUBLIC ROAD APPROACH
 PE=PRIVATE ENTRANCE MBT - MAILBOX TURNOUT
 CE=COMMERCIAL ENTRANCE



SEQUENCE OF CONSTRUCTION:

PRE-CONSTRUCTION:

INSTALL BASE COURSE WIDENING 8" AS SHOWN ON THE TYPICAL SECTIONS PRIOR TO STAGE 1 CONSTRUCTION. UTILIZE STANDARD 701326.

STAGE 1 TRAFFIC:

SET UP TEMPORARY TRAFFIC CONTROL UTILIZING THESE PLANS IN CONJUNCTION WITH STANDARD 701321.

INSTALL TEMPORARY TRAFFIC SIGNALS AND LOOP DETECTORS AT LOCATIONS SHOWN ON THESE PLANS AND STANDARD 701321.

PLACE TEMPORARY CONCRETE BARRIER AND PAVEMENT MARKING IN ACCORDANCE WITH THESE PLANS AND STANDARD 701321.

REMOVE ANY CONFLICTING PAVEMENT MARKINGS.

CHANNEL ALL TRAFFIC TO EAST SIDE OF BRIDGE.

STAGE 1 CONSTRUCTION:

INSTALL TEMPORARY SHEET PILING PRIOR TO ANY EXCAVATION.

REMOVE STAGE 1 PORTION OF EXISTING BRIDGE & PAVEMENT.

CONSTRUCT STAGE 1 PORTION OF BRIDGE, APPROACH PAVEMENT, FLEXIBLE PAVEMENT, BRIDGE APPROACH SHOULDER DRAINS AND RIP RAP.

CONSTRUCT STAGE 1 PORTION OF BINDER TO TEMPORARY PROFILE, TEMPORARY RAMPS AND BUTT JOINTS FROM BOTH ENDS OF BRIDGE APPROACH PAVEMENT. (SEE ROADWAY PROFILE FOR CONSTRUCTION INFORMATION.) GRADE EARTH TO DRAIN.

CONSTRUCT PROPOSED PIPE CULVERTS ON WEST SIDE OF ROAD.

CONSTRUCT PROPOSED GUARDRAIL ON WEST SIDE OF ROAD AT TEMPORARY HEIGHTS ALONG TEMPORARY RAMP FOR STAGE 2 TRAFFIC.

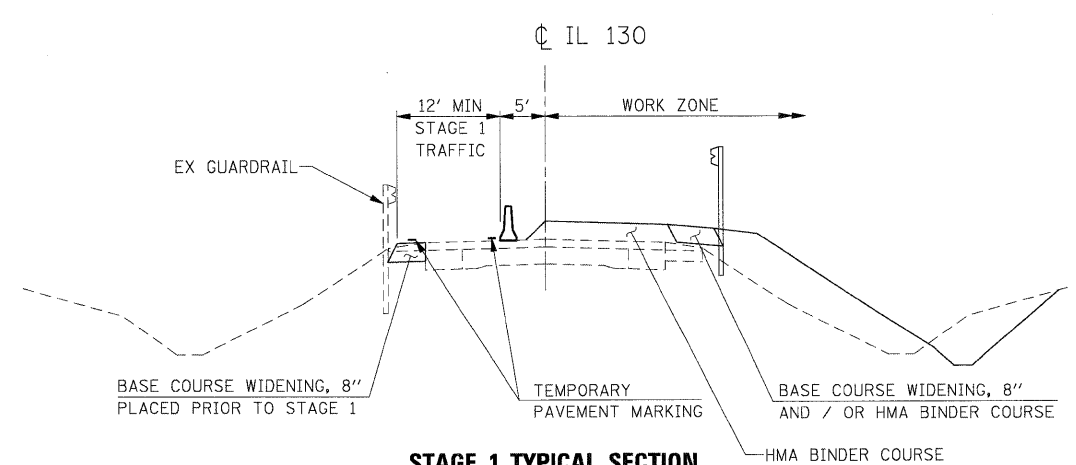
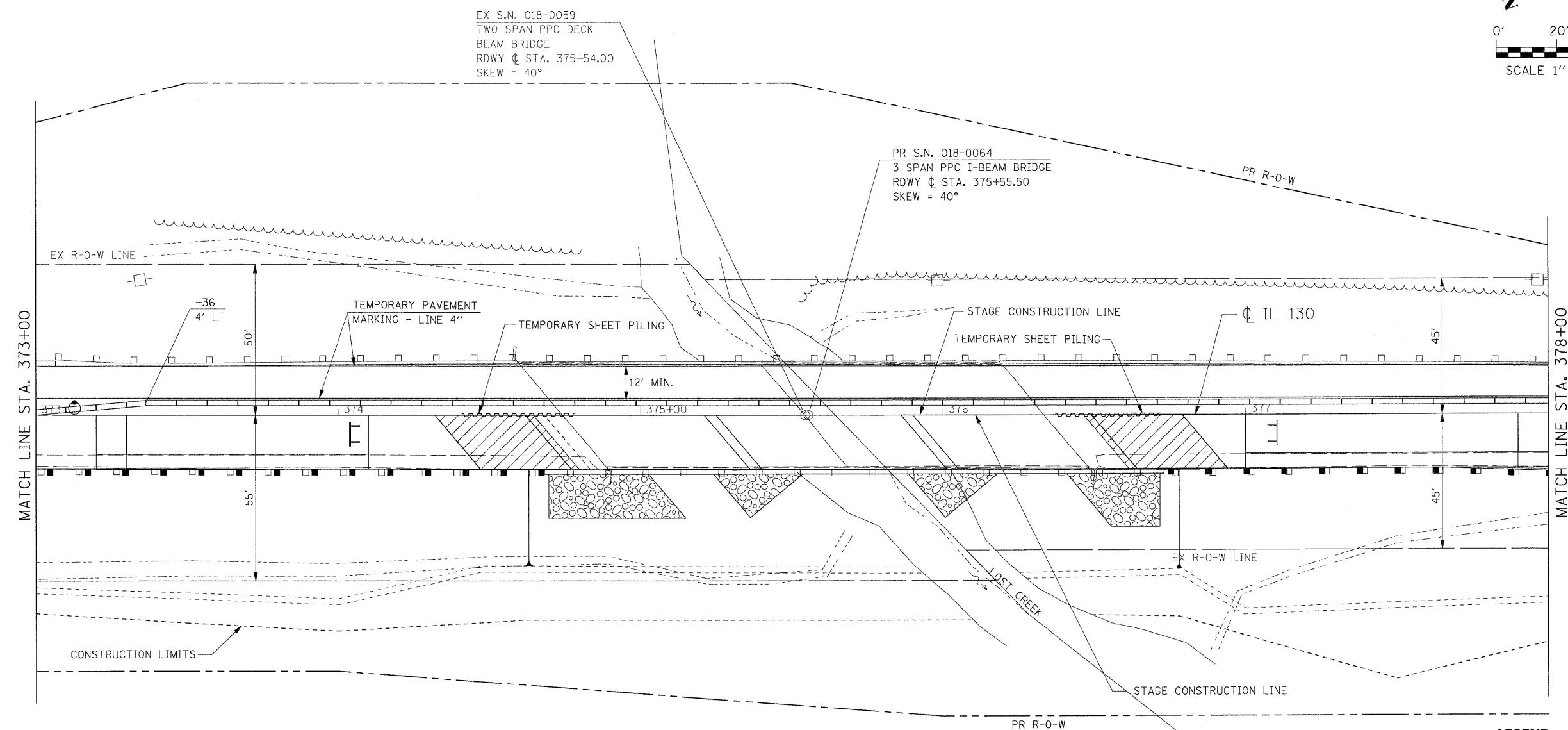
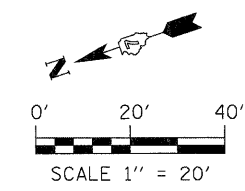
GENERAL STAGING NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO SIDE ROADS AND PRIVATE ENTRANCES AT ALL TIMES. TEMPORARY SIGNALS WILL BE REQUIRED FOR TR 1760 E ON BOTH SIDES OF IL 130.
2. ACCESS MUST BE PROVIDED TO ALL F.E.'s. NO SIGNALS WILL BE REQUIRED.
3. THIS TRAFFIC CONTROL PLAN SHALL BE USED IN CONJUNCTION WITH STANDARD 701321 AND AS DIRECTED BY THE ENGINEER.

LEGEND

- SIGN
- DRUM WITH STEADY BURNING LIGHT (BIDIRECTIONAL)
- TYPE II BARRICADE
- TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR, TEMPORARY
- PAVEMENT REMOVAL
- DIRECTION OF TRAFFIC
- TYPE III BARRICADE
- LOOP DETECTORS
- DOUBLE VERTICAL PANEL

FILE NAME = G:\S08026-7\CADD Sheets\0774236-sh1-Stage1.dgn	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC - STAGE 1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			116	(112BR1)B	CUMBERLAND	72	18	
		PLOT SCALE = 20.0000' / IN.	CHECKED -			REVISED -	CONTRACT NO. 74236				
		PLOT DATE = 8/13/2009	DATE -			REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
						SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.



STAGE 1 TYPICAL SECTION
 (SEE "TYPICAL SECTIONS" FOR
 ADDITIONAL CONSTRUCTION INFORMATION)

LEGEND

- ┆ SIGN
- DRUM WITH STEADY BURNING LIGHT (BIDIRECTIONAL)
- I TYPE II BARRICADE
- TRAFFIC SIGNAL
- ▬ TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR, TEMPORARY
- ▧ PAVEMENT REMOVAL
- ➔ DIRECTION OF TRAFFIC
- ┆┆ TYPE III BARRICADE
- ◇ LOOP DETECTORS
- ▩ DOUBLE VERTICAL PANEL

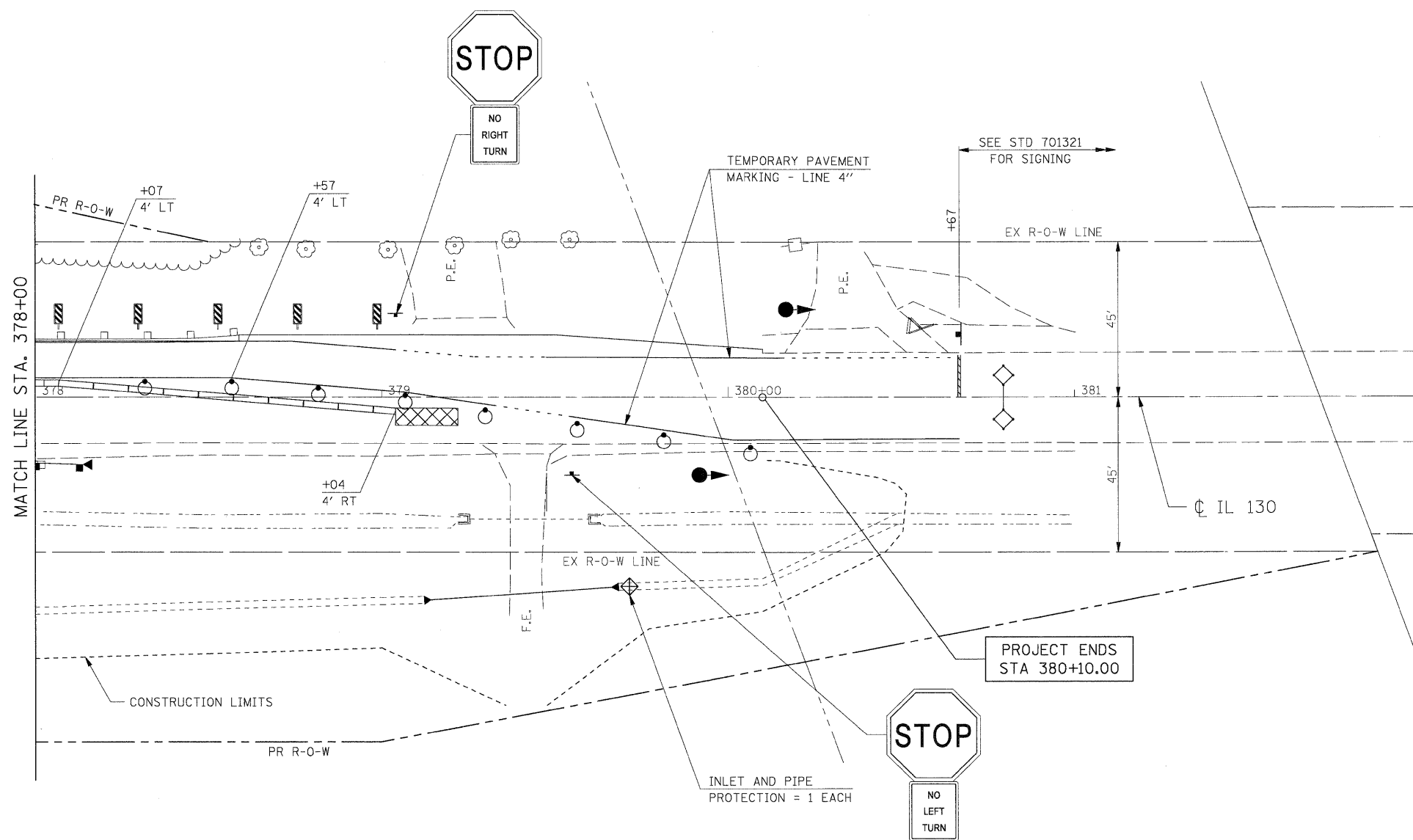
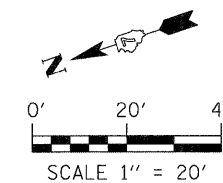
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC - STAGE 1

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	(112BR1)B	CUMBERLAND	72	19
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 74236	



LEGEND

- ↓ SIGN
- DRUM WITH STEADY BURNING LIGHT (BIDIRECTIONAL)
- I TYPE II BARRICADE
- TRAFFIC SIGNAL
- ▬ TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR, TEMPORARY
- ▩ PAVEMENT REMOVAL
- ➔ DIRECTION OF TRAFFIC
- TT TYPE III BARRICADE
- ◇ LOOP DETECTORS
- ▨ DOUBLE VERTICAL PANEL

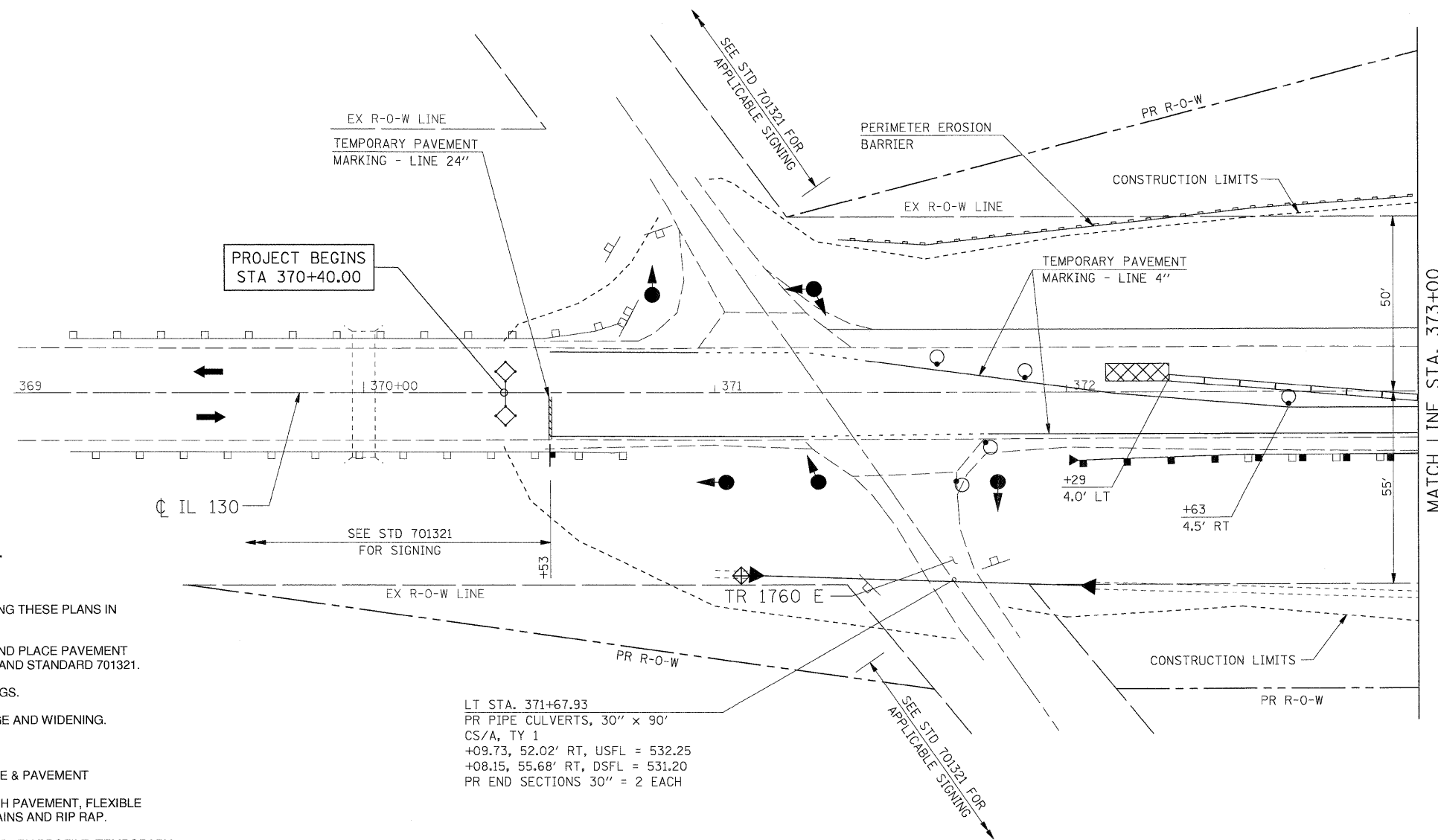
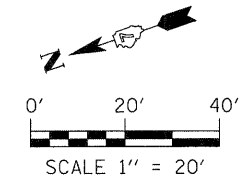
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC – STAGE 1

SCALE:	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	(112BR1)B	CUMBERLAND	72	20
CONTRACT NO. 74236				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SEQUENCE OF CONSTRUCTION:

STAGE 2 TRAFFIC:

SET UP TEMPORARY TRAFFIC CONTROL UTILIZING THESE PLANS IN CONJUNCTION WITH STANDARD 701321.

RELOCATE TEMPORARY CONCRETE BARRIER AND PLACE PAVEMENT MARKING IN ACCORDANCE WITH THESE PLANS AND STANDARD 701321.

REMOVE ANY CONFLICTING PAVEMENT MARKINGS.

CHANNEL ALL TRAFFIC TO WEST SIDE OF BRIDGE AND WIDENING.

STAGE 2 CONSTRUCTION:

REMOVE STAGE 2 PORTION OF EXISTING BRIDGE & PAVEMENT

CONSTRUCT REMAINDER OF BRIDGE, APPROACH PAVEMENT, FLEXIBLE PAVEMENT, BRIDGE APPROACH SHOULDER DRAINS AND RIP RAP.

CONSTRUCT REMAINDER OF BINDER TO TEMPORARY PROFILE, TEMPORARY RAMPS AND BUTT JOINTS FROM BOTH ENDS OF BRIDGE APPROACH PAVEMENT. (SEE ROADWAY PROFILE FOR CONSTRUCTION INFORMATION.) GRADE EARTH TO DRAIN.

CONSTRUCT PROPOSED PIPE CULVERTS ON EAST SIDE OF ROAD.

CONSTRUCT INITIAL BINDER LIFT(S) ON EAST SIDE OF ROAD AND INSTALL PROPOSED GUARDRAIL AT FINAL HEIGHT. ADJUST HEIGHT OF GUARDRAIL INSTALLED IN STAGE 1 (WEST SIDE).

POST-STAGE TRAFFIC:

REMOVE TEMPORARY TRAFFIC SIGNALS AND TEMPORARY CONCRETE BARRIER.

SHIFT TRAFFIC AS NEEDED TO BUILD UP PAVEMENT TO FINAL PROFILE UTILIZING STANDARD 701306.

POST-STAGE CONSTRUCTION:

FOLLOWING COMPLETION OF STAGE 2 CONSTRUCTION, BUILD UP REMAINING HMA BINDER COURSE, PLACE FINAL ROADWAY AND SHOULDER SURFACE, AGGREGATE SHOULDERS, ENTRANCES, SIDE ROADS, FINAL STRIPING, GRADING AND SEEDING.

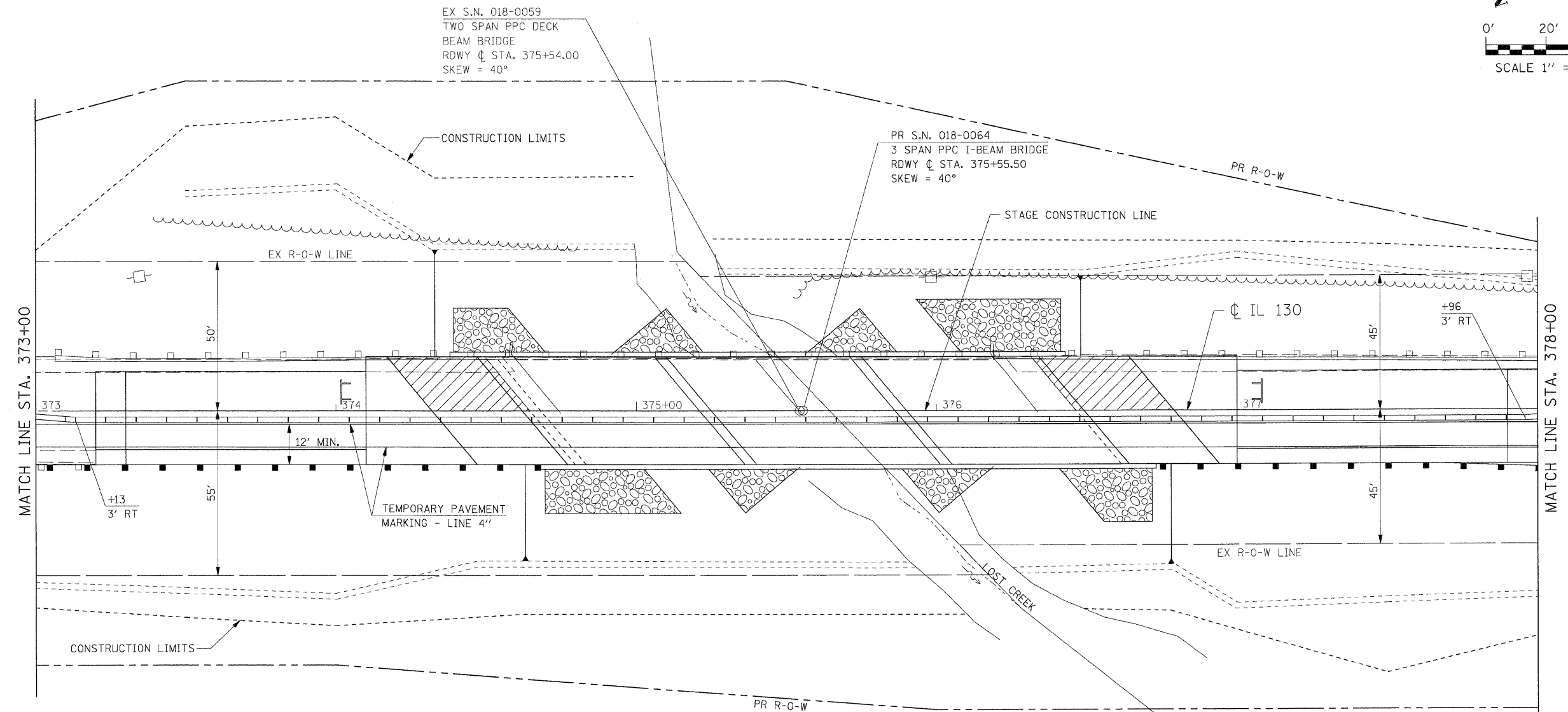
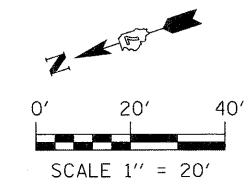
GENERAL STAGING NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE ENTRANCES AT ALL TIMES. TEMPORARY SIGNALS WILL BE REQUIRED FOR ENTRANCE AT LT STA. 1031+57.
2. ACCESS MUST BE PROVIDED TO ALL F.E.'s. NO SIGNALS WILL BE REQUIRED.
3. THIS TRAFFIC CONTROL PLAN SHALL BE USED IN CONJUNCTION WITH STANDARD 701321 AND AS DIRECTED BY THE ENGINEER.

LEGEND

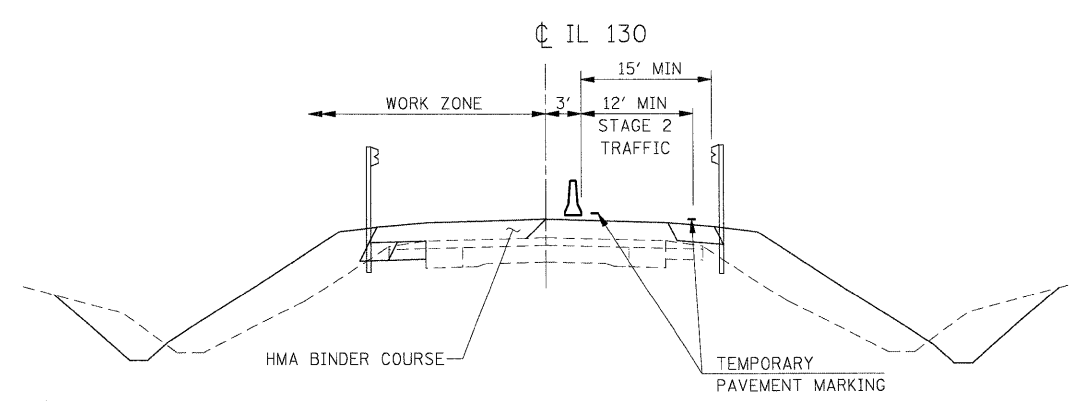
- ↑ SIGN
- DRUM WITH STEADY BURNING LIGHT (BIDIRECTIONAL)
- I TYPE II BARRICADE
- TRAFFIC SIGNAL
- ▬ TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR, TEMPORARY
- ▧ PAVEMENT REMOVAL
- ➔ DIRECTION OF TRAFFIC
- TT TYPE III BARRICADE
- ◇ LOOP DETECTORS
- ▩ DOUBLE VERTICAL PANEL

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC - STAGE 2				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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	PLOT SCALE = 20,000' / IN.	CHECKED -	REVISED -												
	PLOT DATE = 8/13/2009	DATE -	REVISED -												
											CONTRACT NO. 74236			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	



LEGEND

- ⊥ SIGN
- ⊙ DRUM WITH STEADY BURNING LIGHT (BIDIRECTIONAL)
- I TYPE II BARRICADE
- TRAFFIC SIGNAL
- ▬ TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR, TEMPORARY
- ▧ PAVEMENT REMOVAL
- ➔ DIRECTION OF TRAFFIC
- TT TYPE III BARRICADE
- ◇ LOOP DETECTORS
- ▩ DOUBLE VERTICAL PANEL



STAGE 2 TYPICAL SECTION
(SEE "TYPICAL SECTIONS" FOR ADDITIONAL CONSTRUCTION INFORMATION)

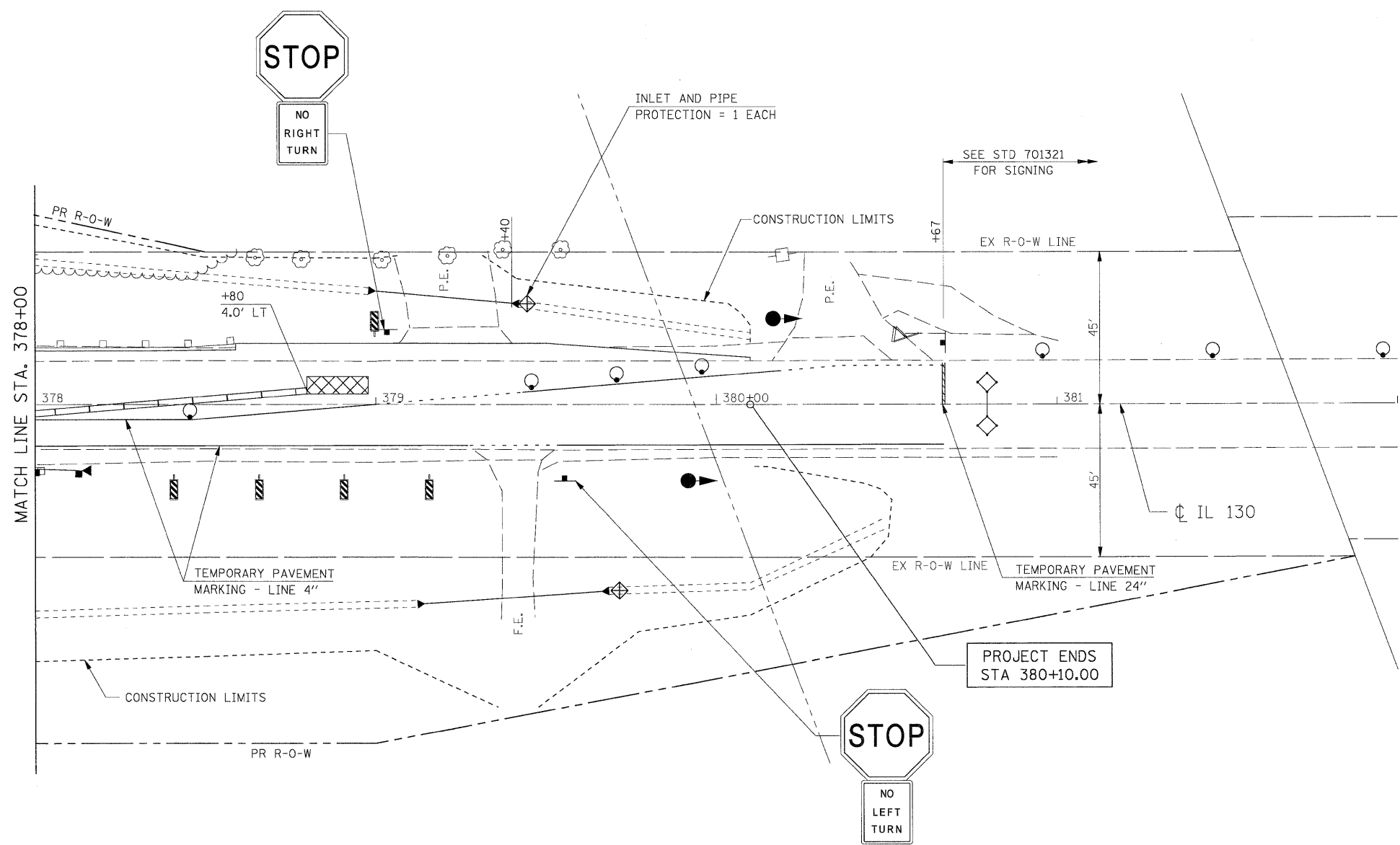
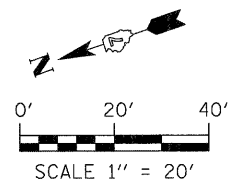
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		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC - STAGE 2

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	(112BR)B	CUMBERLAND	72	22
CONTRACT NO. 74236				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



LEGEND

- ↓ SIGN
- ⊙ DRUM WITH STEADY BURNING LIGHT (BIDIRECTIONAL)
- I TYPE II BARRICADE
- TRAFFIC SIGNAL
- ▬ TEMPORARY CONCRETE BARRIER
- ▨ IMPACT ATTENUATOR, TEMPORARY
- ▩ PAVEMENT REMOVAL
- ➔ DIRECTION OF TRAFFIC
- TT TYPE III BARRICADE
- ◇ LOOP DETECTORS
- ▤ DOUBLE VERTICAL PANEL

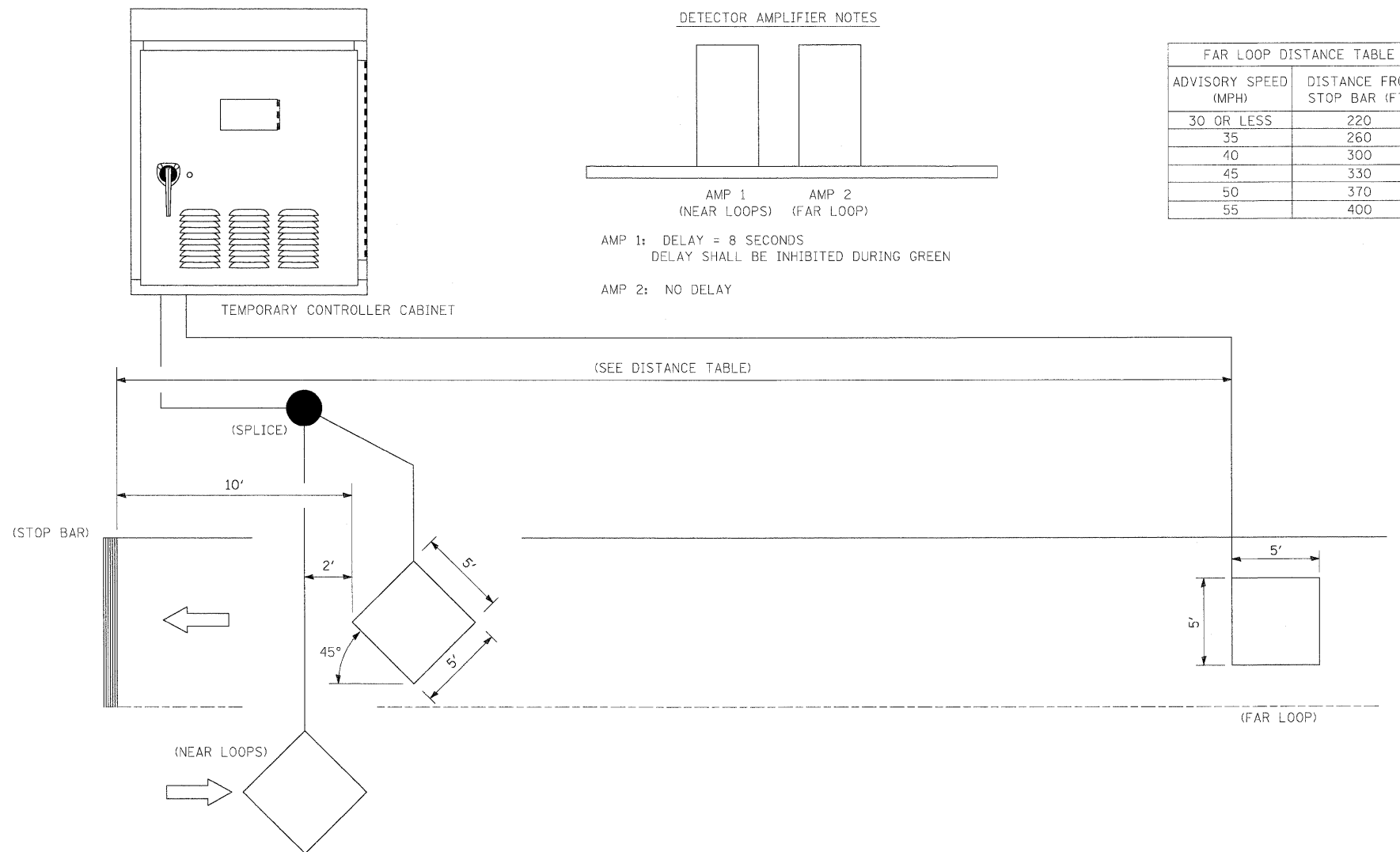
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	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 8/13/2009	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC - STAGE 2

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	(112BR)B	CUMBERLAND	72	23
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 74236	



NOTE: ALL LOOPS CENTERED IN LANE.

INDUCTION LOOP DETECTOR

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY BRIDGE TRAFFIC SIGNAL LOOP PLACEMENT DETAIL SHEET	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G:\S08026-7\CADD Sheets\0774236-sht-Details.dgn	DRAWN -	REVISED -	116			(112BR1)B	CUMBERLAND	72	24	
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PLOT DATE = 8/13/2009	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
				SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.			

CONTRACTOR CERTIFICATION STATEMENT

THIS CERTIFICATION STATEMENT IS PART OF THE STORM WATER POLLUTION PLAN FOR THE PROJECT DESCRIBED BELOW IN ACCORDANCE WITH NPDES PERMIT NO. ILR10 _____, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ON _____.

ROUTE: FAP 116 MARKED: IL 130
 SECTION: (112BRI)B PROJECT NO.: _____
 COUNTY: CUMBERLAND CONTRACT NO.: 74236

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNATURE _____ DATE _____
 TITLE _____
 NAME OF FIRM _____
 STREET ADDRESS _____
 CITY, STATE, ZIP _____
 PHONE NUMBER _____

NOTE: THE ABOVE BOXED IN AREA SHALL BE FILLED OUT BY THE CONTRACTOR AFTER THE AWARD OF THE CONTRACT TO OBTAIN THE REQUIRED NPDES PERMIT FROM IEPA. THIS IS A REQUIREMENT FOR THIS CONTRACT.

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
GA\S08026-7\CADD Sheets\0774236-sht-SWP	P_Notes01.dgn	DRAWN -	REVISED -			116	(112BRI)B	CUMBERLAND	72	25	
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	PLOT DATE = 8/13/2009	DATE -	REVISED -			SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	

STORM WATER POLLUTION PREVENTION PLAN

ROUTE: FAP 116 MARKED: ILL ROUTE 130
 SECTION: (112BR1)B PROJECT NO. :
 COUNTY: CUMBERLAND CONTRACT NO. : 74236

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISION OF THE NPDES PERMIT NUMBER ILR10 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRE OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION SUBMITTED, IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

 (SIGNATURE) (DATE)

 (TITLE)

NOTE: THE ABOVE BOXED IN AREA WILL BE FILLED OUT BY IDOT - CONSTRUCTION AFTER THE AWARD OF THE CONTRACT TO OBTAIN THE REQUIRED NPDES PERMIT.

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES. THE CONTRACTOR SHALL ABIDE TO ALL REQUIREMENTS WITHIN THIS PLAN AS PART OF THE CONTRACT.

THE PURPOSE OF THIS PLAN IS TO PREVENT / MINIMIZE SILTATION WITHIN THE CONSTRUCTION ZONE AND TO ELIMINATE SEDIMENTS FROM ENTERING AND LEAVING THE CONSTRUCTION ZONE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE TIME.

CERTAIN ITEMS, AS SHOWN IN THIS PLAN AND REFERENCED BY THE LEGEND, SHALL BE PLACED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION RESULTING FROM THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF THE YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL PLACE PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A REASONABLE AMOUNT OF TIME; THEREFORE, REDUCING THE AMOUNT OF AREA BEING OPEN TO THE POSSIBILITY OF EROSION AND REDUCING THE AMOUNT OF TEMPORARY EROSION CONTROL SYSTEMS AND TEMPORARY SEEDING. THE RESIDENT ENGINEER WILL DETERMINE IF TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED, THE SIZE OF THE PROPOSED DITCH CHECKS, THE PROPER METHOD OF INSTALLATION, AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS SHALL BE ADDED WHICH ARE NOT INCLUDED IN THIS PLAN. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN SPECIAL DETAILS AND IN STANDARD 280001 OF THE PLANS.

THE SPECIAL PROVISIONS TEMPORARY SEEDING, TEMPORARY EROSION CONTROL SEEDING, AND TEMPORARY EROSION CONTROL ADDITIONALLY SUPPLEMENT THIS PLAN.

ALL DISTURBED AREAS HAVING HIGH POTENTIAL FOR EROSION, AS DETERMINED BY THE ENGINEER, SHALL BE TEMPORARILY SEEDED OR PERMANENTLY SEEDED BY OCTOBER 1ST OF EACH CONSTRUCTION YEAR AND SHALL NOT BE REOPENED UNTIL AFTER THE WINTER SHUTDOWN PERIOD.

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY:

1. THE PROPOSED PROJECT CONSISTS OF REPLACING THE EXISTING BRIDGE CARRYING IL 108 OVER MACOUPIN CREEK WITH A NEW FOUR SPAN BRIDGE. THE PROJECT WILL BE CONSTRUCTED ON THE EXISTING ALIGNMENT, AND WILL INCLUDE RECONSTRUCTION / RESURFACING OF APPROX. 800 FEET OF IL 108.
2. CONSTRUCTION IS TO BE DONE IN TWO STAGES, AND CONSISTS OF BRIDGE REMOVAL, CONSTRUCTING NEW BRIDGE, HMA BASE COURSE WIDENING, HMA RESURFACING, PLACING AGGREGATE SHOULDERS, INSTALLING GUARDRAIL AND OTHER MISCELLANEOUS WORK TO COMPLETE IMPROVEMENTS TO THE PROPOSED ROADWAY.

DESCRIPTION OF INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB EARTH AND LEAD TO POSSIBLE EROSION FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. PLACE STAGE I TRAFFIC CONTROL & DIRECT TRAFFIC TO STAGE I ROADWAY.
2. COMPLETE STAGE I BRIDGE WORK, PAVEMENT REMOVAL, WIDENING, GUARDRAIL CONSTRUCTION, & DRAINAGE WORK.
3. PLACE HMA BASE COURSE WIDENING AS SHOWN IN PLANS FOR STAGE II TRAFFIC.
4. PLACE STAGE II TRAFFIC CONTROL & DIRECT TRAFFIC TO STAGE II ROADWAY.
5. COMPLETE STAGE II BRIDGE WORK, PAVEMENT, GUARDRAIL REMOVAL & REPLACEMENT, AND DRAINAGE WORK.
6. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS EROSION CONTROL FENCE, RIPRAP DITCH CHECKS, SEDIMENT BASINS, TEMPORARY SEEDING, ETC.
7. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS RIPRAP DITCH LINING, RIPRAP STILLING BASINS, EXCELSIOR BLANKET, SEEDING, ETC.
8. FINAL GRADING, PAVING AND OTHER MISCELLANEOUS ITEMS.

AREA OF CONSTRUCTION SITE:

APPROXIMATELY 1.6 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING OR OTHER ACTIVITIES, WITH A TOTAL CONSTRUCTION AREA OF 2.7 ACRES.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THIS STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. ESTIMATED RUN-OFF COEFFICIENTS ARE CONTAINED IN THE PROJECT DRAINAGE STUDY WHICH WERE UTILIZED FOR PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.
2. INFORMATION ON THE SOILS WITHIN THE SITE WAS OBTAINED FROM FIELD REVIEWS WHICH WERE UTILIZED FOR PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.
3. SITE MAPS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES WERE CONTAINED IN THE PROJECT DESIGN REPORT, USGS DRAINAGE MAPS, PROJECT DRAINAGE STUDY, AND PROJECT PLAN DOCUMENTS WERE ALL UTILIZED FOR PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

DRAINAGE TRIBUTARIES RECEIVING WATER FROM THIS CONSTRUCTION SITE:

1. LOST CREEK

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G:\S08026-7\CADD Sheets\074236-shr-SWPP_Notes02.dgn	DRAWN -	REVISED -	116			(112BR1)B	CUMBERLAND	72	26	
PLOT SCALE = 20.000 ' / IN.	CHECKED -	REVISED -	CONTRACT NO. 74236							
PLOT DATE = 8/13/2009	DATE -	REVISED -	SCALE: NONE			SHEET NO. 2 OF 4 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROLS

DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

1. THE AREA BETWEEN THE EXISTING AND PROPOSED RIGHT-OF-WAY/TEMPORARY EASEMENT BOUNDARIES AND LIMITS OF THE PROJECT WILL BE IMPROVED AND MANAGED FOR THE PURPOSES OF CONTROLLING EROSION WITHIN THE AREA, REDUCING WATER FLOW BY TEMPORARY DIVERSION AND MINIMIZING SILTATION INTO THE CONSTRUCTION ZONE, AND ESTABLISHING VEGETATIVE COVER WHICH WILL BECOME PERMANENT VEGETATION AND ACT AS AN EROSION BARRIER. WORK AT THE BEGINNING OF CONSTRUCTION WILL CONSIST OF THE FOLLOWING:
 - (A) AREAS OF EXISTING VEGETATION (WOODS AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION SLOPE LIMITS SHALL BE IDENTIFIED FOR PRESERVING AND SHALL BE PROTECTED FROM MOWING, BRUSH CUTTING, TREE REMOVAL AND OTHER ACTIVITIES WHICH WOULD BE DETRIMENTAL TO THEIR MAINTENANCE AND DEVELOPMENT.
 - (B) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.
 - (C) AS SOON AS REASONABLE ACCESS IS AVAILABLE (SUCH AS TREES CLEARED) TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, SEDIMENT BASINS, RIPRAP DITCH CHECKS, TEMPORARY DITCH CHECKS, AND/OR EROSION CONTROL FENCE SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.
 - (D) BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODABLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE IMMEDIATELY EXPECTED AS STATED IN THE SPECIAL PROVISION "TEMPORARY EROSION CONTROL SEEDING".
 - (E) IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED IN CERTAIN AREAS WHICH ARE HIGHLY ERODABLE AREAS AS DETERMINED BY THE ENGINEER, THE AREAS SHALL BE TEMPORARILY SEEDED WHERE NO CONSTRUCTION ACTIVITIES ARE IMMEDIATELY EXPECTED AS STATED IN THE SPECIAL PROVISION "TEMPORARY EROSION CONTROL SEEDING".
 - (F) AT LOCATIONS WHERE A SIGNIFICANT AMOUNT OF WATER DRAINS INTO THE CONSTRUCTION ZONE FROM OUTSIDE AREAS (ADJACENT LANDOWNERS), EROSION CONTROL FENCE, TEMPORARY DITCH CHECKS, OR RIPRAP DITCH CHECKS WILL BE UTILIZED TO LOCALLY DIVERT WATER, REDUCE FLOW RATES, AND COLLECT OUTSIDE SILTATION INSIDE THE RIGHT-OF-WAY LINE. EROSION CONTROL ITEMS WILL NOT BE ALLOWED TO BE INSTALLED TO CAUSE FLOODING TO UPSTREAM PRIVATE PROPERTY WHICH COULD CAUSE CROP DAMAGES OR OTHER UNDESIRABLE CONDITIONS.
2. ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING/MOWING AND OVERSEEDING CAN BE COMPLETE.
3. A THIRD BENEFIT OF THESE FILTER AREAS IS THAT THEY WILL BEGIN TO PROVIDE A SCREEN AND BUFFER. THEY WILL HELP PROTECT THE CONSTRUCTION SITE FROM WINDS AND EXCESS SUN AND MITIGATE CONSTRUCTION NOISE AND DUST.

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

1. DURING ROADWAY CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION SLOPE LIMITS AS OUTLINED PREVIOUS HEREIN SHALL BE PROTECTED FROM DAMAGING EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESIGNATED ON THE PLANS OR DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
 - (A) WITHIN THE CONSTRUCTION ZONE, CRITICAL AREAS WHICH HAVE HIGH FLOWS OF WATER AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
 - (B) TOP SOIL AND EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
 - (C) AS THE CONTRACTOR CONSTRUCTS A PORTION OF ROADWAY IN A FILL SECTION, HE/SHE SHALL FOLLOW THE FOLLOWING STEPS AS DIRECTED BY THE ENGINEER:
 - I. PLACE TEMPORARY EROSION CONTROL SYSTEMS AT LOCATIONS WHERE WATER LEAVES AND ENTERS THE CONSTRUCTION ZONE
 - II. TEMPORARY SEED HIGHLY ERODABLE AREAS OUTSIDE THE CONSTRUCTION SLOPE LIMITS
 - III. CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS
 - IV. TEMPORARY DIVERT WATER AROUND PROPOSED CULVERT LOCATIONS
 - V. BUILD NECESSARY EMBANKMENT AT CULVERT LOCATIONS AND THEN EXCAVATE AND PLACE CULVERT
 - VI. CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE AT THE SAME TIME PLACE PERMANENT EROSION CONTROL SUCH AS RIPRAP DITCH LINING AND CONDUCT FINAL SHAPING TO THE SLOPES
 - (D) THE CONTRACTOR SHALL IMMEDIATELY FOLLOW MAJOR EARTH MOVING OPERATIONS WITH FINAL GRADING EQUIPMENT. AFTER THE MAJOR EARTH SPREAD OPERATION HAS MOVED TO A NEW LOCATION, FINAL GRADING SHALL BE COMPLETED WITHIN FOURTEEN DAYS. IF GRADING IS NOT COMPLETED WITHIN FOURTEEN DAYS, ALL MAJOR EARTH MOVING OPERATIONS WILL BE STOPPED, AS DIRECTED BY THE ENGINEER, UNTIL DISTURBED AREAS ARE FINAL GRADED AND SEEDED.
 - (E) EXCAVATED AREAS AND EMBANKMENTS SHALL BE PERMANENTLY SEEDED WHEN FINAL GRADED. IF NOT, THEY SHALL BE TEMPORARILY SEEDED AS STATED IN THE SPECIAL PROVISION "TEMPORARY EROSION CONTROL SEEDING".

(F) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUN-OFF IN COMPLIANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

(G) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING ACTIVITIES AND WEEKLY OR AFTER LARGE RAINS DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER CONTROL WORK IS NECESSARY.

(H) SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

(I) THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COSTS OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE TEMPORARY EROSION CONTROL SYSTEM. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

1. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH A PROPER STAND.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEDED. TEMPORARY RIPRAP DITCH CHECKS WILL BE ALLOWED TO REMAIN IN PLACE WHERE APPROVED BY THE ENGINEER.

MAINTENANCE AFTER CONSTRUCTION:

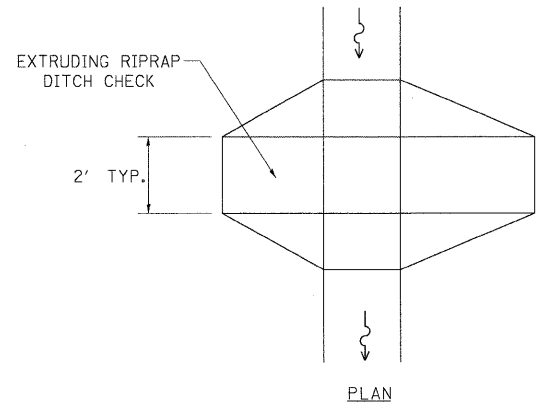
1. CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE IS RECEIVED AT THE FINAL INSPECTION.
2. AREAS WILL BE INSPECTED ON A REGULAR BASIS BY IDOT DISTRICT 6 BUREAU OF OPERATIONS.
3. MAINTENANCE CREWS WILL PERFORM REGULAR MOWINGS TO AID IN KEEPING WEEDS DOWN AND ESTABLISHING A GOOD ROADSIDE SEED STAND.
4. MAINTENANCE CREWS WILL ALSO AID IN ANY DITCH LINING MAINTENANCE OR IN ANY DRAINAGE PROBLEMS.
5. ALL MAINTENANCE WILL BE CONDUCTED AT TIMES WHEN WEATHER CONDITIONS WILL NOT CAUSE SITE DAMAGE.

DOCUMENTATION

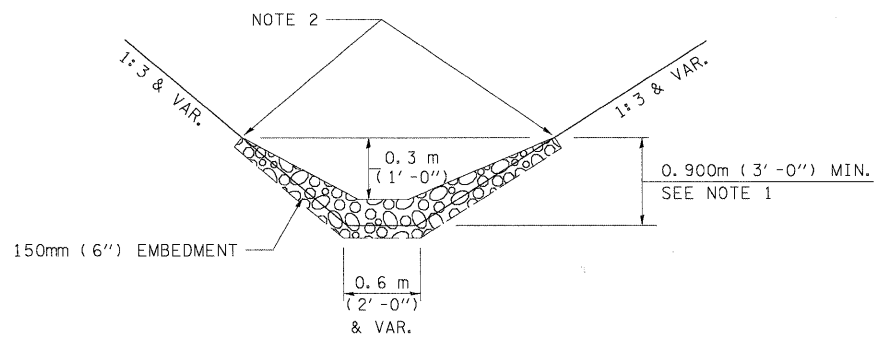
1. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH SECTION 4.B. SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G OF THE GENERAL PERMIT.
2. IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE RESIDENT ENGINEER OR RESIDENT TECHNICIAN SHALL COMPLETE AND FILE AN "INCIDENT OF NONCOMPLIANCE (ION)" REPORT FOR THE IDENTIFIED VIOLATION. THE RESIDENT ENGINEER OR RESIDENT TECHNICIAN SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI.G. OF THE GENERAL PERMIT. THE REPORT OF NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
 DIVISION OF WATER POLLUTION CONTROL
 2200 CHURCHILL ROAD, P.O. BOX 19276
 SPRINGFIELD, IL 62794-9276
 ATTN: COMPLIANCE ASSURANCE SECTION

FILE NAME =	USER NAME = JE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
G:\S08026-7\CA00 Sheets\0774236-shr-SWP	_Notes03.dgn	DRAWN -	REVISED -			116	(112BR1)B	CUMBERLAND	72	27	
		CHECKED -	REVISED -			SCALE: NONE SHEET NO. 3 OF 4 SHEETS STA. TO STA.					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		PLOT SCALE = 20.000' / IN.									
		PLOT DATE = 8/13/2009									



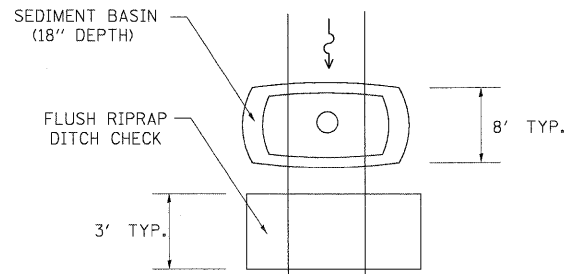
PLAN



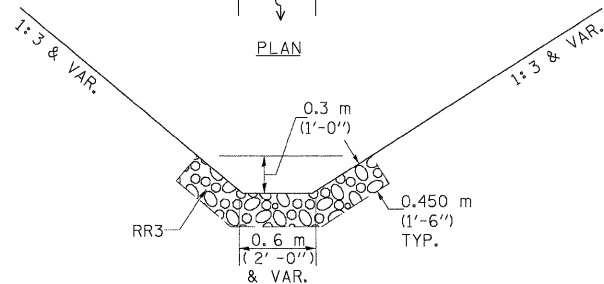
ELEVATION

OPTION 1

(EXTRUDING DITCH CHECK)
RECOMMENDED FOR AREAS
W/ RIPRAP DITCH LINING



PLAN



ELEVATION

OPTION 2

(FLUSH DITCH CHECK)
RECOMMENDED FOR AREAS
W/O RIPRAP DITCH LINING

STONE DUMPED RIPRAP DITCH CHECK

(TYPICAL & OPTIONS 1 & 2
AS DIRECTED BY THE ENGINEER)

NOTE 1: RIPRAP SHALL EXTEND FAR ENOUGH UP THE SLOPES TO ALLOW 0.3m (1') OVERTOPPING TO AVOID ERODING AROUND THE EDGES OF THE RIPRAP.

NOTE 2: ENDS SHALL BE TIED INTO SLOPES.

ITEM	SYMBOL
AGGREGATE (EROSION CONTROL) [STONE DUMPED RIPRAP DITCH CHECKS: HEIGHT = 0.6M (2')]]	
TEMPORARY DITCH CHECKS	
INLET PIPE PROTECTION (I&PP)	
PERIMETER EROSION BARRIER	
EARTH EXCAVATION FOR EROSION CONTROL (SEDIMENT BASINS)	
PRESERVE EXISTING TREES, WOODLANDS, AND UNDERSTORY (OUTSIDE CONSTRUCTION LIMITS)	
ITEM PLACED AT BEGINNING OF CONSTRUCTION (REQUIREMENT)	* *
ITEM PLACED AS DIRECTED BY ENGINEER (WHEN REQUIRED BY SITUATION)	
DIRECTION OF OVERLAND FLOW	

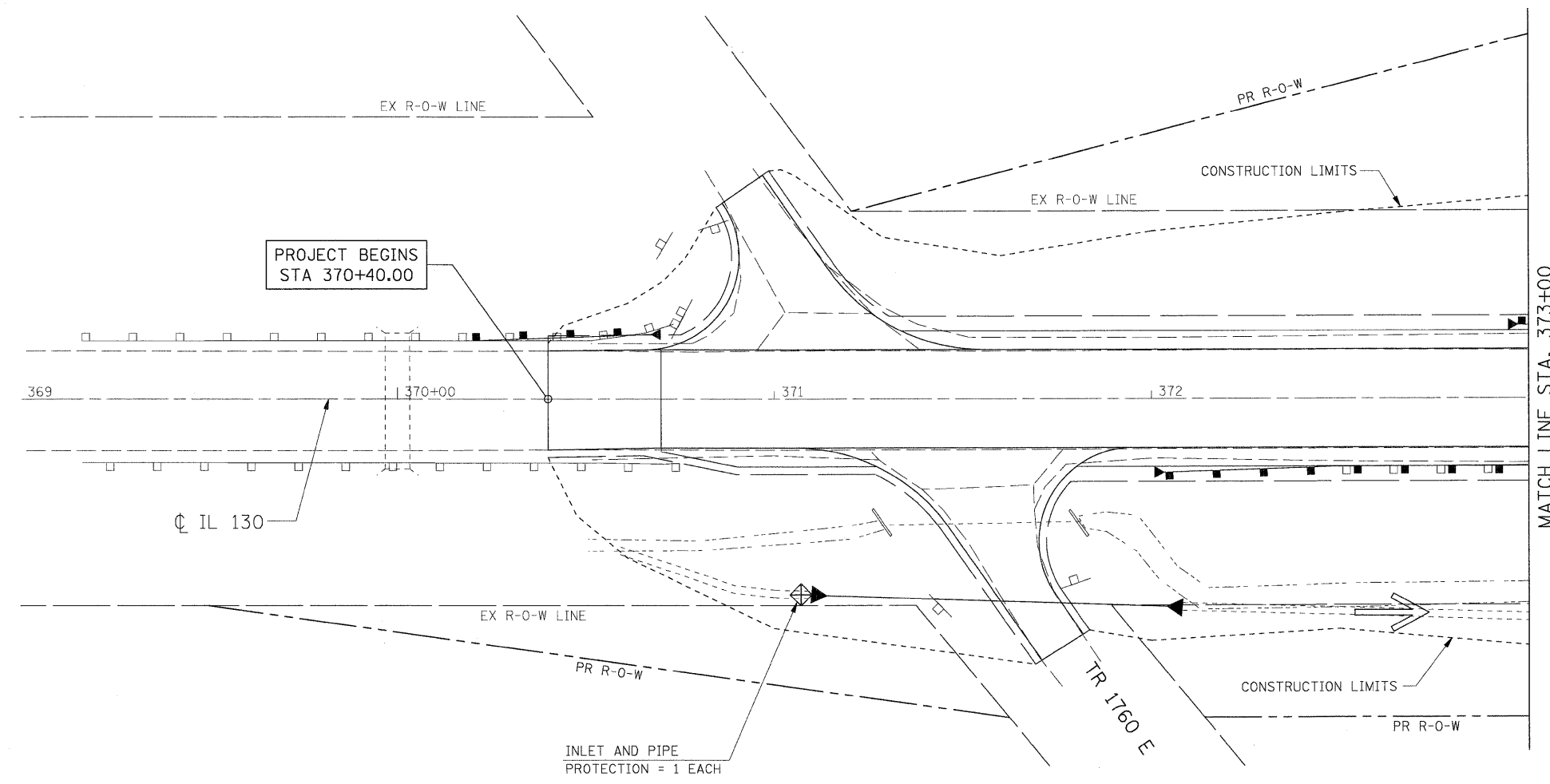
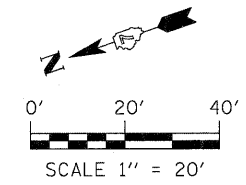
GENERAL NOTES:

ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON THIS SHEET, ON STANDARD 280001, AND AS DIRECTED BY THE ENGINEER.

THE SYMBOLOGY ON THE STORM WATER POLLUTION PREVENTION PLAN SHEETS DOES NOT REPRESENT THE SIZE OR QUANTITY OF BALES. FOR NUMBER OF BALES REFER TO DETAILS AND NOTES SHOWN ON THIS SHEET AND/OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL INSTALL DITCH CHECKS AS DIRECTED BY THE ENGINEER. IF THE ENGINEER ELECTS TO UTILIZE FLUSH RIPRAP DITCH CHECKS IN LIEU OF TEMPORARY DITCH CHECKS AS SHOWN ON THE FOLLOWING PLAN SHEETS, THE SPACING SHOULD BE DOUBLED.

FILE NAME =	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G:\S08026-7\CADD Sheets\0774236-shr-SWP_Notes04.dgn	DRAWN -	REVISED -	116			(112BR)B	CUMBERLAND	72	28	
PLOT SCALE = 20,000 ' / IN.	CHECKED -	REVISED -	CONTRACT NO. 74236							
PLOT DATE = 8/13/2009	DATE -	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							
				SCALE: NONE	SHEET NO. 4 OF 4 SHEETS	STA.	TO STA.			



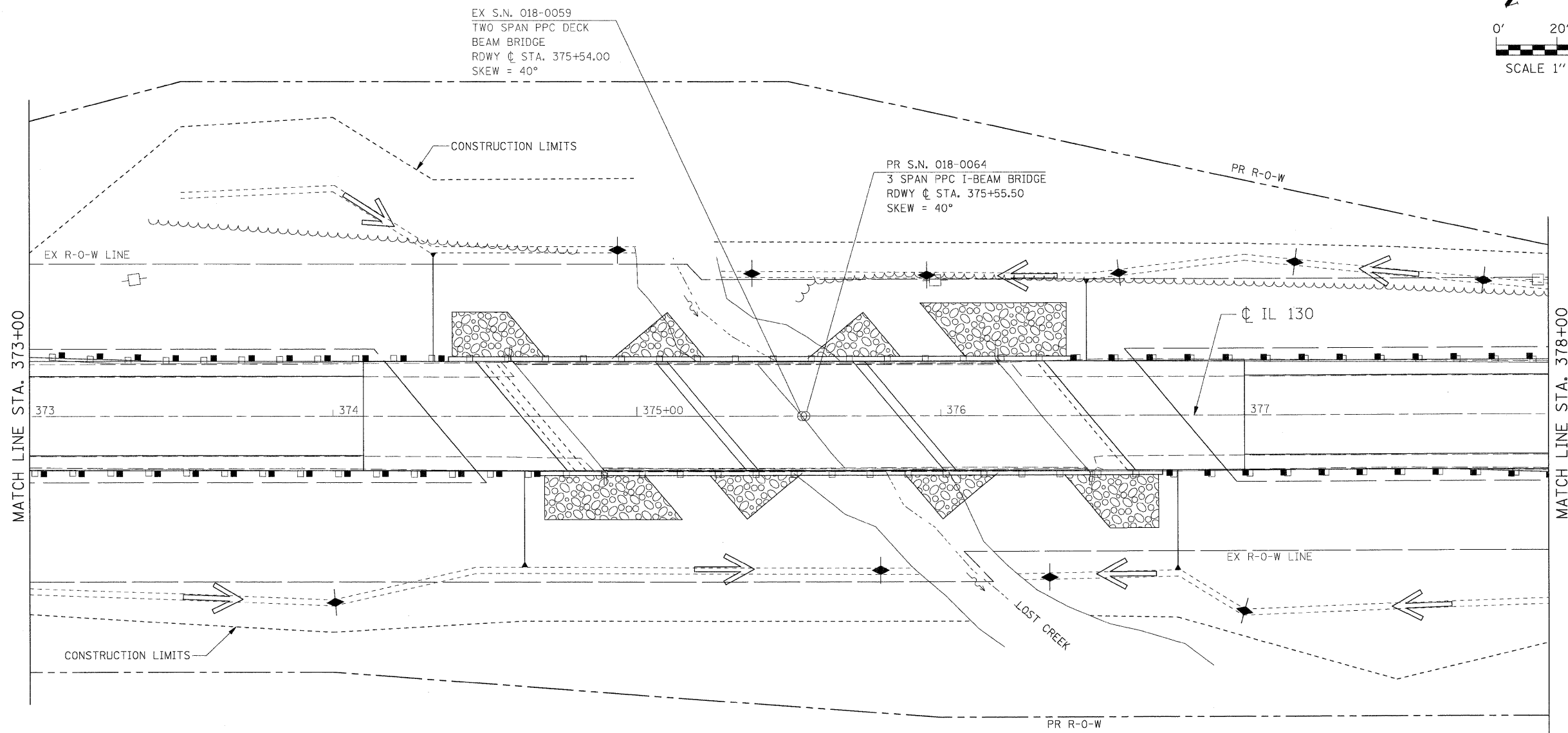
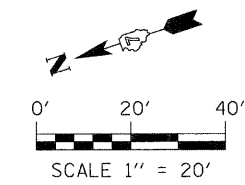
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PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 8/13/2009		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

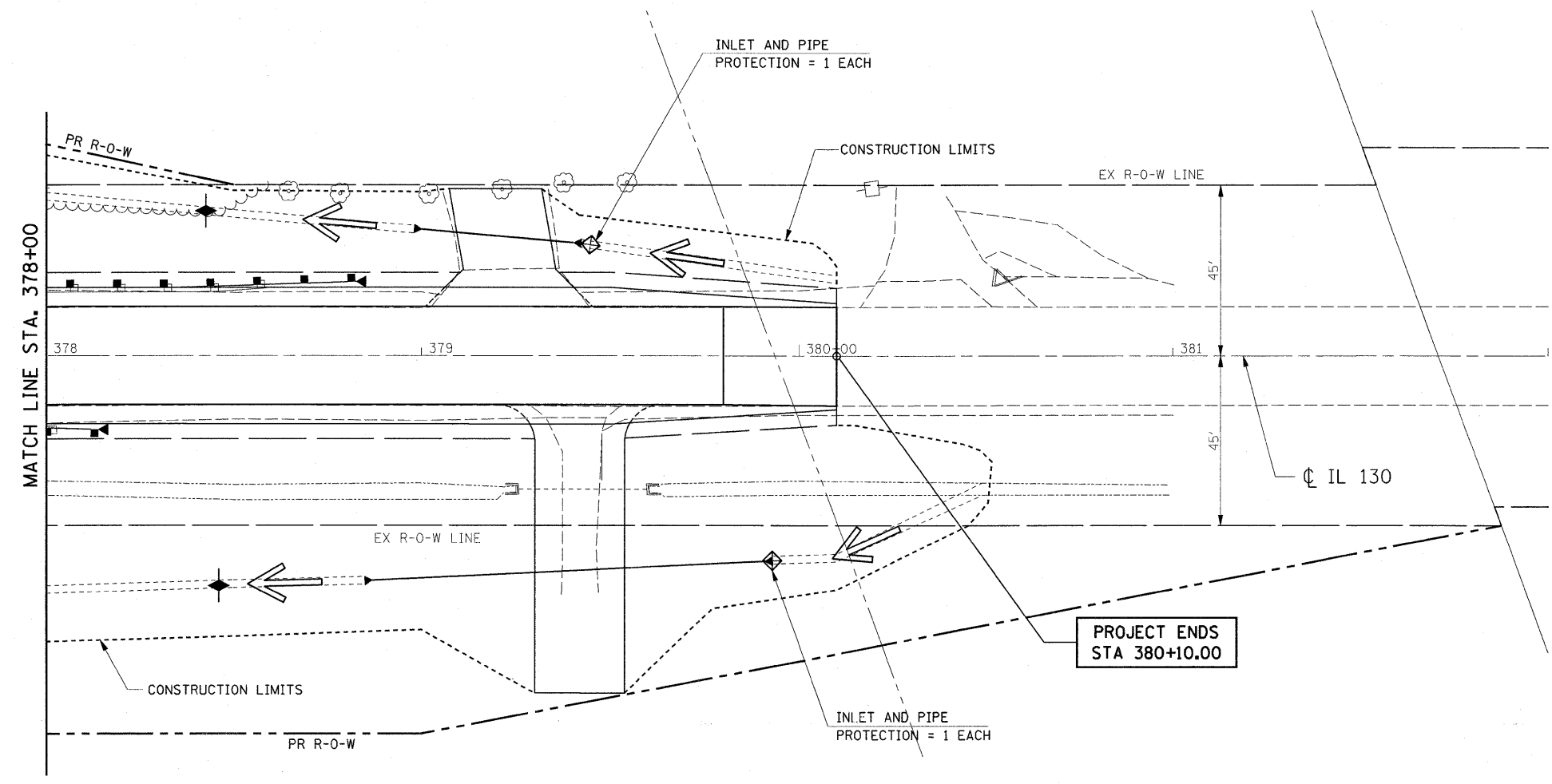
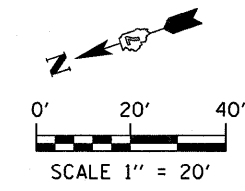
STORM WATER POLLUTION PREVENTION PLAN

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
116	(112BR1)B	CUMBERLAND	72	29
CONTRACT NO. 74236				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



FILE NAME = G:\S08026-7\CADD Sheets\0774236-shit-SWP#02.dgn	USER NAME = IE Consultants	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STORM WATER POLLUTION PREVENTION PLAN			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 20,0000' / IN.	DRAWN -	REVISED -					116	(112BR1)B	CUMBERLAND	72	30
	PLOT DATE = 8/13/2009	CHECKED -	REVISED -					CONTRACT NO. 74236				
		DATE -	REVISED -					FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
				SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.			



FILE NAME =	USER NAME = teasleyck	DESIGNED -	REVISED -
et\pw_work\PM\DOT\TEASLEYCK\dms67114\074236-shr-SWPP03.dgn		DRAWN -	REVISED -
PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 1/14/2010		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STORM WATER POLLUTION PREVENTION PLAN

F.A.P. RTE. 116	SECTION (112BR)B	COUNTY CUMBERLAND	TOTAL SHEETS 72	SHEET NO. 31
CONTRACT NO. 74236				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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B.M. #610 - Chiseled "□" on Northwest Corner of Bridge over Lost Creek.
Sta. 374+90, 19' Rt.,
Elev. 540.54

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE: Structure No. 018-0059 is a comprehensive reconstruction built in 1981 to replace the original structure built in 1931. The current existing structure is a 2 span structure 162'-3⁵/₈" bk. to bk. of abutments. The spans are 81'-17⁵/₈" in length each and are made of 33" P.P.C. deck beams with a 1³/₄" overlay and a width of 36'-0". There are steel guardrails on either side. The abutments are pile bent. The original pier was widened to accommodate the new deck. The bridge is at 40° skew.

Traffic to be maintained with use of stage construction.

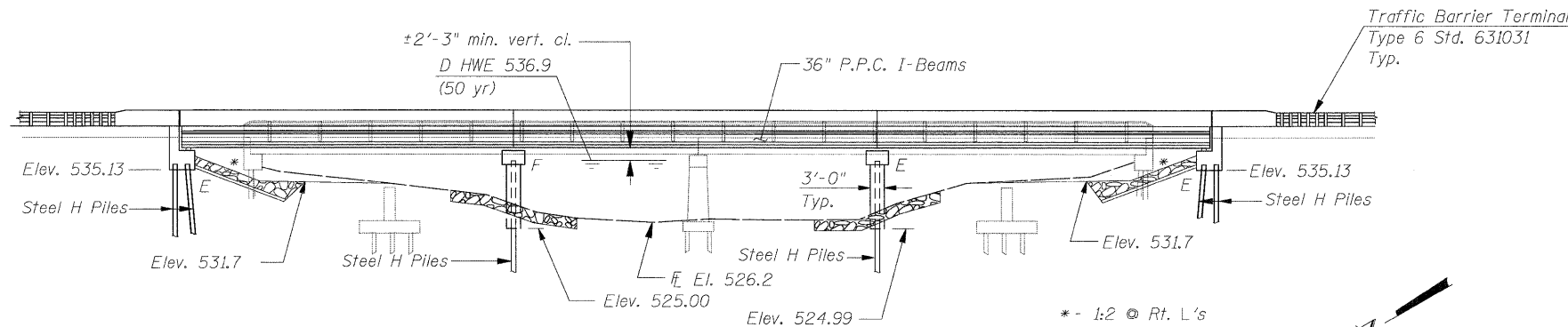
No salvage.

WATERWAY INFORMATION

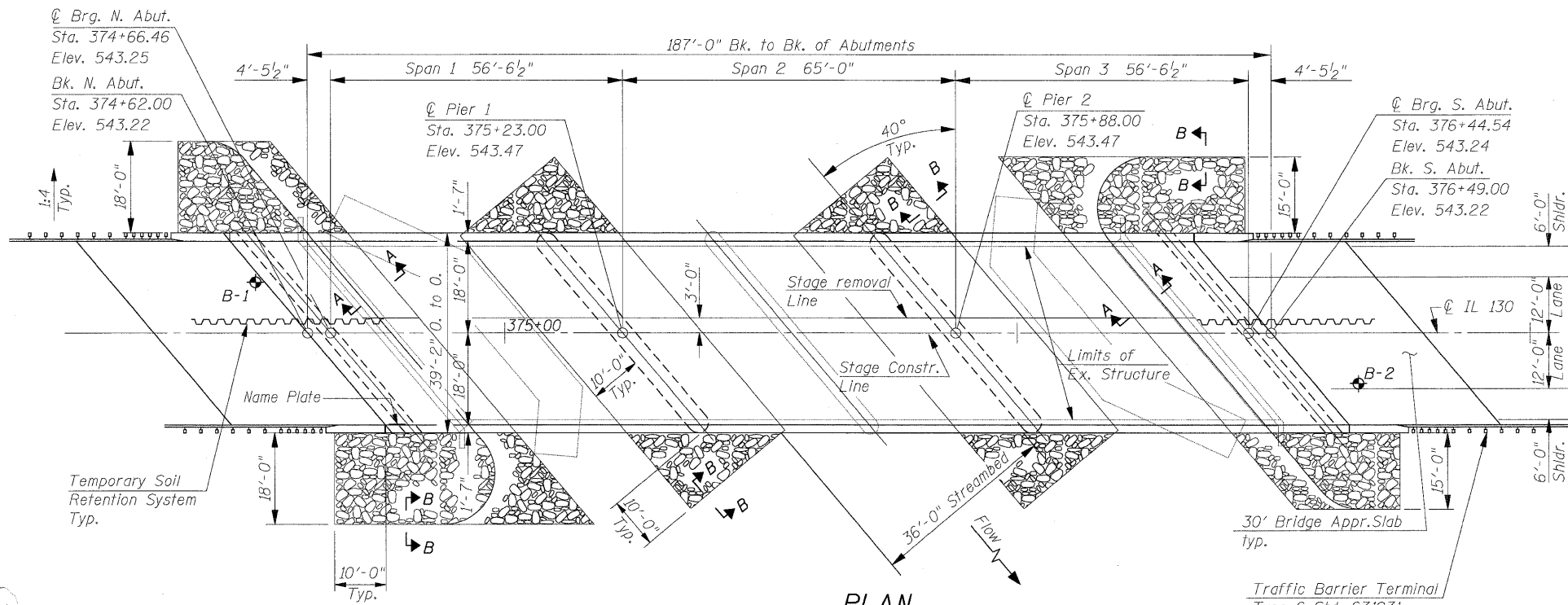
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
			Existing Low Grade Elev. 460.6 @ Sta. 235+00			Proposed Low Grade Elev. 461.6 @ Sta. 235+00			
Design	10	2625	616	769	536.0	0.6	0.5	536.6	536.5
Base	50	4216	668	878	536.9	1.0	0.9	537.9	537.8
Overtopping	100	4930	668	927	537.3	1.3	1.1	538.6	538.4
Max. Calc.	500	6683	706	1015	538.0	2.0	1.4	540.0	539.4

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	535.19	513.32	513.32	535.20



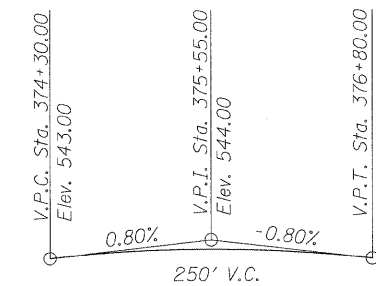
ELEVATION



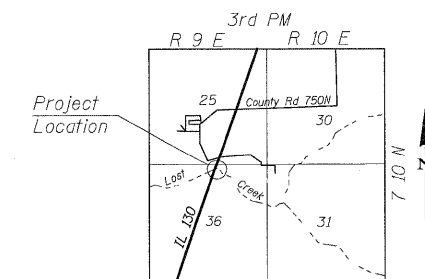
PLAN

STATION 375+55.50
BUILT 20xx BY
STATE OF ILLINOIS
F.A.P. ROUTE 116
SECTION (112BR)B
LOADING HL-93
STRUCTURE NO. 018-0064

NAME PLATE
See Std. 515001



PROPOSED PROFILE



LOCATION SKETCH

DESIGN SPECIFICATIONS
2007 AASHTO LRFD Bridge Design Specifications
with 2008 Interims

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi
f'si = 201,960 psi

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 Sec. (SD1) = 0.278g
Design Spectral Acceleration at 0.2 Sec. (SDs) = 0.643
Soil Site Class = E

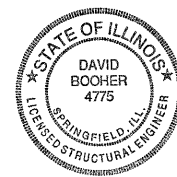
GENERAL PLAN
IL ROUTE 130
OVER LOST CREEK
F.A.P. ROUTE 116
SECTION (112BR)B
CUMBERLAND COUNTY
STA. 375+55.5
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

ie CONSULTANTS, INC
6420 SOUTH SIXTH STREET
SPRINGFIELD, ILLINOIS 62712
TEL. (217) 629-8027
FAX (217) 629-4543
WWW.IE-CONSULTANTS.COM

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

David Booyer (S.E.)
ENGINEER OF BRIDGES AND STRUCTURES



David Booyer, Illinois S.E. 081-004775
Expires 11-30-2010

8-13-09
Date

SHEET NO. 1 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR)B	CUMBERLAND	72	32
FED. ROAD DIST. NO. - ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 74236					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

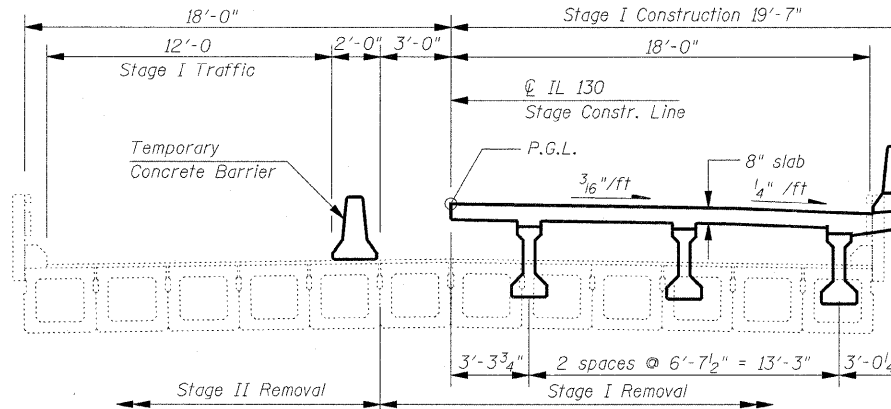
GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated. Concrete Sealer shall be applied to the designated areas of the North & South abutments.

Slipforming of the parapets is not allowed. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

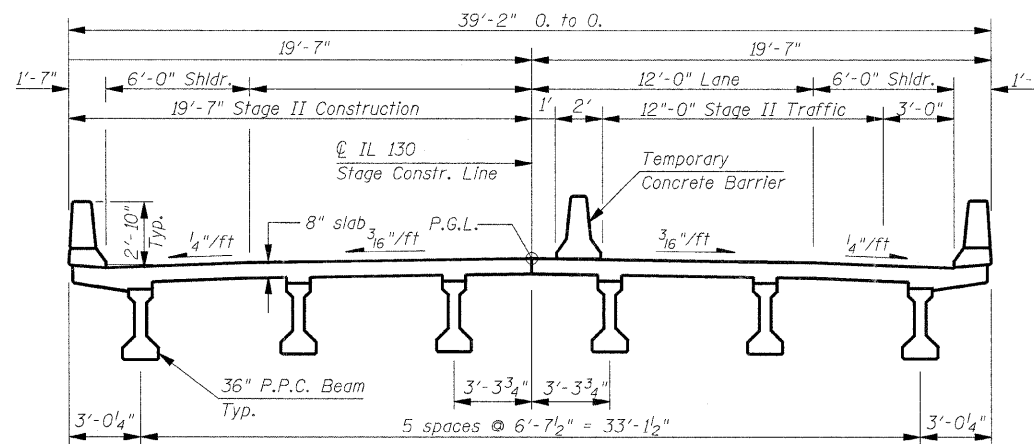
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.



STAGE CONSTRUCTION - CROSS SECTION

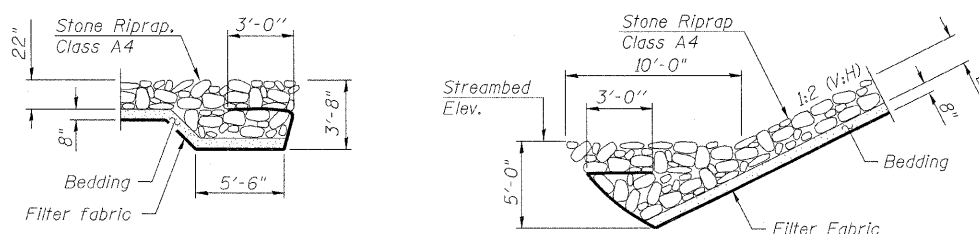
(Looking South)

NOTE:
Staging for substructure is not the same as staging for superstructure.



STAGE CONSTRUCTION - CROSS SECTION

(Looking South)



SECTION B-B

SECTION A-A

TOTAL BILL OF MATERIAL

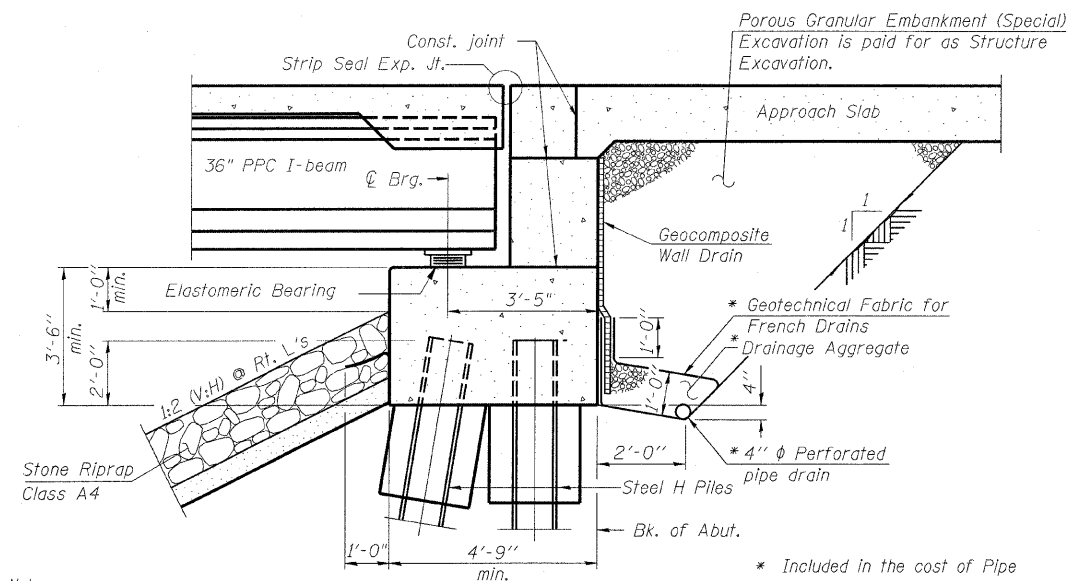
ITEM	UNIT	SUPER	SUB	TOTAL
POROUS GRANULAR EMBANKMENT, SPECIAL	TON		257	257
REMOVAL OF EXISTING STRUCTURES NO. 1	EACH		1	1
STRUCTURE EXCAVATION	CU YD		351.0	351.0
UNDERWATER STRUCTURE EXCAVATION PROTECTION LOCATION 1	EACH		1	1
UNDERWATER STRUCTURE EXCAVATION PROTECTION LOCATION 2	EACH		1	1
CONCRETE STRUCTURES	CU YD		307.0	307.0
CONCRETE SUPERSTRUCTURE	CU YD	380.0		380.0
GEOCOMPOSITE WALL DRAIN	SQ YD		68.0	68.0
PREFORMED JOINT STRIP SEAL	FOOT		98	98
BRIDGE DECK GROOVING	SQ YD	992.0		992.0
CONCRETE ENCASEMENT	CU YD		17.6	17.6
CONCRETE SEALER	SQ FT	1100		1100
PROTECTIVE COAT	SQ YD	899		899
FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE, I-BEAM, 36"	FOOT	1064.5		1064.5
STUD SHEAR CONNECTORS	EACH		432	432
REINFORCEMENT BARS, EPOXY COATED	POUND	90,520	22,300	112,820
BAR SPLICERS	EACH	94	941	1035
STONE RIPRAP, CLASS A4	SQ YD		828	828
FILTER FABRIC	SQ YD		828	828
ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	24		24
ANCHOR BOLTS, 1"	EACH		52	52
FURNISHING STEEL PILES HP10X42	FOOT		1,624	1,624
FURNISHING STEEL PILES HP10X57	FOOT		1,276	1,276
DRIVING PILES	FOOT		2,900	2,900
TEST PILE STEEL HP10X42	EACH		2	2
TEST PILE STEEL HP10X57	EACH		2	2
NAME PLATES	EACH	1		1
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT		164	164
TEMPORARY SOIL RETENTION SYSTEM	SQ FT		276	276
MECHANICAL SPLICERS	EACH		120	120
ASBESTOS BEARING PAD REMOVAL	EACH		48	48

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2. GENERAL DATA
3. FOOTING LAYOUT
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- 5.-8. DECK ELEVATIONS
- 9.-10. APPROACH SLAB ELEVATIONS
11. DECK PLAN
12. SUPERSTRUCTURE DETAILS
13. DIAPHRAGM DETAILS
14. PREFORMED JOINT STRIP SEAL
- 15.-16. BRIDGE APPROACH SLAB DETAILS
17. FRAMING PLAN
18. 36" P.P.C. I-BEAM, SPANS 1 & 3
19. 36" P.P.C. I-BEAM DETAILS, SPANS 1 & 3
20. 36" P.P.C. I-BEAM, SPAN 2
21. 36" P.P.C. I-BEAM DETAILS, SPAN 2
22. BEARING DETAILS
23. NORTH ABUTMENT
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26. SOUTH ABUTMENT DETAILS
27. PIER 1 DETAILS
28. PIER 2 DETAILS
29. HP PILE DETAILS
30. BAR SPLICER ASSEMBLY DETAILS
31. TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- 32.-33. SOIL BORINGS

GENERAL DATA
S.N. 018-0064

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2 OF 33 SHEETS	116	(112BR1)B	CUMBERLAND	72	33
CONTRACT NO. 74236					
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					



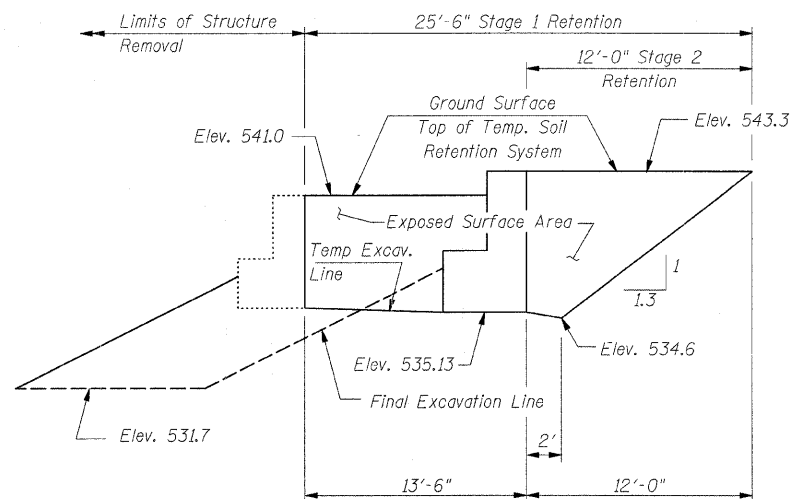
SECTION THRU PILE SUPPORTED

STUB ABUTMENT

(Horiz. dim. @ Rt. L's)

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 601101).

* Included in the cost of Pipe Underdrain for Structures.



TOTAL QUANTITY
276 SQ. FT.
(2 Ends)

TEMPORARY SOIL RETENTION SYSTEM

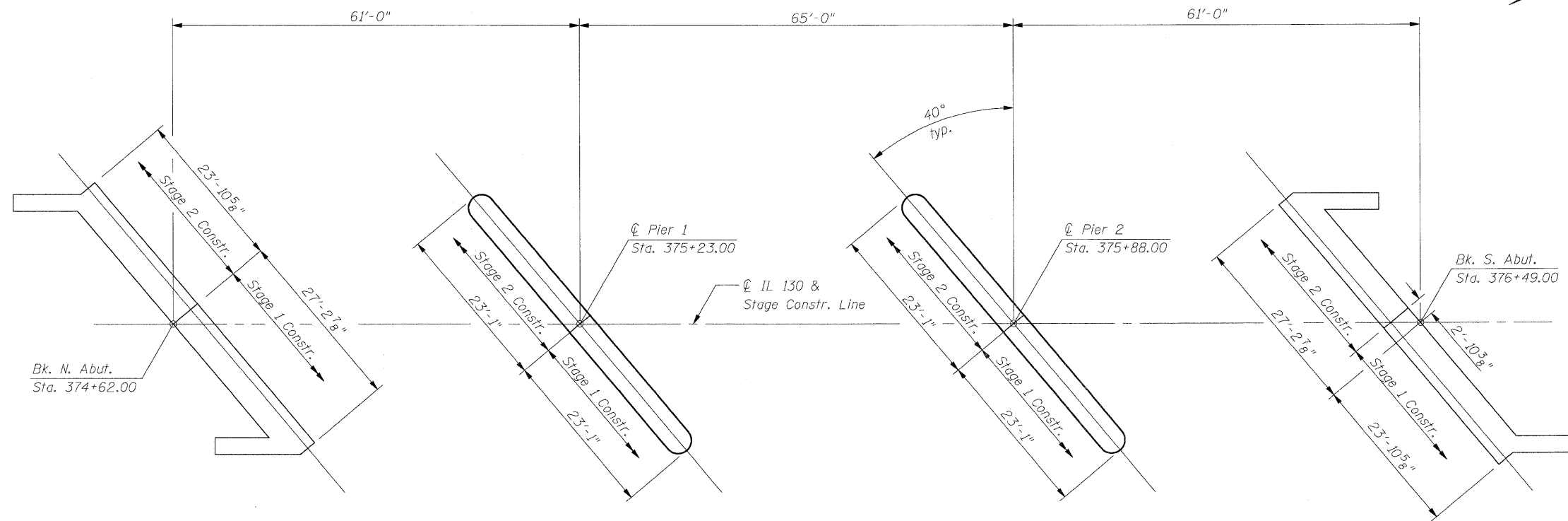
(N. Abut. shown - S. Abut. similar)

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

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CHECKED	SCD

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FOOTING LAYOUT

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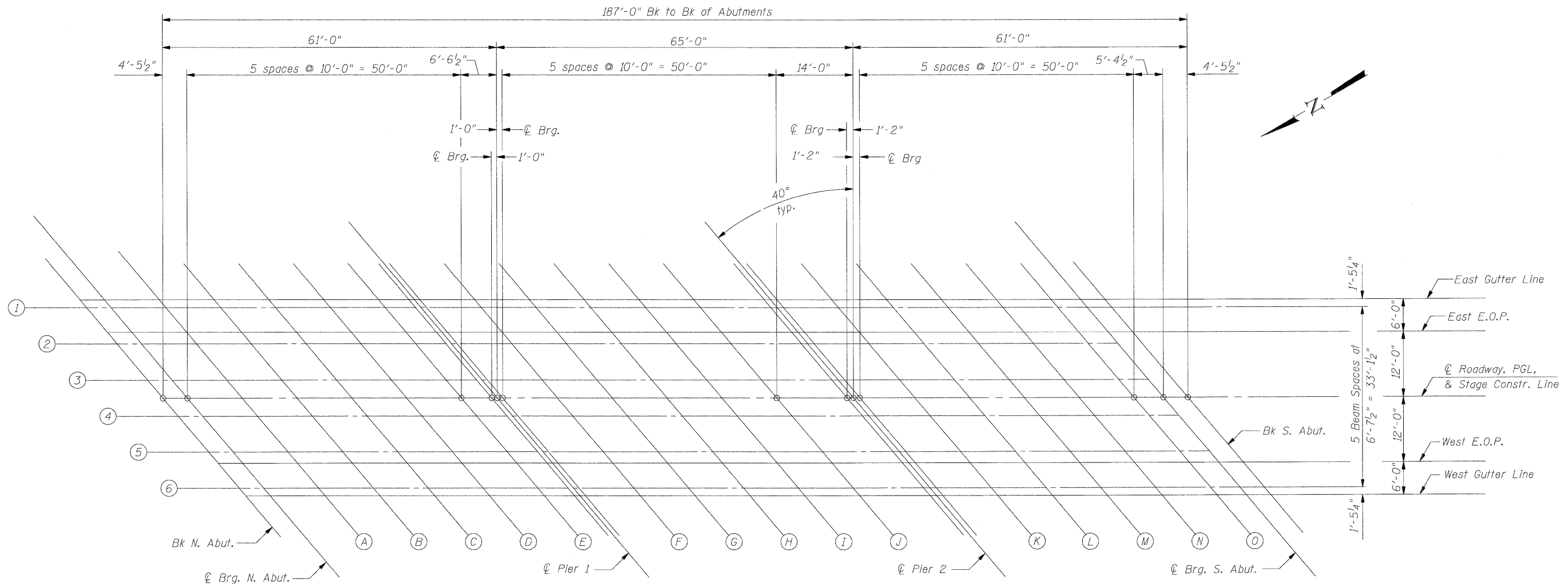
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FOOTING LAYOUT
S.N. 018-0064

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3 OF 33 SHEETS	116	(112BR1)B	CUMBERLAND	72	34
CONTRACT NO. 74236					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DECK ELEVATION LAYOUT

DECK ELEVATION LAYOUT
S.N. 018-0064

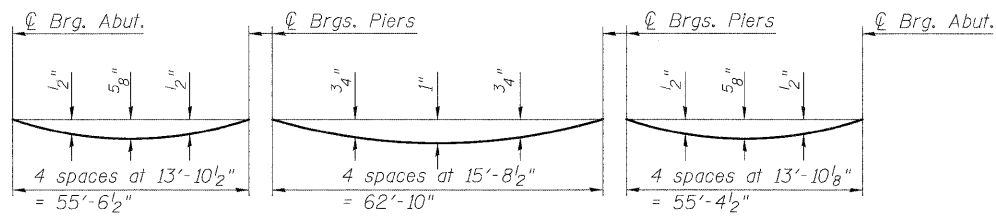
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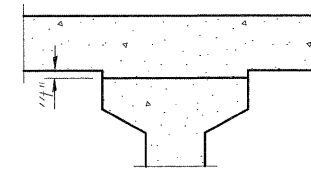
SHEET NO. 4 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	35
CONTRACT NO. 74236					
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on sheets 6 thru 8 of 33.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 4 of 33. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflections" shown below and on sheets 6 thru 8 of 33, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+46.90	-18.00	542.82	542.82
CL BRG N ABUT	374+51.36	-18.00	542.85	542.85
A	374+61.36	-18.00	542.91	542.94
B	374+71.36	-18.00	542.97	543.01
C	374+81.36	-18.00	543.02	543.07
D	374+91.36	-18.00	543.06	543.10
E	375+01.36	-18.00	543.10	543.11
CL N BRG PIER 1	375+06.90	-18.00	543.12	543.12
CL PIER 1	375+07.90	-18.00	543.12	543.12
CL S BRG PIER 1	375+08.90	-18.00	543.12	543.12
F	375+18.90	-18.00	543.15	543.19
G	375+28.90	-18.00	543.17	543.24
H	375+38.90	-18.00	543.18	543.26
I	375+48.90	-18.00	543.19	543.26
J	375+58.90	-18.00	543.19	543.24
CL N BRG PIER 2	375+71.72	-18.00	543.18	543.18
CL PIER 2	375+72.90	-18.00	543.18	543.18
CL S BRG PIER 2	375+74.07	-18.00	543.18	543.18
K	375+84.07	-18.00	543.16	543.19
L	375+94.07	-18.00	543.14	543.19
M	376+04.07	-18.00	543.11	543.16
N	376+14.07	-18.00	543.08	543.12
O	376+24.07	-18.00	543.04	543.05
CL BRG S ABUT	376+29.44	-18.00	543.01	543.01
BK S ABUT	376+33.90	-18.00	542.99	542.99

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+48.10	-16.56	542.85	542.85
CL BRG N ABUT	374+52.56	-16.56	542.88	542.88
A	374+62.56	-16.56	542.95	542.97
B	374+72.56	-16.56	543.00	543.05
C	374+82.56	-16.56	543.05	543.10
D	374+92.56	-16.56	543.09	543.13
E	375+02.56	-16.56	543.13	543.15
CL N BRG PIER 1	375+08.10	-16.56	543.15	543.15
CL PIER 1	375+09.10	-16.56	543.15	543.15
CL S BRG PIER 1	375+10.10	-16.56	543.15	543.15
F	375+20.10	-16.56	543.18	543.22
G	375+30.10	-16.56	543.20	543.27
H	375+40.10	-16.56	543.21	543.29
I	375+50.10	-16.56	543.22	543.29
J	375+60.10	-16.56	543.22	543.27
CL N BRG PIER 2	375+72.93	-16.56	543.21	543.21
CL PIER 2	375+74.10	-16.56	543.21	543.21
CL S BRG PIER 2	375+75.27	-16.56	543.21	543.21
K	375+85.27	-16.56	543.19	543.22
L	375+95.27	-16.56	543.17	543.21
M	376+05.27	-16.56	543.14	543.19
N	376+15.27	-16.56	543.10	543.14
O	376+25.27	-16.56	543.06	543.08
CL BRG S ABUT	376+30.64	-16.56	543.04	543.04
BK S ABUT	376+35.10	-16.56	543.01	543.01

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+51.93	-12.00	542.97	542.97
CL BRG N ABUT	374+56.39	-12.00	543.00	543.00
A	374+66.39	-12.00	543.06	543.09
B	374+76.39	-12.00	543.11	543.16
C	374+86.39	-12.00	543.16	543.21
D	374+96.39	-12.00	543.20	543.24
E	375+06.39	-12.00	543.23	543.25
CL N BRG PIER 1	375+11.93	-12.00	543.25	543.25
CL PIER 1	375+12.93	-12.00	543.25	543.25
CL S BRG PIER 1	375+13.93	-12.00	543.26	543.26
F	375+23.93	-12.00	543.28	543.32
G	375+33.93	-12.00	543.30	543.37
H	375+43.93	-12.00	543.31	543.40
I	375+53.93	-12.00	543.31	543.39
J	375+63.93	-12.00	543.31	543.36
CL N BRG PIER 2	375+76.76	-12.00	543.29	543.29
CL PIER 2	375+77.93	-12.00	543.29	543.29
CL S BRG PIER 2	375+79.10	-12.00	543.29	543.29
K	375+89.10	-12.00	543.27	543.30
L	375+99.10	-12.00	543.25	543.30
M	376+09.10	-12.00	543.22	543.27
N	376+19.10	-12.00	543.18	543.22
O	376+29.10	-12.00	543.13	543.15
CL BRG S ABUT	376+34.47	-12.00	543.11	543.11
BK S ABUT	376+38.93	-12.00	543.08	543.08

DESIGNED	SCD
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DRAWN	THW
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DECK ELEVATION
S.N. 018-0064

SHEET NO. 5 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	36
CONTRACT NO. 74236					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+53.66	-9.94	543.01	543.01
CL BRG N ABUT	374+58.12	-9.94	543.04	543.04
A	374+68.12	-9.94	543.10	543.13
B	374+78.12	-9.94	543.15	543.20
C	374+88.12	-9.94	543.20	543.25
D	374+98.12	-9.94	543.24	543.28
E	375+08.12	-9.94	543.27	543.29
CL N BRG PIER 1	375+13.66	-9.94	543.29	543.29
CL PIER 1	375+14.66	-9.94	543.29	543.29
CL S BRG PIER 1	375+15.66	-9.94	543.29	543.29
F	375+25.66	-9.94	543.32	543.36
G	375+35.66	-9.94	543.33	543.41
H	375+45.66	-9.94	543.34	543.43
I	375+55.66	-9.94	543.34	543.42
J	375+65.66	-9.94	543.34	543.39
CL N BRG PIER 2	375+78.49	-9.94	543.33	543.33
CL PIER 2	375+79.66	-9.94	543.32	543.32
CL S BRG PIER 2	375+80.83	-9.94	543.32	543.32
K	375+90.83	-9.94	543.30	543.33
L	376+00.83	-9.94	543.28	543.32
M	376+10.83	-9.94	543.24	543.30
N	376+20.83	-9.94	543.20	543.25
O	376+30.83	-9.94	543.16	543.17
CL BRG S ABUT	376+36.20	-9.94	543.13	543.13
BK S ABUT	376+40.66	-9.94	543.11	543.11

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+59.22	-3.31	543.15	543.15
CL BRG N ABUT	374+63.68	-3.31	543.18	543.18
A	374+73.68	-3.31	543.24	543.26
B	374+83.68	-3.31	543.28	543.33
C	374+93.68	-3.31	543.33	543.38
D	375+03.68	-3.31	543.36	543.40
E	375+13.68	-3.31	543.39	543.41
CL N BRG PIER 1	375+19.22	-3.31	543.41	543.41
CL PIER 1	375+20.22	-3.31	543.41	543.41
CL S BRG PIER 1	375+21.22	-3.31	543.41	543.41
F	375+31.22	-3.31	543.43	543.47
G	375+41.22	-3.31	543.44	543.52
H	375+51.22	-3.31	543.45	543.54
I	375+61.22	-3.31	543.45	543.53
J	375+71.22	-3.31	543.44	543.49
CL N BRG PIER 2	375+84.05	-3.31	543.42	543.42
CL PIER 2	375+85.22	-3.31	543.42	543.42
CL S BRG PIER 2	375+86.39	-3.31	543.42	543.42
K	375+96.39	-3.31	543.39	543.42
L	376+06.39	-3.31	543.36	543.41
M	376+16.39	-3.31	543.33	543.38
N	376+26.39	-3.31	543.28	543.33
O	376+36.39	-3.31	543.24	543.25
CL BRG S ABUT	376+41.76	-3.31	543.21	543.21
BK S ABUT	376+46.22	-3.31	543.18	543.18

☉ ROADWAY, PGL, & STAGE CONSTR. LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+62.00	0.00	543.22	543.22
CL BRG N ABUT	374+66.46	0.00	543.25	543.25
A	374+76.46	0.00	543.30	543.33
B	374+86.46	0.00	543.35	543.40
C	374+96.46	0.00	543.39	543.44
D	375+06.46	0.00	543.42	543.47
E	375+16.46	0.00	543.45	543.47
CL N BRG PIER 1	375+22.00	0.00	543.47	543.47
CL PIER 1	375+23.00	0.00	543.47	543.47
CL S BRG PIER 1	375+24.00	0.00	543.47	543.47
F	375+34.00	0.00	543.49	543.53
G	375+44.00	0.00	543.50	543.57
H	375+54.00	0.00	543.50	543.59
I	375+64.00	0.00	543.50	543.58
J	375+74.00	0.00	543.49	543.54
CL N BRG PIER 2	375+86.83	0.00	543.47	543.47
CL PIER 2	375+88.00	0.00	543.47	543.47
CL S BRG PIER 2	375+89.17	0.00	543.46	543.46
K	375+99.17	0.00	543.44	543.47
L	376+09.17	0.00	543.41	543.46
M	376+19.17	0.00	543.37	543.42
N	376+29.17	0.00	543.32	543.37
O	376+39.17	0.00	543.27	543.29
CL BRG S ABUT	376+44.54	0.00	543.24	543.24
BK S ABUT	376+49.00	0.00	543.22	543.22

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DECK ELEVATION
S.N. 018-0064

SHEET NO. 6 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	37
CONTRACT NO. 74236					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+64.78	3.31	543.19	543.19
CL BRG N ABUT	374+69.24	3.31	543.21	543.21
A	374+79.24	3.31	543.26	543.29
B	374+89.24	3.31	543.31	543.36
C	374+99.24	3.31	543.35	543.40
D	375+09.24	3.31	543.38	543.42
E	375+19.24	3.31	543.41	543.42
CL N BRG PIER 1	375+24.78	3.31	543.42	543.42
CL PIER 1	375+25.78	3.31	543.42	543.42
CL S BRG PIER 1	375+26.78	3.31	543.42	543.42
F	375+36.78	3.31	543.44	543.48
G	375+46.78	3.31	543.45	543.52
H	375+56.78	3.31	543.45	543.54
I	375+66.78	3.31	543.44	543.52
J	375+76.78	3.31	543.43	543.49
CL N BRG PIER 2	375+89.61	3.31	543.41	543.41
CL PIER 2	375+90.78	3.31	543.41	543.41
CL S BRG PIER 2	375+91.95	3.31	543.40	543.40
K	376+01.95	3.31	543.38	543.41
L	376+11.95	3.31	543.34	543.39
M	376+21.95	3.31	543.30	543.36
N	376+31.95	3.31	543.26	543.30
O	376+41.95	3.31	543.21	543.22
CL BRG S ABUT	376+47.32	3.31	543.17	543.17
BK S ABUT	376+51.78	3.31	543.15	543.15

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+70.34	9.94	543.11	543.11
CL BRG N ABUT	374+74.80	9.94	543.14	543.14
A	374+84.80	9.94	543.18	543.21
B	374+94.80	9.94	543.23	543.28
C	375+04.80	9.94	543.26	543.32
D	375+14.80	9.94	543.29	543.33
E	375+24.80	9.94	543.31	543.33
CL N BRG PIER 1	375+30.34	9.94	543.32	543.32
CL PIER 1	375+31.34	9.94	543.32	543.32
CL S BRG PIER 1	375+32.34	9.94	543.33	543.33
F	375+42.34	9.94	543.34	543.38
G	375+52.34	9.94	543.34	543.42
H	375+62.34	9.94	543.34	543.43
I	375+72.34	9.94	543.33	543.41
J	375+82.34	9.94	543.32	543.37
CL N BRG PIER 2	375+95.17	9.94	543.29	543.29
CL PIER 2	375+96.34	9.94	543.29	543.29
CL S BRG PIER 2	375+97.51	9.94	543.28	543.28
K	376+07.51	9.94	543.25	543.28
L	376+17.51	9.94	543.22	543.27
M	376+27.51	9.94	543.17	543.23
N	376+37.51	9.94	543.12	543.17
O	376+47.51	9.94	543.07	543.08
CL BRG S ABUT	376+52.88	9.94	543.04	543.04
BK S ABUT	376+57.34	9.94	543.01	543.01

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+72.07	12.00	543.09	543.09
CL BRG N ABUT	374+76.53	12.00	543.11	543.11
A	374+86.53	12.00	543.16	543.19
B	374+96.53	12.00	543.20	543.25
C	375+06.53	12.00	543.23	543.29
D	375+16.53	12.00	543.26	543.30
E	375+26.53	12.00	543.28	543.30
CL N BRG PIER 1	375+32.07	12.00	543.29	543.29
CL PIER 1	375+33.07	12.00	543.29	543.29
CL S BRG PIER 1	375+34.07	12.00	543.30	543.30
F	375+44.07	12.00	543.31	543.35
G	375+54.07	12.00	543.31	543.39
H	375+64.07	12.00	543.31	543.40
I	375+74.07	12.00	543.30	543.38
J	375+84.07	12.00	543.28	543.34
CL N BRG PIER 2	375+96.90	12.00	543.25	543.25
CL PIER 2	375+98.07	12.00	543.25	543.25
CL S BRG PIER 2	375+99.24	12.00	543.25	543.25
K	376+09.24	12.00	543.22	543.24
L	376+19.24	12.00	543.18	543.23
M	376+29.24	12.00	543.13	543.19
N	376+39.24	12.00	543.08	543.12
O	376+49.24	12.00	543.03	543.04
CL BRG S ABUT	376+54.61	12.00	542.99	542.99
BK S ABUT	376+59.07	12.00	542.96	542.96

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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DECK ELEVATION
S.N. 018-0064

SHEET NO. 7 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	38
CONTRACT NO. 74236					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+75.90	16.56	543.02	543.02
CL BRG N ABUT	374+80.36	16.56	543.04	543.04
A	374+90.36	16.56	543.09	543.11
B	375+00.36	16.56	543.12	543.17
C	375+10.36	16.56	543.15	543.21
D	375+20.36	16.56	543.18	543.22
E	375+30.36	16.56	543.20	543.21
CL N BRG PIER 1	375+35.90	16.56	543.21	543.21
CL PIER 1	375+36.90	16.56	543.21	543.21
CL S BRG PIER 1	375+37.90	16.56	543.21	543.21
F	375+47.90	16.56	543.22	543.26
G	375+57.90	16.56	543.22	543.29
H	375+67.90	16.56	543.21	543.30
I	375+77.90	16.56	543.20	543.28
J	375+87.90	16.56	543.18	543.23
CL N BRG PIER 2	376+00.72	16.56	543.15	543.15
CL PIER 2	376+01.90	16.56	543.15	543.15
CL S BRG PIER 2	376+03.07	16.56	543.14	543.14
K	376+13.07	16.56	543.11	543.14
L	376+23.07	16.56	543.07	543.12
M	376+33.07	16.56	543.02	543.07
N	376+43.07	16.56	542.97	543.01
O	376+53.07	16.56	542.91	542.93
CL BRG S ABUT	376+58.44	16.56	542.88	542.88
BK S ABUT	376+62.90	16.56	542.85	542.85

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK N ABUT	374+77.10	18.00	543.00	543.00
CL BRG N ABUT	374+81.56	18.00	543.02	543.02
A	374+91.56	18.00	543.06	543.09
B	375+01.56	18.00	543.10	543.14
C	375+11.56	18.00	543.13	543.18
D	375+21.56	18.00	543.15	543.19
E	375+31.56	18.00	543.17	543.19
CL N BRG PIER 1	375+37.10	18.00	543.18	543.18
CL PIER 1	375+38.10	18.00	543.18	543.18
CL S BRG PIER 1	375+39.10	18.00	543.18	543.18
F	375+49.10	18.00	543.19	543.23
G	375+59.10	18.00	543.19	543.26
H	375+69.10	18.00	543.18	543.27
I	375+79.10	18.00	543.17	543.25
J	375+89.10	18.00	543.15	543.20
CL N BRG PIER 2	376+01.93	18.00	543.12	543.12
CL PIER 2	376+03.10	18.00	543.12	543.12
CL S BRG PIER 2	376+04.28	18.00	543.11	543.11
K	376+14.28	18.00	543.08	543.10
L	376+24.28	18.00	543.04	543.08
M	376+34.28	18.00	542.99	543.04
N	376+44.28	18.00	542.93	542.97
O	376+54.28	18.00	542.87	542.89
CL BRG S ABUT	376+59.64	18.00	542.84	542.84
BK S ABUT	376+64.10	18.00	542.81	542.81

DESIGNED <i>SCD</i>
CHECKED <i>DRB</i>
DRAWN <i>THW</i>
CHECKED <i>SCD</i>

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DECK ELEVATION
S.N. 018-0064

SHEET NO. 8 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	39
CONTRACT NO. 74236					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Appr. Slab	374+17.54	-18.00	542.59
A1	374+27.54	-18.00	542.67
A2	374+37.54	-18.00	542.75
S. End of North Appr. Slab	374+47.54	-18.00	542.82

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Appr. Slab	374+22.58	-12.00	542.75
A1	374+32.58	-12.00	542.83
A2	374+42.58	-12.00	542.91
S. End of North Appr. Slab	374+52.58	-12.00	542.97

☉ ROADWAY, PGL & STAGE CONSTR. LINE

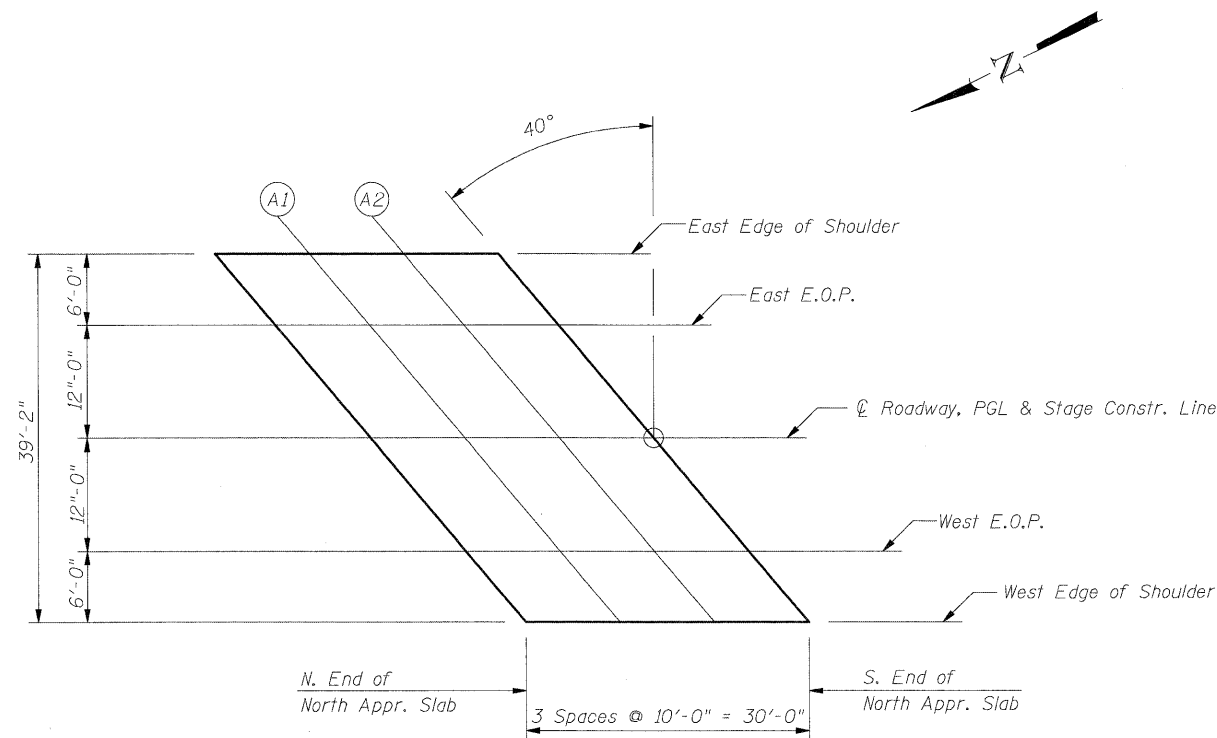
Location	Station	Offset	Theoretical Grade Elevations
N. End of North Appr. Slab	374+32.65	0.00	543.02
A1	374+42.65	0.00	543.10
A2	374+52.65	0.00	543.16
S. End of North Appr. Slab	374+62.65	0.00	543.23

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Appr. Slab	374+42.71	12.00	542.91
A1	374+52.71	12.00	542.98
A2	374+62.71	12.00	543.04
S. End of North Appr. Slab	374+72.71	12.00	543.09

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Appr. Slab	374+47.75	18.00	542.82
A1	374+57.75	18.00	542.89
A2	374+67.75	18.00	542.95
S. End of North Appr. Slab	374+77.75	18.00	543.00



PLAN

TOP OF APPROACH
SLAB ELEVATION
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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E-AS

10-1-08

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9 OF 33 SHEETS	116	(112BR1)B	CUMBERLAND	72	40
CONTRACT NO. 74236					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. Edge of S. Appr. Slab	376+33.25	-18.00	542.99
A3	376+43.25	-18.00	542.94
A4	376+53.25	-18.00	542.88
S. Edge of S. Appr. Slab	376+63.25	-18.00	542.82

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. Edge of S. Appr. Slab	376+38.28	-12.00	543.09
A3	376+48.28	-12.00	543.03
A4	376+58.28	-12.00	542.97
S. Edge of S. Appr. Slab	376+68.28	-12.00	542.90

℄ ROADWAY, PGL & STAGE CONSTR. LINE

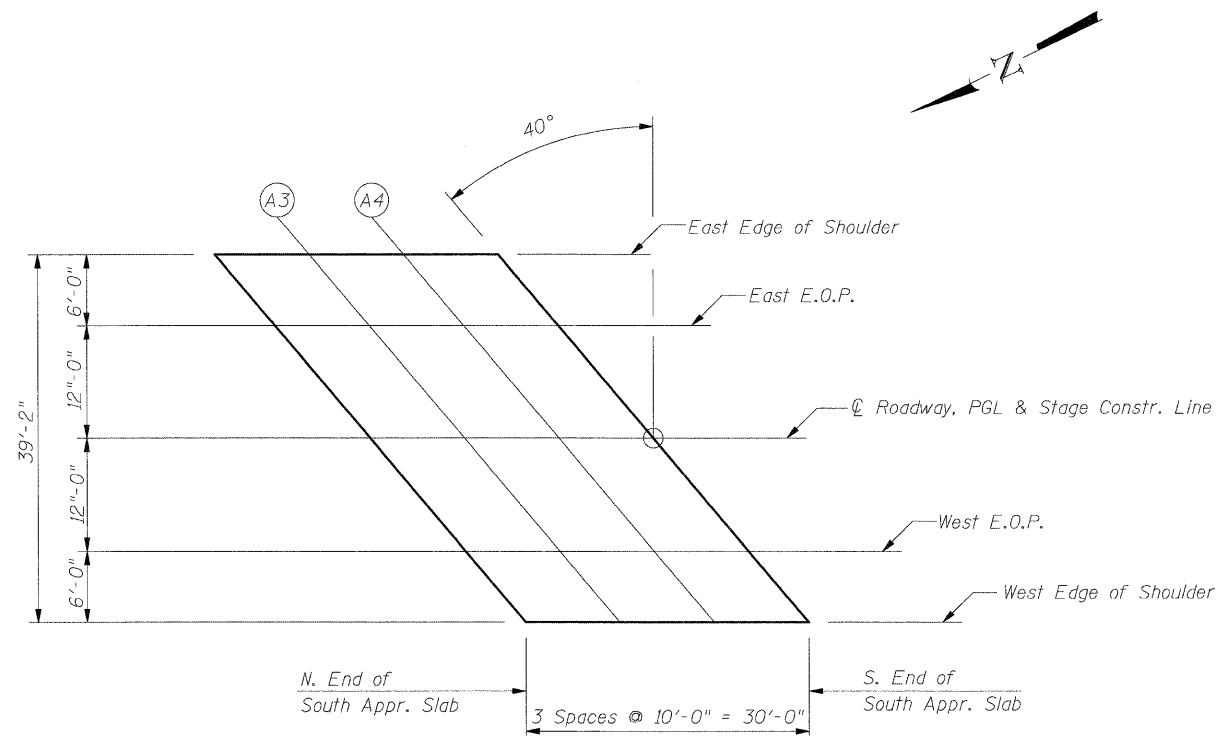
Location	Station	Offset	Theoretical Grade Elevations
N. Edge of S. Appr. Slab	376+48.35	0.00	543.22
A3	376+58.35	0.00	543.16
A4	376+68.35	0.00	543.09
S. Edge of S. Appr. Slab	376+78.36	0.00	543.01

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. Edge of S. Appr. Slab	376+58.42	12.00	542.97
A3	376+68.42	12.00	542.90
A4	376+78.42	12.00	542.82
S. Edge of S. Appr. Slab	376+88.42	12.00	542.74

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. Edge of S. Appr. Slab	376+63.45	18.00	542.81
A3	376+73.45	18.00	542.74
A4	376+83.45	18.00	542.66
S. Edge of S. Appr. Slab	376+93.45	18.00	542.58



PLAN

TOP OF APPROACH
SLAB ELEVATION
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

E-AS

10-1-08



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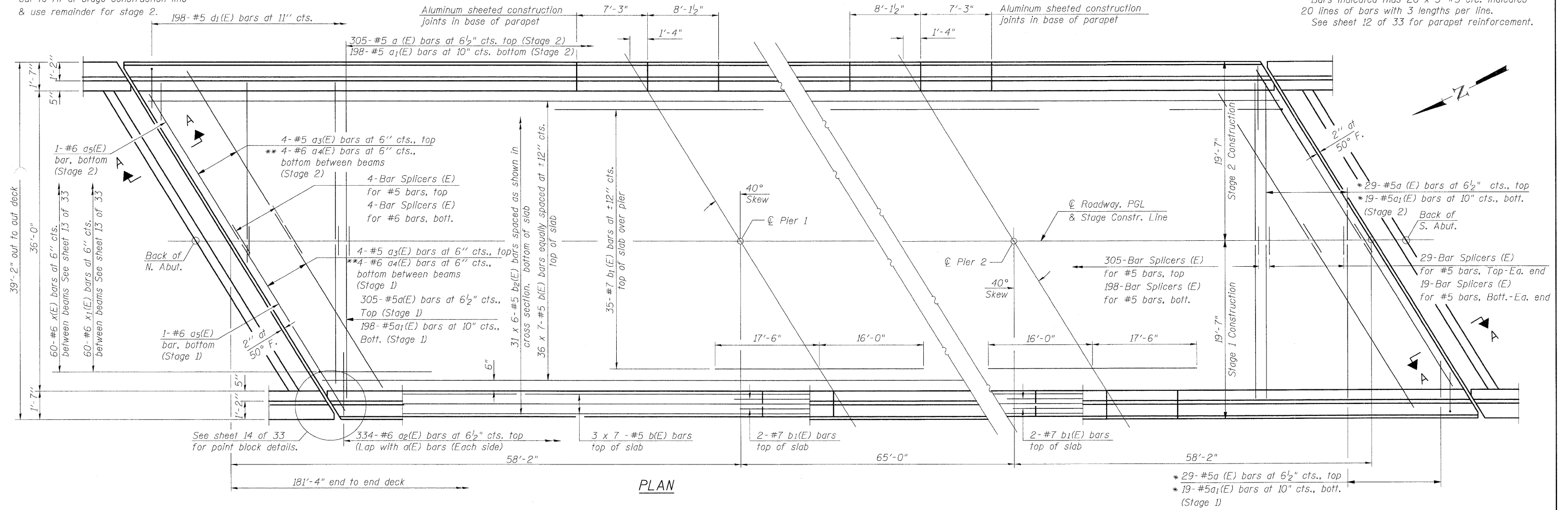
SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10 OF 33 SHEETS	116	(112BR1)B	CUMBERLAND	72	41
CONTRACT NO. 74236					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

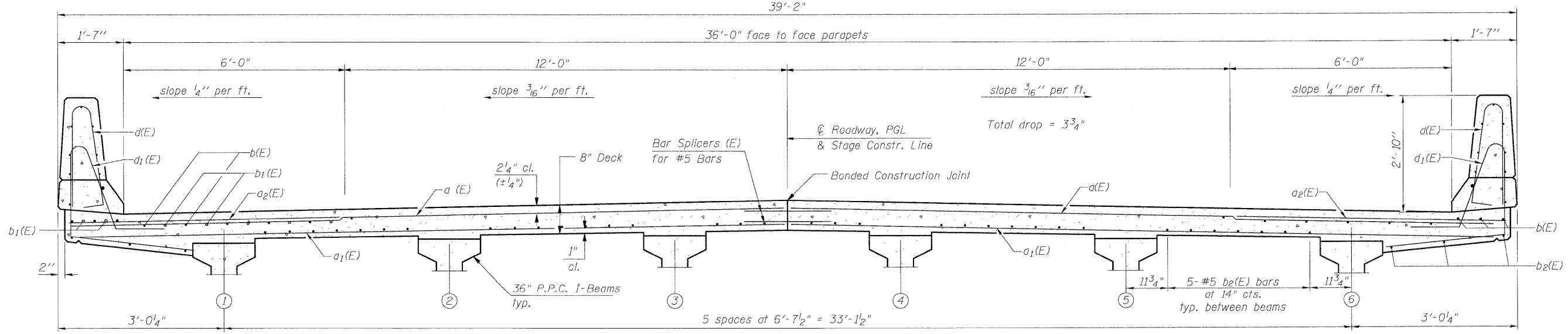
Notes:
See sheet 12 of 33 for superstructure details and Bill of Material.
For Section A-A and diaphragm details see sheet 13 of 33.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 12 of 33 for parapet reinforcement.

* Order a (E) & a₁(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.

** Order a₄(E) bars full length.
Cut to fit at stage construction line & use remainder for stage 2.



PLAN



CROSS SECTION
(Looking South)

NEAR PIER

NEAR MIDSPAN

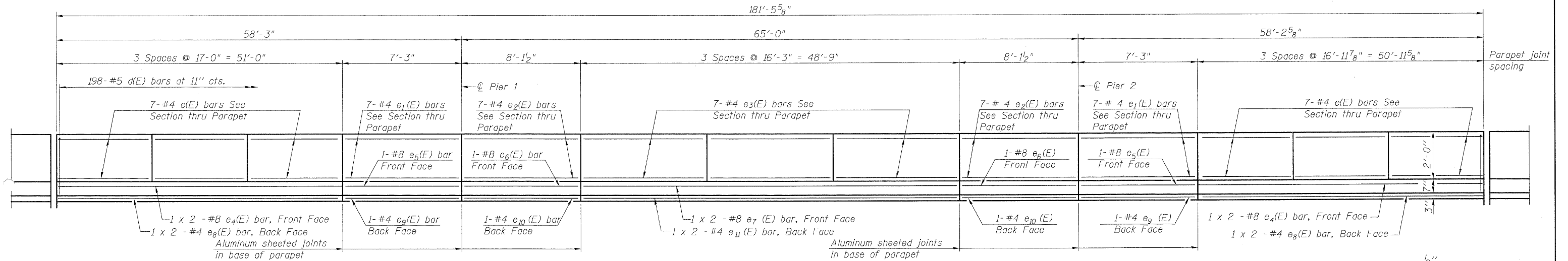
DECK PLAN
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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SHEET NO. 11 OF 33 SHEETS	F.A.P. RTE. 116	SECTION (112BR1)B	COUNTY CUMBERLAND	TOTAL SHEETS 72	SHEET NO. 42
	CONTRACT NO. 74236				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE ELEVATION OF PARAPET

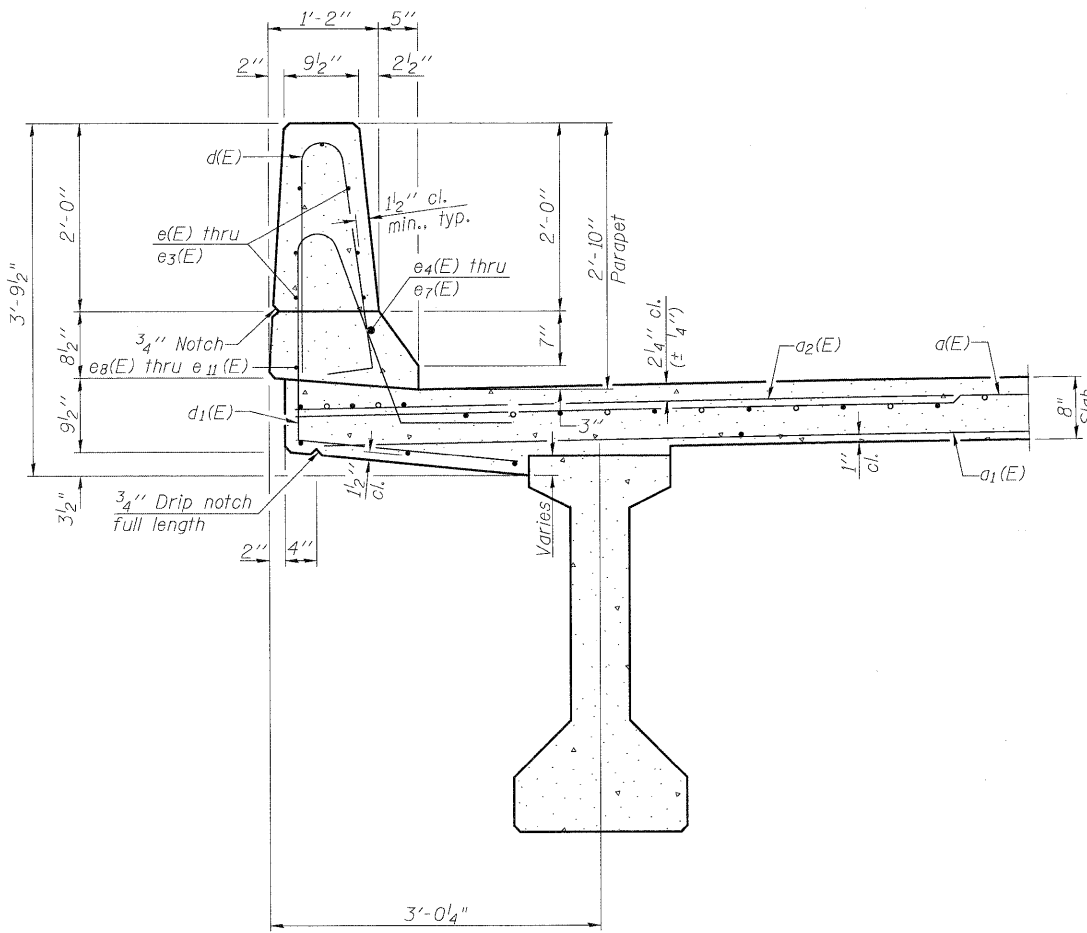
SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	668	#5	19'-3"	—
a1(E)	434	#5	18'-6"	—
a2(E)	672	#6	6'-0"	—
a3(E)	16	#5	25'-2"	—
a4(E)	40	#6	7'-3"	—
a5(E)	4	#6	21'-6"	—
b(E)	294	#5	27'-10"	—
b1(E)	78	#7	33'-6"	—
b2(E)	186	#5	31'-8"	—
d(E)	396	#5	5'-7"	—
d1(E)	396	#5	7'-9"	—
e(E)	84	#4	16'-6"	—
e1(E)	28	#4	6'-10"	—
e2(E)	28	#4	7'-9"	—
e3(E)	42	#4	15'-10"	—
e4(E)	8	#8	27'-9"	—
e5(E)	4	#8	6'-10"	—
e6(E)	4	#8	7'-9"	—
e7(E)	4	#8	26'-7"	—
e8(E)	8	#4	26'-3"	—
e9(E)	4	#4	6'-10"	—
e10(E)	4	#4	7'-9"	—
e11(E)	4	#4	25'-0"	—
m(E)	40	#4	7'-6"	—
m1(E)	20	#6	6'-3"	—
m2(E)	12	#8	5'-6"	—
s(E)	25	#4	10'-10"	U
s1(E)	25	#4	10'-6"	U
x(E)	120	#6	7'-4"	—
x1(E)	120	#6	4'-1"	—
Reinforcement Bars, Epoxy Coated	Lbs.	60,260		
Concrete Superstructure	Cu. Yds.	271.6		
Bars Splicers	Each	629		

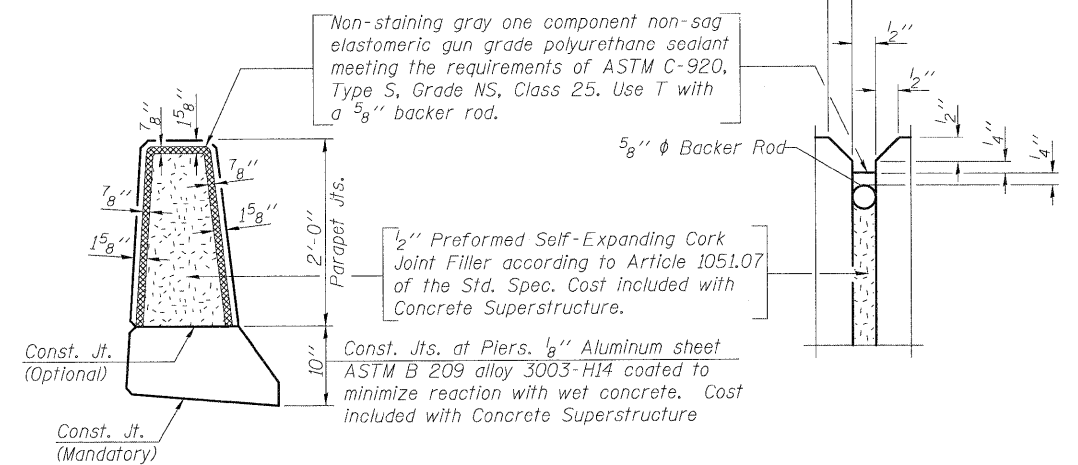
MIN. BAR LAP

#4	1'-9"
#5	2'-2"
#6	2'-7"
#8	4'-7"

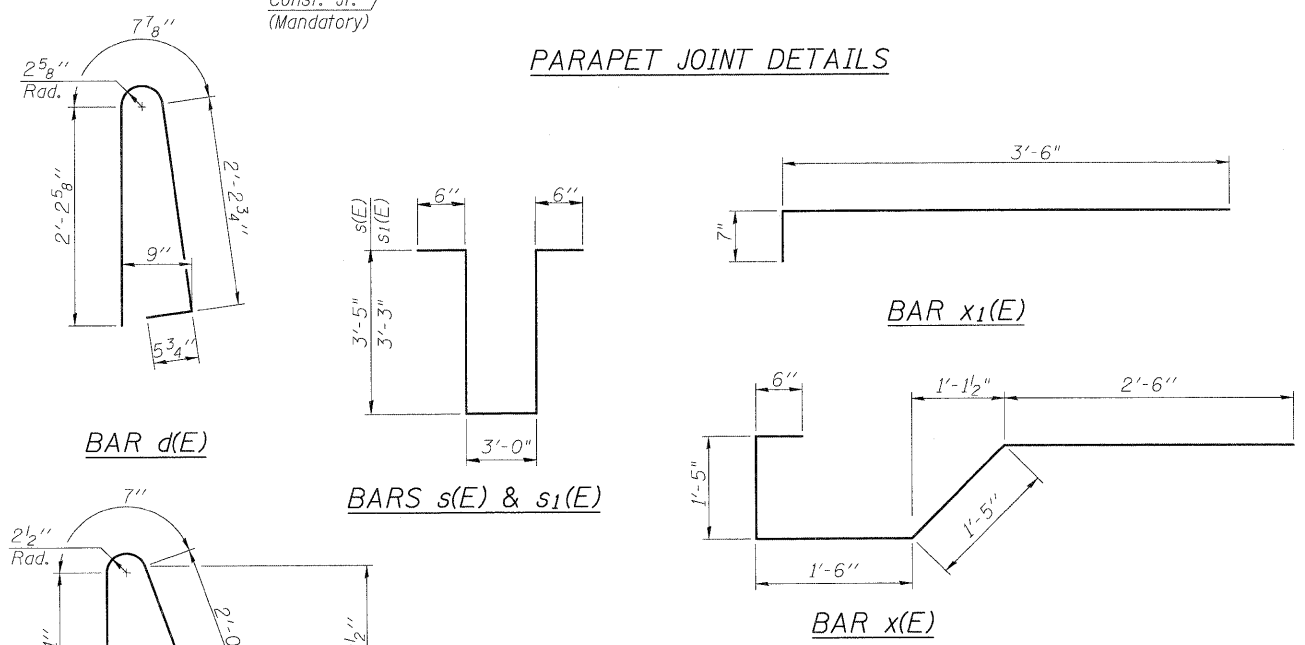
Bars indicated thus 1 x 2 -#5 etc. indicates 1 line of bars with 2 lengths per line.



SECTION THRU PARAPET



PARAPET JOINT DETAILS



PARAPET DETAILS
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

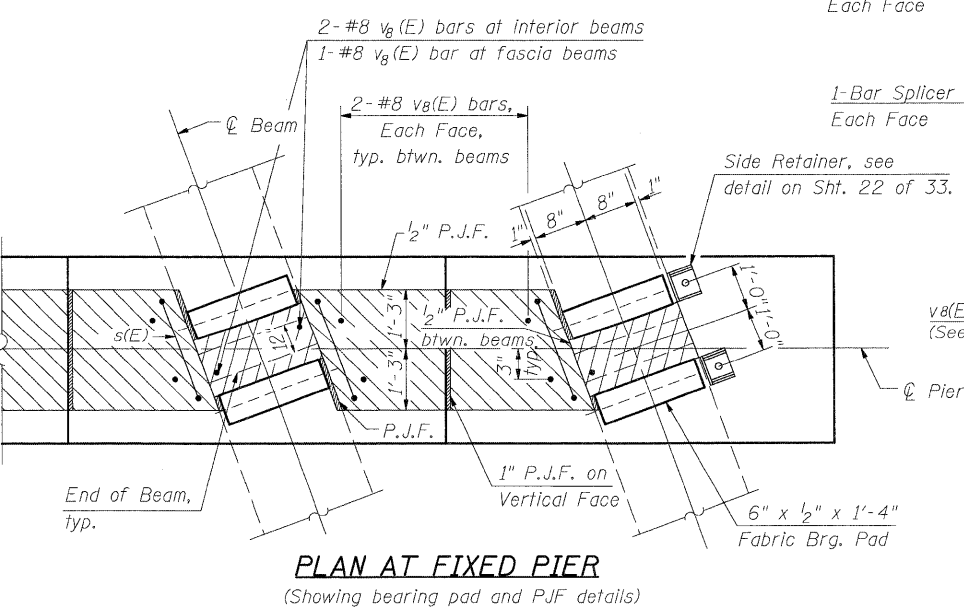
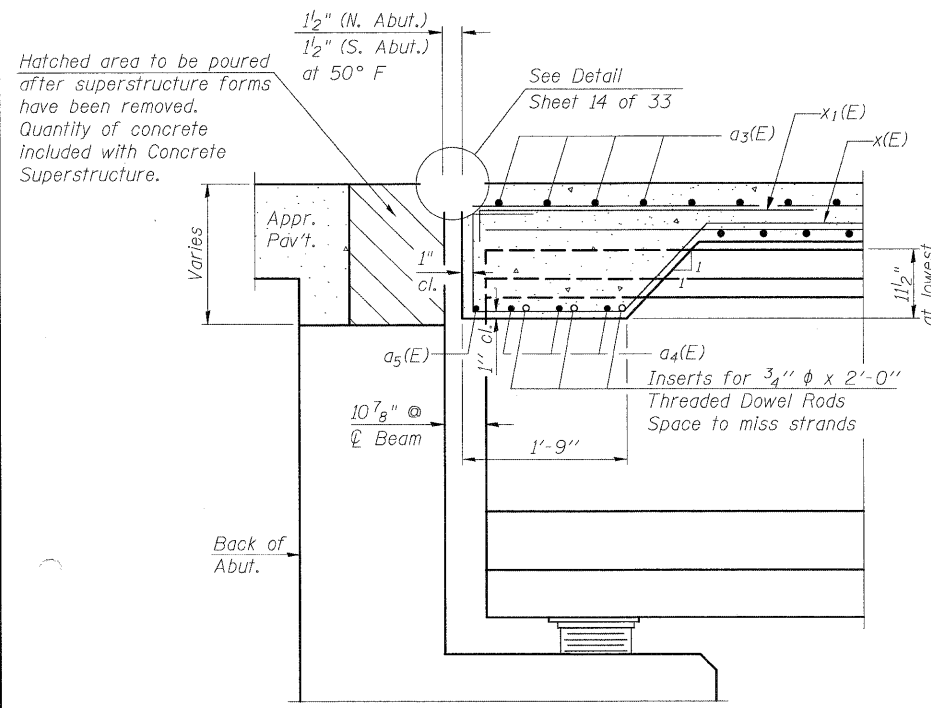
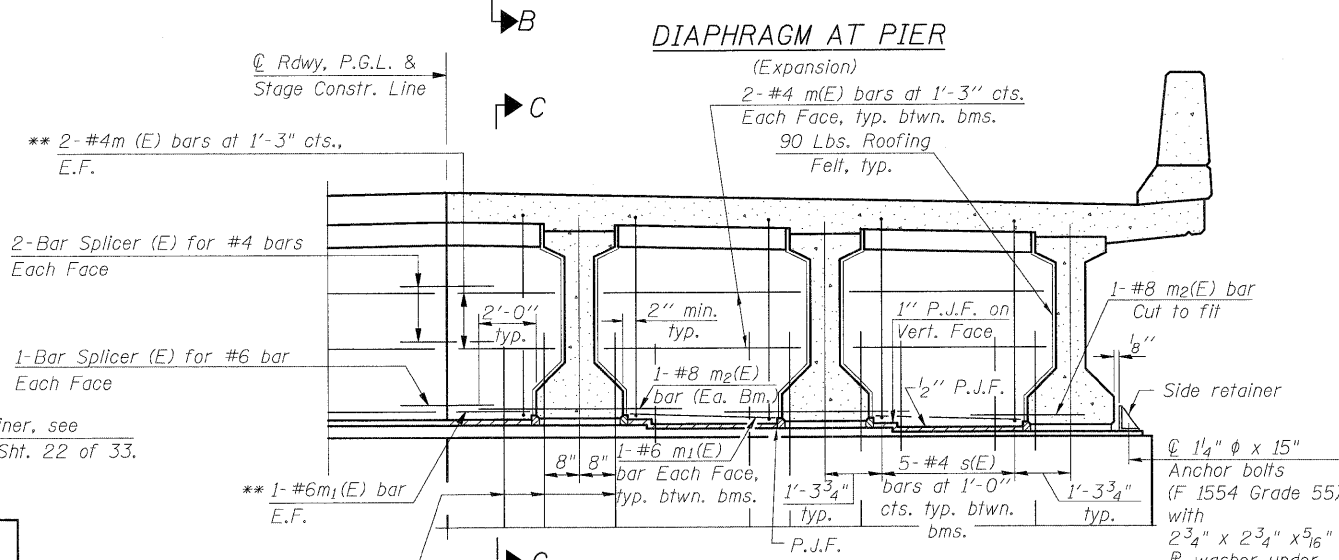
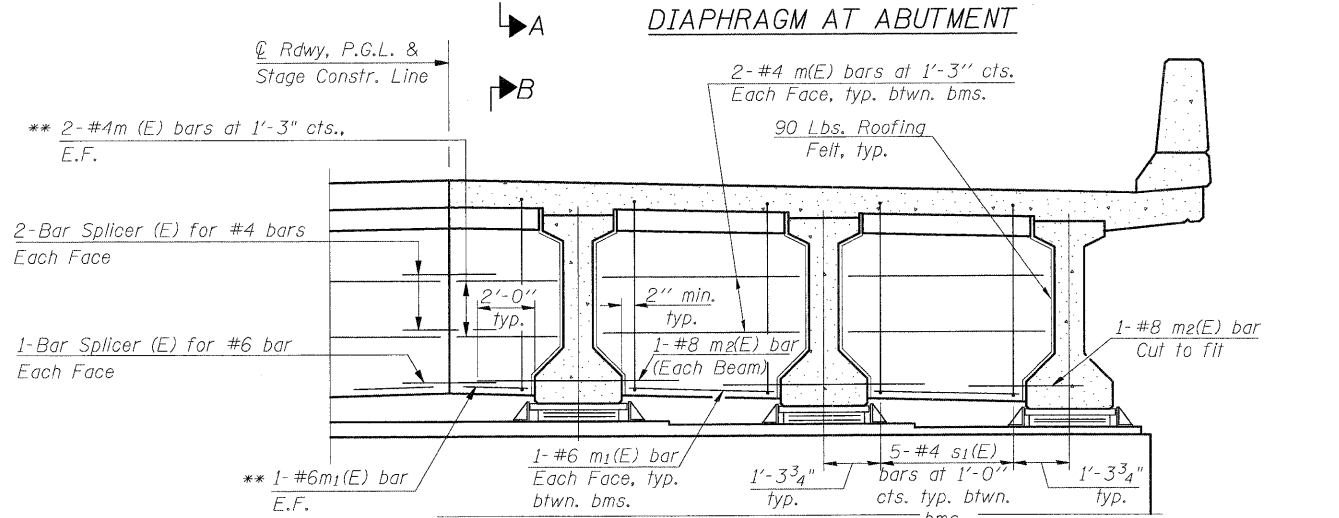
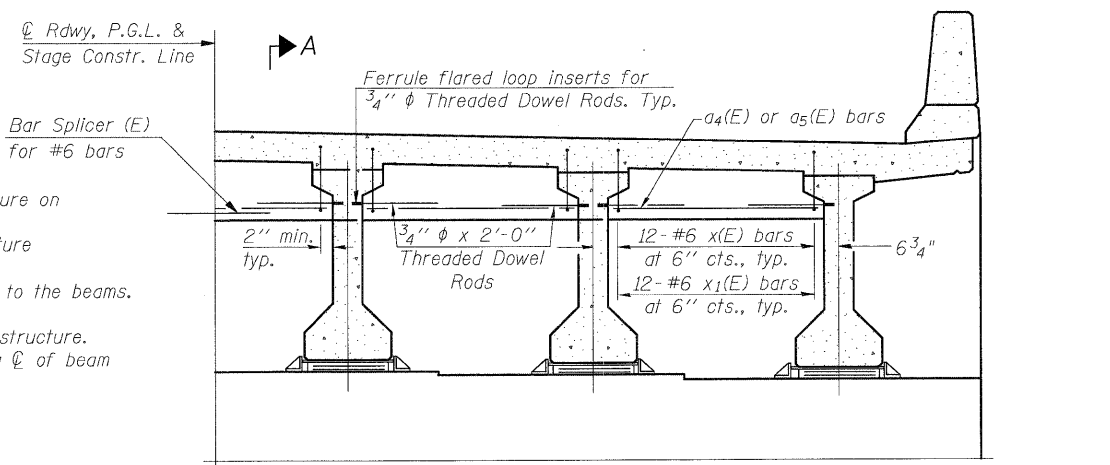
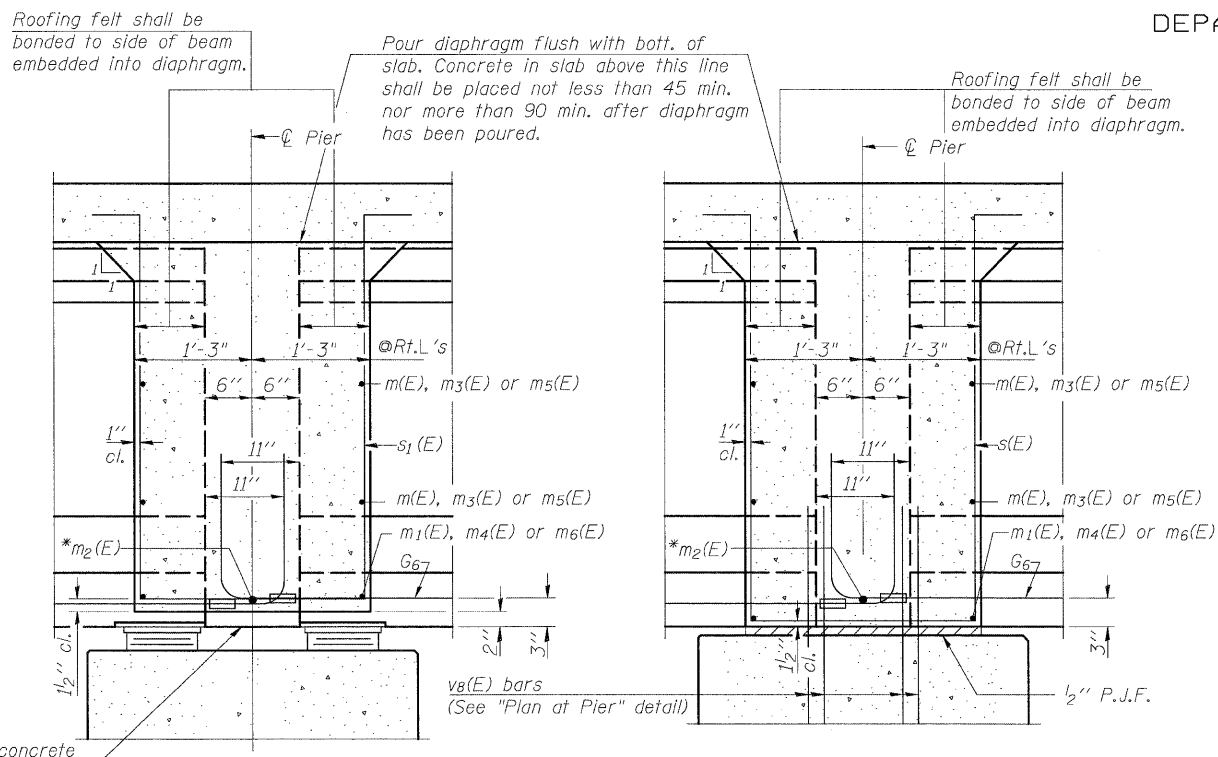
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PI-D

10-1-08

SHEET NO. 12 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	43
CONTRACT NO. 74236					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DIAPHRAGM DETAILS
S.N. 018-0064

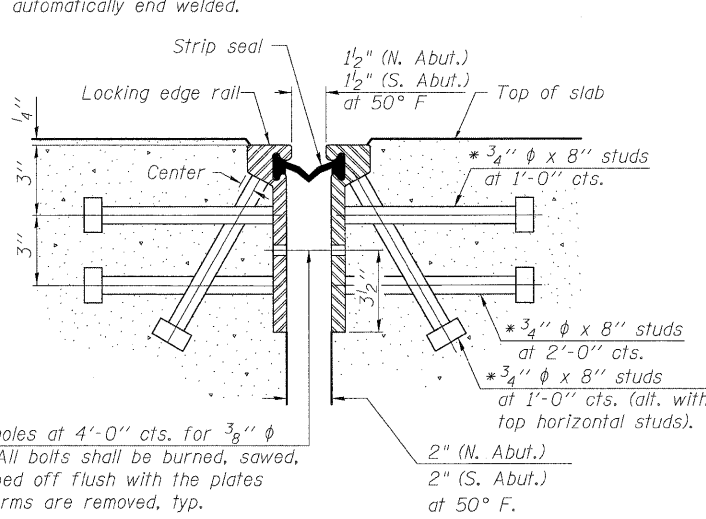
SHEET NO. 13 OF 33 SHEETS	F.A.P. RTE. 116	SECTION (112BR)B	COUNTY CUMBERLAND	TOTAL SHEETS 72	SHEET NO. 44
	CONTRACT NO. 74236				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

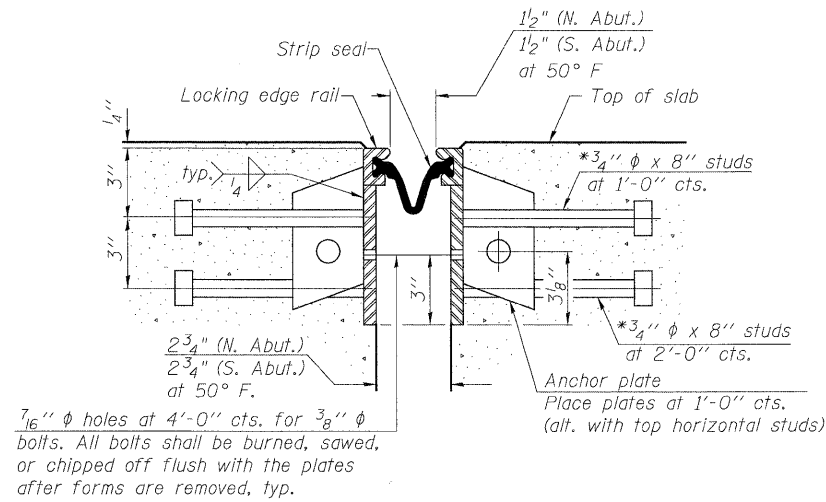
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



SECTION THRU
ROLLED RAIL JOINT



SECTION THRU
WELDED RAIL JOINT

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

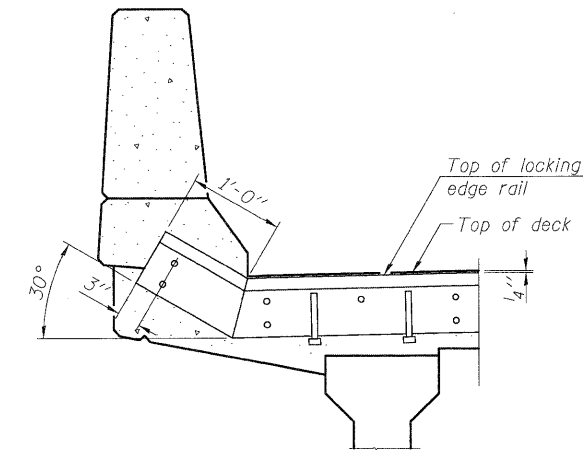
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and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

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

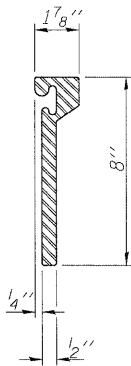
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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

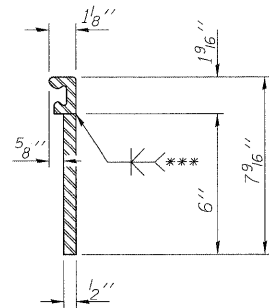
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



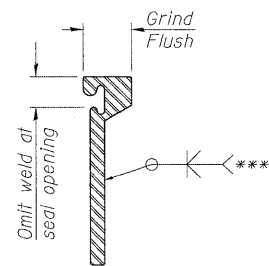
AT PARAPET



ROLLED
EXTRUDED RAIL



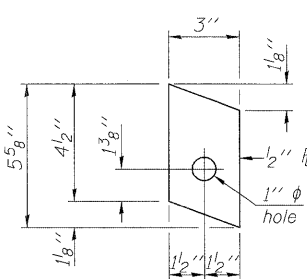
WELDED RAIL



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

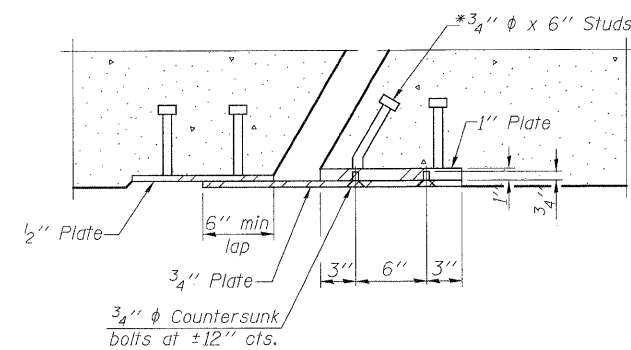
LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.



ANCHOR PLATE
(for welded rail)

TYPICAL END TREATMENTS

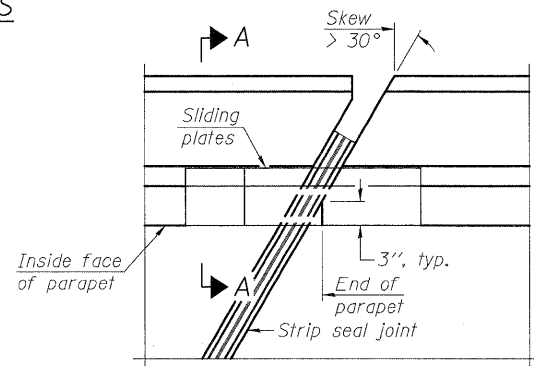


SECTION B-B

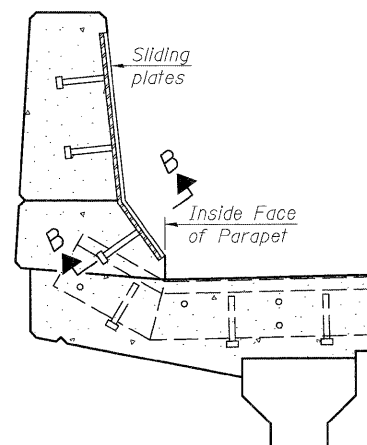
BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	98

LOCKING EDGE RAILS



PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)

PREFORMED JOINT STRIP SEAL
S.N. 018-0064

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
14 OF 33 SHEETS	116	(112BR1)B	CUMBERLAND	72	45
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					
CONTRACT NO. 74236					

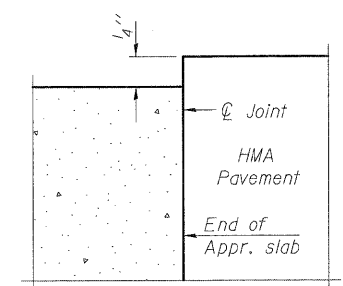
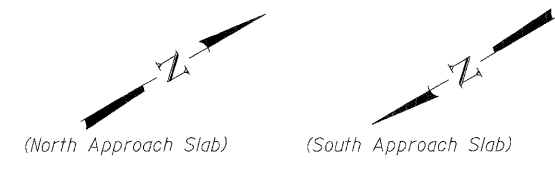
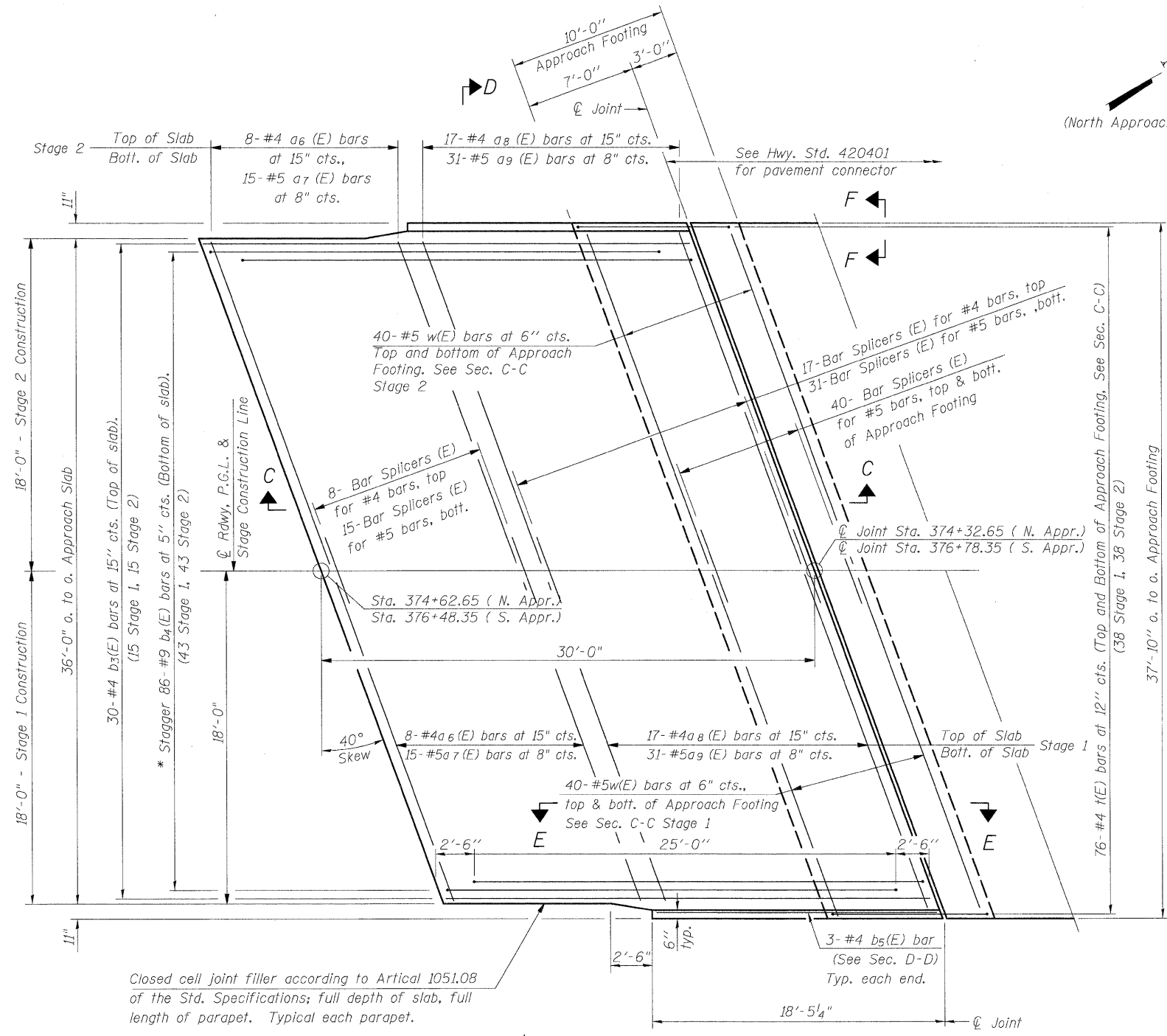
DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet 16 of 33 for Sections C-C & D-D and View E-E.
a6 (E) through a9 (E) bar spacing measured parallel to roadway.



FLEXIBLE PAVEMENT
DETAIL A

PLAN - SOUTH APPROACH SLAB
(NORTH APPROACH SLAB SIMILAR)

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

Closed cell joint filler according to Article 1051.08 of the Std. Specifications; full depth of slab, full length of parapet. Typical each parapet.

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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BA-R 10-31-08

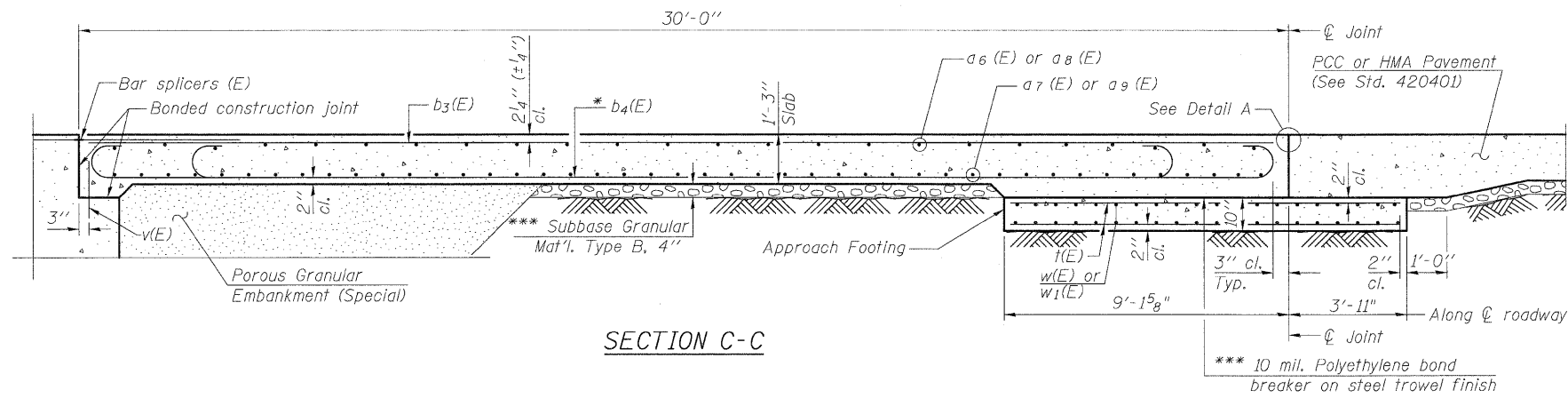
(Sheet 1 of 2)
BRIDGE APPROACH SLAB DETAILS
S.N. 018-0064

SHEET NO. 15 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	46
CONTRACT NO. 74236					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
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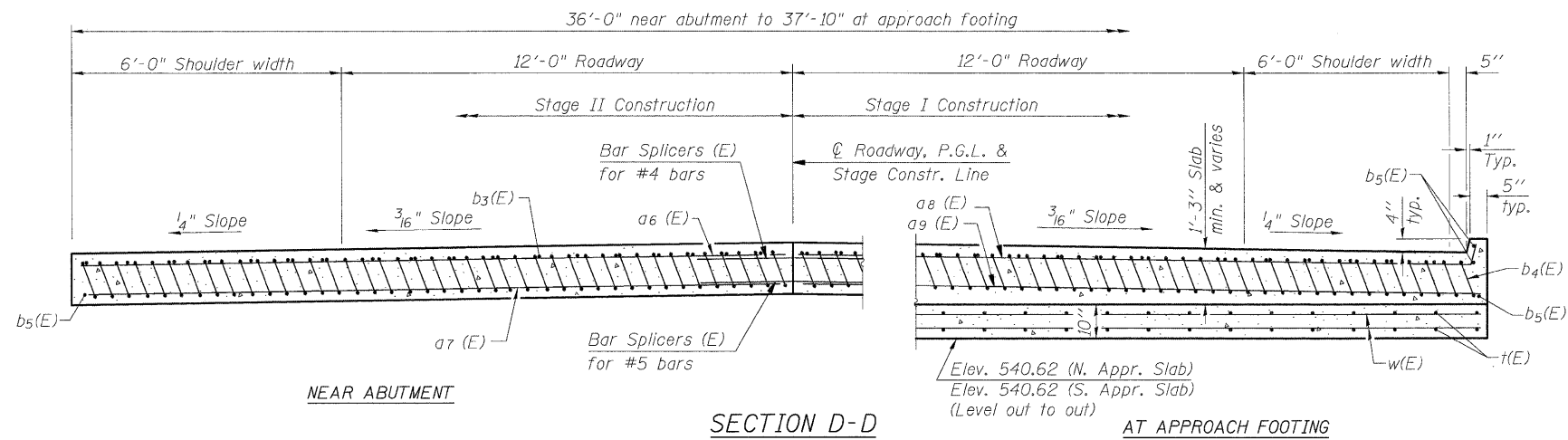
Notes:

See sheet 15 of 33 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.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 30 of 33.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 33.
For v(E) bar details See sheet 24 and 26 of 33.



SECTION C-C

*** 10 mil. Polyethylene bond breaker on steel trowel finish



SECTION D-D

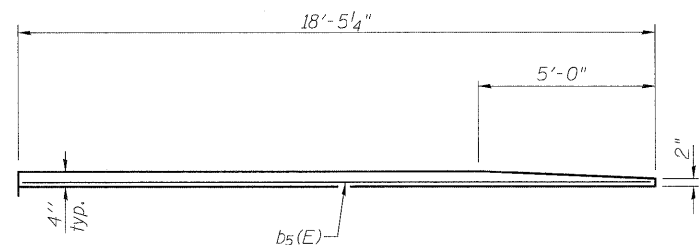
(See Plan for dimensions not shown)

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

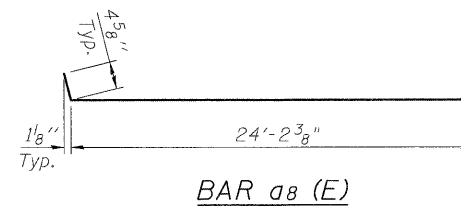
*** Cost included with Concrete Superstructure.

TWO APPROACHES
BILL OF MATERIAL

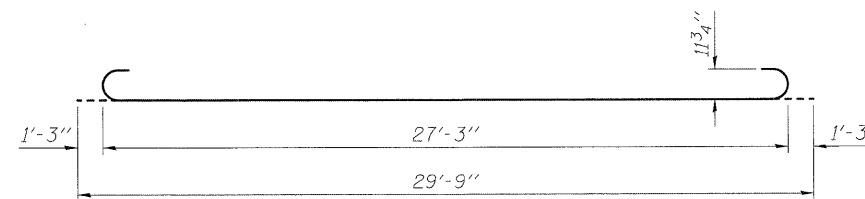
Bar	No.	Size	Length	Shape
a6 (E)	32	#4	23'-0"	—
a7 (E)	60	#5	23'-0"	—
a8 (E)	68	#4	24'-7"	—
a9 (E)	124	#5	24'-3"	—
b3(E)	60	#4	29'-8"	—
b4(E)	172	#9	29'-9"	—
b5(E)	12	#4	18'-1"	—
t(E)	152	#4	12'-9"	—
w(E)	160	#5	24'-3"	—
		Concrete Superstructure	Cu. Yd.	108.2
		Concrete Structures	Cu. Yd.	30.4
		Reinforcement Bars, Epoxy Coated	Pound	30,260
		Bar Splicers	Each	222



SECTION E-E



BAR a8 (E)



BAR b4(E)

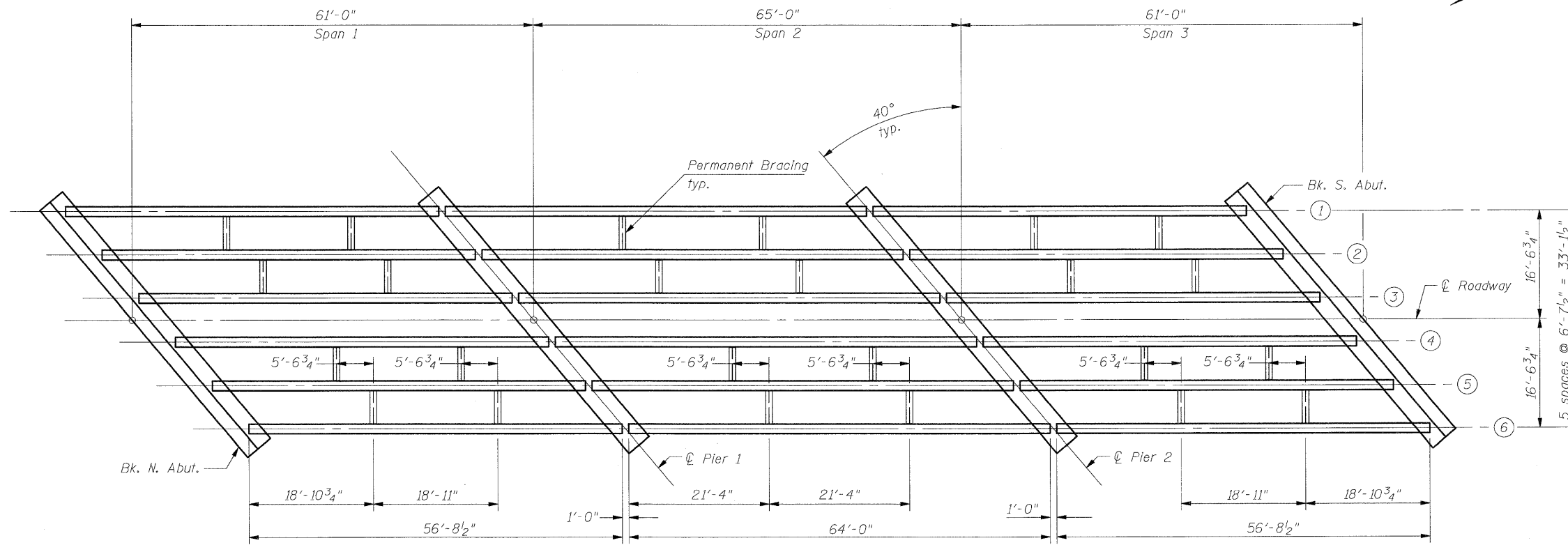
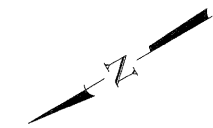
DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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(Sheet 2 of 2)
BRIDGE APPROACH SLAB DETAILS
S.N. 018-0064

SHEET NO. 16 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	47
CONTRACT NO. 74236					
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING LAYOUT

- I : Non-composite moment of inertia of beam section (in^4).
- I' : Composite moment of inertia of beam section (in^4).
- S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in^3).
- S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in^3).
- S_t : Non-composite section modulus for the top fiber of the prestressed beam (in^3).
- S_t' : Composite section modulus for the top fiber of the prestressed beam (in^3).
- $DC1$: Un-factored non-composite dead load (kips/ft.).
- M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).
- $DC2$: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_L + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

	N. Abut.	Pier 1, Span 1 Pier 2, Span 3	Pier 1, Span 2 Pier 2, Span 2	S. Abut.
R_{DC1}	(k) 29.0	29.0	32.8	29.0
* R_{DC2}	(k) 3.2	5.1	4.7	3.2
* R_{DW}	(k) 6.4	10.2	9.4	6.4
* $R_L + IM$	(k) 66.0	48.5	48.5	66.0
R_{Total}	(k) 104.6	92.8	95.4	104.6

	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I	(in^4) 48,648	48,648	48,648	48,648	48,648
I'	(in^4) 185,794	---	185,794	---	185,794
S_b	(in^3) 3,165.1	3,165.1	3,165.1	3,165.1	3,165.1
S_b'	(in^3) 6,177.0	---	6,177.0	---	6,177.0
S_t	(in^3) 2,358.1	2,358.1	2,358.1	2,358.1	2,358.1
S_t'	(in^3) 31,374.3	---	31,374.3	---	31,374.3
$DC1$	(k/ft) 1.046	1.046	1.046	1.046	1.046
M_{DC1}	(k) 387.3	---	516.4	---	385.0
$DC2$	(k/ft) 0.150	0.150	0.150	0.150	0.150
M_{DC2}	(k) 34.7	52.0	22.1	52.0	24.1
DW	(k/ft) 0.3	0.3	0.3	0.3	0.3
M_{DW}	(k) 69.4	104.0	44.2	104.0	48.2
$M_L + IM$	(k) 635.7	576.2	573.9	577.0	633.5

*The total R_{DC2} , R_{DW} and $R_L + IM$ are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier is based on the maximum reactions of either span.

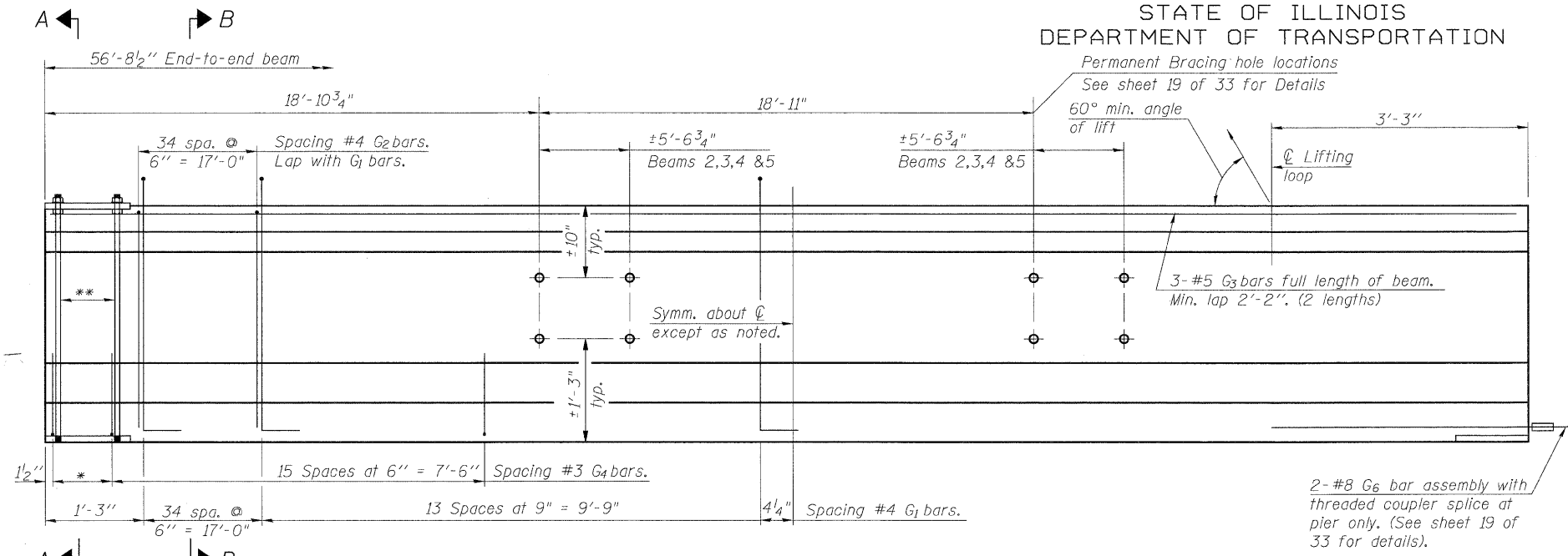
DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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FRAMING PLAN
S.N. 018-0064

SHEET NO. 17 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	48
FED. ROAD DIST. NO. - ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 74236					

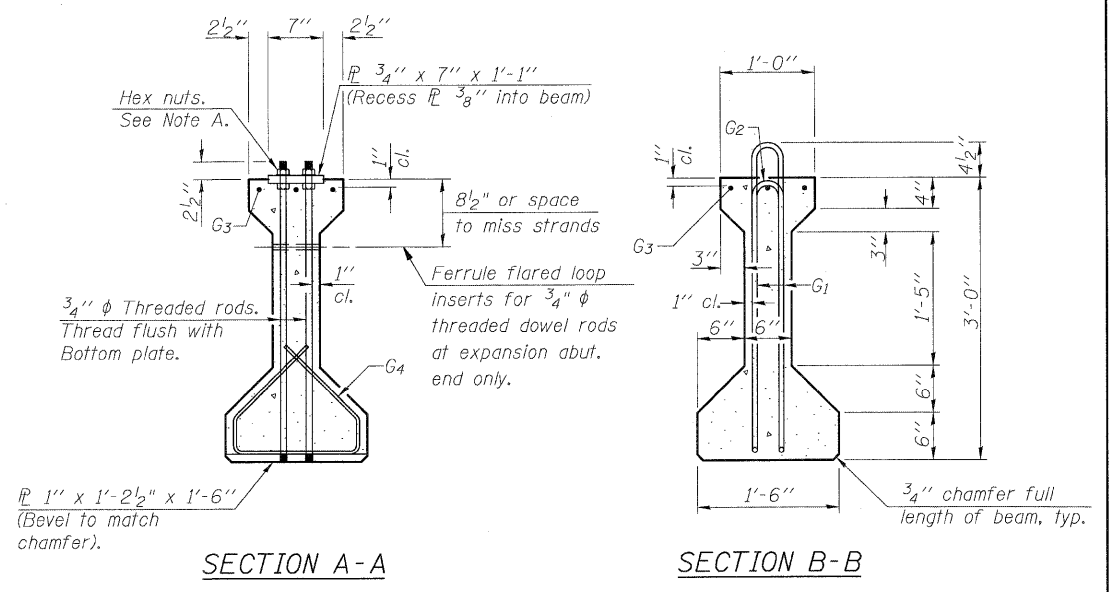
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION OF BEAM
(Showing reinforcement & dimensions)

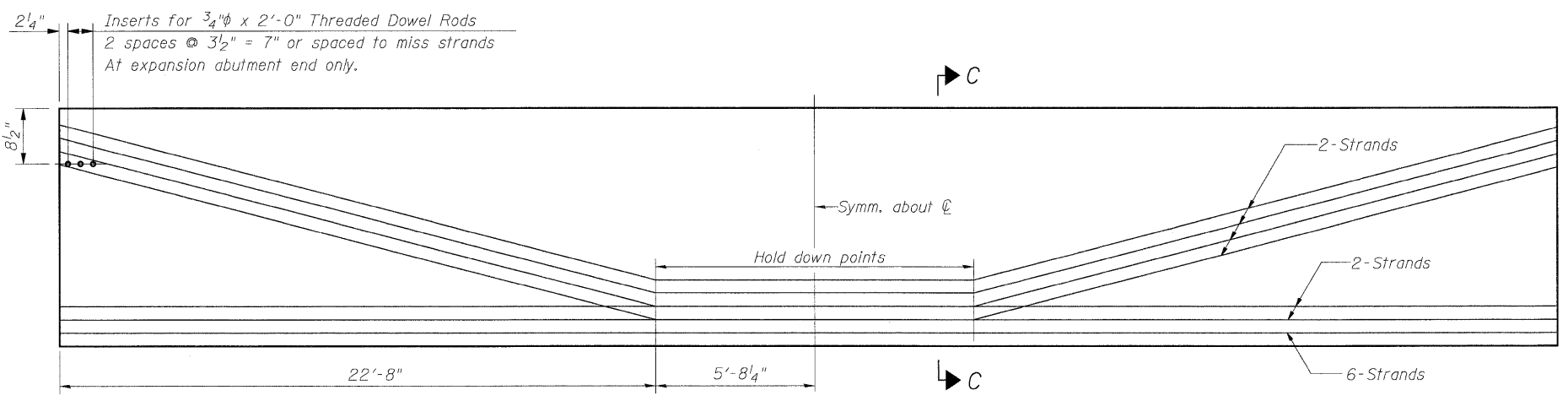
* 3 spaces at 3" = 9".
** 4-3/4" φ threaded dowel rods at 3" cts., Each Face

Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

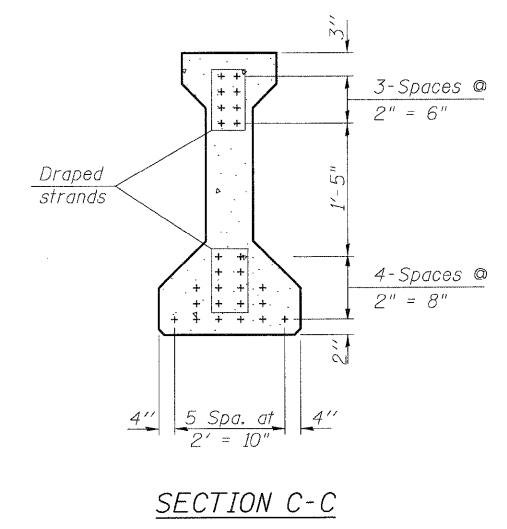


SECTION A-A

SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C

*****BAR LIST
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G ₁	96	#4	7'-5"	∩ L
G ₂	70	#4	5'-8"	∩
G ₃	6	#5	29'-4"	—
G ₄	38	#3	4'-1"	⊂
G ₆	2	#8	6'-6"	⌋

***For information only
Notes:
See sheet 19 of 33 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.

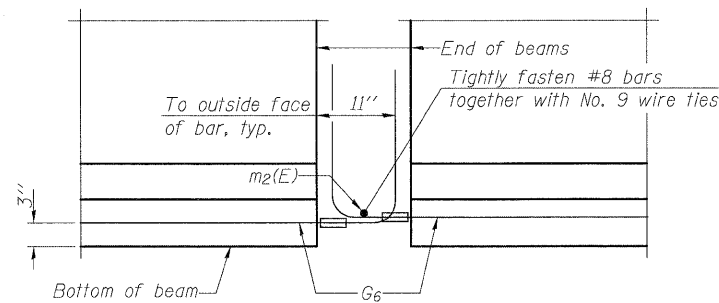
DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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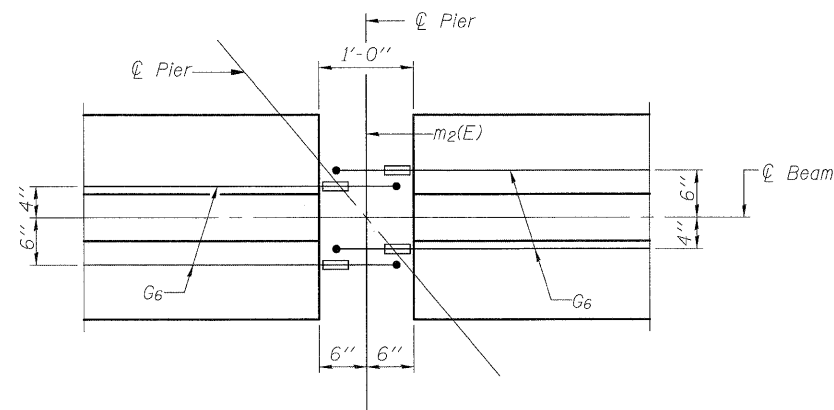
**36" P.P.C. I-BEAM
SPAN 1 & 3
S.N. 018-0064**

SHEET NO. 18 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	49
FED. ROAD DIST. NO. - ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 74236					

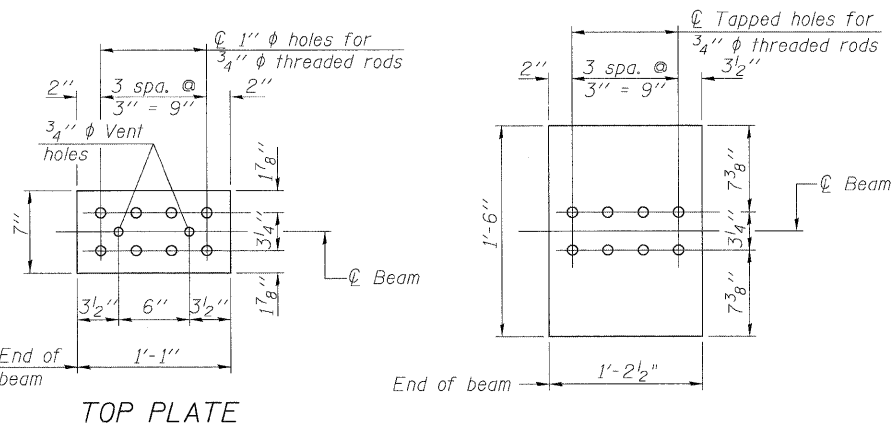
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION OF BEAM AT PIER



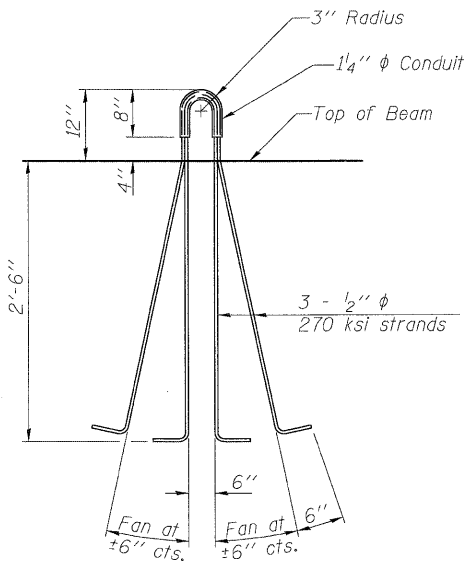
PLAN OF BEAM AT PIER



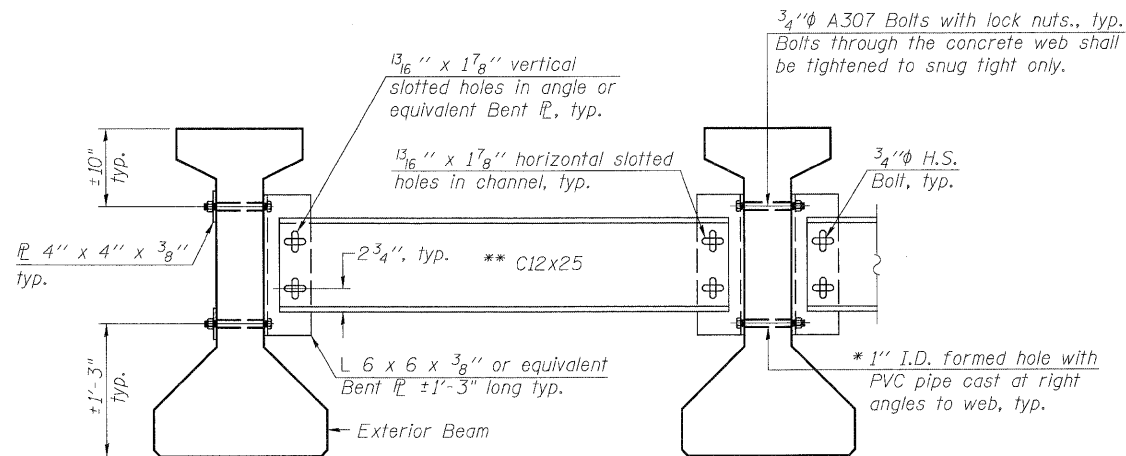
TOP PLATE

BOTTOM PLATE

For bearing details for pintle hole locations see sheet 22 of 33.



LIFTING LOOP DETAIL



Notes:

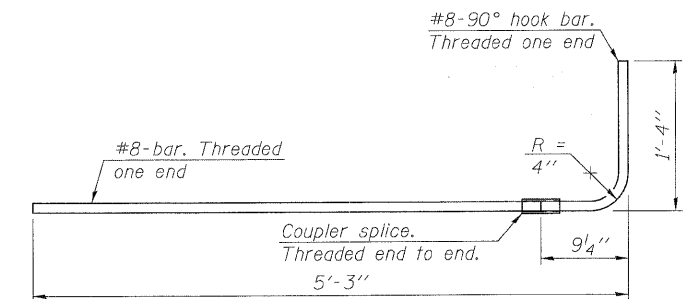
All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes.
All holes shall be 15/16" φ unless otherwise noted.
5/16" x 3" x 3" plate washers are required over all slotted holes.
All bolts shall be galvanized according to AASHTO M232.
Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
Permanent bracing shall not be paid for separately but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.

* Fabricator shall locate to miss strands within permissible tolerances.
** Alternate C12x30 channels are permitted to facilitate material acquisition.

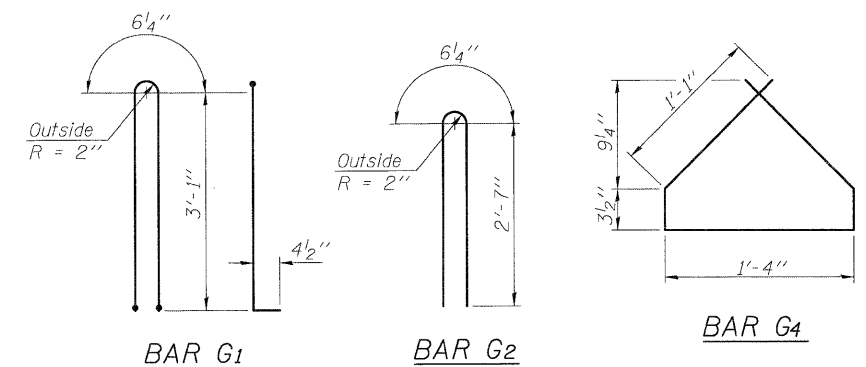
PERMANENT BRACING DETAILS FOR
36" PPC I-BEAMS

NOTES

Inserts for 3/4" φ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
A minimum 2 1/2" φ lifting pin shall be used to engage the lifting loops during handling.
Tilt G6 bars when necessary to maintain 1 1/2" clearance.
The top and bottom plates shall be AASHTO M270 Grade 50.
The bottom plates and studs shall be galvanized according to AASHTO M111.
Threaded rods shall be ASTM F 1554 Grade 55.
The G6 bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing 125 percent of the yield strength of the reinforcement bar.



G6 BAR ASSEMBLY



BAR G1

BAR G2

BAR G4

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	680.50

36" P.P.C. I-BEAM DETAILS

SPANS 1 & 3
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD



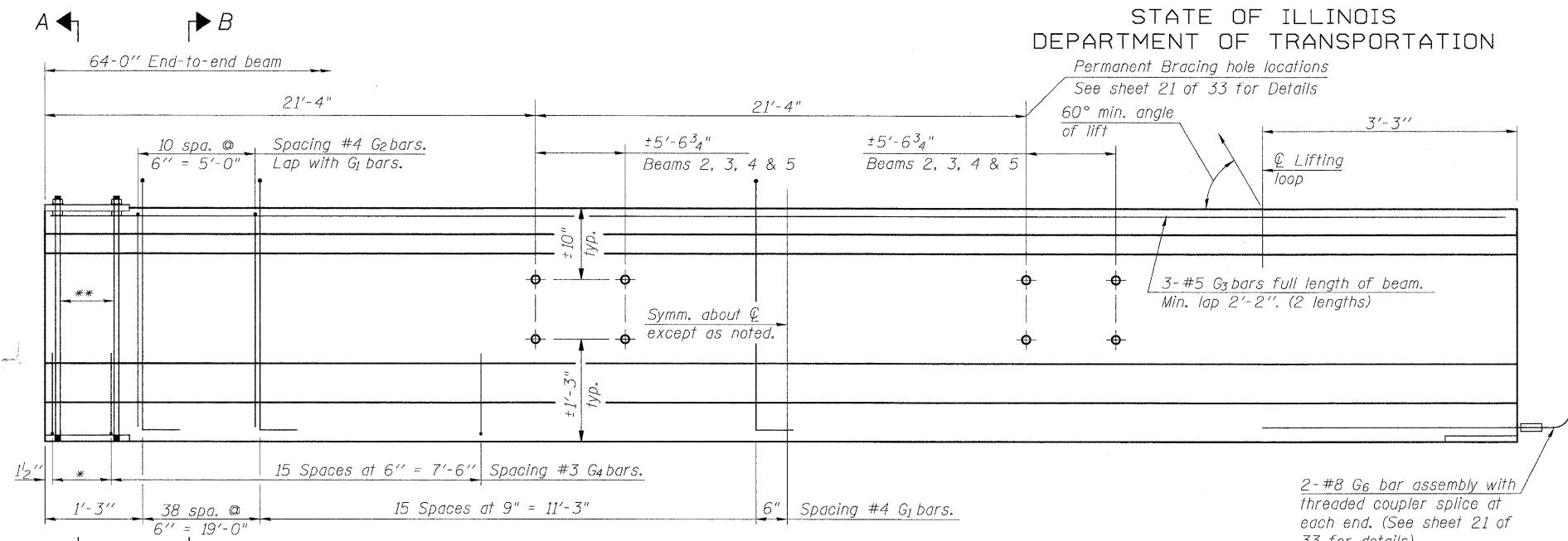
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PI-4-36D

10-1-08

SHEET NO. 19 OF 33 SHEETS	F.A.P. RTE.	SECTION (112BR1)B	COUNTY CUMBERLAND	TOTAL SHEETS 72	SHEET NO. 50
	CONTRACT NO. 74236				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

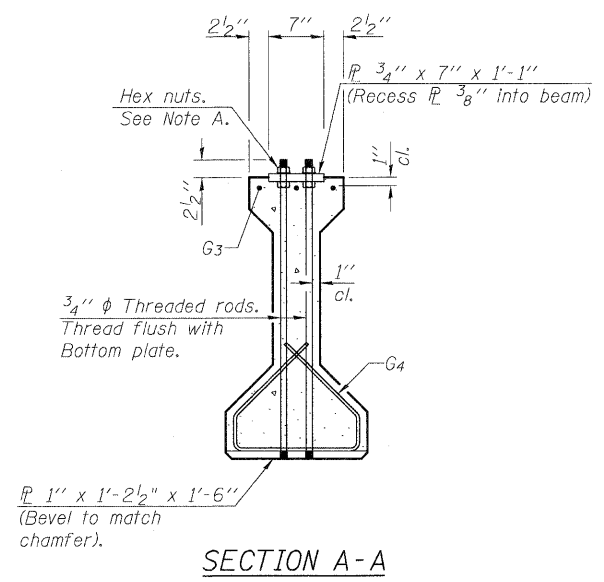
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



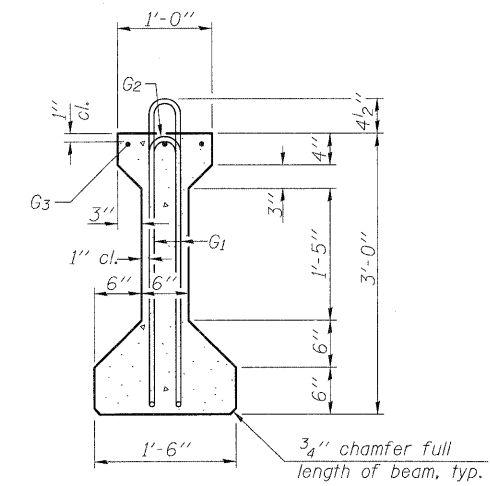
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

* 3 spaces at 3" = 9".
** 4-3/4" φ threaded dowel rods at 3" cts., Each Face

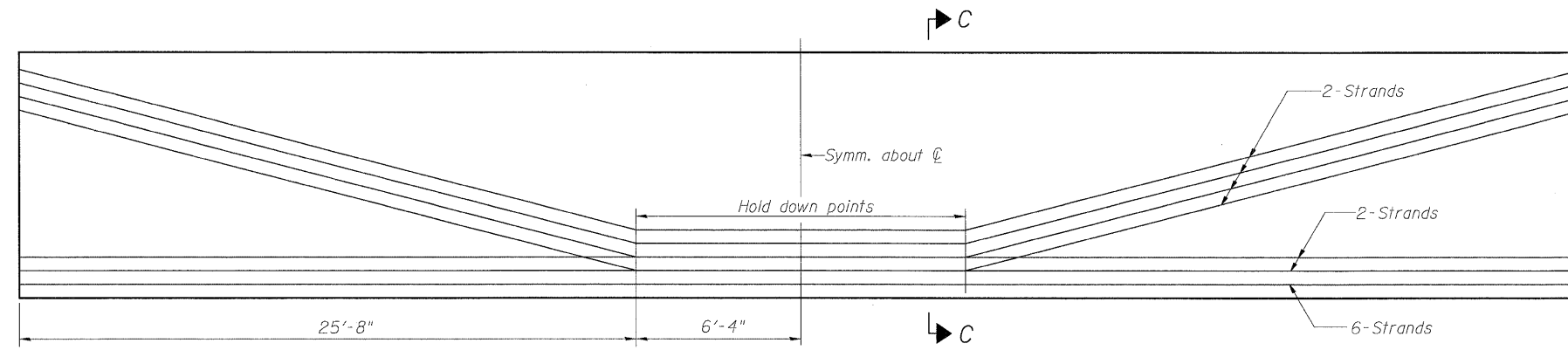
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



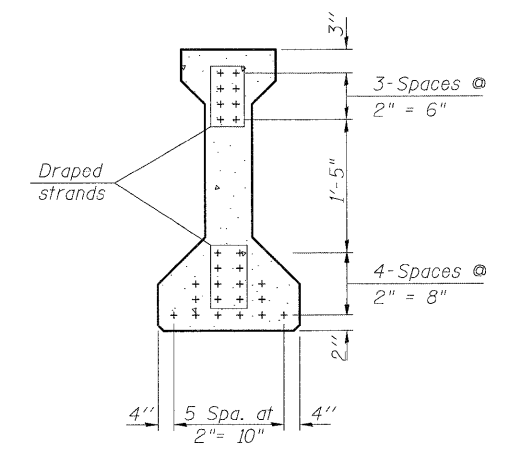
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION C-C

*****BAR LIST
ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G ₁	108	#4	7'-5"	∩L
G ₂	22	#4	5'-8"	∩
G ₃	6	#5	33'-1"	—
G ₄	38	#3	4'-1"	∩
G ₆	4	#8	6'-6"	—

***For information only

Notes:
See sheet 21 of 33 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5,000 psi.

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

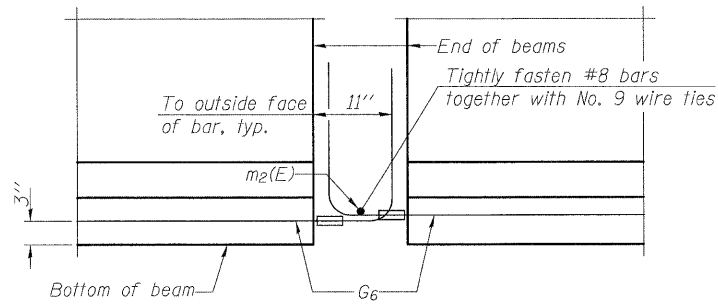
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PI-4-36 10-1-08

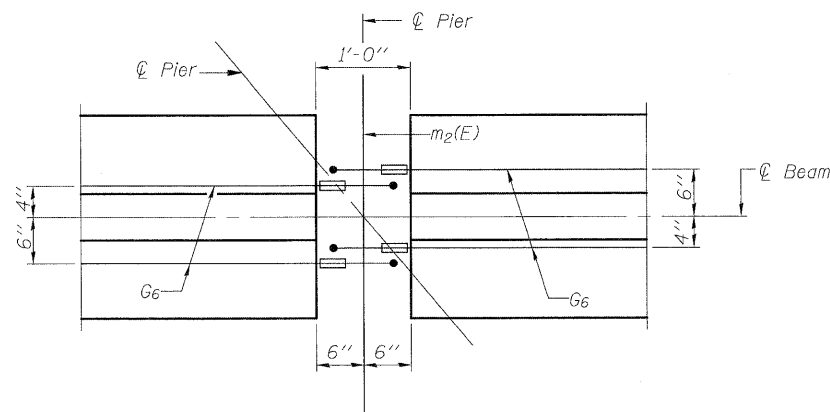
**36" P.P.C. I-BEAM
SPAN 2
S.N. 018-0064**

SHEET NO. 20 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	51
CONTRACT NO. 74236					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

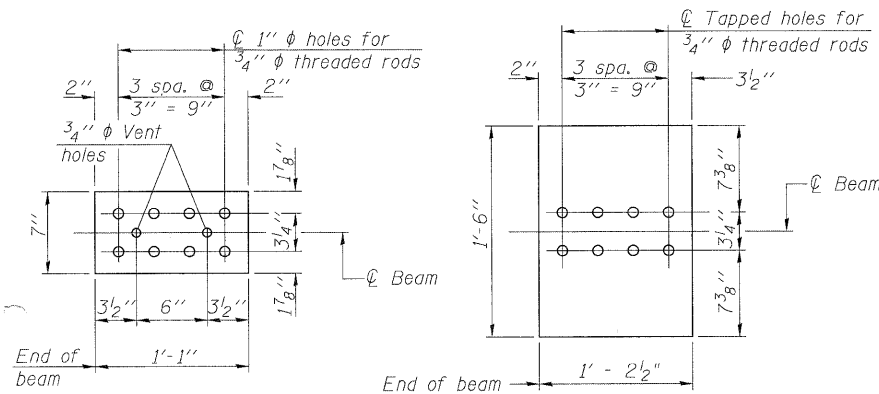
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



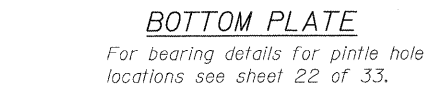
ELEVATION OF BEAM AT PIER



PLAN OF BEAM AT PIER

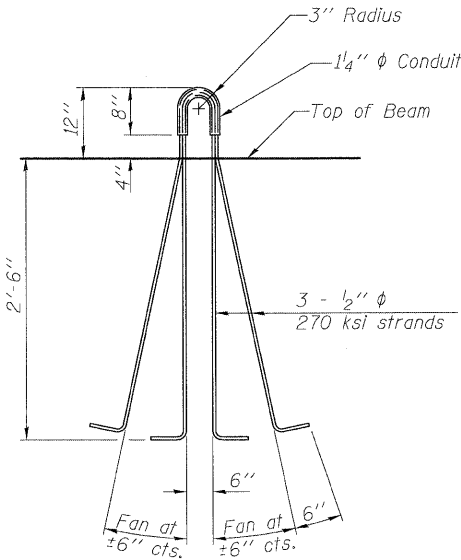


TOP PLATE

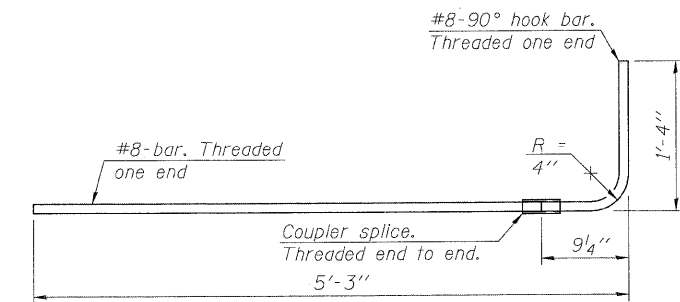


BOTTOM PLATE

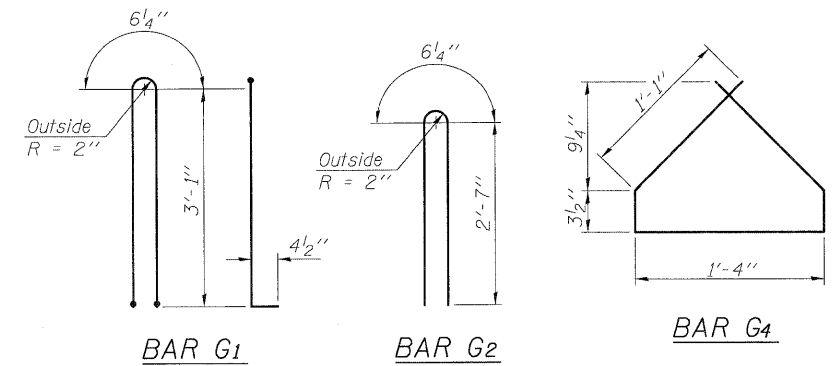
For bearing details for pintle hole locations see sheet 22 of 33.



LIFTING LOOP DETAIL



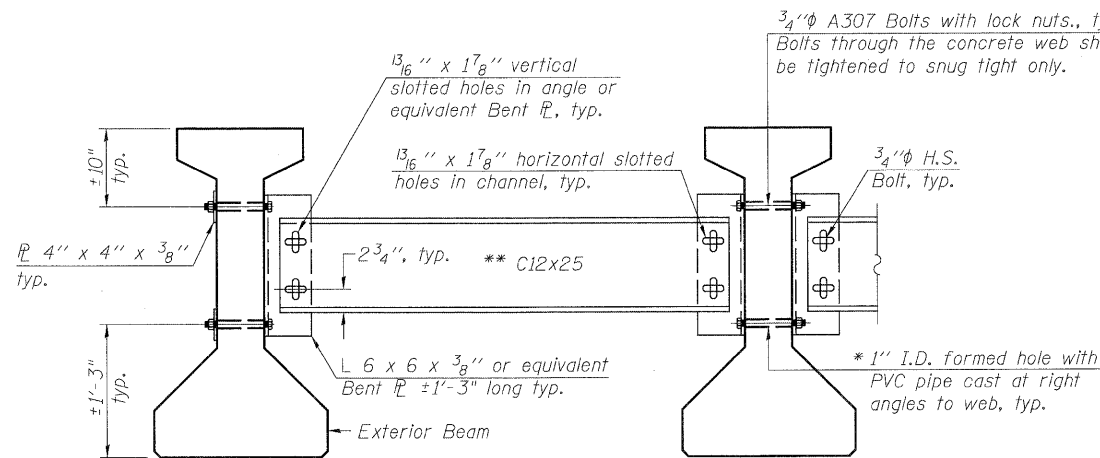
G6 BAR ASSEMBLY



BAR G1

BAR G2

BAR G4



Notes:

All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes.
All holes shall be 15/16" ϕ unless otherwise noted.
5/8" x 3" x 3" plate washers are required over all slotted holes.
All bolts shall be galvanized according to AASHTO M232.
Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
Permanent bracing shall not be paid for separately but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.

* Fabricator shall locate to miss strands within permissible tolerances.
** Alternate C12x30 channels are permitted to facilitate material acquisition.

PERMANENT BRACING DETAILS FOR
36" PPC I-BEAMS

NOTES

Inserts for 3/4" ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum 2 1/2" ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt G6 bars when necessary to maintain 1 1/2" clearance.
The top and bottom plates shall be AASHTO M270 Grade 50.
The bottom plates and studs shall be galvanized according to AASHTO M111.
Threaded rods shall be ASTM F 1554 Grade 55.
The G6 bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing 125 percent of the yield strength of the reinforcement bar.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 36"	Ft.	384.0

36" P.P.C. I-BEAM DETAILS
SPAN 2
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

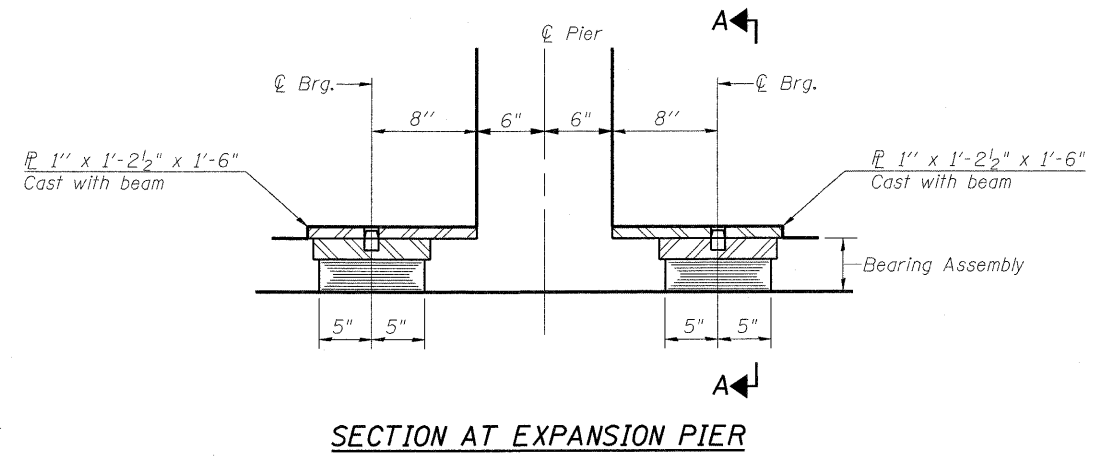
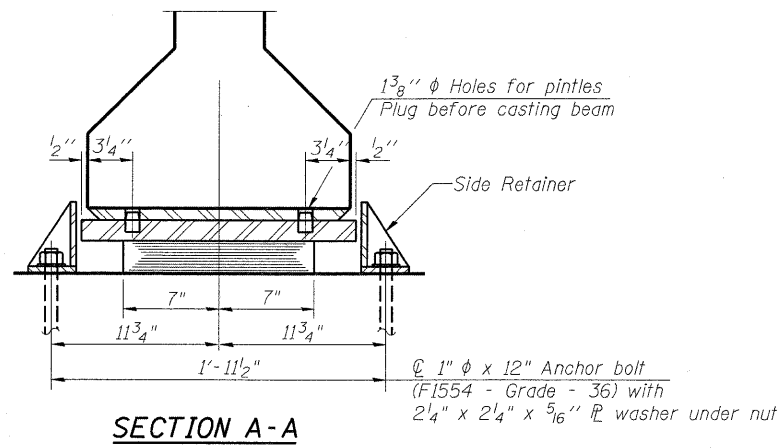
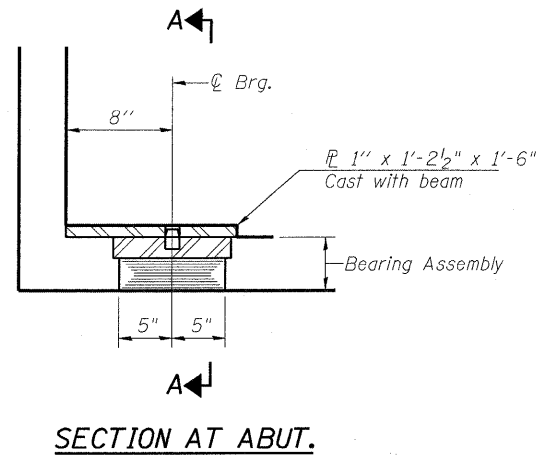
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PI-4-36D

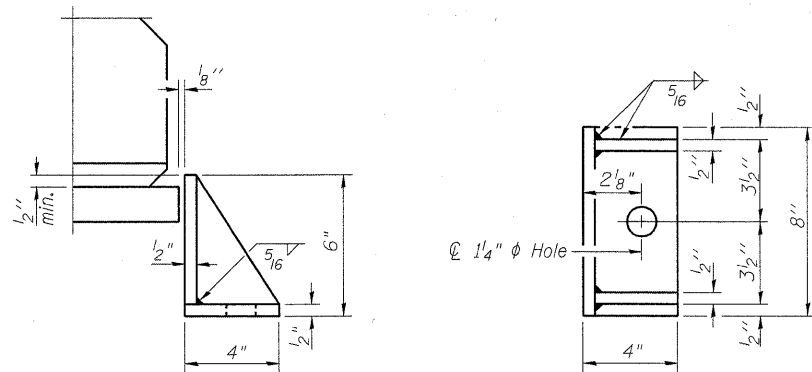
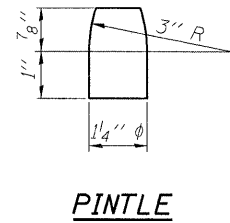
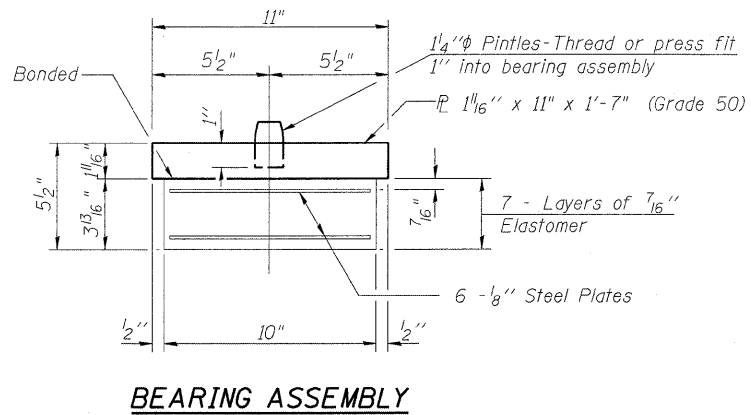
10-1-08

SHEET NO. 21 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	52
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT		
				CONTRACT NO. 74236	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPE I ELASTOMERIC EXP. BRG.



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

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers may be cast in place or installed in holes drilled after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
See sheet 19 & 21 of 33 for additional details of plate cast with beam.
All embedded and separate bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	24
* Anchor Bolts, 1"	Each	52

* Includes 4 Anchor Bolts and Side Retainers located at outside beams, Pier 1.
See sheet 13 of 33.

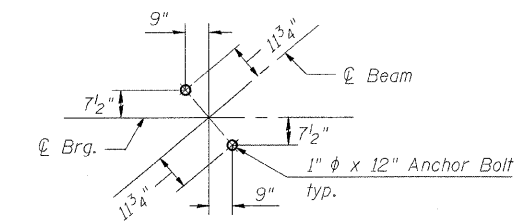
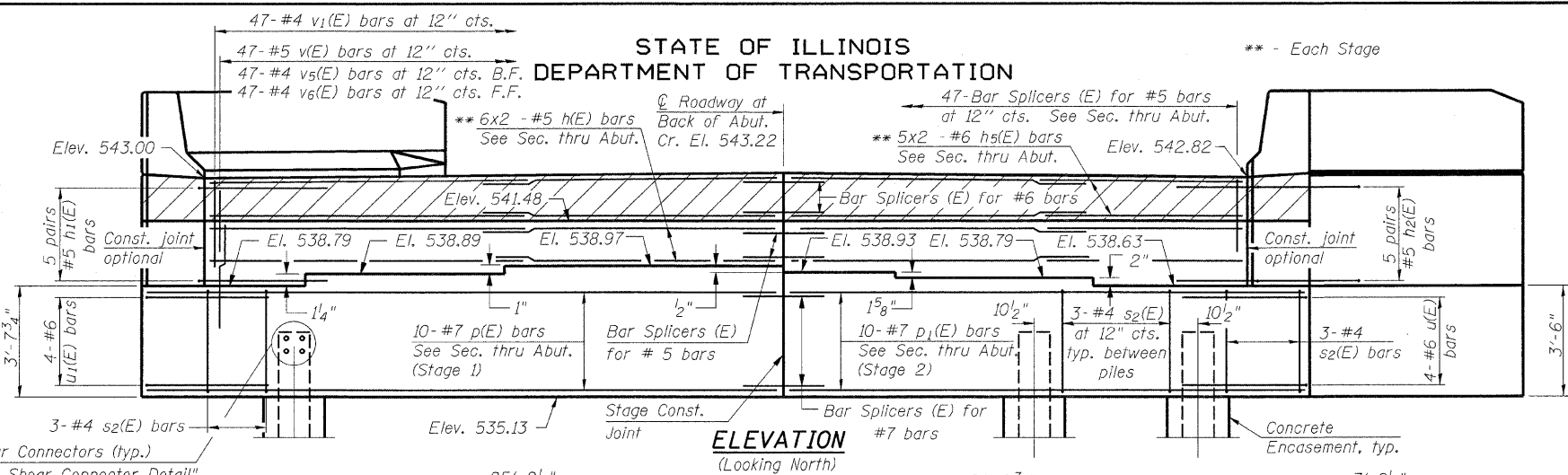
DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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BEARING DETAILS
S.N. 018-0064

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22 OF 33 SHEETS	116	(112BR1)B	CUMBERLAND	72	53
CONTRACT NO. 74236					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ANCHOR BOLT LAYOUT DETAIL
(Typical all bearings)

**ABUTMENT
BILL OF MATERIAL**

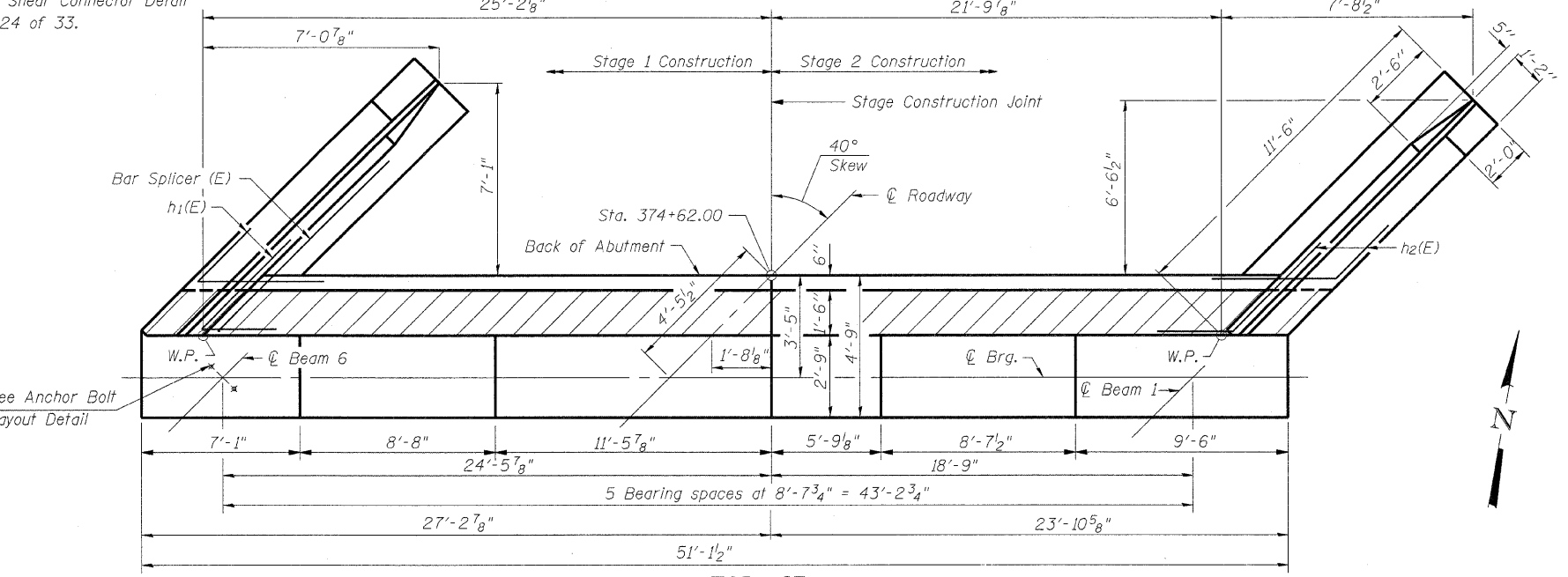
Bar No.	Size	Length	Shape
h(E)	24 #5	13'-11"	—
h1(E)	10 #5	7'-7"	└
h2(E)	10 #5	6'-6"	└
h3(E)	11 #4	11'-3"	—
h4(E)	7 #4	11'-3"	—
h5(E)	20 #6	14'-3"	—
n(E)	18 #6	11'-0"	└
n1(E)	12 #6	5'-6"	└
p(E)	10 #7	26'-9"	—
p1(E)	10 #7	23'-6"	—
p2(E)	12 #7	12'-11"	—
s2(E)	39 #4	15'-11"	□
s3(E)	24 #4	9'-5"	□
u(E)	4 #6	10'-4"	└
u1(E)	4 #6	8'-6"	└
v(E)	47 #5	2'-6"	—
v1(E)	47 #4	3'-0"	—
v2(E)	24 #6	7'-0"	—
v3(E)	6 #6	6'-9"	—
v4(E)	18 #6	7'-0"	—
v5(E)	47 #4	4'-0"	—
v6(E)	47 #4	5'-3"	—
Structure Excavation	Cu. Yd.	125.0	
Concrete Structures	Cu. Yd.	54.0	
Reinforcement Bars, Epoxy Coated	Pound	4,480	
Furnishing Steel Piles, HP 10x42	Foot	812	
Driving Piles	Foot	812	
Test Pile, Steel HP 10x42	Each	1	
Concrete Encasement	Cu. Yd.	4.6	
Concrete Sealer	Sq. Ft.	550	
Bar Splicers	Each	68	
Stud Shear Connectors	Each	120	

For details of Bar Splicers, see sheet 30 of 33.
For details of piles and Concrete Encasement, see sheet 29 of 33.
Concrete Sealer shall be applied to the face of the backwall, the bearing seats and the front face of abutment.

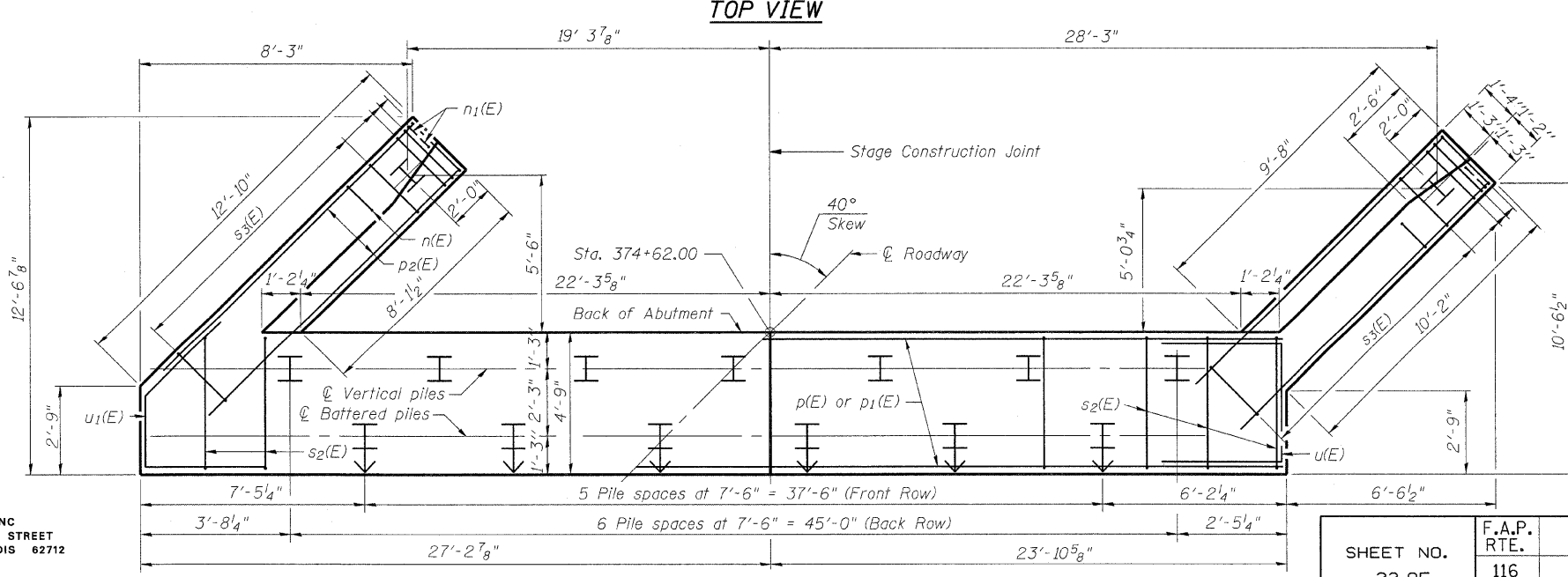
MIN. BAR LAP

- #5 3'-0"
- #6 3'-7"

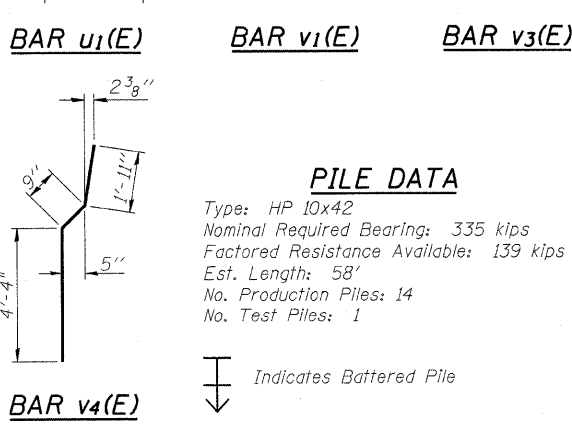
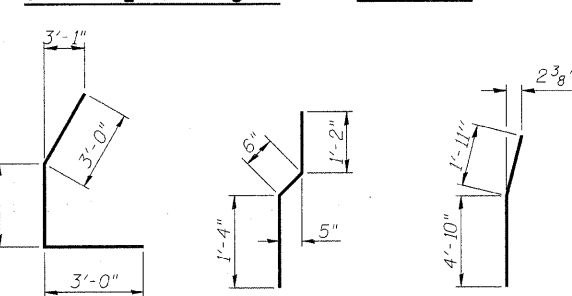
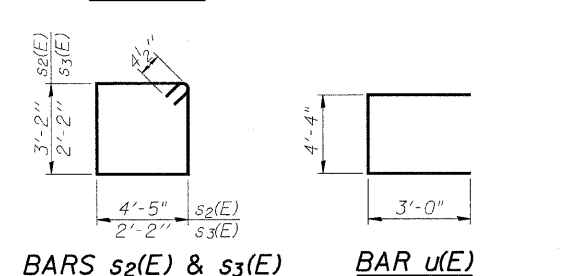
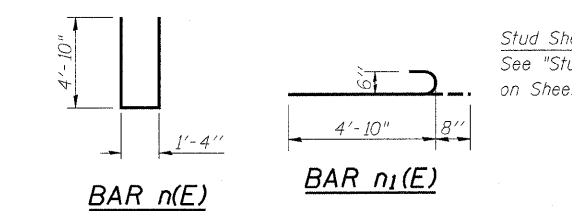
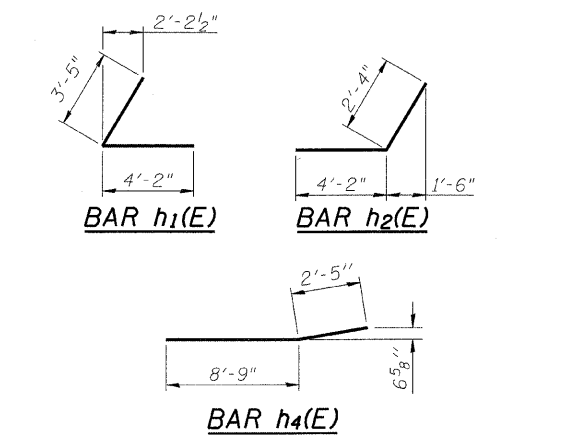
**NORTH ABUTMENT
S.N. 018-0064**



TOP VIEW



FOOTING PLAN



DESIGNED SCD
CHECKED DRB
DRAWN THW
CHECKED SCD

PILE DATA
Type: HP 10x42
Nominal Required Bearing: 335 kips
Factored Resistance Available: 139 kips
Est. Length: 58'
No. Production Piles: 14
No. Test Piles: 1

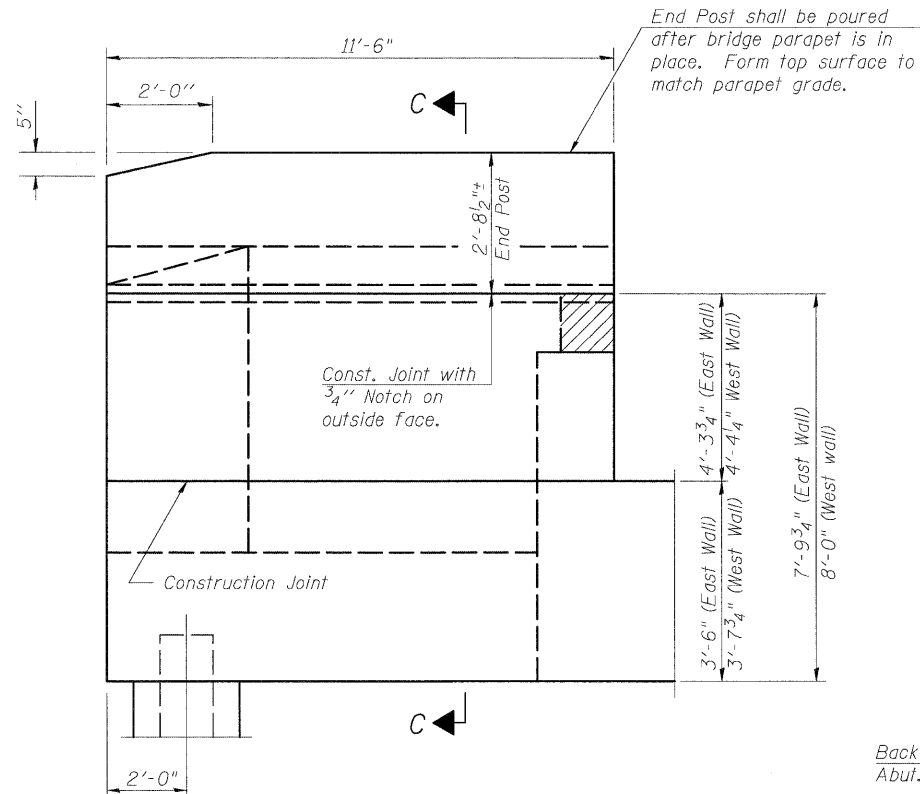
Indicates Battered Pile

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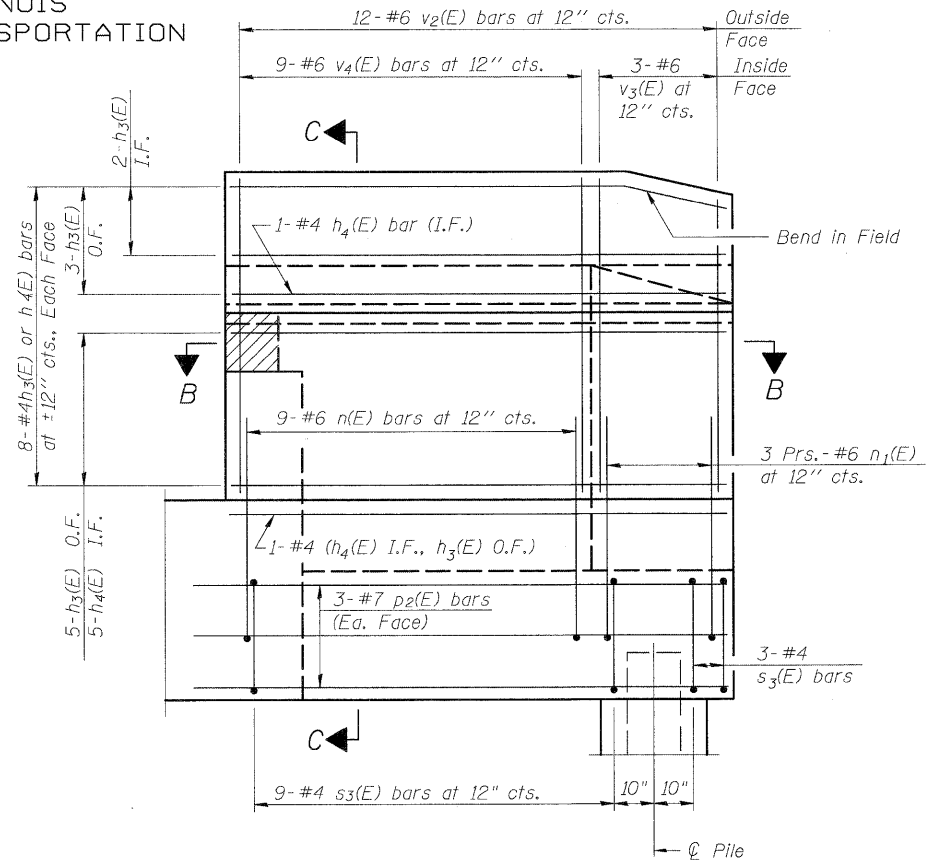
CONTRACT NO. 74236

SHEET NO. 23 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR)B	CUMBERLAND	72	54
CONTRACT NO. 74236					
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

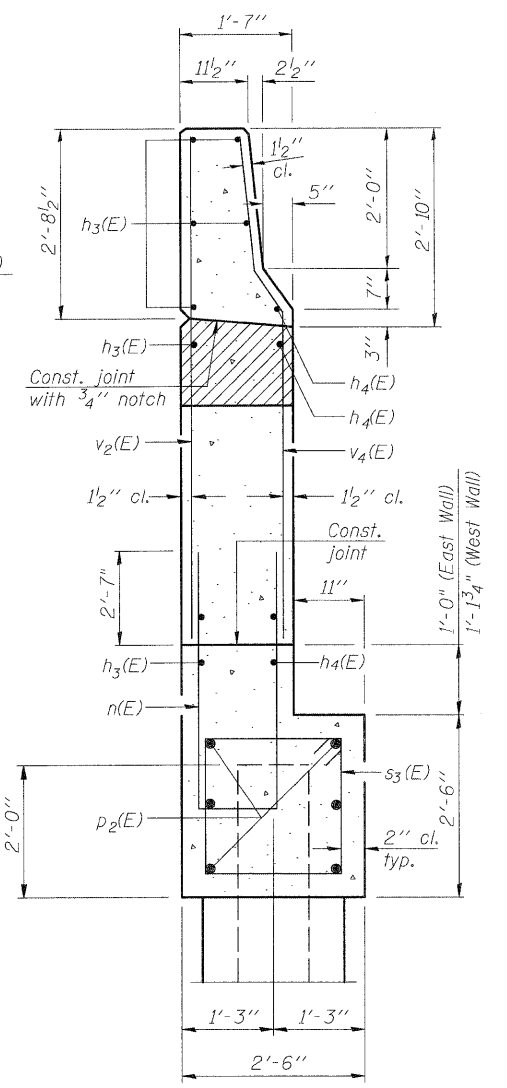
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



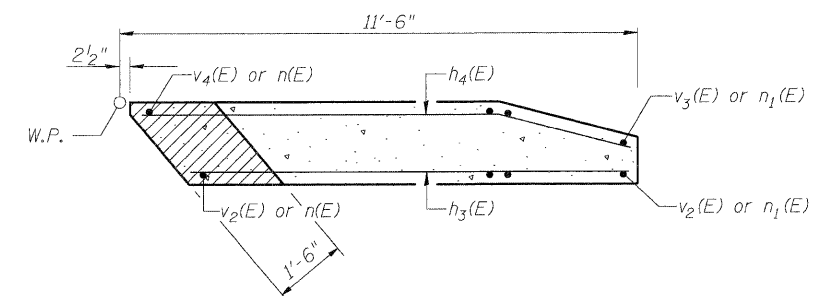
WING WALL ELEVATION
Showing Dimensions



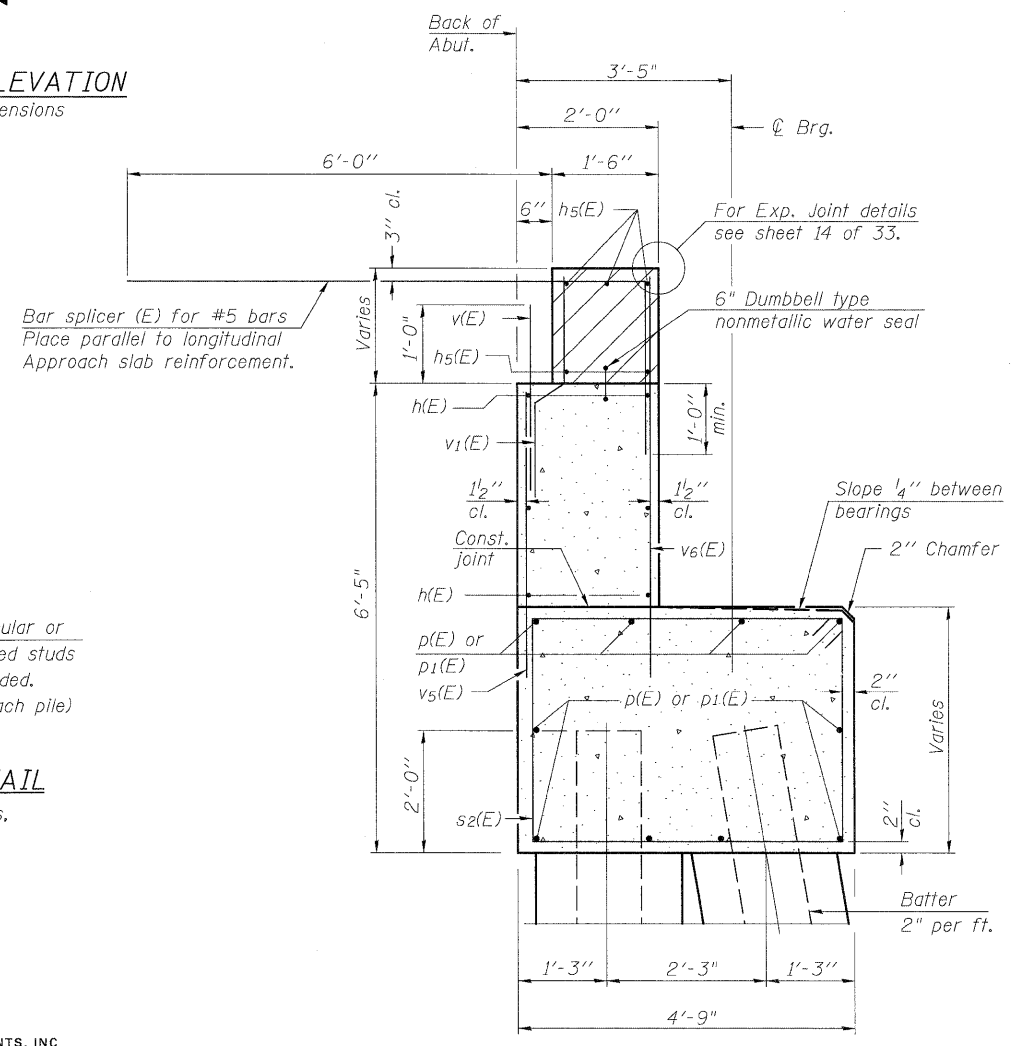
WING WALL ELEVATION
Showing Reinforcement



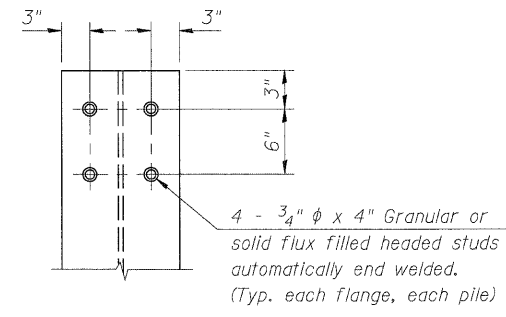
SECTION C-C



SECTION B-B



SEC. THRU ABUT.



STUD SHEAR CONNECTOR DETAIL
Typical at all piles in abutment and piers.

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 12 of 33.
For Concrete Encasement details, see sheet 29 of 33.

NORTH ABUTMENT DETAILS
S.N. 018-0064

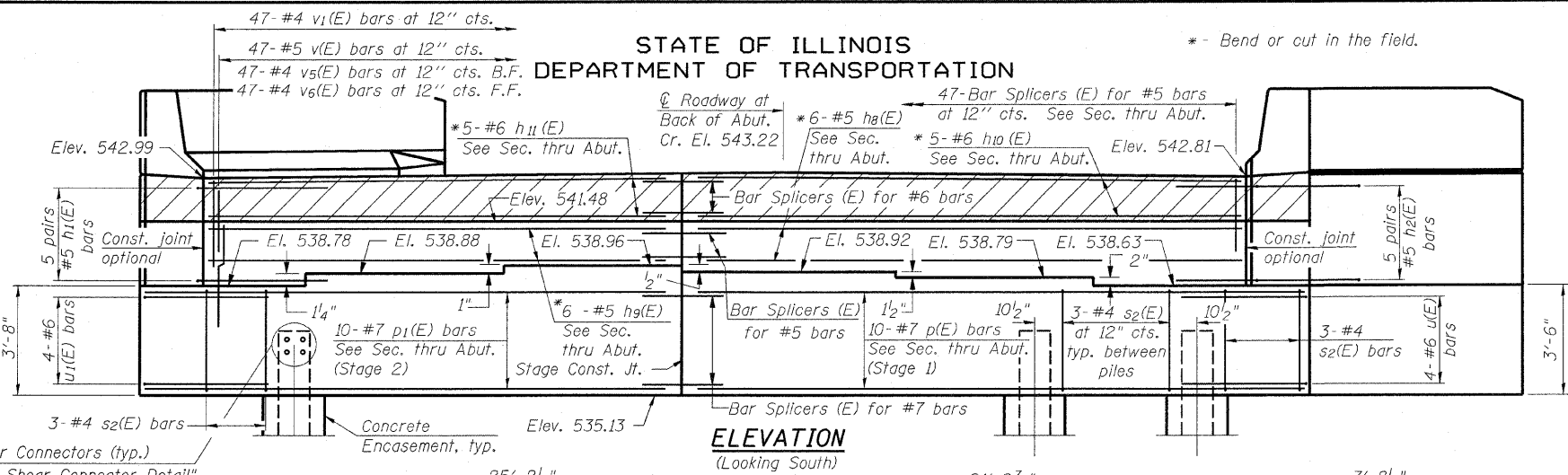
DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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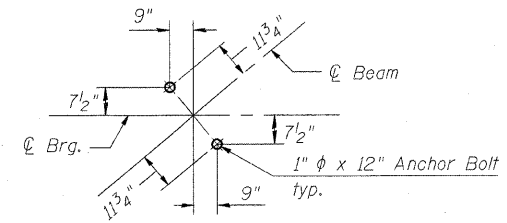
SHEET NO. 24 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	55
CONTRACT NO. 74236					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* - Bend or cut in the field.



ELEVATION
(Looking South)



ANCHOR BOLT LAYOUT DETAIL
(Typical all bearings)

**ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h ₁ (E)	10	#5	7'-7"	└
h ₂ (E)	10	#5	6'-6"	└
h ₃ (E)	11	#4	11'-3"	└
h ₄ (E)	7	#4	11'-3"	└
h ₈ (E)	6	#5	26'-0"	└
h ₉ (E)	6	#5	21'-0"	└
h ₁₀ (E)	5	#6	26'-0"	└
h ₁₁ (E)	5	#6	21'-0"	└
n(E)	18	#6	11'-0"	└
n ₁ (E)	12	#6	5'-6"	└
p(E)	10	#7	26'-4"	└
p ₁ (E)	10	#7	24'-0"	└
p ₂ (E)	12	#7	12'-11"	└
s ₂ (E)	42	#4	15'-11"	└
s ₃ (E)	18	#4	9'-5"	└
u(E)	4	#6	10'-0"	└
u ₁ (E)	4	#6	8'-6"	└
v(E)	47	#5	2'-6"	└
v ₁ (E)	47	#4	3'-0"	└
v ₂ (E)	24	#6	7'-0"	└
v ₃ (E)	6	#6	6'-9"	└
v ₄ (E)	18	#6	7'-0"	└
v ₅ (E)	47	#4	4'-0"	└
v ₆ (E)	47	#4	5'-3"	└
Structure Excavation		Cu. Yd.	125.0	
Concrete Structures		Cu. Yd.	54.0	
Reinforcement Bars, Epoxy Coated		Pound	4,360	
Furnishing Steel Piles, HP 10x42		Foot	812	
Driving Piles		Foot	812	
Test Pile, Steel HP 10x42		Each	1	
Concrete Encasement		Cu. Yd.	4.6	
Concrete Sealer		Sq. Ft.	550	
Bar Splicers		Each	68	
Stud Shear Connectors		Each	120	

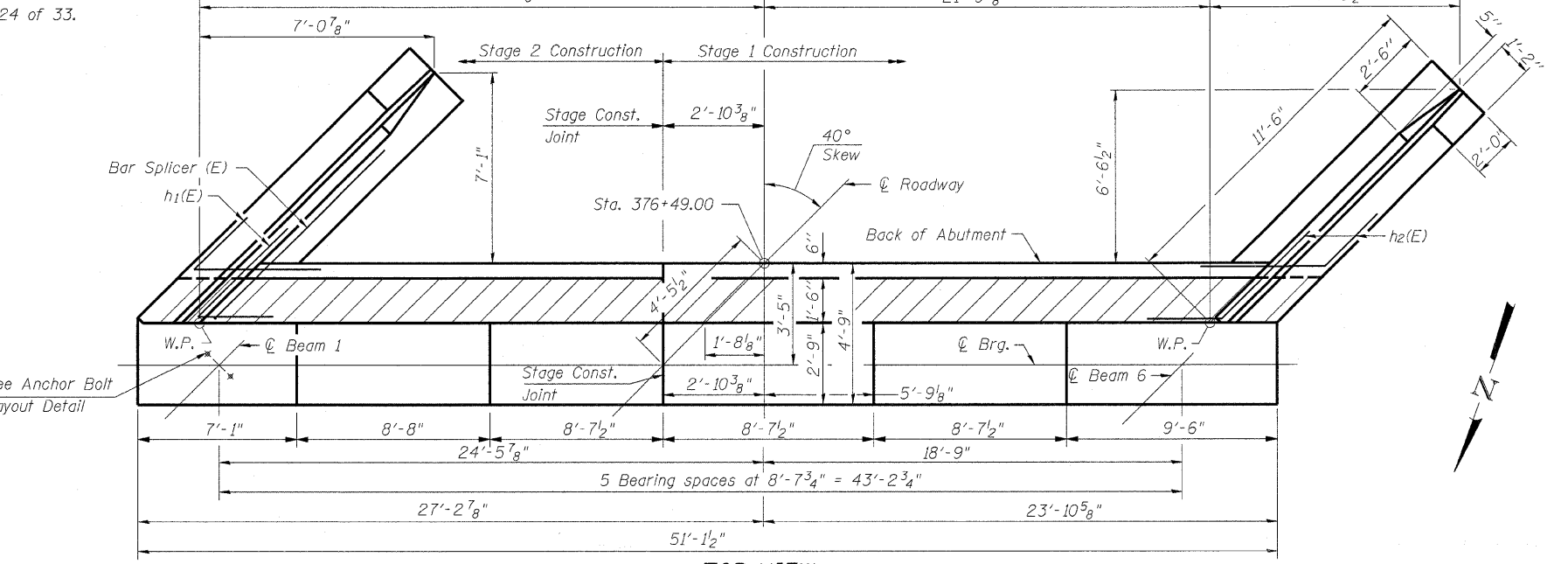
For details of Bar Splicers, see sheet 30 of 33.
For details of piles and Concrete Encasement, see sheet 29 of 33.

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

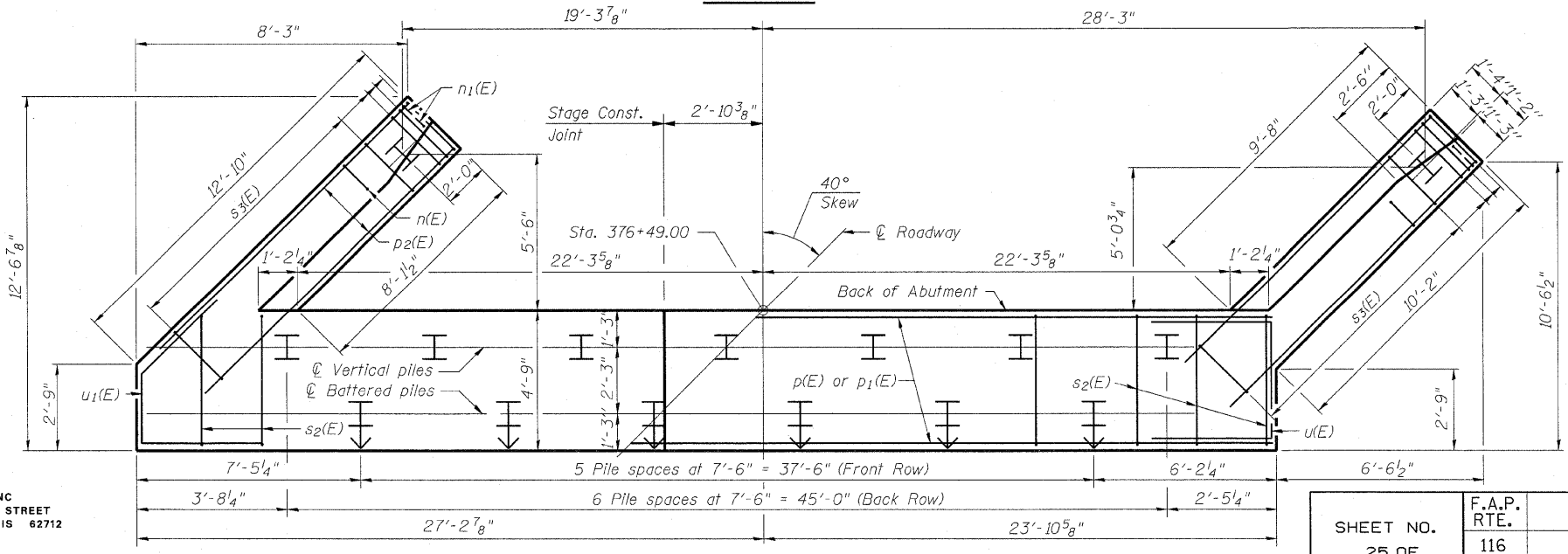
MIN. BAR LAP

- #5 3'-0"
- #6 3'-7"

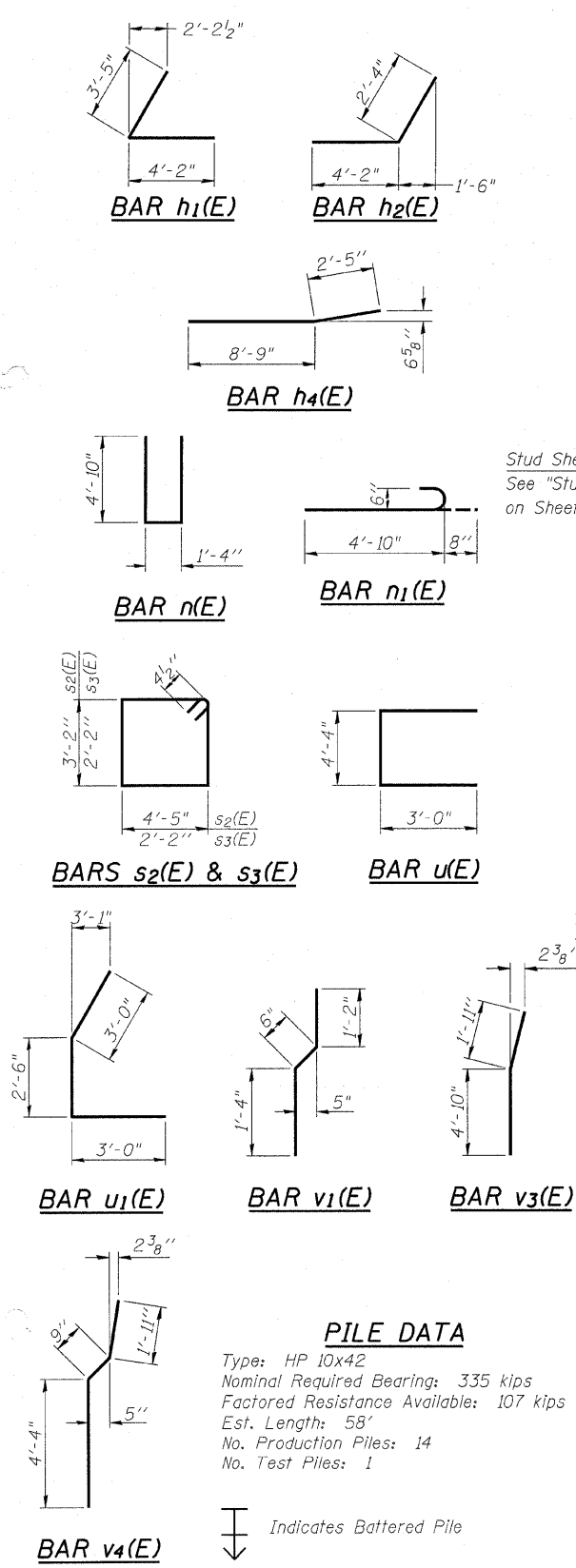
**SOUTH ABUTMENT
S.N. 018-0064**



TOP VIEW



FOOTING PLAN



PILE DATA

Type: HP 10x42
Nominal Required Bearing: 335 kips
Factored Resistance Available: 107 kips
Est. Length: 58'
No. Production Piles: 14
No. Test Piles: 1

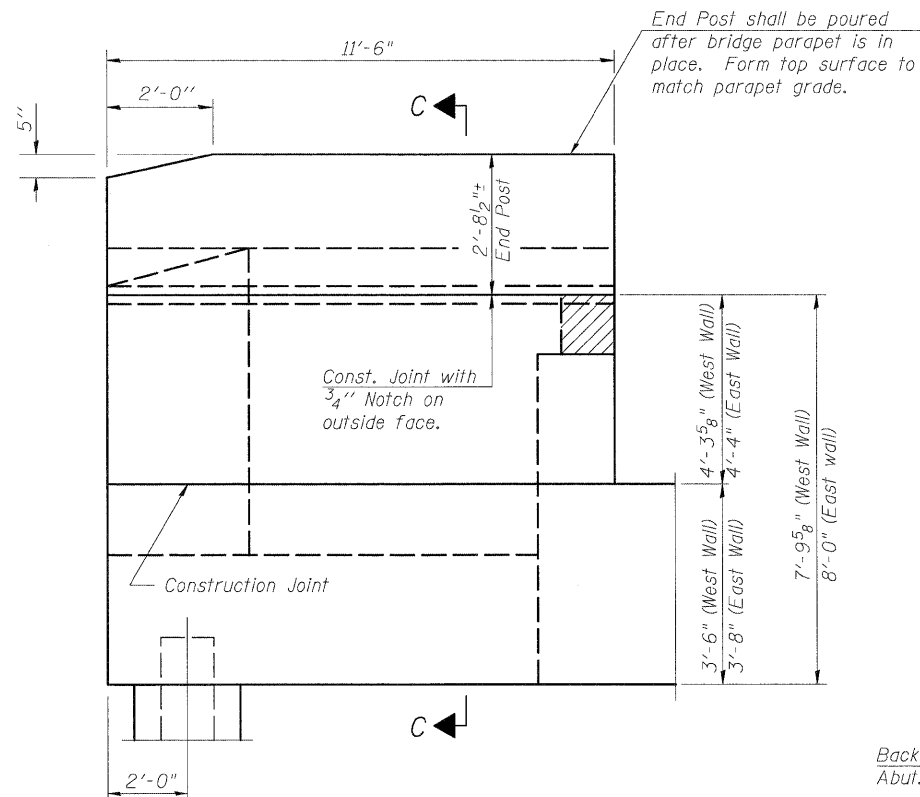
Indicates Battered Pile

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

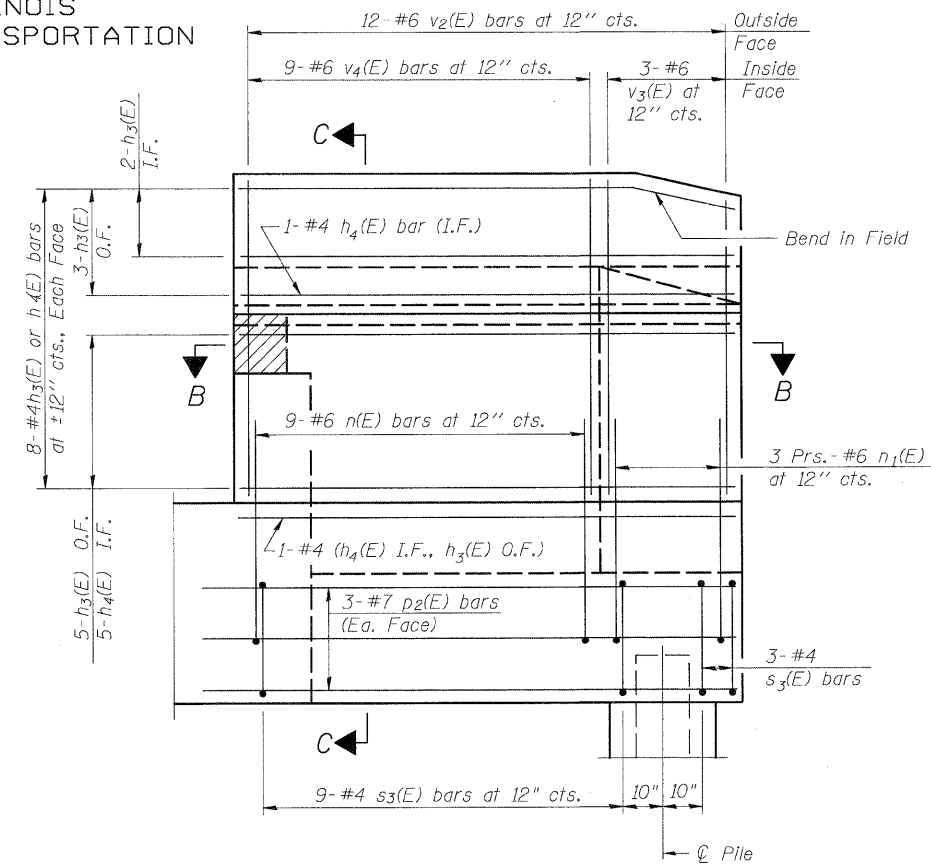
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SHEET NO. 25 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	56
CONTRACT NO. 74236			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

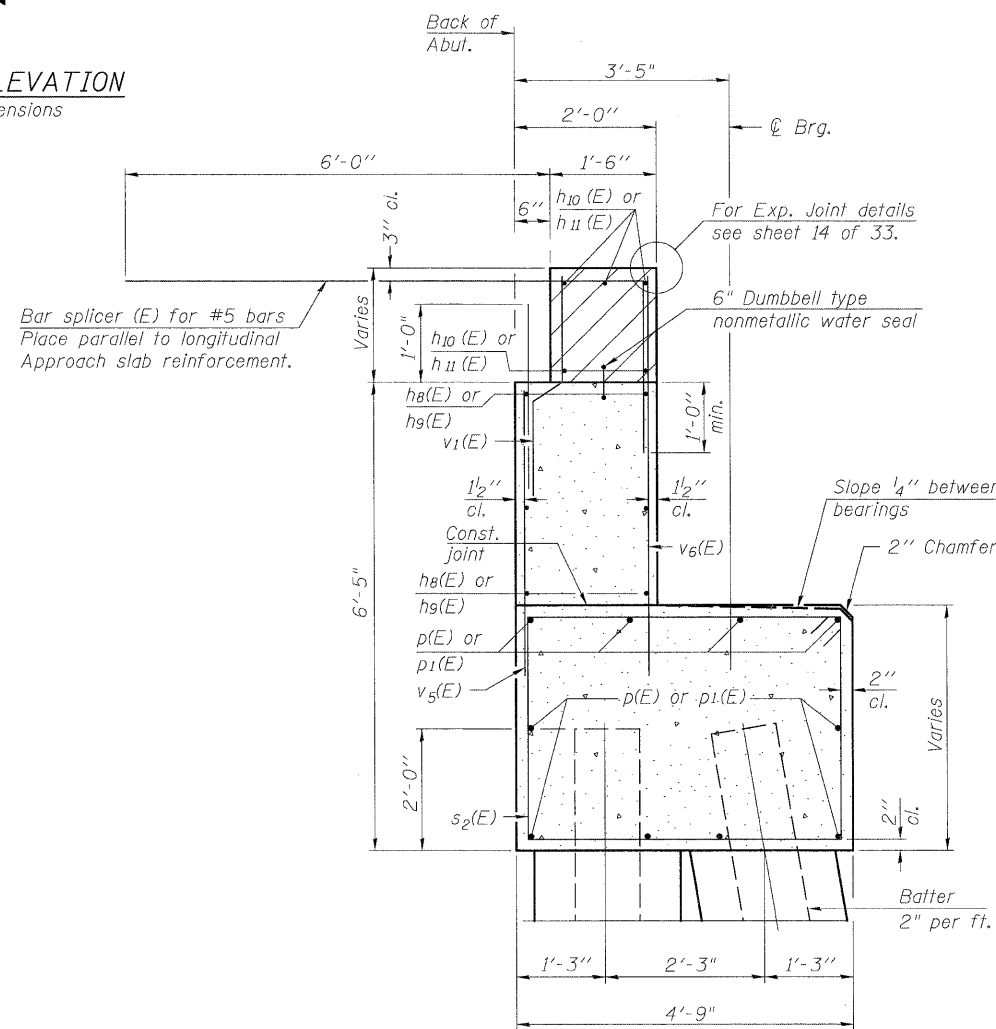
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



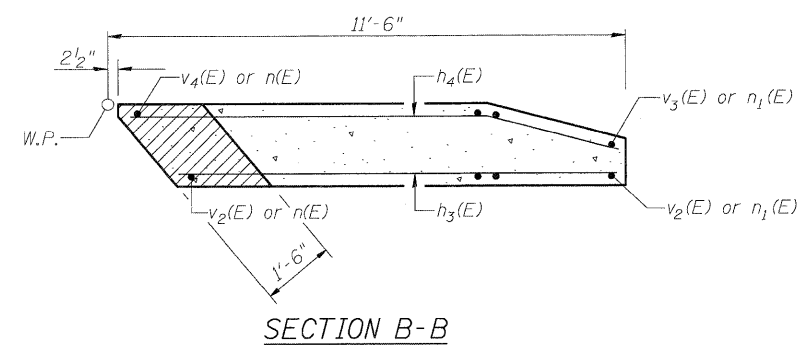
WING WALL ELEVATION
Showing Dimensions



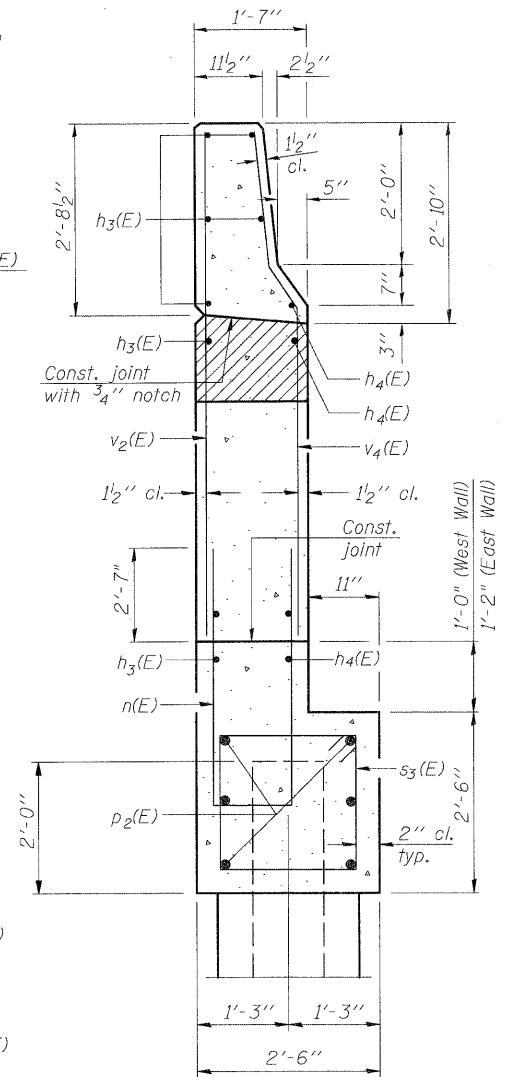
WING WALL ELEVATION
Showing Reinforcement



SEC. THRU ABUT.



SECTION B-B



SECTION C-C

Notes:
Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
Quantity of concrete in end post included with Concrete Superstructure on sheet 12 of 33.
For Concrete Encasement details, see sheet 29 of 33.

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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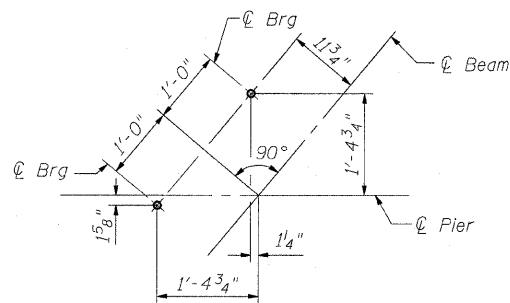
A-1-D

10-1-08

SOUTH ABUTMENT DETAILS
S.N. 018-0064

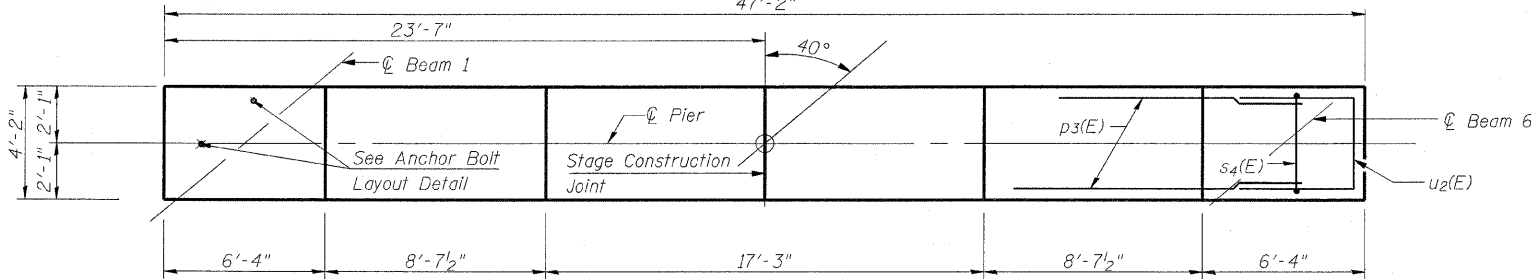
SHEET NO. 26 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR)B	CUMBERLAND	72	57
CONTRACT NO. 74236					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
47'-2"

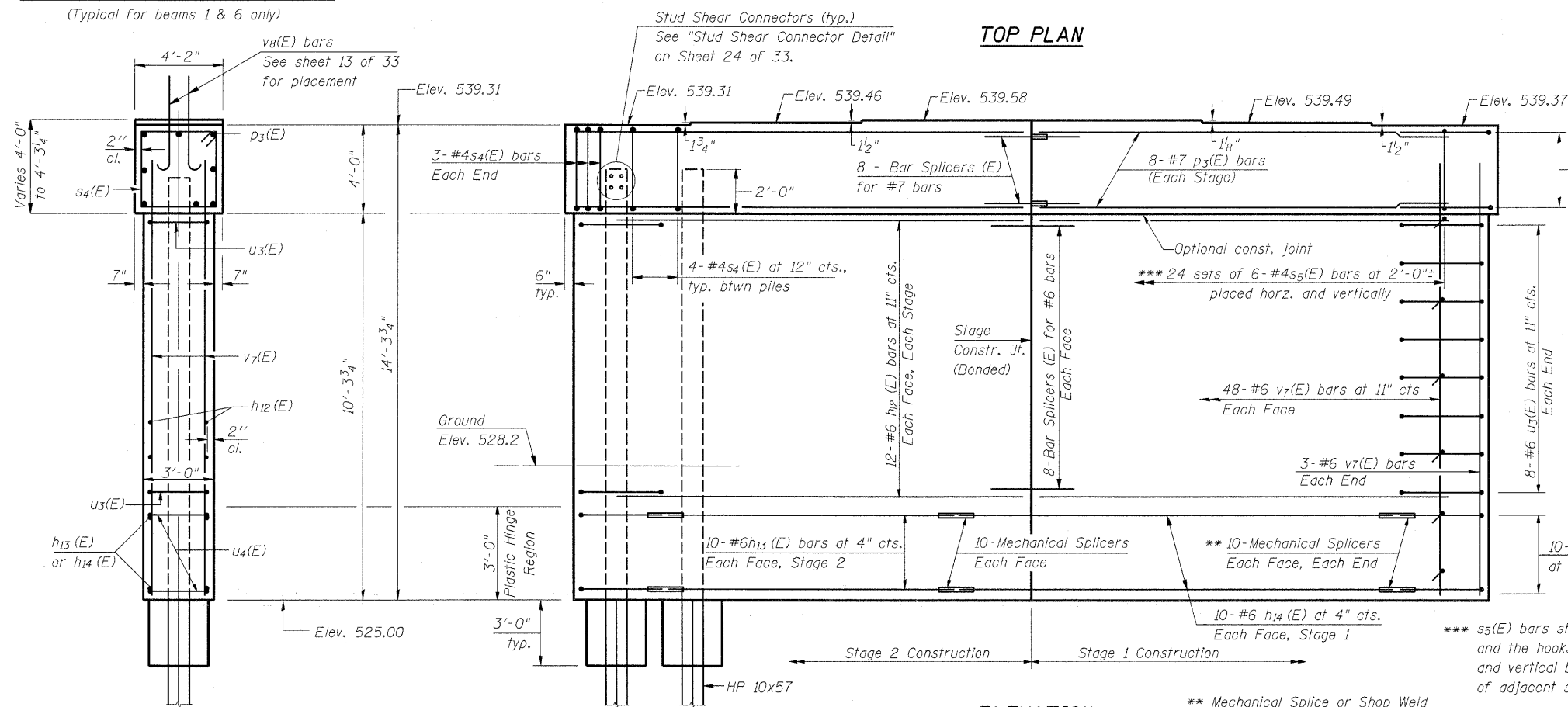


ANCHOR BOLT LAYOUT DETAIL

(Typical for beams 1 & 6 only)



TOP PLAN

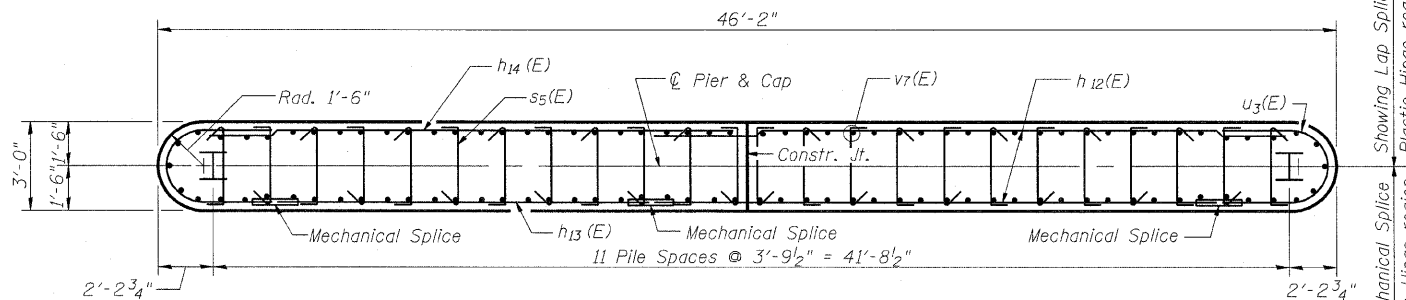


ELEVATION
(Looking South)

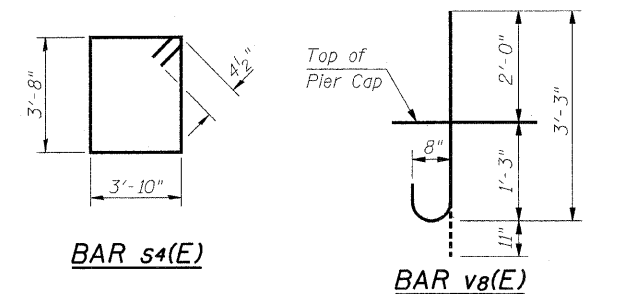
END VIEW

PILE DATA

Type: HP 10x57
Nominal Required Bearing: 454 kips
Factored Resistance Available: 203 kips
Est. Length: 58'
No. Production Piles: 11
No. Test Piles: 1

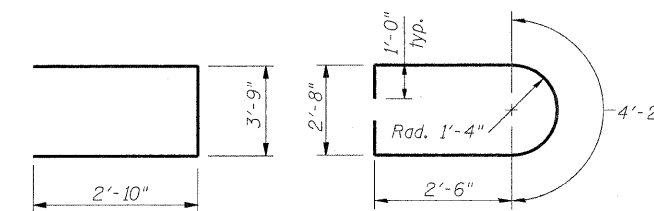


FOOTING PLAN



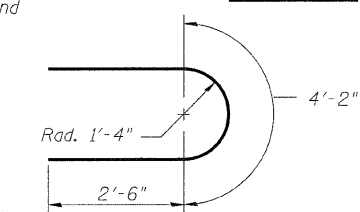
BAR s4(E)

BAR v8(E)

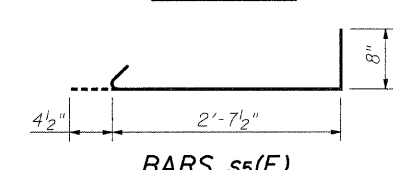


BAR u2(E)

BARS u3(E)



BARS u4(E)



BARS s5(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h12(E)	32	#6	21'-6"	—
h13(E)	20	#6	16'-6"	—
h14(E)	20	#6	24'-0"	—
p3(E)	16	#7	23'-3"	—
s4(E)	50	#4	15'-9"	□
s5(E)	144	#4	3'-8"	┌
u2(E)	6	#6	9'-5"	U
u3(E)	16	#6	11'-2"	U
u4(E)	20	#6	9'-2"	U
v7(E)	96	#6	13'-0"	—
v8(E)	30	#8	4'-2"	—
Structure Excavation		Cu. Yd.	42.0	
Concrete Structures		Cu. Yd.	82.5	
Reinforcement Bars, Epoxy Coated		Pound	6,730	
Furnishing Steel Piles, HP 10x57		Foot	638	
Driving Piles		Foot	638	
Test Pile, Steel HP10x57		Each	1	
Concrete Encasement		Cu. Yd.	4.2	
Underwater Structure Excavation Protection Location 1		Each	1	
Mechanical Splice		Each	60	
Bar Splicers		Each	24	
Stud Shear Connectors		Each	96	

*** s5(E) bars shall be located at bar grid intersections, and the hooks of all ties shall enclose both horizontal and vertical bars at the intersections. The 90° hooks of adjacent s5(E) bars shall be alternated end-for-end.

** Mechanical Splice or Shop Weld Splice per AWS D1.4.

Min. Bar Lap
#6 2'-7"

Notes:

Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 29 of 33
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

PIER 1 DETAILS
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

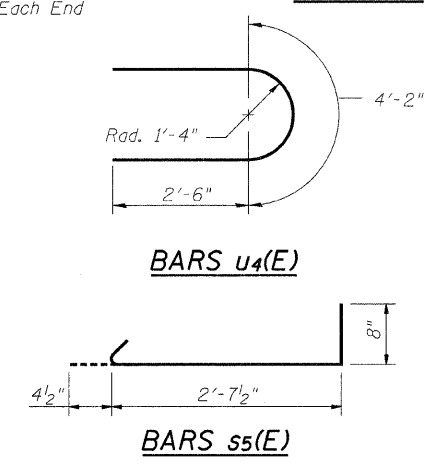
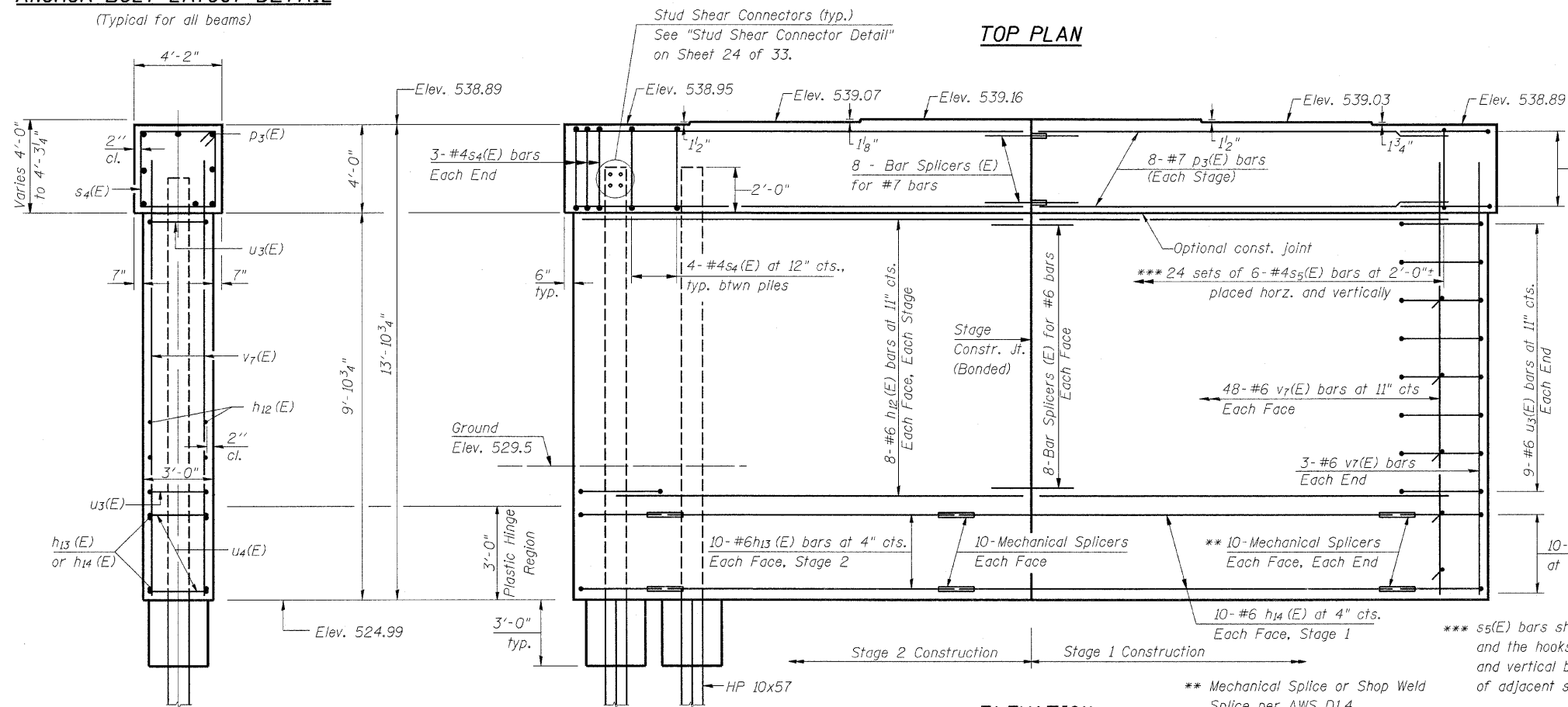
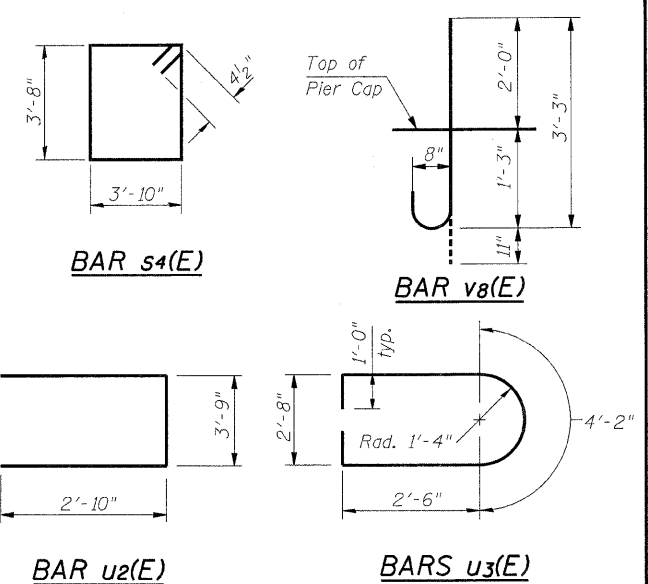
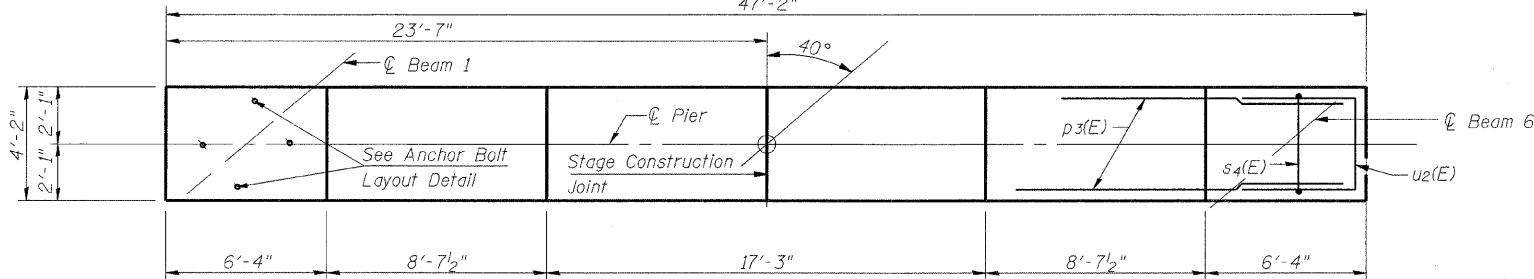
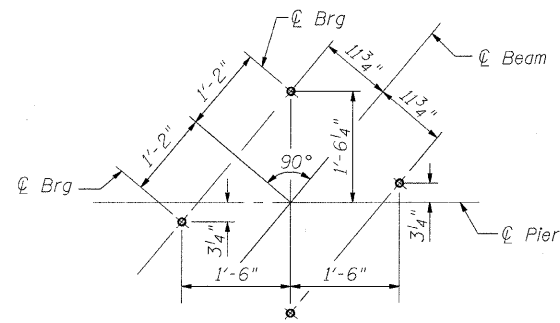
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PC-1

10-1-08

SHEET NO. 27 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	58
FED. ROAD DIST. NO. _ ILLINOIS			FED. AID PROJECT		
CONTRACT NO. 74236					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
47'-2"



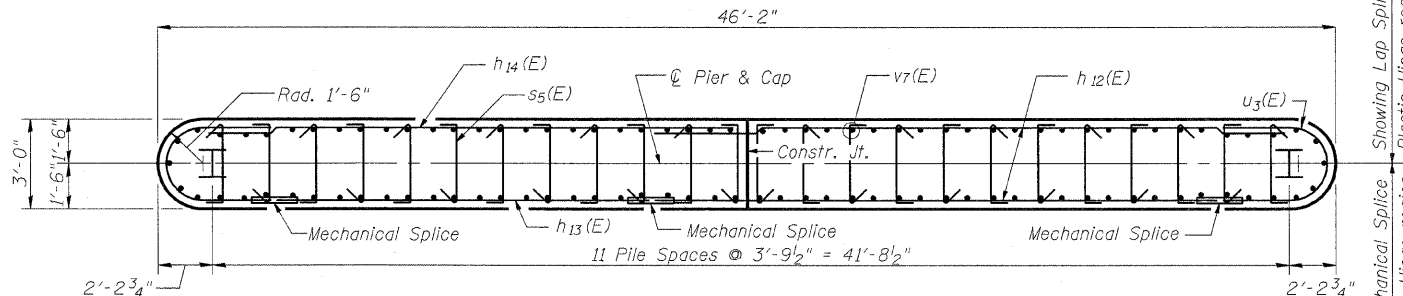
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h ₁₂ (E)	32	#6	21'-6"	—
h ₁₃ (E)	20	#6	16'-6"	—
h ₁₀ (E)	20	#6	24'-0"	—
p ₃ (E)	16	#7	23'-3"	—
s ₄ (E)	50	#4	15'-9"	□
s ₅ (E)	144	#4	3'-8"	┌
u ₂ (E)	6	#6	9'-5"	U
u ₃ (E)	16	#6	11'-2"	U
u ₄ (E)	20	#6	9'-2"	U
v ₇ (E)	96	#6	13'-0"	—
v ₈ (E)	30	#8	4'-2"	—
Structure Excavation		Cu. Yd.	59.0	
Concrete Structures		Cu. Yd.	80.3	
Reinforcement Bars, Epoxy Coated		Pound	6,730	
Furnishing Steel Piles, HP 10x57		Foot	638	
Driving Piles		Foot	638	
Test Pile, Steel HP10x57		Each	1	
Concrete Encasement Underwater Structure		Cu. Yd.	4.2	
Excavation Protection Location 2		Each	1	
Mechanical Splice		Each	60	
Bar Splicers		Each	24	
Stud Shear Connectors		Each	96	

END VIEW

PILE DATA

Type: HP 10x57
Nominal Required Bearing: 454 kips
Factored Resistance Available: 185 kips
Est. Length: 58'
No. Production Piles: 11
No. Test Piles: 1



Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 29 of 33
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

Min. Bar Lap
#6 2'-7"

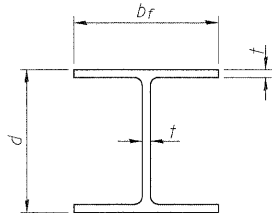
PIER 2 DETAILS
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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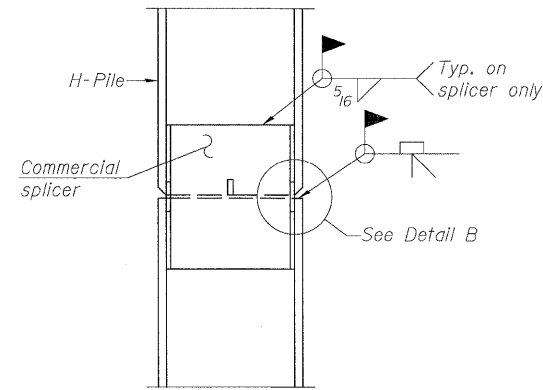
SHEET NO. 28 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	59
CONTRACT NO. 74236			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

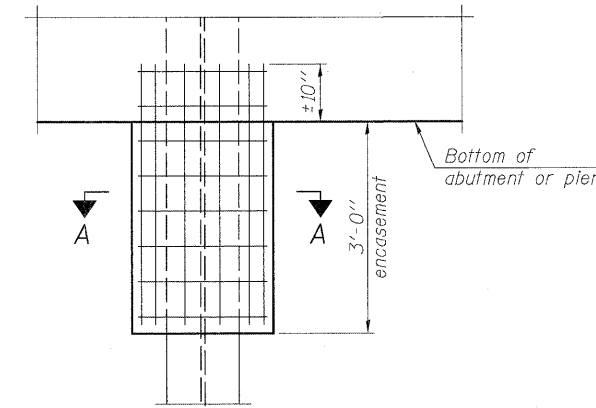


STEEL PILE TABLE

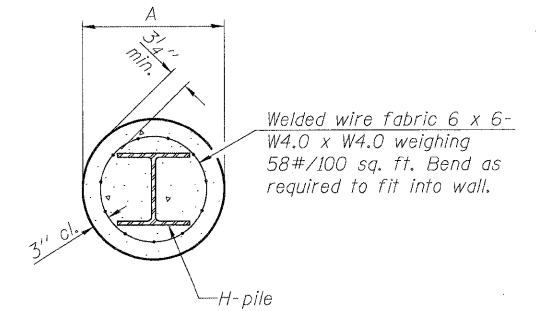
Designation	Depth d	Flange width b _f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	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



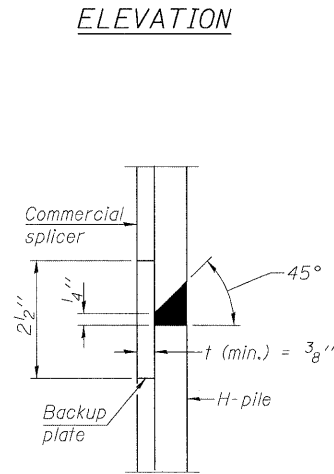
ELEVATION



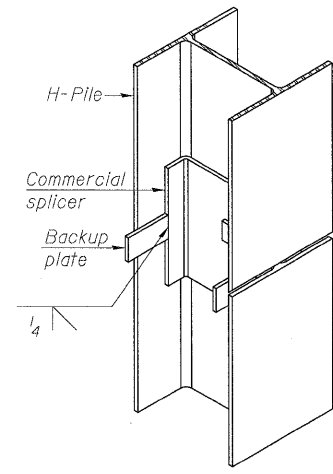
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

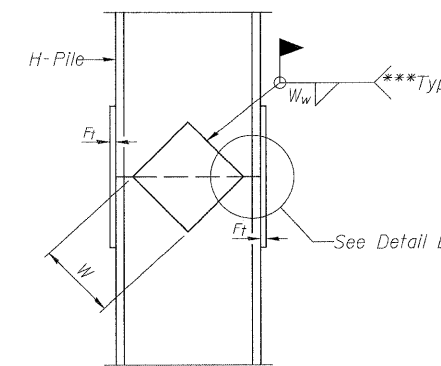
PILE ENCASEMENT



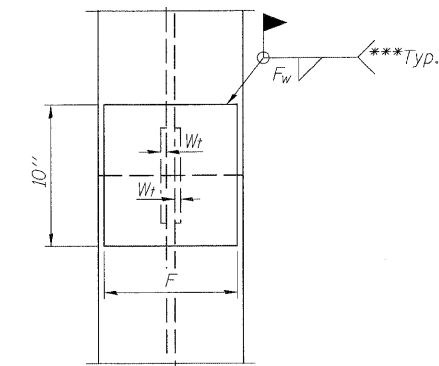
DETAIL "B"



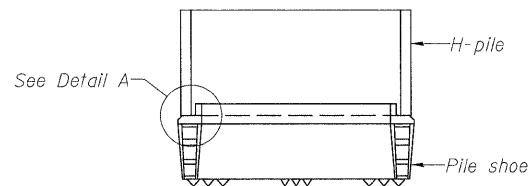
ISOMETRIC VIEW



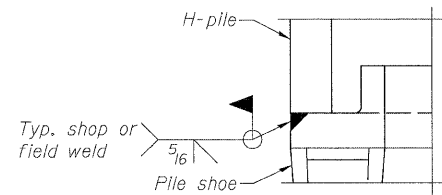
ELEVATION



END VIEW

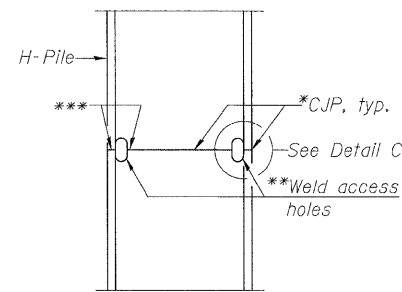


ELEVATION

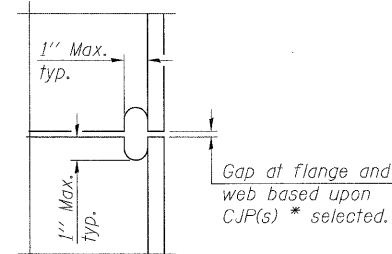


DETAIL A

H-PILE SHOE ATTACHMENT

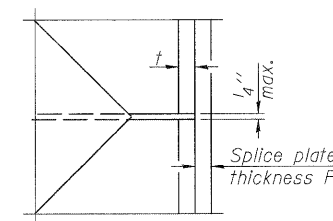


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



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 8/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 8/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 8/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 8/8"	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"

HP PILE DETAILS
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD



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F-HP

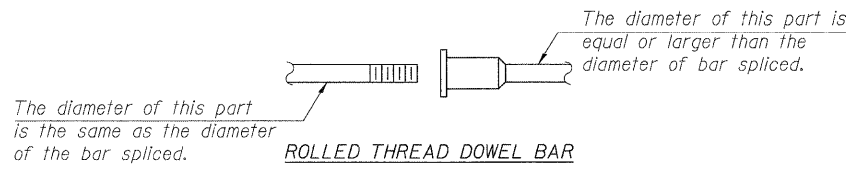
10-1-08

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

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

SHEET NO. 29 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR)B	CUMBERLAND	72	60
CONTRACT NO. 74236					
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ROLLED THREAD DOWEL BAR



** ONE PIECE

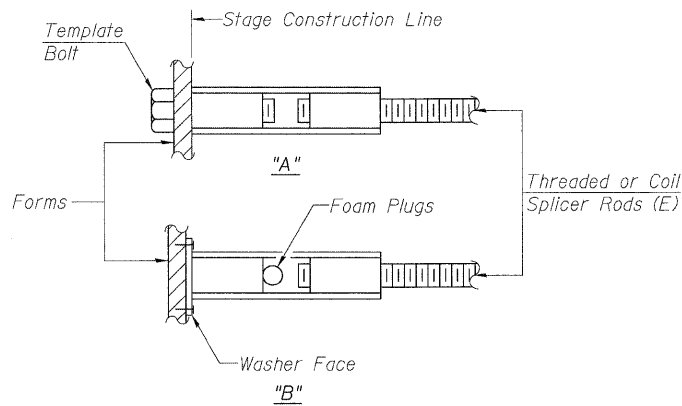
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

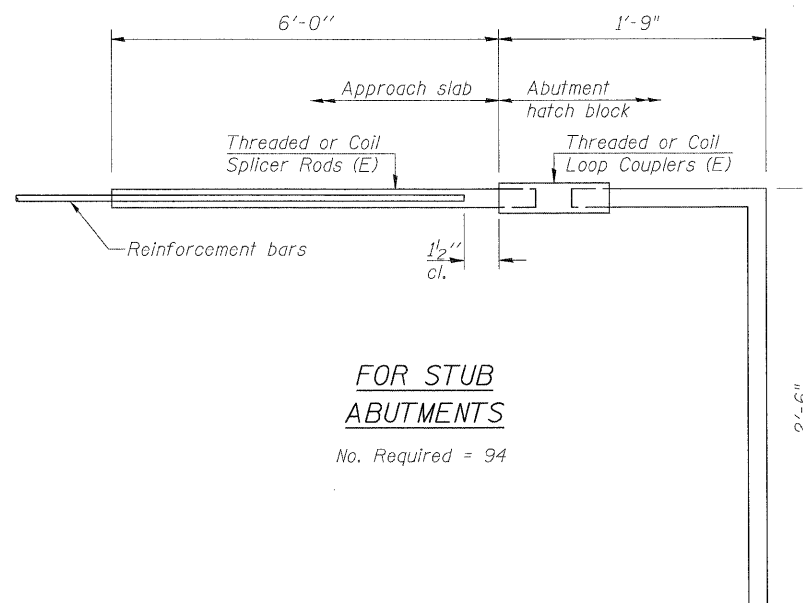
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

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

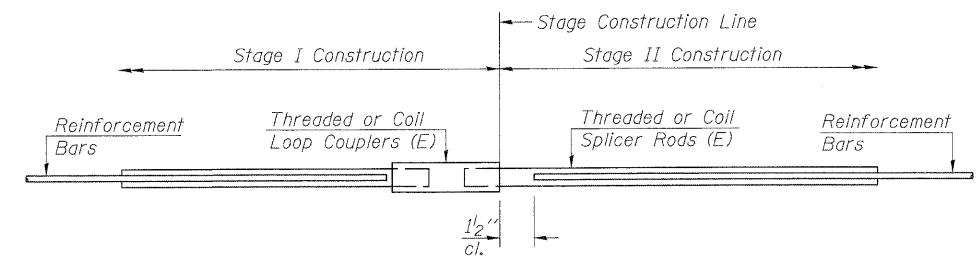
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



FOR STUB ABUTMENTS

No. Required = 94



STANDARD

Bar Size	No. Assemblies Required	Location
#4	50	Appr. Slab
#5	172	Appr. Slab
#5	6	N. Abut.
#6	5	N. Abut.
#7	10	N. Abut.
#6	16	Pier 1
#7	8	Pier 1
#6	16	Pier 2
#7	8	Pier 2

Bar Size	No. Assemblies Required	Location
#5	6	S. Abut.
#6	5	S. Abut.
#7	10	S. Abut.
#4	8	Deck
#5	607	Deck
#6	14	Deck
Total	941	

BAR SPLICER ASSEMBLY DETAILS
S.N. 018-0064

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD



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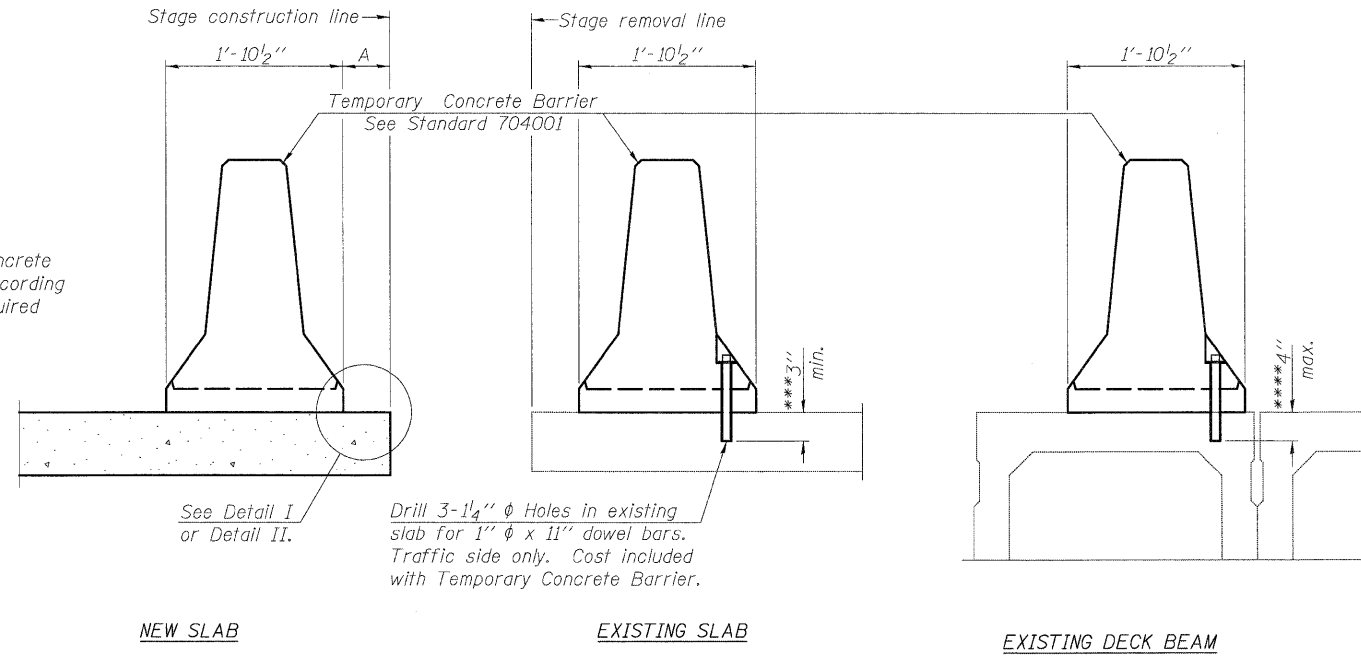
BSD-1

10-1-08

SHEET NO. 30 OF 33 SHEETS	F.A.P. RTE. 116	SECTION (112BR1)B	COUNTY CUMBERLAND	TOTAL SHEETS 72	SHEET NO. 61
	CONTRACT NO. 74236				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

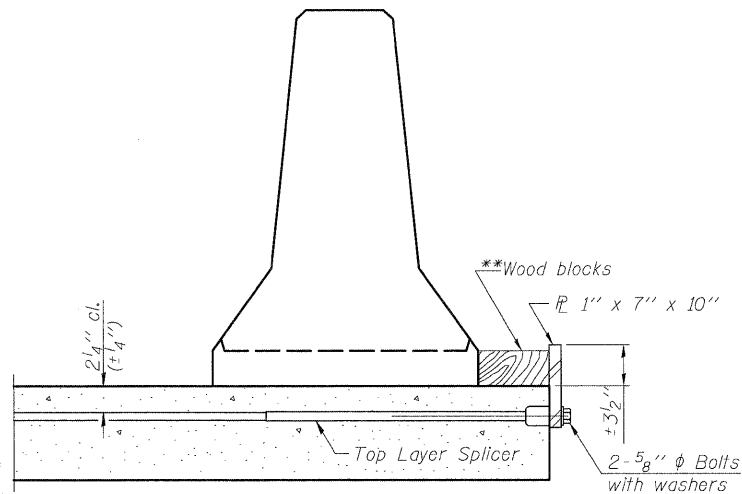
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

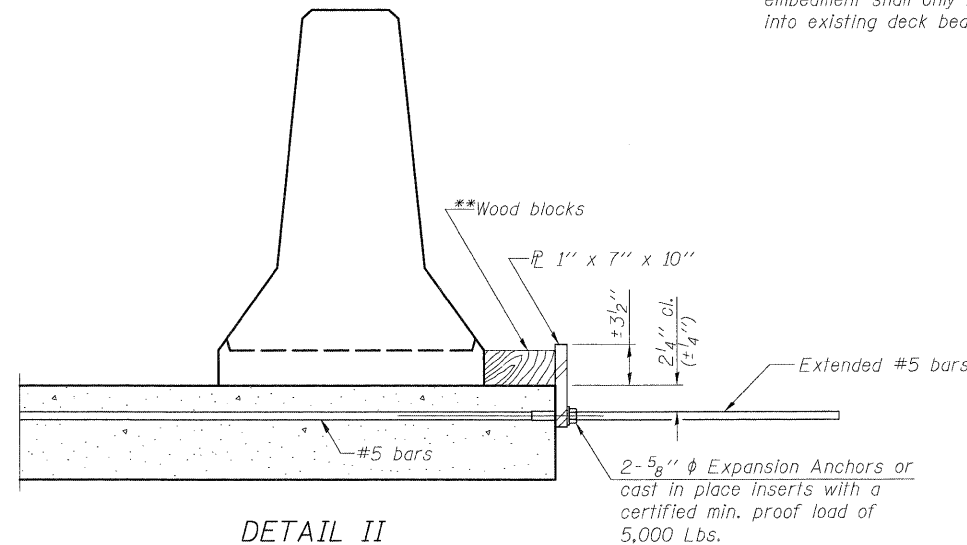
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

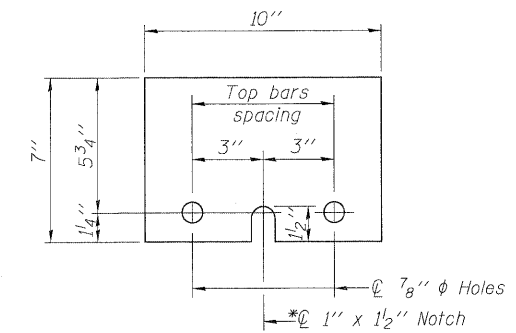
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



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

* Required only with Detail II

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

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
S.N. 018-0064**

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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R-27

10-1-08

SHEET NO. 31 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	62
FED. ROAD DIST. NO. _ ILLINOIS			FED. AID PROJECT		
				CONTRACT NO. 74236	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 5

Date 9/17/08

ROUTE FAP 116 (IL 130) DESCRIPTION Lost Creek LOGGED BY E. Sandschafer

SECTION (112BR1)B LOCATION SE 1/4, SEC. 25, TWP. 10 N, RNG. 9 E, 3 PM

COUNTY Cumberland DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	DEPTH H	BULGE B	SHEAR S	PENETROMETER P	UCS (tsf)	MODE	Description	Elevation (ft)	DEPTH H	BULGE B	SHEAR S	PENETROMETER P	UCS (tsf)	MODE
018-0059 375+54							Surface Water Elev. 526.54 ft Stream Bed Elev. 523.81 ft							
							Groundwater Elev.: First Encounter 506.2 ft Upon Completion 522.2 ft After 216 Hrs. 526.5 ft							
13.5" asphalt pavement							Very soft, damp, gray, sticky, SILTY LOAM. (continued)	539.56		1	0.2		34	B
Stiff, damp, red/brown/gray, CLAY.							Very soft, very damp, gray, SILT.	518.66		0	0.1		42	B
							Shelby Tube	516.16						
Tan, fluffy, fine grained, SAND.								534.86		4	1.1		16	B
Medium to very soft, very damp, brown, SANDY LOAM.							Shelby Tube	533.66		2	0.1		12	S
							Shelby Tube			3				
							Shelby Tube			1	0.8		18	BS
							Shelby Tube			1	0.1		18	B
							Shelby Tube			0	0.1		24	B
							Shelby Tube			0				
Soft, very damp, dark gray, SILTY LOAM.								523.66		0				
Gray, SANDY LOAM.								522.66		2	0.3		38	B
Gray, SILTY CLAY.								522.36		3				
								521.16		0				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 5

Date 9/17/08

ROUTE FAP 116 (IL 130) DESCRIPTION Lost Creek LOGGED BY E. Sandschafer

SECTION (112BR1)B LOCATION SE 1/4, SEC. 25, TWP. 10 N, RNG. 9 E, 3 PM

COUNTY Cumberland DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	DEPTH H	BULGE B	SHEAR S	PENETROMETER P	UCS (tsf)	MODE	Description	Elevation (ft)	DEPTH H	BULGE B	SHEAR S	PENETROMETER P	UCS (tsf)	MODE
018-0059 375+54							Surface Water Elev. 526.54 ft Stream Bed Elev. 523.81 ft							
							Groundwater Elev.: First Encounter 506.2 ft Upon Completion 522.2 ft After 216 Hrs. 526.5 ft							
Shelby Tube (continued)								498.16						
Shelby Tube								496.16		13			8	
Very dense, very damp, gray, gravelly, LOAM.								485.36		35	50/4"			
Very stiff, damp, blue/gray, SANDY CLAY SHALE.								491.16		3			11	S
								485.36		17	2.9		9	S
Borehole continued with rock coring.								501.16		50	50/2"			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



ROCK CORE LOG

Page 4 of 5

Date 9/17/08

ROUTE FAP 116 (IL 130) DESCRIPTION Lost Creek LOGGED BY E. Sandschafer

SECTION (112BR1)B LOCATION SE 1/4, SEC. 25, TWP. 10 N, RNG. 9 E, 3 PM

COUNTY Cumberland CORING METHOD Rotary, surf set diamond bit

STRUCT. NO. Station	CORING METHOD	CORING BARREL TYPE & SIZE	DEPTH H	RECOVERY R	CORRECTION C	CORE D	STRENGTH T	REMARKS
018-0059 375+54		NW, corv dbl bbl, split inner						Gray, moderate to severe weathering, SILTY CLAY SHALE w/ estimated limestone fragments. Rock core B1C1 from 55.6' to 56.1' depth Qu = 6.3 tsf.
								Moderately weathered, SANDY CLAY SHALE. Rock core B1C2 from 60.8' to 61.3' depth Qu = 44.8 tsf.
								Gray, hard, Estimated LIMESTONE. Rock core B1C3 from 62.4' to 62.9' depth Qu = 5.8 tsf.
								Gray, moderately weathered, SANDY CLAY SHALE.

Color pictures of the cores Available on request
Cores will be stored for examination until 09/17/09
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

DESIGNED	SCD
CHECKED	DRB
DRAWN	THW
CHECKED	SCD

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SOIL BORINGS
S.N. 018-0064

SHEET NO. 32 OF 33 SHEETS	F.A.P. RTE. 116	SECTION (112BR1)B	COUNTY CUMBERLAND	TOTAL SHEETS 72	SHEET NO. 63
CONTRACT NO. 74236					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 2

Date 9/16/08

ROUTE FAP 116 (IL 130) DESCRIPTION Lost Creek LOGGED BY E. Sandschafer

SECTION (112BR1)B LOCATION SE 1/4, SEC. 25, TWP. 10 N, RNG. 9 E, 3 PM

COUNTY Cumberland DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)	Description	DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)	Surface Water Elev.	
											First Encounter	Upon Completion
018-0059 375+54	2 376+66 10.00ft Rt 540.63					13" asphalt pavement.						526.54 ft
		539.53				Medium to stiff, damp, brown, CLAY.					523.81 ft	
			3	1.0	10							
			6	B								
		536.13				Hard, damp, gray, CLAY LOAM TILL.						
			3	+4.5	7							
			4	PP								
		533.63				Medium, damp, gray w/ red layers, SANDY CLAY.						
			2	0.9	10							
			3	S								
		530.63				Soft to medium, damp, brown, SANDY LOAM.						
			1	0.5	19							
			2	S								
		528.63				Soft, very damp, brown marbled gray, SILTY LOAM.						
			0									
			1	0.3	20							
			1	B								
		526.63				Very soft, very damp, gray, SANDY LOAM.						
			1									
			1	0.1	24							
			1	S								
		523.13				Very soft, very damp, gray, SILTY LOAM.						
			0	0.1	41							
			0	B								
		521.13										
			0									
			0									
		500.63										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 2

Date 9/16/08

ROUTE FAP 116 (IL 130) DESCRIPTION Lost Creek LOGGED BY E. Sandschafer

SECTION (112BR1)B LOCATION SE 1/4, SEC. 25, TWP. 10 N, RNG. 9 E, 3 PM

COUNTY Cumberland DRILLING METHOD Hollow stem auger & split spoon HAMMER TYPE Auto 140#

STRUCT. NO. Station	BORING NO. Station Offset Ground Surface Elev.	DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)	Description	DEPTH (ft)	BLOW (6")	UCS (tsf)	MOIST (%)	Surface Water Elev.	
											First Encounter	Upon Completion
018-0059 375+54	2 376+66 10.00ft Rt 540.63					Stiff, damp, gray, CLAY.						526.54 ft
			5	1.6	21							
			8	B								
						Very dense, moist, dark gray, SANDY CLAY SHALE. (continued)						
						Extent of exploration.						
						Note: Augered additional 3' in rock to depth 63.6'; no change in material.						
						Benchmark: BM 609 chiseled square on SW wingwall of existing structure, Sta 376+50.19' Rt = 540.58' elevation. Provided by Program Development.						
		496.13				Stiff, damp, gray, CLAY TILL.						
			5									
			7	2.6	20							
			12	B								
			14									
			14	1.9	21							
			10	B								
		481.13										
			43									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

SOIL BORINGS
S.N. 018-0064

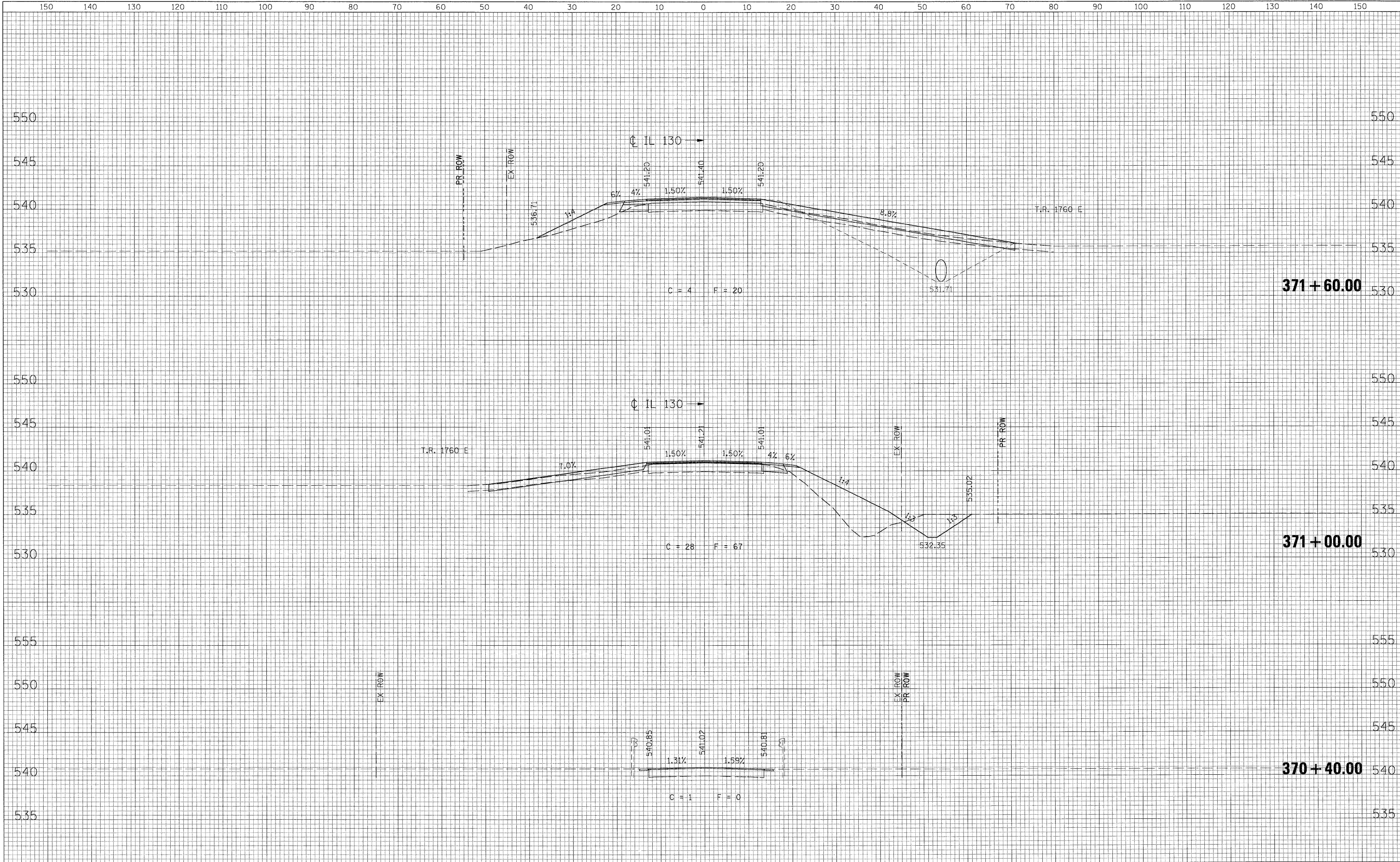
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CHECKED	DRB
DRAWN	THW
CHECKED	SCD

ie CONSULTANTS, INC.
6420 SOUTH SIXTH STREET
SPRINGFIELD, ILLINOIS 62712
TEL. (217) 529-8027
FAX. (217) 529-4543
WWW.IE-CONSULTANTS.COM

SHEET NO. 33 OF 33 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	116	(112BR1)B	CUMBERLAND	72	64
CONTRACT NO. 74236					
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT			

BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 FINAL SURVEY _____
 NOTE BOOK _____
 NO. _____

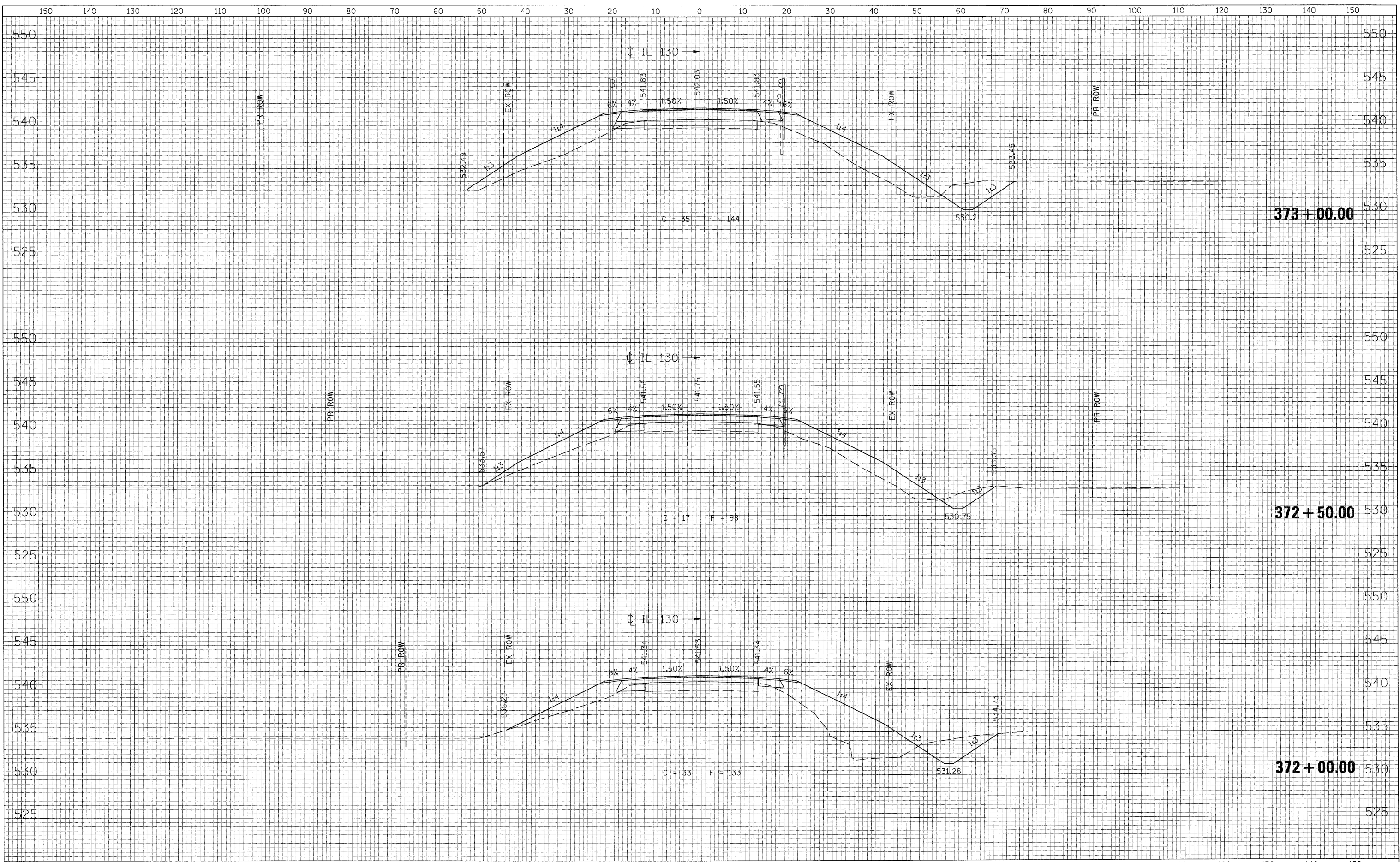
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 NOTE BOOK _____
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 NOTE BOOK NO. AREAS CHECKED

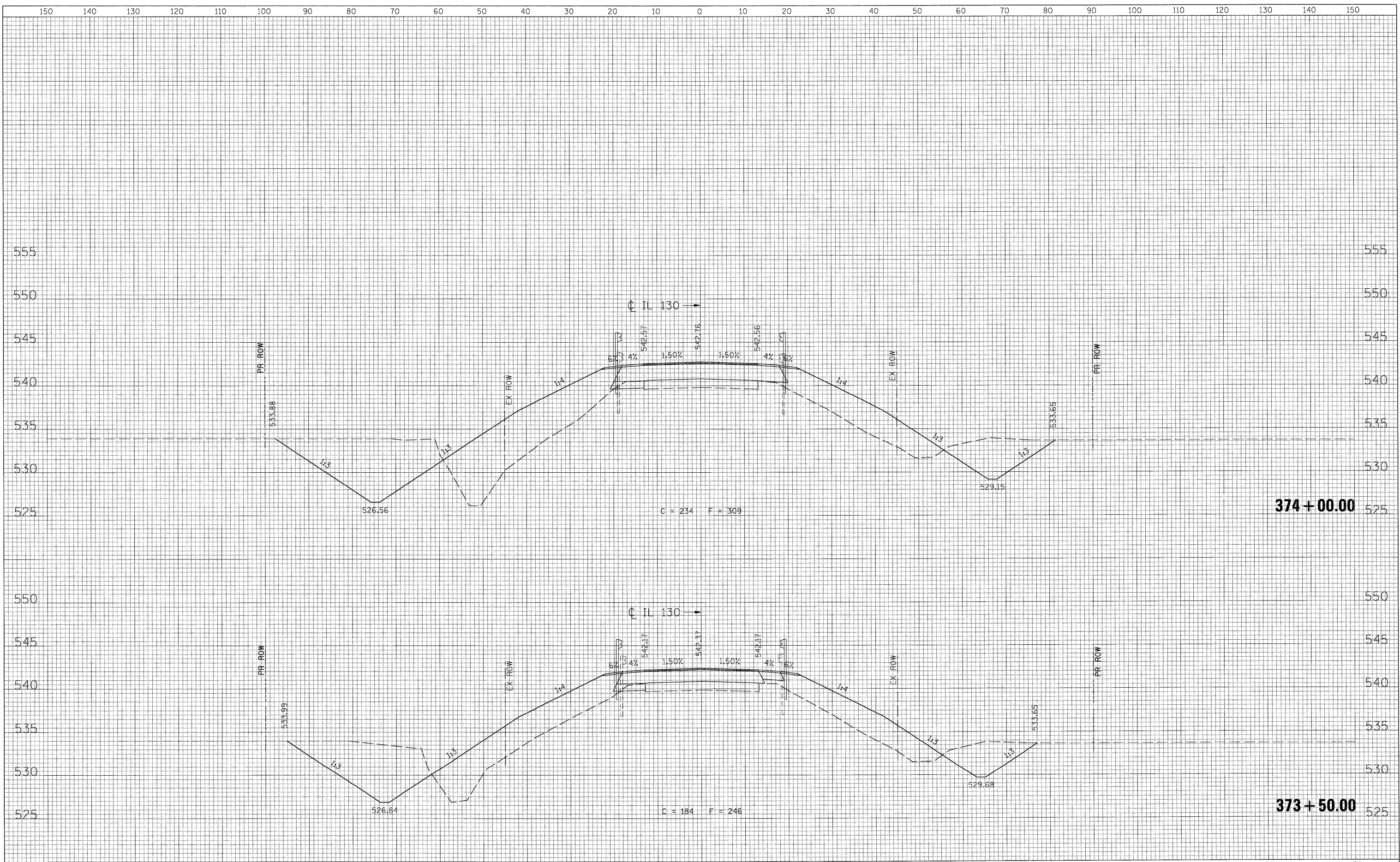
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	PLOT DATE = 8/13/2009	CHECKED -	REVISD -		[ILLINOIS] FED. AID PROJECT							
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 NOTE BOOK _____
 AREAS CHECKED _____
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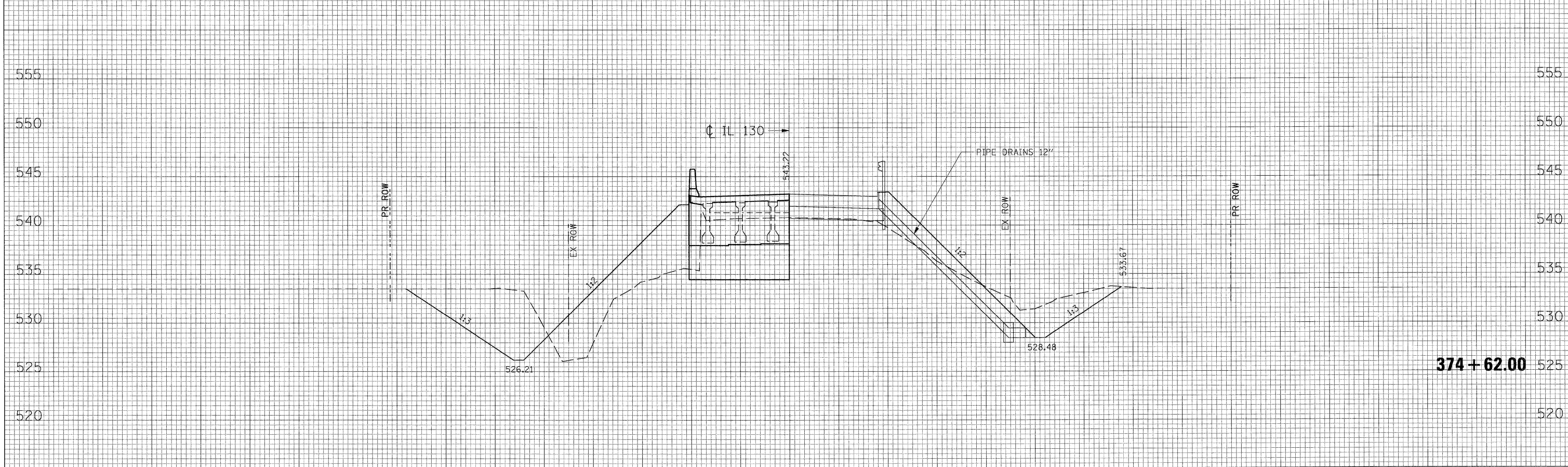
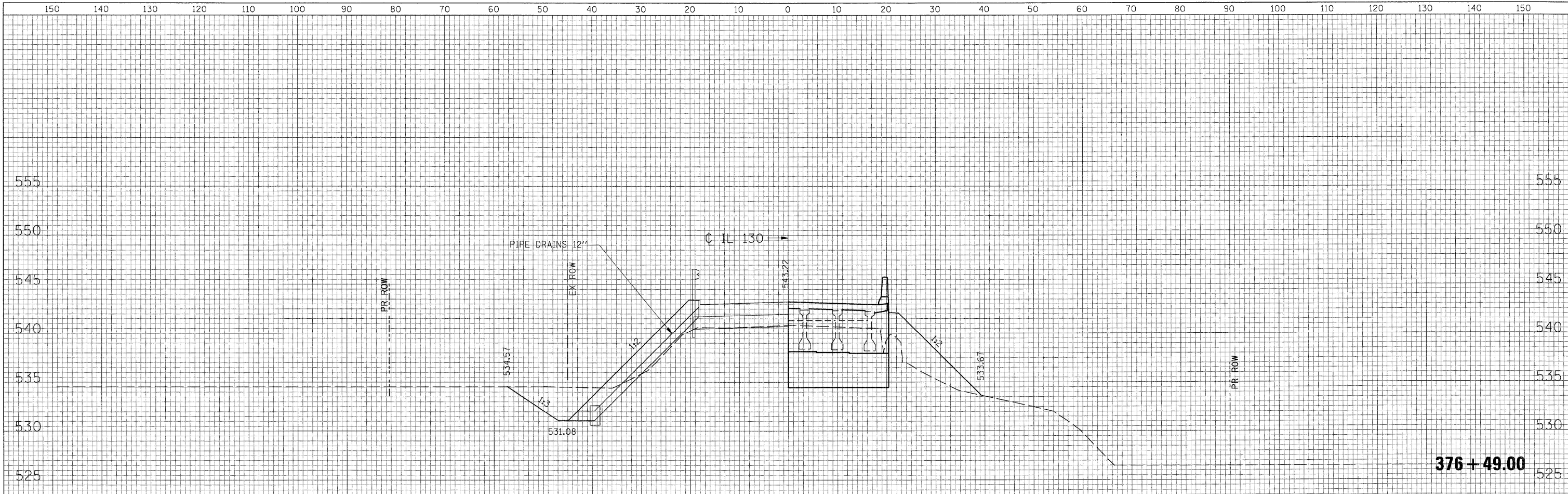
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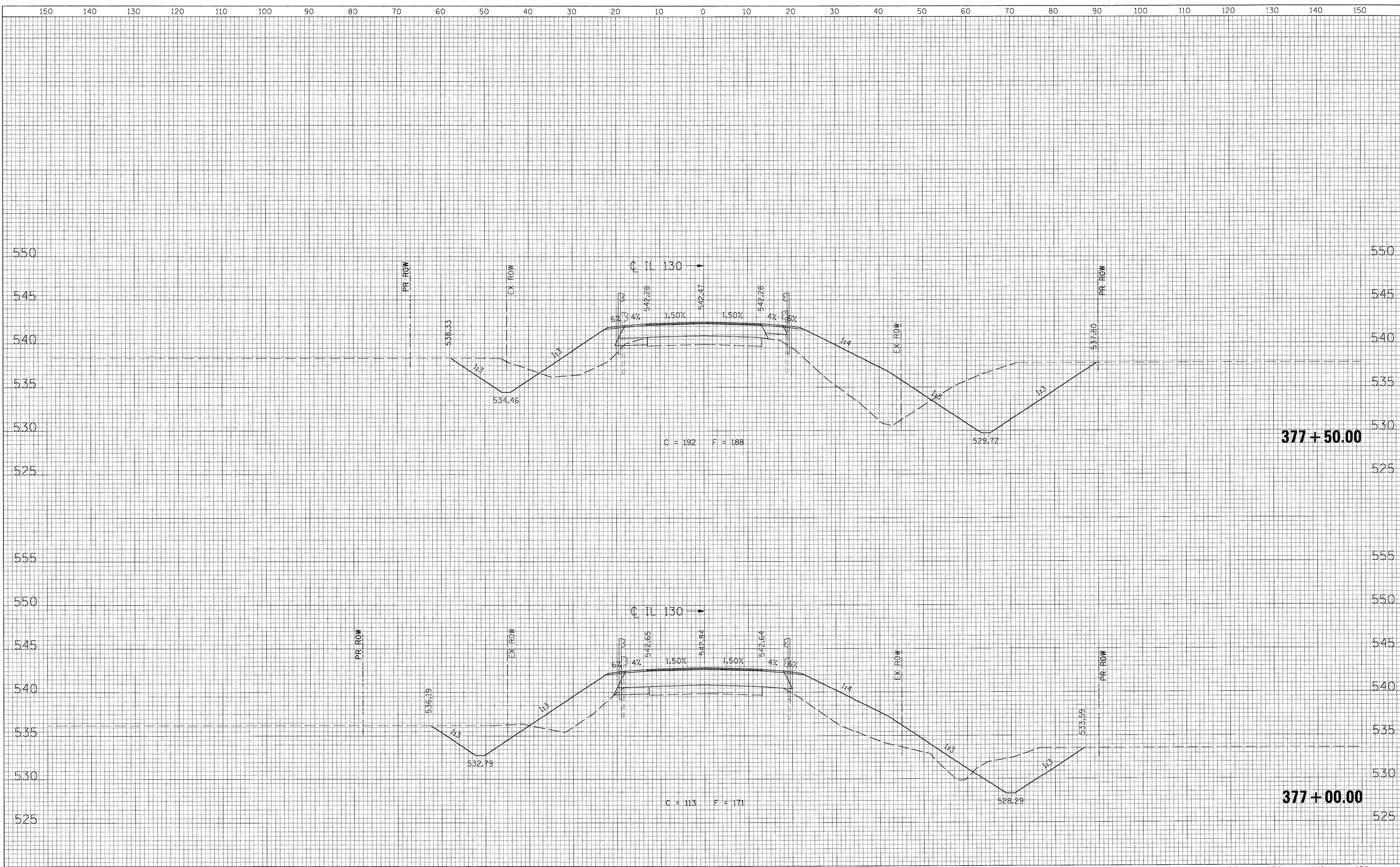
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	PLOT DATE = 8/13/2009	DATE -	REVISED -		[ILLINOIS] FED. AID PROJECT								

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NOTE BOOK		
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ORIGINAL SURVEY	BY	DATE
PLOTTED		
NOTE BOOK		
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		DATE -	REVISED -												

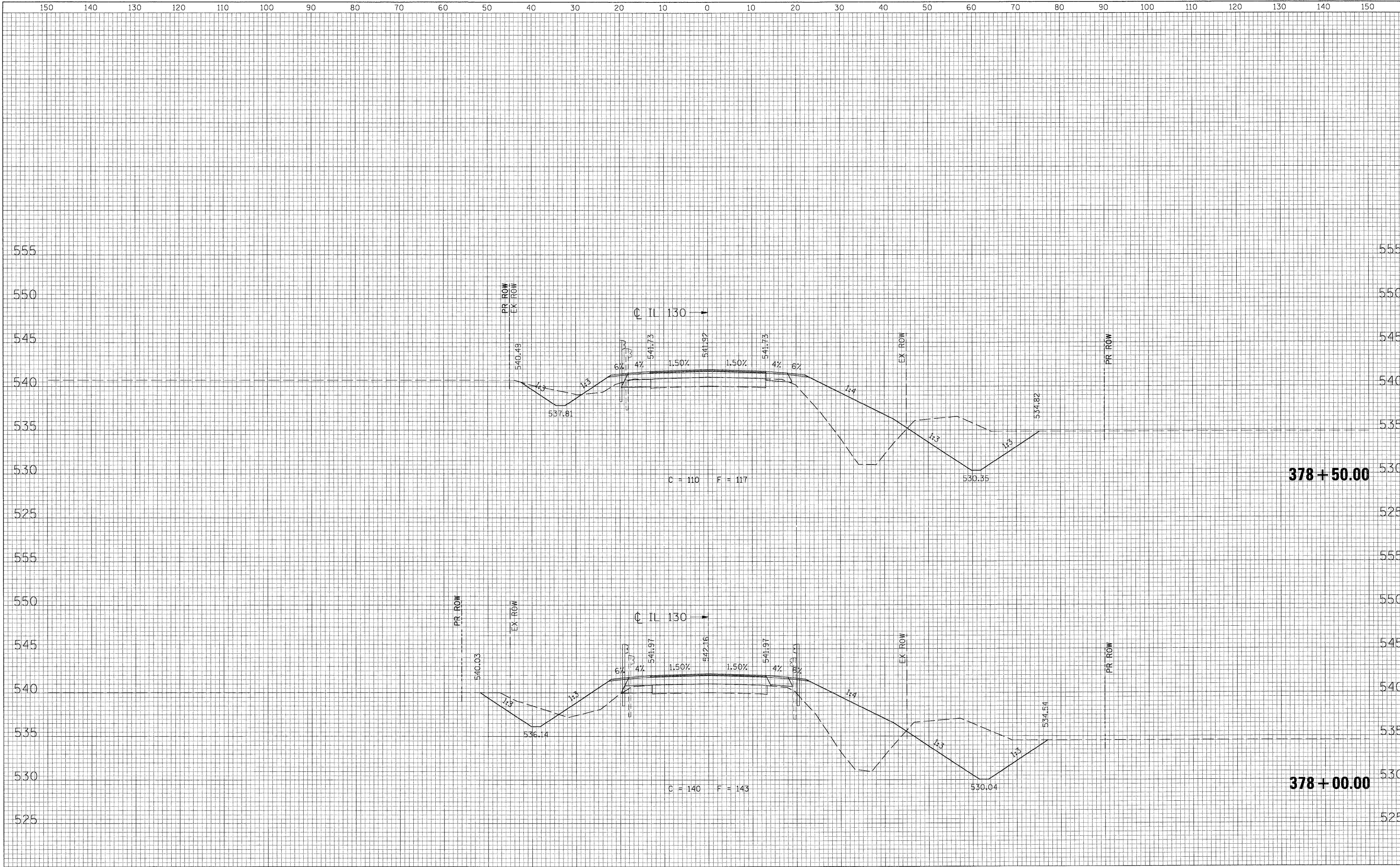
377 + 50.00

377 + 00.00

ILLINOIS FED. AID PROJECT

DATE _____
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 SURVEYED _____
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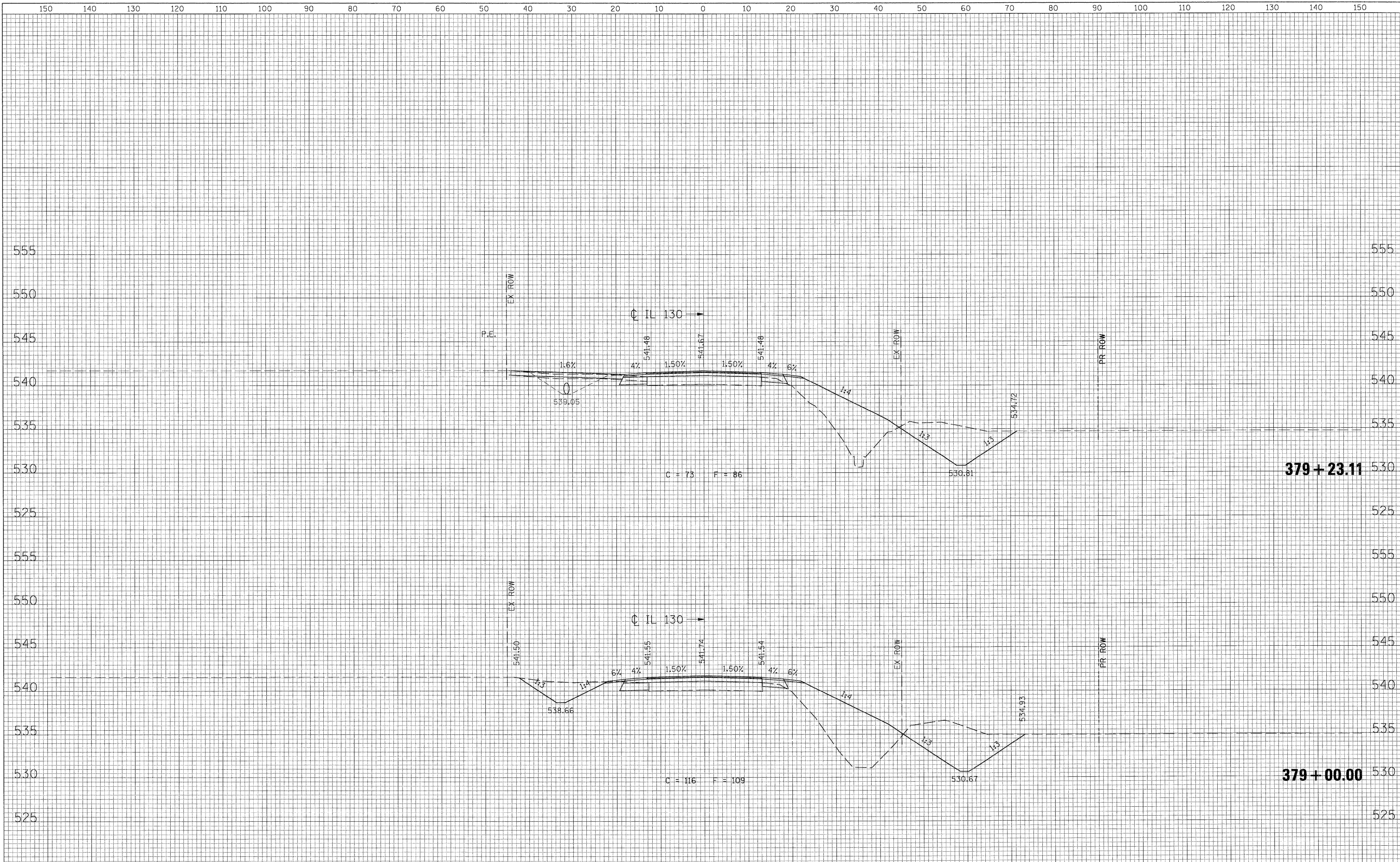
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